# 2020 – 2021 Undergraduate Catalog

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Introduction to the Undergraduate Catalog

The Undergraduate Catalog is comprised of current academic policy and curriculum information pertinent to undergraduate study at the University of Houston. The Catalog contains information regarding students' responsibilities and rights, including academic and administrative requirements for admission, enrollment (registration), retention, financial aid, student life, degree requirements, and graduation. All undergraduate students are responsible for observing the policies and regulations governing this institution as published in this catalog and in other official publications.

The University of Houston reserves the right to change the provisions of this catalog, including, but not limited to, degree requirements, course offerings, fees, and listings in the calendar as necessitated by university or legislative action. Please see Publication Disclaimer and Publication Updates for more information. Previous versions of the Undergraduate Catalog can be found in the Publication Archives.

UH Diversity and Inclusion Statement

The University of Houston embraces diversity and recognizes our responsibility to foster an open, welcoming environment where students, faculty and staff of all backgrounds can collaboratively learn, work and serve. We value the academic, social, and broader community benefits that arise from a diverse campus and are committed to equity, inclusion and accountability. Diversity enriches our university community and is a driving force instrumental to our institutional success and fulfillment of the university’s mission. We commit to engaging in an ongoing dialogue to thoughtfully respond to the changing realities of our increasingly interconnected world. We will continually strive to work together to address the challenges of the future in a way that removes barriers to success and promotes a culture of inclusivity, compassion and mutual respect. The competencies gained through diverse experiences across campus prepare all of our students, staff and faculty to thrive personally and professionally in a global society.

Non-Discrimination Statement

The policy of the University of Houston (UH) is to ensure equal opportunity in all its educational programs and activities, and all terms and conditions of employment without regard to age, race, color, disability, religion, national origin, veteran’s status, genetic information, or sex (including pregnancy), except where such a distinction is required by law. Additionally, UH prohibits discrimination in all aspects of employment and educational programs on the basis of sexual orientation, gender identity, or gender expression. Employees, students, applicants for employment or admission, and visitors to campus with questions and/or complaints regarding discrimination, or sexual misconduct (such as sexual violence) under Title IX may contact Toni Sanchez Benoit, Title IX Coordinator and Assistant VC/VP for Equal Opportunity Services (EOS) or the U.S. Department of Education’s Office for Civil Rights. Ms. Sanchez Benoit serves as the Title IX Coordinator as well as the ADA and Section 504 Coordinator for UH and can be contacted at: 4367 Cougar Village Drive, Building 526, Houston, TX 77204; eos@uh.edu; 713.743.8835.

Other University Publications

Other University of Houston publications that may be useful for reference purposes are the Graduate Catalog and Student Handbook.

You are currently viewing the 2020-2021 Undergraduate Academic Catalog
• **2015-2016 Catalog to present:** Select the desired catalog from the drop-down menu in the top right corner of the screen.

• **2013-2014 Catalog and earlier:**
  - Graduate Catalogs - Visit the Archives link posted on the left-hand menu
  - Undergraduate Catalogs - Select any Undergraduate catalog from the drop-down menu above and locate the archived catalogs from the left-hand menu within the Undergraduate catalog.

Catalog Icon Guide

**Degree Planner**
(Degree Programs Only)

**Plan It!**
The Degree Planner icon is at the top of each program and provides a print-friendly version of the degree requirements in a checklist format. Please review these requirements with your Academic Advisor, as yours may differ from the general requirements listed.

**Save it!**
Create a personal portfolio by clicking on the **My Portfolio** link at the bottom of the left navigation pane. After creating an account, you may add courses to your favorites by selecting the star icon located on the top right of the page.

**Talk About it!**
Share catalog information on Facebook and Twitter.

**Print it!**
Selecting this icon will generate a pop-up page formatted to neatly print.

**Use it!**
Includes more information about how to use the catalog.
University of Houston

The University of Houston is a Carnegie-designated Tier One public research university with a community of innovators, thought provokers and marketplace leaders.

The second most diverse research university in the nation, UH is transforming education by equipping students with skills that are nationally competitive and internationally recognized. UH offers degree programs at the baccalaureate, master’s, doctoral and professional levels and pursues a broad agenda of research and creative activities. UH’s progress is fueled by the determination to affect positive changes in the areas of energy, health, arts, athletics - and most importantly - student success. Our students are taught by a faculty comprised of industry leaders, esteemed researchers, and renowned educators.

UH has built a powerhouse that inspires students and strengthens the city.

Our Mission Statement

The mission of the University of Houston is to offer nationally competitive and internationally recognized opportunities for learning, discovery and engagement to a diverse population of students in a real-world setting. The University of Houston offers a full range of degree programs at the baccalaureate, master’s, doctoral and professional levels and pursues a broad agenda of research and creative activities. As a knowledge resource to the public, the university builds partnerships with other educational institutions, community organizations, government agencies, and the private sector to serve the region and impact the world.

Additional Information

- Accreditations
- Board of Regents and Administrative Officers
- University of Houston System
- UH Diversity and Inclusion Statement
- UH at a Glance
- Student Resources
- Libraries & Learning Resources
The University of Houston is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, masters, professional, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of the University of Houston.

In addition, the university is a member of

- the Association of Texas Colleges and Universities,
- the American Council on Education,
- the Association of American Colleges, and
- the National Association of State Universities and Land-Grant Colleges.

The colleges and programs may hold memberships or accreditations by additional agencies. Agencies and associations by which the colleges are accredited include the following:

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<th>College/Programs</th>
<th>Accrediting Agency</th>
<th>Most Recent Review</th>
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<td>National Architectural Accrediting Board, Inc.</td>
<td>2014</td>
<td>2022</td>
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<tr>
<td>Business</td>
<td>CT Bauer College of Business</td>
<td>Association to Advance Collegiate Schools of Business (AACSB)</td>
<td>2015</td>
<td>2020</td>
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<tr>
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<td>Human Nutrition and Foods, BS</td>
<td>Academy of Nutrition and Dietetics (AND) Accreditation Council for Education in Nutrition and Dietetics (ACEND)(^1)</td>
<td>2018</td>
<td>2026</td>
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<tr>
<td></td>
<td>Dietetic Internship Program</td>
<td>Accreditation Council for Education in Nutrition and Dietetics (ACEND)(^1)</td>
<td>2018</td>
<td>2026</td>
</tr>
<tr>
<td>CLASS</td>
<td>Clinical Psychology-PhD</td>
<td>American Psychological Association (APA), Commission on Accreditation(^1,2)</td>
<td>2018</td>
<td>2028</td>
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<tr>
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<td>Communication Science &amp; Disorders-MA</td>
<td>American Speech, Language, Hearing Association (ASHA), Council on Academic Accreditation in Audiology and Speech-Language Pathology(^1,2)</td>
<td>2017</td>
<td>2026</td>
</tr>
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<td></td>
<td>Masters in Athletic Training</td>
<td>Commission on Accreditation of Athletic Training Education (CAATE)(^2)</td>
<td>2016</td>
<td>2023</td>
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<tr>
<td>ARTS</td>
<td>Moores School of Music</td>
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<td>2015</td>
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<tr>
<td>College</td>
<td>College/Programs</td>
<td>Accrediting Agency</td>
<td>Most Recent Review</td>
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<tr>
<td>Engineering</td>
<td>Biomedical Engineering undergraduate program</td>
<td>ABET</td>
<td>2018</td>
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<tr>
<td></td>
<td>Chemical Engineering undergraduate program</td>
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<td>2018</td>
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<td></td>
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<td>2023-24</td>
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<td>Computer Engineering undergraduate program</td>
<td>ABET</td>
<td>2018</td>
<td>2023-24</td>
</tr>
<tr>
<td></td>
<td>Electrical and Computer Engineering undergraduate program</td>
<td>ABET</td>
<td>2018</td>
<td>2023-24</td>
</tr>
<tr>
<td></td>
<td>Mechanical Engineering undergraduate program</td>
<td>ABET</td>
<td>2018</td>
<td>2023-24</td>
</tr>
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<td>Industrial Engineering Undergraduate program</td>
<td>ABET</td>
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<tr>
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<tr>
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<td>College of Education</td>
<td>Council for the Accreditation of Educator Preparation</td>
<td>2016</td>
<td>2021</td>
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<td></td>
<td>• Educator Preparation Programs</td>
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<tr>
<td></td>
<td>Counseling Psychology-PhD</td>
<td>American Psychological Association</td>
<td>2016</td>
<td>2022</td>
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<tr>
<td></td>
<td>School Psychology-PhD</td>
<td>American Psychological Association and National Association of School Psychologists</td>
<td>2014</td>
<td>2021</td>
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<tr>
<td>Law</td>
<td>Law Center</td>
<td>American Bar Association</td>
<td>ABA (2013-2014)</td>
<td>ABA (2020-2021)</td>
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<tr>
<td></td>
<td></td>
<td>Member AALS (Association of American Law Schools)</td>
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<tr>
<td>Nursing</td>
<td>Nursing (BS &amp; MS)</td>
<td>American Association of Colleges of Nursing (AACN)-Commission on Collegiate Nursing Education</td>
<td>2014</td>
<td>2024</td>
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<tr>
<td>Optometry</td>
<td>College of Optometry</td>
<td>American Optometric Association, Accreditation Council on Optometric Education</td>
<td>2014</td>
<td>2022</td>
</tr>
<tr>
<td>College</td>
<td>College/Programs</td>
<td>Accrediting Agency</td>
<td>Most Recent Review</td>
<td>Next Review</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
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<td>-------------</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>College of Pharmacy (BS, PharmD)</td>
<td>Accreditation Council for Pharmacy Education ¹, ²</td>
<td>2017</td>
<td>2022</td>
</tr>
<tr>
<td>Soc. Work</td>
<td>MSW</td>
<td>Council on Social Work Education ²</td>
<td>2019</td>
<td>2025</td>
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<tr>
<td>Biotechnology BS</td>
<td></td>
<td>Association of Technology, Management, and Applied Engineering (ATMAE) ²</td>
<td>2019</td>
<td>2025</td>
</tr>
<tr>
<td>Computer Engineering Technology BS</td>
<td></td>
<td>ABET</td>
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<td>2022</td>
</tr>
<tr>
<td>Computer Information Systems BS</td>
<td></td>
<td>ABET</td>
<td>2014</td>
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<tr>
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<td></td>
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<td>2014</td>
<td>2021</td>
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<tr>
<td>Digital Media BS</td>
<td></td>
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<td>2015</td>
<td>2021</td>
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<td></td>
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<td>2017</td>
<td>2022</td>
</tr>
<tr>
<td>Mechanical Engineering Technology BS</td>
<td></td>
<td>ABET</td>
<td>2017</td>
<td>2022</td>
</tr>
<tr>
<td>Organizational Leadership and Supervision BS</td>
<td></td>
<td>Association of Technology, Management, and Applied Engineering (ATMAE) ²</td>
<td>2019</td>
<td>2025</td>
</tr>
<tr>
<td>Retailing and Consumer Science BS</td>
<td></td>
<td>American Association of Family and Consumer Sciences (AAFCS) ²</td>
<td>2019</td>
<td>2029</td>
</tr>
<tr>
<td>Supply Chain and Logistics Technology BS</td>
<td></td>
<td>Association of Technology, Management, and Applied Engineering (ATMAE) ²</td>
<td>2019</td>
<td>2025</td>
</tr>
<tr>
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<td></td>
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<td>2016</td>
<td>2023</td>
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<tr>
<td>Technology Project Management MS</td>
<td></td>
<td>Project Management Institute (PMI)</td>
<td>2016</td>
<td>2023</td>
</tr>
</tbody>
</table>

¹ Recognized by US Dept. of Education

² Recognized by Council for Higher Education Accreditation (CHEA)
UH System Board of Regents and UH Administration

University of Houston System Board of Regents

Chairman: Tilman J. Fertitta
Vice Chairman: Gerald W. McElvy
Secretary: Beth Madison
Durga D. Agrawal
Doug H. Brooks
Alonzo Cantu
Steve I. Chazen
Alvaro De la Cruz
John A. McCall Jr.
Jack B. Moore

Go to the University of Houston System Board of Regents pages.

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Senior Vice President for Academic Affairs and Provost: Paula Myrick Short, Ph.D., University of North Carolina at Chapel Hill
Senior Vice President for Administration and Finance: Jim McShan, B.B.A., Texas State University
Vice President for University Advancement: Eloise Dunn Brice, B.A., Vanderbilt University
Vice President for Legal Affairs and General Counsel: Dona H. Cornell, J.D., University of Texas at Austin
Vice President for Research and Technology Transfer: Amr Elnashai, Ph.D., Imperial College
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Vice President for Neighborhood and Strategic Initiatives: Elwyn C. Lee, J.D., Yale University
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Vice President for Governmental and Community Relations: Jason Smith, B.A., University of Houston
Vice President for Student Affairs and Enrollment Services: J. Richard Walker, Ed.D., University of Miami
Vice President for Intercollegiate Athletics and Director of Athletics: Hunter Yurachek, M.S., University of Richmond
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Kathrine G. McGovern College of the Arts: Founding Dean Andrew Davis, Ph.D., Indiana University

C. T. Bauer College of Business: Paul A. Pavlou Ph.D., University of Southern California

College of Education: Robert H. McPherson, Ph.D., University of Houston

Cullen College of Engineering: Joseph W. Tedesco, Ph.D., Lehigh University

The Honors College: William Monroe, Ph.D., University of Chicago

Conrad N. Hilton College of Hotel and Restaurant Management: Dennis Reynolds, Ph.D., Cornell University

UH Law Center: Leonard M. Baynes, J.D., Columbia Law School, Columbia University

College of Liberal Arts and Social Sciences: Dan O’Connor, Interim Dean, Ph.D., University of Houston

College of Medicine: Founding Dean Stephen J. Spann, M.D., Baylor College of Medicine, M.B.A., University of Texas at Dallas

College of Natural Sciences and Mathematics: Dan E. Wells, Ph.D., Indiana University

College of Nursing: Founding Dean Kathryn Tart, Ed.D., University of Houston, M.S.N., University of Texas Health Science Center at San Antonio

College of Optometry: Michael D. Twa, O.D., University of California at Berkeley, Ph.D., The Ohio State University

College of Pharmacy: F. Lamar Pritchard, Ph.D., University of Georgia

Hobby School of Public Affairs: Senator Kirk Watson, BA, JD, Baylor University

Graduate College of Social Work: Alan J. Dettlaff, Ph.D., University of Texas at Arlington

College of Technology: Tony Ambler, Ph.D., University of Manchester

University Libraries: Marilyn Myers, Interim Dean, M.S., University of Illinois at Urbana-Champaign
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<th>Spring 2021</th>
<th>Summer 2021*</th>
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<td>September 1, 2020 Tuesday</td>
<td>May 17, 2021 Monday</td>
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<td>*Please also see notes below regarding **</td>
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<td>January 19, 2021 Tuesday</td>
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<td></td>
<td>September 7, 2020 Monday</td>
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<td>Labor Day holiday (Fall)</td>
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<td>January 18, 2021 Monday</td>
<td>May 31, 2021 Monday</td>
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<td>Martin Luther King holiday (Spring)</td>
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<tr>
<td>Memorial Day holiday (Summer)</td>
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<tr>
<td><strong>Last day to add a class or be enrolled from the Wait List</strong></td>
<td>September 9, 2020 Wednesday</td>
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<tr>
<td><em><strong>Extended</strong></em></td>
<td>August 26, 2020 Wednesday</td>
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<td>August 26, 2020 Wednesday</td>
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<td>September 30, 2020 Wednesday</td>
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<td>October 21, 2020 Wednesday</td>
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<td>November 4, 2020 Wednesday</td>
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<td></td>
<td>December 23, 2020 Wednesday</td>
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<td>December 31, 2020 Monday</td>
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<td></td>
<td>October 1, 2020 Thursday</td>
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<td>October 22, 2020 Thursday</td>
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<td>November 5, 2020 Thursday</td>
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<td>February 1, 2021 Thursday</td>
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<td>March 18, 2021 Thursday</td>
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<td>April 8, 2021 Thursday</td>
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<td></td>
<td>March 15-20, 2021 Monday-Saturday</td>
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<tr>
<td><strong>ORD</strong></td>
<td>September 9, 2020 Wednesday</td>
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<tr>
<td>Official Reporting Day (15th/14th class day)</td>
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<tr>
<td><strong>drop a course or withdraw without receiving a grade</strong></td>
<td>September 9, 2020 Wednesday</td>
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<tr>
<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents</td>
<td></td>
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</tr>
<tr>
<td>NOTICE: Tuition is higher for hours in excess of the cap</td>
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<tr>
<td><strong>Drop day to drop a course without hours counting towards the Enrollment Cap for Texas Residents</strong></td>
<td></td>
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</tr>
<tr>
<td>Spring holiday (Spring); Independence Day holiday (Summer)</td>
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<tr>
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<td></td>
</tr>
<tr>
<td><strong>Thanksgiving holiday (Fall)</strong></td>
<td>November 25-28, 2020 Wednesday-Saturday</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Last day of class</strong></td>
<td>December 5, 2020 Saturday</td>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>
### Make up days for class days officially canceled by the university (if necessary) or Reading Period
- December 7, 2020
- May 4, 2021

### Final examination period
- **December 8-16, 2020**
- **Tuesday-Wednesday**
  - December 8, 2020
  - December 9, 2020
  - December 16, 2020
  - December 17, 2020
  - December 18, 2020
  - December 19, 2020
  - December 20, 2020
  - December 21, 2020
  - December 22, 2020
  - December 23, 2020
  - December 24, 2020
  - December 25, 2020
  - December 26, 2020
  - December 27, 2020
  - December 28, 2020
  - December 29, 2020
  - December 30, 2020
  - December 31, 2020

### Official closing of the session
- **December 16, 2020**
- **Wednesday**

### Deadline for faculty to post Final Grades in myUH
- **December 21, 2020**
- **Monday**

### Graduation Application:
- **Regular Filing Period**
  - Fee is Non-Refundable
  - Go to myUH (Peoplesoft) to apply
  - April 3, 2020, Friday, through October 2, 2020, Friday.
  - November 13, 2020, Friday, through February 26, 2021, Friday.
  - April 2, 2021, Friday, through July 9, 2021, Friday.
- **Late Filing Period**
  - Fee is Non-Refundable
  - Go to myUH (Peoplesoft) to apply
  - October 3, 2020, Saturday, through October 30, 2020, Friday.
  - February 27, 2021, Saturday, through March 26, 2021, Friday.

### College Commencements
- **Please also *see notes below***
- **December 18-20, 2020**
- **Friday-Sunday**
- **May 14-16, 2021**
- **Friday-Sunday**

### The following data may vary by College; please check with your College as early as possible:
- Deadline for submitting final draft of master's thesis or dissertation to the committee
- Deadline for submitting signed original and two copies of approved master's thesis or dissertation for binding
- Deadline for master's and doctoral students to order caps and gowns.
- Commencements:

  Information for some Colleges may also be found by searching “commencement” in the UH Events Calendar.

  See also: Graduation and Cap and Gown information in the Academic Regulations and Degree Requirements section of this catalog.

*Notes about 2021 Summer Session Meeting Days:
- **Summer Session 1**
  - Monday/Wednesday classes will also meet on Friday, June 11, and Friday, June 25.
  - Tuesday/Thursday classes will also meet on Friday, June 18, and Friday, July 2.
- **Summer Session 2**
  - Classes meet five days per week, Monday through Friday.
- **Summer Session 3**
  - Classes meet on Tuesday, Wednesday, and Thursday each week. **Finals will be scheduled TBD.**
- **Summer Session 4**
  - Classes meet five days per week, Monday through Friday.
## Fall Term Calendar General Information

<table>
<thead>
<tr>
<th>Admission</th>
<th>Application deadlines can be found online at Admissions under the application process for your specific admission status: freshman, transfer, international, or graduate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td>For enrollment periods by classification, please visit the Enrollment Schedule web page. Student-specific enrollment appointment will be posted to myUH when the course schedule is made available.</td>
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<td>Financial aid applications</td>
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<tr>
<td>Payment and Refund Deadlines</td>
<td>Timing is critical to University payment and refund processes. Please review the information online at: Student Business Services.</td>
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</tbody>
</table>
| Graduation Application Deadlines                                                             | **Regular Filing Period**  
  - Friday, April 3, 2020 - Friday, October 2, 2020  
  - Must apply for graduation via myUH account.  
  **Late Filing Period**  
  - Saturday, October 3, 2020 - Friday, October 30, 2020  
  - Must apply for graduation via myUH account. |
| NOTE: College Commencements                                                                  | **Please see the current UH Commencement information.**  
  **These events are ceremonies hosted separately by each College (or Department) and usually occur at the conclusion of the Fall and Spring terms.**  
  **Dates for the commencement events vary by College. Please check with your College as early as possible.**  
  **For information about individual college ceremonies, visit the College Commencements website.** |
### Fall Term 2020 - Session 1 (Regular)

<table>
<thead>
<tr>
<th>August 2020</th>
<th>24</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First day of classes.</td>
</tr>
<tr>
<td>September 2020</td>
<td>1</td>
<td><em><strong>Extended</strong></em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tuesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to add a class.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Monday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Labor Day holiday</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Wednesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ORD - Official Reporting Day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw without receiving a grade.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>NOTE: Tuition is higher for hours in excess of the cap.</em></td>
</tr>
<tr>
<td>November 2020</td>
<td>17</td>
<td><em><strong>Extended</strong></em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tuesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw with a &quot;W&quot;.</td>
</tr>
<tr>
<td></td>
<td>25-28</td>
<td>Wednesday-Saturday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thanksgiving holiday.</td>
</tr>
<tr>
<td>December 2020</td>
<td>5</td>
<td>Saturday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day of class.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Monday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Make up day for class days officially canceled by the university or Reading Period.</td>
</tr>
<tr>
<td></td>
<td>8-16</td>
<td>Tuesday-Wednesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Final examination period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See: Current Final Exam Schedule</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Wednesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Official closing of Session 1.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See notes above re: Commencements</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>Monday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deadline for faculty to post Final Grades in myUH.</td>
</tr>
</tbody>
</table>
## Fall Term 2020 - Session 2

<table>
<thead>
<tr>
<th>August 2020</th>
<th>24</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td>First day of classes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>26</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last day to add a class.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>31</th>
<th><em><strong>Extended</strong></em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td></td>
</tr>
<tr>
<td>ORD - Official Reporting Day</td>
<td></td>
</tr>
<tr>
<td>Last day to drop a course or withdraw without receiving a grade.</td>
<td></td>
</tr>
<tr>
<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.</td>
<td></td>
</tr>
<tr>
<td>NOTE: Tuition is higher for hours in excess of the cap.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>September 2020</th>
<th>7</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Day holiday</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last day to drop a course or withdraw with a &quot;W&quot;.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>24</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last day of class.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>25</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final examination period.</td>
<td></td>
</tr>
<tr>
<td>See: Current Final Exam Schedule</td>
<td></td>
</tr>
<tr>
<td>Official closing of Session 2.</td>
<td></td>
</tr>
<tr>
<td>See notes above re: commencements</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>29</th>
<th>Tuesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadline for faculty to post Final Grades in myUH.</td>
<td></td>
</tr>
</tbody>
</table>
## Fall Term 2020 - Session 3

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 2020</td>
<td>24</td>
<td>Monday&lt;br&gt;First day of classes.</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>Wednesday&lt;br&gt;Last day to add a class.</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td><em><strong>Extended</strong></em>&lt;br&gt;Monday&lt;br&gt;ORD - Official Reporting Day&lt;br&gt;Last day to drop a course or withdraw without receiving a grade.&lt;br&gt;Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.&lt;br&gt;&lt;i&gt;NOTE: Tuition is higher for hours in excess of the cap.&lt;/i&gt;</td>
</tr>
<tr>
<td>September 2020</td>
<td>7</td>
<td>Monday&lt;br&gt;&lt;i&gt;Labor Day holiday&lt;/i&gt;</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Monday&lt;br&gt;Last day to drop a course or withdraw with a &quot;W&quot;.</td>
</tr>
<tr>
<td>October 2020</td>
<td>15</td>
<td>Thursday&lt;br&gt;Last day of class.</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Friday&lt;br&gt;Final examination period.&lt;br&gt;&lt;i&gt;See: Current Final Exam Schedule&lt;/i&gt;&lt;br&gt;Official closing of Session 3.&lt;br&gt;&lt;i&gt;See notes above re: commencements&lt;/i&gt;</td>
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<tr>
<td></td>
<td>20</td>
<td>Tuesday&lt;br&gt;Deadline for faculty to post Final Grades in myUH.</td>
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## Fall Term 2020 - Session 4

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<tr>
<th>September 2020</th>
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<th>First day of classes.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30 Wednesday</td>
<td>Last day to add a class.</td>
</tr>
<tr>
<td>October 2020</td>
<td>1 Thursday</td>
<td>ORD - Official Reporting Day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw without receiving a grade.</td>
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<tr>
<td></td>
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<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>19 Monday</td>
<td>Last day to drop a course or withdraw with a &quot;W&quot;.</td>
</tr>
<tr>
<td></td>
<td>29 Thursday</td>
<td>Last day of class.</td>
</tr>
<tr>
<td></td>
<td>30 Friday</td>
<td>Final examination period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See: Current Final Exam Schedule</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Official closing of Session 4.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See notes above re: commencements</td>
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<tr>
<td>November 2020</td>
<td>3 Tuesday</td>
<td>Deadline for faculty to post Final Grades in myUH.</td>
</tr>
</tbody>
</table>
## Fall Term 2020 - Session 5

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2020</td>
<td>19 Monday</td>
<td>First day of classes.</td>
</tr>
<tr>
<td></td>
<td>21 Wednesday</td>
<td>Last day to add a class.</td>
</tr>
<tr>
<td></td>
<td>22 Thursday</td>
<td>ORD - Official Reporting Day&lt;br&gt;Last day to drop a course or withdraw without receiving a grade.&lt;br&gt;Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.&lt;br&gt;<em>NOTE: Tuition is higher for hours in excess of the cap.</em></td>
</tr>
<tr>
<td>November 2020</td>
<td>23 Monday</td>
<td>Last day to drop a course or withdraw with a &quot;W&quot;.</td>
</tr>
<tr>
<td></td>
<td>25-28 Wednesday-Saturday</td>
<td>Thanksgiving holiday.</td>
</tr>
<tr>
<td>December 2020</td>
<td>15 Tuesday</td>
<td>Last day of class.</td>
</tr>
<tr>
<td></td>
<td>16 Wednesday</td>
<td>Final examination period.&lt;br&gt;See: Current Final Exam Schedule&lt;br&gt;Official closing of Session 5.&lt;br&gt;See notes above re: commencements</td>
</tr>
<tr>
<td></td>
<td>21 Monday</td>
<td>Deadline for faculty to post Final Grades in myUH.</td>
</tr>
</tbody>
</table>
### Fall Term 2020 - Session 6

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2020</td>
<td>2 Monday</td>
<td>First day of classes.</td>
</tr>
<tr>
<td></td>
<td>4 Wednesday</td>
<td>Last day to add a class.</td>
</tr>
</tbody>
</table>
|            | 5 Thursday | ORD - Official Reporting Day  
Last day to drop a course or withdraw without receiving a grade.  
Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.  
*NOTE: Tuition is higher for hours in excess of the cap.* |
|            | 23 Monday  | Last day to drop a course or withdraw with a "W".                    |
|            | 25-28 Wednesday-Saturday | Thanksgiving holiday.                                               |
| December 2020 | 8 Tuesday | Last day of class.                                                   |
|            | 9 Wednesday | Final examination period.  
See: Current Final Exam Schedule  
Official closing of Session 6.  
*See notes above re: commencements* |
|            | 15 Tuesday | Deadline for faculty to post Final Grades in myUH.                  |
# Spring Term Calendar General Information

<table>
<thead>
<tr>
<th>Section</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Admission</strong></td>
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<td>Student-specific enrollment appointment will be posted to myUH when the course schedule is made available.</td>
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<td><strong>Financial Aid Applications</strong></td>
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<tr>
<td><strong>Payment and Refund Deadlines</strong></td>
<td>Timing is critical to University payment and refund processes. Please review the information online at: Student Business Services.</td>
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</tbody>
</table>
| **Graduation Application Deadlines** | **Regular Filing Period**  
  - Friday, November 13, 2020 - Friday, February 26, 2021  
  - Must apply for graduation via myUH account.  
  **Late Filing Period**  
  - Saturday, February 27, 2021 - Friday, March 26, 2021  
  - Must apply for graduation via myUH account. |
| **NOTE:**                        | Please see the current UH Commencement information.                                                                                           |
| **College Commencements**        | These events are ceremonies hosted separately by each College (or Department) and usually occur at the conclusion of the Fall and Spring terms.  
  - Dates for the commencement events vary by College. Please check with your College as early as possible.  
  - For information about individual college ceremonies, visit the College Commencements website. |
## Spring Term 2021 - Spring/Winter Mini Session

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2020</td>
<td>21 Monday</td>
<td>First day of classes.</td>
</tr>
<tr>
<td></td>
<td>22 Tuesday</td>
<td>Last day to add a class.</td>
</tr>
<tr>
<td></td>
<td>23 Wednesday</td>
<td>ORD - Official Reporting Day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw without receiving a grade.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.</td>
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<tr>
<td></td>
<td></td>
<td><em>NOTE: Tuition is higher for hours in excess of the cap.</em></td>
</tr>
<tr>
<td>January 2021</td>
<td>11 Monday</td>
<td>Last day to drop a course or with a &quot;W&quot;.</td>
</tr>
<tr>
<td></td>
<td>15 Friday</td>
<td>Last day of classes.</td>
</tr>
<tr>
<td></td>
<td>16 Saturday</td>
<td>Final examination period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See: Current Final Exam Schedule</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Official closing of the Winter Mini session.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deadline for faculty to post Final Grades in myUH.</td>
</tr>
<tr>
<td>May 2021</td>
<td></td>
<td>See notes above re: commencements</td>
</tr>
</tbody>
</table>
Spring Term 2021 - Session 1 (Regular)

<table>
<thead>
<tr>
<th>January 2021</th>
<th>18</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><em>Martin Luther King, Jr. holiday.</em></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Tuesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>First day of classes.</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>Tuesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to add a class.</td>
</tr>
</tbody>
</table>

| February 2021 | 3  | Wednesday |
|               |    | ORD - Official Reporting Day |
|               |    | Last day to drop a course or withdraw without receiving a grade. |
|               |    | Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents. |
|               |    | *NOTE: Tuition is higher for hours in excess of the cap.* |

| March 2021    | 15-20 | Monday-Saturday |
|              |       | *Spring holiday.* |

| April 2021    | 6   | Tuesday |
|              |     | Last day to drop a course or withdraw with a "W". |

| May 2021      | 3   | Monday |
|              |     | Last day of classes. |
|              | 4   | Tuesday |
|              |     | Make up day for class days officially canceled by the university or Reading Period. |

| TBD          | TBD-TBD | Final examination period. |
|             |        | See: Current Final Exam Schedule |

| TBD          | TBD    | Official closing of session 1. |

| TBD          | TBD    | Deadline for faculty to post Final Grades in myUH. |
|             |        | See notes above re: commencements |
### Spring Term 2021 - Session 2

<table>
<thead>
<tr>
<th>January 2021</th>
<th>18</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><em>Martin Luther King, Jr. holiday.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>January 2021</th>
<th>19</th>
<th>Tuesday</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>First day of classes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>January 2021</th>
<th>21</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Last day to add a class.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>January 2021</th>
<th>22</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ORD - Official Reporting Day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw without receiving a grade.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>NOTE: Tuition is higher for hours in excess of the cap.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>February 2021</th>
<th>8</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw with a &quot;W&quot;.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>February 2021</th>
<th>18</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Last day of classes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>February 2021</th>
<th>19</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Final examination period</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See: Current Final Exam Schedule</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Official closing of the session.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TBD</th>
<th>TBD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deadline for faculty to post Final Grades in myUH.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>May 2021</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>See notes above re: commencements</td>
</tr>
<tr>
<td>Month</td>
<td>Date</td>
<td>Day</td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>January 2021</td>
<td>18</td>
<td>Monday</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Tuesday</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>Thursday</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>Thursday</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 2021</td>
<td>22</td>
<td>Monday</td>
</tr>
<tr>
<td>March 2021</td>
<td>11</td>
<td>Thursday</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Friday</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>May 2021</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Spring Term 2021 - Session 4

<table>
<thead>
<tr>
<th>February 2021</th>
<th>22 Monday</th>
<th>First day of classes.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24 Wednesday</td>
<td>Last day to add a class.</td>
</tr>
<tr>
<td></td>
<td>25 Thursday</td>
<td>ORD - Official Reporting Day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw without receiving a grade.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>NOTE: Tuition is higher for hours in excess of the cap.</em></td>
</tr>
<tr>
<td>March 2021</td>
<td>15-20 Monday-Saturday</td>
<td><em>Spring holiday.</em></td>
</tr>
<tr>
<td></td>
<td>22 Monday</td>
<td>Last day to drop a course or withdraw with a &quot;W&quot;.</td>
</tr>
<tr>
<td>April 2021</td>
<td>1 Thursday</td>
<td>Last day of classes.</td>
</tr>
<tr>
<td></td>
<td>2 Friday</td>
<td>Final examination period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See: Current Final Exam Schedule</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Official closing of the session.</td>
</tr>
<tr>
<td></td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deadline for faculty to post Final Grades in myUH.</td>
</tr>
<tr>
<td>May 2021</td>
<td></td>
<td>See notes above re: commencements</td>
</tr>
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</table>
### Spring Term 2021 - Session 5

<table>
<thead>
<tr>
<th>March 2021</th>
<th>22</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First day of classes.</td>
</tr>
<tr>
<td>24</td>
<td>Wednesday</td>
<td>Last day to add a class.</td>
</tr>
<tr>
<td>25</td>
<td>Thursday</td>
<td>ORD - Official Reporting Day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw without receiving a grade.</td>
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<tr>
<td></td>
<td></td>
<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOTE: Tuition is higher for hours in excess of the cap.</td>
</tr>
<tr>
<td>April 2021</td>
<td>26</td>
<td>Monday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or withdraw with a 'W'.</td>
</tr>
<tr>
<td>May 2021</td>
<td>12</td>
<td>Wednesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day of classes.</td>
</tr>
<tr>
<td>13</td>
<td>Thursday</td>
<td>Final examination period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See: Current Final Exam Schedule</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Official closing of the session.</td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deadline for faculty to post Final Grades in myUH.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See notes above re: commencements</td>
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</tbody>
</table>
## Spring Term 2021 - Session 6

<table>
<thead>
<tr>
<th>April 2021</th>
<th>5</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First day of classes.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Wednesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last day to add a class.</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Thursday</td>
</tr>
<tr>
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<td></td>
<td>ORD - Official Reporting Day</td>
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<td>26</td>
<td>Monday</td>
</tr>
<tr>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>May 2021</th>
<th>6</th>
<th>Thursday</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Last day of classes.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Friday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Final examination period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See: Current Final Exam Schedule</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Official closing of session 6.</td>
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<table>
<thead>
<tr>
<th>TBD</th>
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<th>TBD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Deadline for faculty to post final grades in myUH.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See notes above re: commencements</td>
</tr>
</tbody>
</table>
Summer Term General Information

Admission
Application deadlines can be found online at Admissions under the application process for your specific admission status: freshman, transfer, international, or graduate.

Enrollment
For enrollment periods by classification, please visit the Enrollment Schedule online. Student-specific enrollment appointments will be posted in myUH when the course schedule is made available.

Financial aid applications
Information is available in the Costs and Financial Aid area of the UH website.

Payment and Refund Deadlines
Timing is critical to University payment and refund processes. Please review the information online at: Student Business Services.

Graduation Application Deadlines

Regular Filing Period
- Friday, April 2, 2021 - Friday, July 9, 2021
- Must apply for graduation via myUH account.

Late Filing Period
- Saturday, July 10, 2021 - Friday, July 23, 2021
- Must apply for graduation via myUH account.

NOTE:
- Please see the current UH Commencement information,
- These events are ceremonies hosted separately by each College (or Department) and usually occur at the conclusion of the Fall and Spring terms.
- Dates for the commencement events vary by College. Please check with your College as early as possible.
- For information about individual college ceremonies, visit the College Commencements website.

College Commencements

Summer Sessions Meeting Information

- Summer Session 1
  - Monday/Wednesday classes will also meet on Friday, June 11, and Friday, June 25.
  - Tuesday/Thursday classes will also meet on Friday, June 18, and Friday, July 2.

- Summer Session 2
  - Classes meet five days per week, Monday through Friday.

- Summer Session 3
  - Classes meet on Tuesday, Wednesday, and Thursday each week.
  - Finals will be scheduled TBD.

- Summer Session 4
  - Classes meet five days per week, Monday through Friday.
## Summer Term 2021 - Summer Mini Session

<table>
<thead>
<tr>
<th>May 2021</th>
<th>17</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First day of classes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>18</th>
<th>Tuesday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Last day to add a class.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>19</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ORD - Official Reporting Day</td>
</tr>
<tr>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>31</th>
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<tbody>
<tr>
<td></td>
<td>Memorial Day holiday</td>
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### June 2021

<table>
<thead>
<tr>
<th>1</th>
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<tbody>
<tr>
<td></td>
<td>Last day to drop a course or withdraw with a &quot;W&quot;.</td>
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<table>
<thead>
<tr>
<th>4</th>
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</thead>
<tbody>
<tr>
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<table>
<thead>
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<tbody>
<tr>
<td></td>
<td>Final examination period</td>
</tr>
<tr>
<td></td>
<td><em>See: Current Final Exam Schedule</em></td>
</tr>
<tr>
<td></td>
<td>Official closing of Summer Mini Session.</td>
</tr>
<tr>
<td></td>
<td>Deadline for faculty to post final grades in myUH.</td>
</tr>
</tbody>
</table>

|                  | See notes above re: commencements |
# Summer Term 2021 - Session 1

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2021</td>
<td>7 Monday</td>
<td>First day of classes.</td>
</tr>
<tr>
<td></td>
<td>8 Tuesday</td>
<td>Last day to add a class.</td>
</tr>
</tbody>
</table>
|            | 10 Thursday | ORD - Official Reporting Day  
Last day to drop a course or withdraw without receiving a grade.  
Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.  
NOTE: Tuition is higher for hours in excess of the cap. |
| July 2021  | 4-5 Sunday-Monday | Independence Day holiday |
|            | 20 Tuesday | Last day to drop a course or with a "W".                                                                                           |
| August 2021| 10 Tuesday | Last day of classes                                                                                                                                 |
|            | TBD TBD | Final examination period.  
See: Current Final Exam Schedule                                                                                                      |
|            | TBD TBD | Official closing of Session 1.                                                                                                       |
|            | TBD TBD | Deadline for faculty to post final grades in myUH.                                                                                   |
|            | See notes above re: commencements                                                                                                     |
### Summer Term 2021 - Session 2

<table>
<thead>
<tr>
<th>June 2021</th>
<th>7</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First day of classes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>8</th>
<th>Tuesday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Last day to add a class.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>10</th>
<th>Thursday</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>ORD - Official Reporting Day</td>
</tr>
<tr>
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<td>Last day to drop a course or withdraw without receiving a grade.</td>
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<td>NOTE: Tuition is higher for hours in excess of the cap.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th>28</th>
<th>Monday</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Last day to drop a course or with a &quot;W&quot;.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>July 2021</th>
<th>4-5</th>
<th>Sunday-Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Independence Day holiday</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>6</th>
<th>Tuesday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Last day of classes.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>TBD</th>
<th>TBD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Final examination period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See: Current Final Exam Schedule</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>TBD</th>
<th>TBD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Official closing of Session 2.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>TBD</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Deadline for faculty to post final grades in myUH.</td>
</tr>
</tbody>
</table>

|           | See notes above re: commencements |

---

*2020-2021 Undergraduate Catalog*
## Summer Term 2021 - Session 3

<table>
<thead>
<tr>
<th>Date</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>June 2021</strong></td>
<td></td>
</tr>
<tr>
<td>7 Monday</td>
<td>First day of classes.</td>
</tr>
<tr>
<td>8 Tuesday</td>
<td>Last day to add a class.</td>
</tr>
<tr>
<td>10 Thursday</td>
<td>ORD - Official Reporting Day.</td>
</tr>
<tr>
<td></td>
<td>Last day to drop a course or withdraw without receiving a grade.</td>
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<td></td>
<td>Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.</td>
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<tr>
<td><strong>July 2021</strong></td>
<td></td>
</tr>
<tr>
<td>4-5 Sunday-Monday</td>
<td><em>Independence Day holiday</em></td>
</tr>
<tr>
<td>7 Wednesday</td>
<td>Last day to drop a course or with a &quot;W&quot;.</td>
</tr>
<tr>
<td>22 Thursday</td>
<td>Last day of classes.</td>
</tr>
<tr>
<td>TBD</td>
<td>Final examination period.</td>
</tr>
<tr>
<td></td>
<td>See: <em>Current Final Exam Schedule</em></td>
</tr>
<tr>
<td>TBD</td>
<td>Official closing of Session 3.</td>
</tr>
<tr>
<td>TBD</td>
<td>Deadline for faculty to post final grades in myUH.</td>
</tr>
<tr>
<td>TBD</td>
<td>See notes above re: commencements</td>
</tr>
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</table>
### Summer Term 2021 - Session 4

<table>
<thead>
<tr>
<th>July 2021</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12</strong></td>
<td><em>Monday</em></td>
<td>First day of classes.</td>
</tr>
<tr>
<td><strong>13</strong></td>
<td><em>Tuesday</em></td>
<td>Last day to add a class.</td>
</tr>
</tbody>
</table>
| **15**  | *Thursday* | ORD - Official Reporting Day  
Last day to drop a course or withdraw without receiving a grade.  
Last day to drop a course without hours counting towards the Enrollment Cap for Texas Residents.  
*NOTE: Tuition is higher for hours in excess of the cap.* |

<table>
<thead>
<tr>
<th>August 2021</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2</strong></td>
<td><em>Monday</em></td>
<td>Last day to drop a course or withdraw with a &quot;W&quot;.</td>
</tr>
<tr>
<td><strong>9</strong></td>
<td><em>Monday</em></td>
<td>Last day of class.</td>
</tr>
</tbody>
</table>
| **TBD**  | *TBD* | Final examination period.  
See: *Current Final Exam Schedule* |
| **TBD**  | *TBD* | Official closing of Session 4. |
| **TBD**  | *TBD* | Deadline for faculty to post final grades in myUH.  
See notes above re: commencements |
Admissions Contact Information

Phone: (713) 743-1010, option 4
Email: admissions@uh.edu

Mailing Address

University of Houston
Office of Admissions
4434 University Dr.
Houston, TX 77204

Talk with an Admissions Ambassador

Learn more about the student experience at UH by requesting a call from a UH Student Ambassador. The UH Ambassador program is made up of diverse UH students involved in various areas across campus. We’ll do our best to match you with a student within your college and areas of interest so that you can learn about the information most important to you.

Request a call from a UH Student Ambassador

Request Information

Please click the link below to request more information about attending the University of Houston

Request more information

Please note the link above is intended for inquires related to Undergraduate Admissions. You may also contact the Graduate School or contact the School of Law for information about the admissions procedures.

Social Media

Need a favor? Have a question? Want to share your best on-campus selfie? Talk to us on social!

Twitter

Instagram

Facebook
How to Apply

For Freshman Students

Applicants have the option to apply for admission with or without a test score for the following academic terms: spring 2021, summer 2021, fall 2021, spring 2022, and summer 2022. Applicants are not disadvantaged by applying without a test score.

1. **Apply online.** Complete the University of Houston application for admission using either the Apply Texas Application or The Common Application. Submit just one application.

   On your application, you will select whether you want your application to be reviewed with a test score or without a test score. Once you submit your application, you will not be able to change your admissions review selection.

2. **Pay your application fee.** If you haven’t already done so, pay the non-refundable $75 application fee ($90 for international students) with a credit card, debit card, or check. Visit your my.uh.edu self-service account to pay.

3. **Submit documents.** The documents we’ll need depends on whether you applied with a test score or without a test score.
   - ADMISSIONS WITH TEST SCORES - If you applied for admissions with a test score, send your ACT or SAT score(s) to us directly from the testing agency. Our code for the SAT is 6870, and ACT is 4236.
   - ADMISSIONS WITHOUT TEST SCORES - If you applied for admissions without a test score, and you’re selected for holistic review, submit your resume and personal statement in your my.uh.edu self-service account.

4. **Submit your academic records or transcripts.** Choose one of the following options.
   - TReX - Ask your school administrator to send your transcript data electronically through an EDI (Electronic Data Interchange) system, e.g. TReX (for Texas institutions).
   - PDF - You may also upload a PDF copy of your transcript to your my.uh.edu self-service account to complete your application. We'll accept transcripts from Naviance and Speede (FICE code: 003662).

   Official transcripts must either state ”official,” have your institutions seal, a signature by a school official, or an official watermark. It’s up to the discretion of the Office of Admissions to determine the validity of the transcript, and the office reserves the right to request additional or different copies if needed.

5. **Application Status.** Check your application status in your myUH account at accessuh.uh.edu.

For Transfer Students

You will apply as a transfer if you have graduated high school and earned, or will earn, 15 or more credit hours.

1. **Apply Online.** Complete the University of Houston application for admission using either the Apply Texas Application or The Common Application. Submit just one application.

2. **Pay your application fee.** If you haven’t already done so, pay the non-refundable $75 application fee ($90 for international students) with a credit card, debit card, or check. Visit your my.uh.edu self-service account to pay.

3. **Submit your academic records or transcripts.** Choose one of the following options.
   - EDI - Request an official transcript to be sent through an EDI (Electronic Data Interchange) system, e.g. Speede (FICE code: 003662) or Naviance.
   - PDF - You may also upload an official PDF copy of your transcript to your my.uh.edu self-service account to complete your application.

   Official transcripts must either state ”official,” have your institutions seal, a signature by a school official, or an official watermark. It’s up to the discretion of the Office of Admissions to determine the validity of the transcript, and the office reserves the right to request additional or different copies if needed.
Undergraduate Application Deadlines

The university strongly urges students to apply early since this enhances the likelihood that an applicant will have access to admission-related services in a timely manner.

Below are the deadline dates for receipt of applications and all required transcripts/scores in order to be reviewed for admission:

**Spring 2021**

<table>
<thead>
<tr>
<th>Application Type</th>
<th>Open Date</th>
<th>App Closes</th>
<th>Transcript(s) Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Freshmen</td>
<td>August 1, 2020</td>
<td>December 1, 2020</td>
<td>December 8, 2020</td>
</tr>
<tr>
<td>International Freshmen</td>
<td>August 1, 2020</td>
<td>October 1, 2020</td>
<td>October 9, 2020</td>
</tr>
<tr>
<td>U.S. Transfer</td>
<td>August 1, 2020</td>
<td>December 1, 2020</td>
<td>December 16, 2020</td>
</tr>
<tr>
<td>International Transfer</td>
<td>August 1, 2020</td>
<td>October 1, 2020</td>
<td>October 9, 2020</td>
</tr>
<tr>
<td>Readmit - Good Standing</td>
<td>September 1, 2020</td>
<td>December 1, 2020</td>
<td>December 16, 2020</td>
</tr>
<tr>
<td>Readmit - Probation</td>
<td>September 1, 2020</td>
<td>December 1, 2020</td>
<td>December 16, 2020</td>
</tr>
<tr>
<td>Readmit - Suspension</td>
<td>September 1, 2020</td>
<td>December 1, 2020</td>
<td>December 16, 2020</td>
</tr>
<tr>
<td>Visiting</td>
<td>September 1, 2020</td>
<td>December 1, 2020</td>
<td>December 16, 2020</td>
</tr>
<tr>
<td>Adult Admissions Option</td>
<td>August 1, 2020</td>
<td>December 1, 2020</td>
<td>December 16, 2020</td>
</tr>
<tr>
<td>Academic Fresh Start</td>
<td>August 1, 2020</td>
<td>December 1, 2020</td>
<td>December 16, 2020</td>
</tr>
</tbody>
</table>

**Summer 2021**

<table>
<thead>
<tr>
<th>Application Type</th>
<th>Open Date</th>
<th>App Closes</th>
<th>Transcript(s) Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Freshmen</td>
<td>August 1, 2020</td>
<td>May 3, 2021</td>
<td>May 10, 2021</td>
</tr>
<tr>
<td>International Freshmen</td>
<td>August 1, 2020</td>
<td>April 1, 2021</td>
<td>April 8, 2021</td>
</tr>
<tr>
<td>U.S. Transfer</td>
<td>August 1, 2020</td>
<td>May 3, 2021</td>
<td>May 10, 2021</td>
</tr>
<tr>
<td>Application Type</td>
<td>Open Date</td>
<td>App Closes</td>
<td>Transcript(s) Due</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------</td>
<td>-------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>International Transfer</td>
<td>August 1, 2020</td>
<td>April 1, 2021</td>
<td>April 8, 2021</td>
</tr>
<tr>
<td>Readmit - Good Standing</td>
<td>September 1, 2020</td>
<td>May 3, 2021</td>
<td>May 10, 2021</td>
</tr>
<tr>
<td>Readmit - Probation</td>
<td>Not available in summer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Readmit - Suspension</td>
<td>Not available in summer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visiting</td>
<td>August 1, 2020</td>
<td>May 3, 2021</td>
<td>May 10, 2021</td>
</tr>
<tr>
<td>Adult Admissions Option</td>
<td>Saturday, August 1, 2020</td>
<td>May 3, 2021</td>
<td>May 10, 2021</td>
</tr>
<tr>
<td>Academic Fresh Start</td>
<td>September 1, 2020</td>
<td>May 3, 2021</td>
<td>May 10, 2021</td>
</tr>
</tbody>
</table>

**Fall 2021**

<table>
<thead>
<tr>
<th>Application Type</th>
<th>Open Date</th>
<th>App Closes</th>
<th>Transcript(s) Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Scholarship Deadline</td>
<td>November 1, 2020</td>
<td>November 4, 2020</td>
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</tr>
<tr>
<td>U.S. Freshmen</td>
<td>August 1, 2020</td>
<td>May 31, 2021</td>
<td>June 7, 2021</td>
</tr>
<tr>
<td>International Freshmen</td>
<td>August 1, 2020</td>
<td>May 31, 2021</td>
<td>June 7, 2021</td>
</tr>
<tr>
<td>U.S. Transfer</td>
<td>August 1, 2020</td>
<td>June 25, 2021</td>
<td>July 6, 2021</td>
</tr>
<tr>
<td>International Transfer</td>
<td>August 1, 2020</td>
<td>May 31, 2021</td>
<td>June 7, 2021</td>
</tr>
<tr>
<td>Readmit (Good Standing)</td>
<td>September 1, 2020</td>
<td>June 25, 2021</td>
<td>July 6, 2021</td>
</tr>
<tr>
<td>Readmit - Probation</td>
<td>September 1, 2020</td>
<td>June 25, 2021</td>
<td>July 6, 2021</td>
</tr>
<tr>
<td>Readmit - Suspension</td>
<td>September 1, 2020</td>
<td>May 31, 2021</td>
<td>June 7, 2021</td>
</tr>
<tr>
<td>Visiting</td>
<td>September 1, 2020</td>
<td>June 25, 2021</td>
<td>July 6, 2021</td>
</tr>
<tr>
<td>Adult Admissions Option</td>
<td>August 1, 2020</td>
<td>May 31, 2021</td>
<td>June 7, 2021</td>
</tr>
<tr>
<td>Academic Fresh Start</td>
<td>August 1, 2020</td>
<td>May 31, 2021</td>
<td>June 7, 2021</td>
</tr>
</tbody>
</table>
Texas Success Initiative (TSI)

The Texas Success Initiative (TSI) was instituted by the Texas Legislature to ensure that students enrolled in public colleges and universities possess the academic skills needed to perform effectively in college-level course work. Entering college students are required to demonstrate their college readiness by meeting established minimum standards on TSI Assessments in math, reading and writing or by demonstrating an exemption for each area. Those students who do not meet these standards are required to enroll in appropriate developmental courses designed to improve their academic skills and prepare them for college-level courses.

See the Undergraduate Student Success Center University of Houston TSI Overview for more information about the Exemption, Testing, and Remediation processes.
Freshman Admission Requirements

You are a **freshman** if you:

- are a student without college credit or
- earned college credit prior to high school graduation (dual credit/early college high school)* or
- earned less than 15 transferable hours of college credit after earning a GED or high school diploma* and
- are a U.S. citizen, have applied for permanent residency, or qualify for Texas residency based on Senate Bill 1528

*Only credit earned from an institution accredited by one of the six regional accrediting associations will be accepted.

You are an **international freshman** if you:

- are not a citizen or permanent resident of the United States and
- are not graduating from a Texas high school after three years in residence in Texas (please review Senate Bill 1528)

How to Apply

Visit the How to Apply page for step-by-step instructions.

Admissions Criteria

We’ve gone test optional. On your application, you will select whether you want your application to be reviewed with a test score or without a test score. The admission criteria for each choice is below. Once you submit your application, you will not be able to change your admissions review selection.

**WITH TEST SCORE**

<table>
<thead>
<tr>
<th>Class Rank</th>
<th>SAT</th>
<th>ACT</th>
<th>Admission Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 10%</td>
<td>No Minimum</td>
<td>No Minimum</td>
<td>Assured Admission</td>
</tr>
<tr>
<td>11-25%</td>
<td>1080</td>
<td>21</td>
<td>Assured Admission</td>
</tr>
<tr>
<td>26-50%</td>
<td>1170</td>
<td>24</td>
<td>Assured Admission</td>
</tr>
<tr>
<td>51% and Lower, No Rank</td>
<td>---</td>
<td>---</td>
<td>Individual Review*</td>
</tr>
</tbody>
</table>

**WITHOUT TEST SCORE**

<table>
<thead>
<tr>
<th>Class Rank</th>
<th>Calculated Unweighted GPA**</th>
<th>Admission Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 10%</td>
<td>No Minimum</td>
<td>Assured Admission</td>
</tr>
</tbody>
</table>
11-25%  
| Greater than or equal to 3.40 | Assured Admission |
| < 3.40                        | Individual Review* |

26-50%  
| Greater than or equal to 3.45 | Assured Admission |
| < 3.45                        | Individual Review* |

51% and Lower, No Rank  
| ---                           | Individual Review* |

*If you don't meet the assured admissions requirements, we may consider additional factors in the admissions process. If we require additional documentation, we'll request those materials from you.

**This unweighted GPA will be calculated by the University of Houston (out of a 4.0 scale) using the grades on your transcript. Extracurricular classes won't be included.

Admission requirements are different for international students. For more information, visit www.uh.edu/international.

### Majors with Additional Requirements

Some majors have additional requirements on top of the ones listed above.

Majors with additional requirements are indicated with a +.

For more information, visit www.uh.edu/freshman-majors-ar.

### Deadlines

Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.
International Baccalaureate

The University of Houston recognizes the comprehensive and rigorous curriculum of the International Baccalaureate (IB) and offers possible credit for scores of 4, 5, 6 or 7 on higher-level or 4, 5, 6, or 7 on standard-level with Diploma examinations. An entering freshman who holds an IB diploma will be granted at least 24 college credit hours if he or she has scored 4 or better on the IB exams. IB diploma or certificate sent to the University of Houston will be reviewed for credit. See Credit by Examination charts for more information.
Admission Applications

You will apply as a first-year freshmen if you are a high-school senior or if you graduated/GED but never attended a college or university.

1. Complete the University of Houston application for admission using either the Apply Texas Application or The Common Application. Submit just one application.
2. Pay the nonrefundable $75 application fee ($90 for international students) with a credit card, debit card, or check. Checks can be made out to the University of Houston, 4434 University Drive, Houston, TX 77204.
3. Have your ACT or SAT score(s) sent directly from the testing agency to us. Our code for ACT is 4236; SAT is 6870.
4. Have your most recent official high-school transcript sent to The University of Houston, Office of Undergraduate Admissions, 4434 University Drive, Houston, TX 77204. For faster service, send your official transcript to us electronically using TREx, Parchment, or Naviance.

The completed application, application fee, and supporting documents constitute the basis upon which eligibility for admission is determined. All questions on the application must be completed fully. Admission is invalid if granted on the basis of incorrect information or omitted facts.

Admission information for all Graduate and Professional Studies programs can be located on the Graduate School website: http://www.uh.edu/graduate-school/admissions/.
Transfer Admission Requirements

You are a transfer student if you:

- are a student who earned 15 or more transferable hours of college credit after high school graduation (during fall/spring semesters) and
- are not a former UH undergraduate student and
- are a U.S. citizen, have applied for permanent residency, or qualify for Texas residency based on Senate Bill 528

You are an international transfer student if you:

- are not a citizen or permanent resident of the United States or
- are not graduating from a Texas high school after three years in residence in Texas (please review Senate Bill 1528) and
- have graduated from high-school or equivalent and
- have enrolled in a post-secondary institution, and has earned college credit after high school/secondary school graduation (during fall/spring semesters)

How to Apply

- Visit the How to Apply page for step-by-step instructions

Admissions Criteria

Transferable courses are college-level courses from regionally accredited colleges and universities. In order to determine admissibility, the Office of Admissions will calculate your cumulative GPA for all transferable college-level courses from all schools attended. For repeated courses, grades from all course attempts will be used for calculation of cumulative GPA. The cumulative GPA is for admission purposes only and will not transfer to your UH GPA.

<table>
<thead>
<tr>
<th>Admission Type</th>
<th>Hours of College-Level Credit Earned</th>
<th>Minimum Required Cumulative GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman Admission</td>
<td>0-14</td>
<td>Must meet freshman admission criteria</td>
</tr>
<tr>
<td>Assured Admission</td>
<td>15 or more</td>
<td>2.5</td>
</tr>
<tr>
<td>Individual Review*</td>
<td>15 or more</td>
<td>2.25-2.49</td>
</tr>
</tbody>
</table>

*If you don’t meet the assured admissions requirements, we may consider additional factors in the admissions process. If we require additional documentation, we’ll request those materials from you.

Alternative Grading Basis for Transfer Credit:

Pass/Fail Grades

The University of Houston will accept and award college-level credit from regionally-accredited institutions that provide grades of S (Satisfactory) or P (Pass) during semesters impacted by COVID-19. Hours earned from S or P grades will be counted towards transfer hours, but will not be factored in the calculation of your cumulative transfer GPA and will not factor into your GPA at UH. Hours Earned from F grades will count towards the calculation of your cumulative transfer GPA.
Advanced Placement (AP) Exams

The University of Houston will continue to follow our standard practices on awarding AP test scores and will accept scores taken by the online exam format through College Board due to COVID-19.

Majors with additional requirements

Some majors have additional requirements on top of the ones listed above. Majors with additional requirements are indicated with a +.

For more information, visit www.uh.edu/transfer-major-ar.

Deadlines

Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.
Transfer of College Credits

The evaluations of international transfer credits are processed by the Office of Admissions after faculty in the appropriate department and college determined whether the work and credit are of suitable content and rigor, once all required documents are submitted (complete transcripts, syllabus/catalog) during the first enrolled term. The application of transfer credit toward a degree at the university cannot be determined until the transcripts have been evaluated and a degree plan is processed.

Former students must notify the Office of Admissions of any schools attended since the last enrollment at the University of Houston and submit all official transcripts. Degree plans are processed in the college of the student’s major. The following regulations apply generally to the undergraduate programs. Certain exceptions exist in the Law Center. Refer to the Graduate and Professional Studies catalog.

General Regulations

1. The college from which credit is to be transferred must be accredited by one of the six regional accrediting associations or the appropriate Ministry or board for overseas studies.

2. Courses transfer to the university on the same level and with the corresponding number of hours as earned at the other institution. Grades are not transferred, and a new grade point average is established only on work done at the university. Courses taken at other institutions in which grades below C- were earned are not transferable or applicable toward degree requirements at the University of Houston. Some colleges and departments may use the cumulative grade point average from other institutions as an admission criterion. A student cannot satisfy any baccalaureate degree requirement at the university with course work taken at another institution unless the course itself is both accepted by the university in transfer and applied toward the student’s baccalaureate degree.

As of Fall 1999, the following clarifications apply to the transfer of core curriculum credit.

a. Students who transfer to the University of Houston from another Texas public institution of higher education where they have successfully completed all of that institution’s Texas Higher Education Coordinating Board-approved core curriculum shall be considered by UH to be “core complete” and shall not be required to take additional courses to complete the UH core curriculum. However, no courses completed with a grade below C shall transfer, and therefore they shall not count toward degree requirements, including total hours, other than “core completion.”

b. If a transfer student has not successfully completed all Texas Higher Education Coordinating Board-approved core curriculum requirements at another Texas public institution of higher education, then UH will not accept, for any purpose, the core curriculum courses in which the student earned a grade below C-.

3. Students who transfer to the University of Houston before they have completed all of the Texas Higher Education Coordinating Board approved core curriculum requirements at another Texas public institution of higher education shall receive credit toward the UH core for each of the core courses they have completed with a grade of C- or higher up to the maximum specified in each core component area by the institution from which they are transferring. Hours that exceed the UH requirement in any core component area shall be applied elsewhere in the UH core according to the established core articulation tables. It should be noted that these students may be required to take additional courses to complete the UH core curriculum. Students who transfer to UH from institutions that do not have a Coordinating Board-approved core curriculum may use transfer credits to satisfy UH core curriculum requirements. When no equivalency exists, a student may submit an Undergraduate Transfer Credit Petition for review by the appropriate department and dean. The grades earned must be C- or higher.

4. Courses taken at other colleges that do not correspond to courses offered at the university may transfer as elective credit. Such courses may fulfill degree requirements at the discretion of the major department and dean.

5. Workforce and technical courses taken at regionally accredited institutions of higher education normally not acceptable for transfer may be transferred as credit with departmental approval. However, only the student’s academic dean can determine the applicability of such credit towards a degree. Additionally, developmental and remedial courses, and courses classified as below freshman level by the institution at which the student took them, are not transferable and will not count toward a degree.

6. Credit may be granted for courses taken through various non-collegiate organizations based on the recommendation made by the Commission on Educational Credit when such training is considered by the university to be at the baccalaureate level and consistent with the student’s educational objective.

7. A maximum of 12 credit hours in religion from a regionally accredited college is accepted toward a degree.
8. A maximum of two credit hours in physical education activity courses is transferable.

9. A maximum of 66 credit hours of lower division (freshman and sophomore) transfer work will be allowed to apply toward a baccalaureate degree at the University of Houston. If a student transfers more than 66 credit hours of lower division work, the dean or his/her designated representative of the college of the student’s major will decide which of the total lower division hours, not to exceed 66, will apply to the UH degree. The classification of a course as lower division is based on external level of the course and its classification at UH.

10. To earn a degree at the university, the last 30 credit hours must be completed in residence on this campus; see the university policy for permitted exceptions. Only grade points earned at the University of Houston are averaged for the degree.

11. Unless prohibited by one or more of the general regulations above, the dean of the college in which the student majors will make the final decision concerning the application of transfer credit to the degree program.

Community College Common Course Numbering

The University of Houston and Texas community colleges have agreed that certain courses offered by the community colleges meet UH Core Curriculum standards; the community colleges have adopted common course numbers among themselves. Students transferring those courses to the university from a Texas community college will receive credit for the corresponding UH core course, provided all general requirements for transfer credit are met. All courses are reviewed annually, to ensure that they meet core standards; therefore, the list is subject to change without notice. The university’s Provost Office maintains the most up-to-date listings of these approved courses.

Not all community colleges use the common course numbering system. It is the student’s responsibility to check with each community college attended for course equivalency.

For a complete listing of Texas Common Course Numbers and UH equivalents, see the Texas Common Course Numbering System section of this catalog.

Correspondence and Extension Credit

The university does not offer correspondence courses, but such credit may be accepted in transfer when taken from an accredited college. Students may apply a maximum of 18 credit hours of correspondence credit, 30 credit hours of extension (classroom) credit, or 30 credit hours of correspondence and extension credit combined toward a bachelor’s degree. Only six credit hours in the student’s major may be correspondence credit.

Postbaccalaureate Students

Students who have earned a degree equivalent to a bachelor’s degree or higher in the United States from a college or university overseas may be eligible for postbaccalaureate admission. Refer to the Postbaccalaureate Student section of this catalog.

Professional Course Credit

Graduates of certain accredited professional schools are allowed a total of 30 credit hours of unspecified credit for two or three years of professional training. A maximum of 12 credit hours will be allowed to those students who are not graduates. Students who satisfactorily complete a program in medical technology that is approved by the Board of Registry of Clinical Pathologists will be allowed 30 credit hours of unspecified credit.

Graduate Credit
Graduate credit completed with a grade of A or B (A=4.00) may be transferred for advanced courses only. The amount of transferable credit, however, is subject to approval by the individual department. Only in exceptional circumstances can more than nine credit hours of transfer credit be applied to a master’s degree. The Bauer College of Business and Cullen College of Engineering will not accept more than nine credit hours of transfer credit under any circumstances.

Transfer credit is subject to evaluation and must be consistent with the degree plan approved by the student’s advisor. The student bears the final responsibility for securing the department’s acceptance of transferred credit.

**Transfer Credit and Honors**

Transfer credit cannot be used to determine honors.
Texas Common Course Numbering System

The Texas Common Course Numbering System (TCCNS) is a cooperative effort among Texas community colleges and universities to facilitate transfer of freshman- and sophomore-level general academic courses.

The TCCNS provides a shared, uniform set of course designations for students and their advisors to use in determining both course equivalency and degree applicability of transfer credit on a statewide basis. When students transfer between two participating TCCNS institutions, a course taken at the sending institution transfers as the course carrying, or cross-referenced with the same TCCNS designation at the receiving institution.

For additional information about the TCCNS, consult the TCCNS Matrix Online, www.tccns.org/. This Web site contains a list of participating TCCNS institutions, the TCCNS taxonomy, the TCCNS history, and the TCCNS board members. The site also contains the master list of the common courses offered in Texas. The site is organized by institution and by TCCNS designation.

See also: NOTES

<table>
<thead>
<tr>
<th>TCCN</th>
<th>Title</th>
<th>UH#</th>
<th>UH Title</th>
<th>UH Core Curriculum</th>
</tr>
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<tr>
<td>ACCT 2302</td>
<td>Principles of Managerial Accounting</td>
<td>ACCT 2302</td>
<td>Accounting Principles II: Managerial</td>
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<td>ANTH 2301</td>
<td>Physical Anthropology</td>
<td>ANTH 2301</td>
<td>Introduction to Physical Anthropology</td>
<td>Social/Behavioral Sciences</td>
</tr>
<tr>
<td>ANTH 2302</td>
<td>Introduction to Archaeology</td>
<td>ANTH 2303</td>
<td>Introduction to Archaeology</td>
<td>Social/Behavioral Sciences</td>
</tr>
<tr>
<td>ANTH 2346</td>
<td>General Anthropology</td>
<td>ANTH 1300</td>
<td>Introduction to Anthropology</td>
<td>Social/Behavioral Sciences</td>
</tr>
<tr>
<td>ANTH 2351</td>
<td>Cultural Anthropology</td>
<td>ANTH 2302</td>
<td>Introduction to Cultural Anthropology</td>
<td>Social/Behavioral Sciences</td>
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<td>ARTS 1303</td>
<td>Art History I (Prehistoric to the 14th Century)</td>
<td>ARTH 1380</td>
<td>Art and Society: Prehistoric to Gothic</td>
<td>Language, Philosophy &amp; Culture</td>
</tr>
<tr>
<td>ARTS 1304</td>
<td>Art History II (14th Century to the Present)</td>
<td>ARTH 1381</td>
<td>Art and Society: Renaissance to Modern</td>
<td>Creative Arts</td>
</tr>
<tr>
<td>ARTS 1311</td>
<td>Design I (2-Dimensional)</td>
<td>ART 1330</td>
<td>Fundamentals of Graphic Communications</td>
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<tr>
<td>ARTS 1316</td>
<td>Drawing I</td>
<td>ART 1301</td>
<td>Fundamentals of Drawing</td>
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</tr>
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</table>

**B**

| BIOL 1306 | Biology for Science Majors I (lecture) | BIOL 1361\(^1\) | Introduction to Biological Science I | Life and Physical Sciences |
| BIOL 1307 | Biology for Science Majors II (lecture) | BIOL 1362\(^1\) | Introduction to Biological Science II | Life and Physical Sciences |
| BIOL 1308 | Biology for Non-Science Majors I (lecture) | BIOL 1310\(^1\) | General Biology I | Life and Physical Sciences |
| BIOL 1309 | Biology for Non-Science Majors II (lecture) | BIOL 1320\(^1\) | General Biology II | Life and Physical Sciences |
| BIOL 1106 | Biology for Science Majors I (lab) | BIOL 1161 | Introduction to Biological Science I, Lab | none |
| BIOL 1107 | Biology for Science Majors II (lab) | BIOL 1162 | Introduction to Biological Science II, Lab | none |
| BIOL 2101 | Anatomy & Physiology I (lab) | BIOL 1134 | Human Anatomy & Physiology Laboratory I | none |
| BIOL 2102 | Anatomy & Physiology II (lab) | BIOL 1144 | Human Anatomy & Physiology Laboratory II | none |
| BIOL 2301 | Anatomy and Physiology I (lecture) | BIOL 1334 | Human Anatomy and Physiology I | none |
| BIOL 2302 | Anatomy and Physiology II (lecture) | BIOL 1344 | Human Anatomy and Physiology II | none |

**C**

<p>| CHEM 1106 | Introductory Chemistry (lab, allied health emphasis) | CHEM 1101 | Foundations of Chemistry Laboratory | none |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Prerequisites</th>
<th>Core Requirement</th>
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<td>Media and Society</td>
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<td>Writing for Print and Digital Media</td>
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<td>POLS 1336</td>
<td>U.S. and Texas Constitutions and Politics</td>
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<td>U.S. Government: Congress, President and Courts</td>
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**M**

Mathematics and Math/Reasoning

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<td>MATH 1313</td>
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<td>MATH 1312</td>
<td>Intro to Math Reasoning</td>
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<td>MATH 1342</td>
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<td>Introduction to Probability and Statistics</td>
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1 - Students may not receive credit for both BIOL 1361:BIOL 1362 and BIOL 1310:BIOL 1320

**Notes:**

- Some degrees require specific core courses. See the appropriate department section of the catalog for complete information on degree requirements.
- Students who currently attend UH should refer to their departmental advisor BEFORE taking courses at another college.
- A minimum of 15 college-level (non-developmental or remedial) hours are required to transfer to UH.
- Texas law states that a core course at any Texas state funded college or university will transfer as "core" to any other Texas state funded college or university.
- Core Complete Status will be granted to students with an official transcript from a Texas state funded college or university stating that the core was completed at that school.
- If you are planning on getting an Associate Degree, please see your counselor to get a degree plan.
- The courses listed above reflect the core as set by the University of Houston.
- To complete a Bachelor’s degree at UH, students are required to complete their last 30 hours of course work at UH; see the university policy for permitted exceptions.
International Freshman Admission Requirements

You are an international freshman if you:

- are not a citizen or permanent resident of the United States and
- are not graduating from a Texas high school after three years in residence in Texas (please review Senate Bill 1528)

How to Apply

Visit the How to Apply page for step-by-step instructions.

Admissions Criteria

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<th>Minimum Grades/Marks</th>
<th>Meets English Requirements</th>
<th>Admissions Type</th>
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<tr>
<td>Equivalent GPA 3.0 or higher (4.0 scale)</td>
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<td>Assured Admission</td>
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English Language Proficiency Requirement

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<tr>
<th>EFL (iBT)</th>
<th>TOEFL (PBT)</th>
<th>IELTS Overall</th>
<th>Duolingo English Test</th>
<th>SAT Total/Creative Writing</th>
<th>ACT Composite/English</th>
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<td>79</td>
<td>550</td>
<td>6.5</td>
<td>105</td>
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Majors with additional requirements

Some majors have additional requirements on top of the ones listed above.

Majors with additional requirements are indicated with a +.

For more information, visit uh.edu/freshman-majors-ar.

Deadlines

Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.
International Transfer Admission Requirements

You are an international transfer student if you:

- are not a citizen or permanent resident of the United States or
- are not graduating from a Texas high school after three years in residence in Texas (please review Senate Bill 1528) and
- have graduated from high school or equivalent and
- have enrolled in a post-secondary institution, and has earned college credit after high school/secondary school graduation (during fall/spring semesters)

Admissions Criteria

- 2.5 overall college GPA
- Transfer students with fewer than 15 hours (fewer than 30 hours for business majors) must submit an official final high school transcript and an official ACT/SAT score

English Language Proficiency Requirement

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<th>EFL (IBT)</th>
<th>TOEFL (PBT)</th>
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<th>Duolingo English Test</th>
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<th>ACT Composite / English</th>
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<td>105</td>
<td>1170/530</td>
<td>24/21</td>
</tr>
</tbody>
</table>

Please note: International transfer students may be exempt from submitting a TOEFL or IELTS score by completing 30 or more semester credit hours from a U.S. accredited institution of higher education, including coursework equivalent to UH English Composition ENGL 1303 and ENGL 1304 with a grade of "C" or better and/or the completion of an AA or AS degree from an accredited institution of higher education.

Majors with additional requirements

Some majors have additional requirements on top of the ones listed above.

Majors with additional requirements are indicated with a +.

For more information, visit www.uh.edu/transfer-majors-ar.

Deadlines

Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.

Transferring College Credit

Transfer credit is awarded for transferable courses that are completed with a grade C- or better. A maximum of 66 lower-division (freshman and sophomore-level) semester credit hours can be transferred as credit. There's no limit to the number of upper-division (junior and senior-level)
semester credit hours that can transfer to UH. However, students must complete at least 30 semester credit hours in residence at UH to complete baccalaureate degree requirements.

International credit will be transferred as general elective credit or elective credit within a subject area. Students may choose to complete an Undergraduate Transfer Credit Petition, which will be reviewed by faculty in the appropriate college and department to determine if the work and credit are of suitable content and rigor. This process takes place during the first enrolled term. The application of transfer credit toward a degree at the university cannot be determined until the transcripts have been evaluated and a degree plan is processed.
Readmission for Former UH Students

You must apply for re-admission if you:

- were previously enrolled in undergraduate coursework at the University of Houston and
- are ready to return to UH after an interruption of at least four terms (students in good standing or academic probation) or
- are ready to return to UH from first suspension (must sit out one term) or second suspension

Readmission Student Application Guide

Readmission Criteria

Readmission to the University of Houston will vary based on the following items:

- Your academic standing from when you last attended UH (good standing or suspension/probation)
- If you are reapplying to your former major or a different major
- If you have taken coursework outside of UH during your time away
- Your GPA may be considered cumulatively, meaning all college coursework attempted, or your UH GPA may be looked at separately from coursework taken outside of the university

Each college and sometimes each major within a college may have separate readmission criteria. Please meet with your academic advisor for more information on the readmission process for your college or review the readmission criteria on your college website.

College Readmission Requirements

- Gerald D. Hines College of Architecture and Design
- C.T. Bauer College of Business
- College of Education
- Cullen College of Engineering
- Conrad N. Hilton College of Hotel and Restaurant Management
- College of Liberal Arts and Social Sciences
- College of Natural Sciences and Mathematics
- College of Technology
- Exploratory Studies

Academic Standing

Your academic standing will determine your admissions process, which may include additional documents and earlier deadlines.

Students in Good Standing, Academic Warning, or Probation, who do not take courses for 13 consecutive months from their last term of enrollment will be required to reapply to the University of Houston and will fall into one of four categories:

- **Good Standing:** An undergraduate student who left the University with a cumulative UH GPA of a 2.00 or above.
- **Academic Warning:** First Time in College (FTIC) students who earn less than a 2.00 GPA in the first regular semester (i.e. fall or spring) of enrollment at the University.
- **Probation:** Students who have completed more than just their first semester with a cumulative UH GPA below 2.00 but with a semester GPA that is 2.00 or higher. Students on probation can continue taking courses at the university with the guidance of their academic advisor unless they do not enroll for 13 months.
Students on Suspension will be required to reapply to the University of Houston based on the type of Suspension they are on. Students who are suspended are defined as students on academic probation with a cumulative UH GPA below 2.00 and a semester GPA below 2.00

- **First Suspension** - you must sit out for one long semester (fall or spring) before reapplying to the university.
- **Second Suspension** - you must sit out for 1 full year (12 months) before reapplying to the university.
- **Third Suspension** - you are not eligible to return to the University of Houston.

**Steps to Apply**

1. Complete the Undergraduate Readmission Application for the University of Houston using the Apply Texas Application (http://www.applytexas.org/).
2. Pay the nonrefundable $75 application fee with a credit card, debit card, or check. Checks can be made out to the University of Houston, 4434 University Drive, Houston, TX 77204.
3. Have your most updated official transcript from all colleges and universities attended sent to the University of Houston, Office of Undergraduate Admissions, 4434 University Drive, Houston, TX 77204.
4. Please note that some colleges require additional items to be submitted, please check your myUH account or visit our website to ensure that you send in all necessary documents.

**Transcripts**

Choose one of the following options.

- **EDI** - Request an official transcript to be sent through an EDI (Electronic Data Interchange) system, e.g. Speede (FICE code: 003662) or Naviance.
- **PDF** - You may also upload an official PDF copy of your transcript to your my.uh.edu self-service account to complete your application. Official transcripts must either state "official," have your institutions seal, a signature by a school official, or an official watermark. It’s up to the discretion of the Office of Admissions to determine the validity of the transcript, and the office reserves the right to request additional or different copies if needed.

Please review your myUH To Do List for a live update on which transcripts are needed. If any of the transcripts we have on file from when you last applied have in progress courses or are not in line with the dates you provided on your most recent readmission application, we will need an updated transcript from the institution.

**Fee Waivers**

Readmission students are not eligible for fee waivers and must pay the application fee for the term in which they are applying. You can pay your application fee when you're applying via Apply Texas or the Common App or via your myUH account once your application has been received. It is important to note that you are only eligible for review for the semester in which you apply. If you are denied or are interested in a different term, you will have to pay the $75 application again.

**Deadlines**

Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.

**Timeline for Decisions**
Decisions for readmission will vary for each academic college. Please note that there is no average timeline for a decision, and you will hear directly from the Office of Admission once a decision has been rendered on your account. It is important to submit all application materials early to avoid delays in your decision timeframe.

**Advising**

Readmission applicants are required to see the academic advisor of the major in which they are applying to. Your academic advisor can give you guidance on whether you are admissible to the college you have selected and what courses you would be required to take upon admission.

Readmission applicants may see a Readmit Advising hold on their myUH account which will only prevent you from registering for courses if admitted. This advising hold will not prevent you from receiving your admission decision.

**Archived Information**

If you attended the University of Houston prior to 2005, your information was archived due to a system change. In order to provide you with the most accurate advising, your records will need to be de-archived. You will need to meet with an Admissions Advisor to submit this request and initiate the process.
Postbaccalaureate Students

Post-baccalaureate applicants are those who have completed the equivalent of a bachelor's degree prior to enrolling in UH. Post-baccalaureate students can take undergraduate courses, pursue a second degree, or meet the prerequisites needed for the graduate majors. Students are required to submit official transcripts from all institutions previously attended.

How to Apply

Visit the How to Apply page for step-by-step instructions.

Admission Requirements

Post-baccalaureate applicants must meet the same requirements as Transfer applicants. Please visit the Transfer Student page or International Student page for more information on requirement and majors offered. The following majors or requirements differ from Transfer students:

- Post-baccalaureate applicants to the C.T. Bauer College of Business may only apply for the Certificate of Accountancy Program.
- Post-baccalaureate applicants to the Cullen College of Engineering must meet the transfer admission requirements for students who have earned 30 or more semester hours of college credit.

Current UH Students

If you are currently enrolled or have recently graduated within the past 13 months, submitting an admissions application is not required for a Post-Baccalaureate program. Please meet with an academic advisor to change your major to the Post-Baccalaureate program you are interested in. You are still required to meet the change of major requirements for the program. Your advisor can guide you on those requirements and processes.

Deadlines

Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.
Visiting Students

A Visiting Student (sometimes referred to as a Transient Student) can take undergraduate courses at the University of Houston, but is not seeking a degree. Students are getting a jumping start on their college coursework, are applying credit toward a degree at another institution, or may have already completed a Bachelor’s Degree and are taking pre-requisite courses as a Post-Baccalaureate student.

Admission as a Visiting Student is granted to:

- undergraduate students who are in good standing at their current or most recently attended college or university, OR
- high school graduates who have not earned college credit post-high school graduation, and have a minimum unweighted cumulative GPA of a 3.5

Visiting students are not eligible for Financial Aid

How to Apply

Visit the How to Apply page for step-by-step instructions.

Deadlines

Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.

Visiting to Degree Seeking

Once admitted as a visiting student, no application is necessary for enrollment in future term sessions. Enrollment as a degree-seeking student requires the following steps:

1. requires a visiting student to complete the Degree-Seeking Status Change Request Form,
2. meet transfer admission requirements of the University of Houston (and their intended major), and
3. submit all transcripts from previous colleges and universities.

Admitted students will be required to go through New Student Orientation.

The degree-seeking request form must be submitted by the following deadlines on the following form:

- Degree-Seeking Status Change Request Form
Academic Fresh Start for Undergraduate Transfer Students

Academic Fresh Start is an opportunity for new and former students to have earned coursework 10 or more years old to be ignored for admission purposes. Once ignored, this coursework cannot be used at UH for admission, course prerequisites or degree requirements.

How to Apply

Apply for admission using the Apply Texas Application or The Common Application. Submit just one application.

Submit the Academic Fresh Start Acknowledgement Form to Admissions at admissions@uh.edu.

Deadlines

Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.

Additional Information

Students applying for admission to the University of Houston may elect to have all academic course work completed at other institutions ten or more years prior to the time of application ignored for admission purposes. Once ignored, this course work cannot be used to satisfy any prerequisite or degree requirements at the University of Houston. The Academic Fresh Start Program is open to new as well as to former students.

Transfer students applying for Academic Fresh Start must have submitted all the necessary credentials to the Office of Admissions by the appropriate deadline. Official transcripts from all colleges attended, including transcripts which include course work completed ten or more years old, must be sent to UH. The Academic Fresh Start Acknowledgement Form must also be completed and returned to UH. However, students choosing Academic Fresh Start must meet current admission requirements with course work taken within the past ten years.

Students admitted through Academic Fresh Start will be under the University of Houston Undergraduate Studies catalog in effect at the time of their Fresh Start matriculation at UH and will be assigned to Exploratory Studies until they are admitted into a major field of study or until they have accumulated 30 semester hours of credit, whichever comes first.

There may be implications for financial aid and veterans benefits for students admitted under Academic Fresh Start. Students should contact these offices for more information.

Students may elect to use the provisions of this Academic Fresh Start Program only once at the University of Houston.
Adult Admission Program

It’s never too early or late to plan for your college education. The University of Houston supports non-traditional college-age students getting a start towards a degree. The Adult Admission Program is designated to facilitate the admission of adult students.

You may be considered for the Adult Admissions Program (AAP) if you:

- hold a high school diploma or equivalent
- have not been enrolled in a high school or regionally accredited college-level program for the past five years
- are at least 25 years of age by the last day of late registration for the semester of attendance
- have never enrolled as a student at UH (if so, see information for former students)

This program does not apply to currently and/or previously enrolled students, international students, or Post-Baccalaureate applicants.

How to Apply

Complete the Adult Admissions Program application by the term’s deadline. Email a copy of your application to admissions@uh.edu or mail it to University of Houston, 4434 University Drive, Houston, TX 77204.

Pay the nonrefundable $75 application fee with a check or money order. Checks can be made out to the University of Houston, 4434 University Drive, Houston, TX 77204.

Applicants who have completed any education outside the U.S. must submit evidence of English proficiency. A score of 550 or higher (79 or higher on the internet-based exam), on the Test of English as a Foreign Language (TOEFL) is required. Applicants are expected to complete the essay section of the TOEFL whenever it is included as part of the exam. Students from Australia, the Bahamas, Belize, the British Isles, English-speaking Canadian provinces, the Fiji Islands, Jamaica, Liberia, New Zealand, Sierra Leone, South Africa, Trinidad, the Virgin Islands, the West Indies, and Zimbabwe and those who speak English as their native language are exempt from taking the TOEFL. An Associate of Arts degree will generally not exempt an applicant from the TOEFL requirement.

How the Program Works

Students admitted through the Adult Admissions Program are non-degree seeking. In order to maintain enrollment eligibility, students must maintain a cumulative grade point average of 2.00.

Students who wish to change their status to degree-seeking must complete 18 semester credit hours. The hours earned at the University of Houston will be used to determine eligibility into a student’s chosen major, and all transfer admission requirements must be met in order to fulfill the status change request. Complete the Degree-Seeking Status Change Request Form to begin this process.

Financial Aid

Students initially enrolled in the Adult Admissions Program have a non-degree status and are not eligible for financial assistance. Financial aid will be processed during the semester following the completion of 18 semester hours.

Eligible veterans may use veterans’ benefits under this program. Please contact the Veterans’ Services Office for more information at 713-743-5490.

Deadlines
Visit the Deadlines page for a listing of when the admissions application and supporting materials are due.
Freshmen Admission Appeals

Freshman applicants to the University of Houston who do not meet regular admission requirements may request further consideration by submitting a Freshman Admissions Appeal Form. An appeal to reconsider our original admission decision may or may not change the decision. Generally, less than 25 percent of the appeals will result in a changed admissions decision. Students are encouraged to appeal only if (1) their academic credentials (test scores and/or grades) have changed significantly or (2) they wish to provide additional information that further explains personal circumstances that may have affected their ability to meet admissions requirements.

All Freshman Admission Appeal decisions are final.

Steps:

1. Submit the Freshman Admissions Appeal Form to Admissions
2. Wait up to 5 business days for items to load in your myUH account
3. Upload the required items listed below directly to your myUH account. Please see the Appeal Form for descriptions of each item.
   a. Personal Statement
   b. Letters of Support
   c. Resume
   d. Updated High School Transcript (Unofficial)
   e. Official College Transcript - Only for students earning dual credit for college courses in high school.
   f. At least TWO SAT or ACT scores - Scores must be submitted electronically through College Board or ACT.

Transfer applicants that have been denied admission to the University of Houston or admission to a special major may request a new decision based on new grades and/or earning an Associate's Degree. All applicants must contact the Office of Admissions and provide proof of a change in academic credentials. The submission of new coursework may or may not change the original admission decision.

All Freshman Admission Appeal and Transfer Admission Reconsideration decisions are final.
Credit by Examination

The University of Houston awards course credit based on scores earned on Advanced Placement (AP), International Baccalaureate (IB), College Level Examination Program (CLEP), SAT II Subject Tests, International Baccalaureate (IB) tests, Defense Activity for Non-Traditional Educational Support (DANTES), and UH departmental examinations.

Each course credit equivalency is evaluated by the appropriate department and college to determine whether the work and credit are of suitable content and rigor. The list of courses for which credit may be awarded, the minimum exam score requirements, the number of credit hours approved for test credit, and the policies associated with the awarding of test credit are approved by the Undergraduate Committee and published in the University of Houston Undergraduate Catalog. Students are encouraged to consult the UH Undergraduate Catalog to understand related policies.

Specific procedures for claiming credit by examination, including the testing schedule, eligibility requirements, test descriptions, sample questions, and test fee amounts, are updated and published on the UH Testing Services website.

Eligibility

- Any current or former University of Houston student may attempt to earn UH credit based on performance on an appropriate examination for any required or elective undergraduate course for which UH offers credit.
- Prospective students may take examinations to establish their eligibility to receive credit or placement; however, credit is awarded only to officially enrolled students and former students.
- Official test scores must be sent to the University of Houston by the last official class day in the semester the student is graduating in order to evaluate and post the course credit.
- Students must meet University of Houston’s minimum approved passing scores, as well as any other specific departmental requirements, in order for examination credit to be used toward a degree program.

Credit Hour Policies

- There is not a limit to the number of hours that may be earned through the CBE program.
- Credits earned by examination do not impact the Repeat rule.
- Credit by examination that does not apply towards a student’s degree plan may make him or her ineligible for a tuition rebate. Review the Tuition Rebate guidelines for details.

Grades

A grade of CR (credit) will be assigned where applicable, will not carry grade points, will not be used to calculate a grade point average, cannot be translated into letter grades (e.g., A, B, C, D, or F), and will not replace any existing course grade earned at University of Houston, in high school, or at another college or university.

Degree Requirements

- Credit earned by examination satisfies degree requirements in the same way as credit earned by passing a course, except that it does not count as credit earned in residence.
- Students should confer with an academic advisor to determine whether credit earned by examination or by course is best for their degree objectives.
• If a student takes a duplicate examination for the same subject content, credit will only be awarded once.

Fees

Credit by examination fees are used to support test administration, preparation and selection of examinations, scoring, analysis, and reporting. Examination fees are approved through the appropriate fee approval process at the university and collected by UH Testing Services or academic departments.

Scholarship Eligibility

Credit earned by examination does not jeopardize eligibility for scholarships that require freshman standing.

Exceptions

- Academic deans may approve exceptions to the course placement and credit by examination policies for compelling academic reasons. If the exception involves the student’s eligibility to be tested or to receive credit by examination in a particular course, the exception must also be approved by the department in which the course is offered and the Office of the Provost.
- Additional eligibility requirements may be established by the academic department awarding credit, with the approval of the Dean of the college and approved by the Undergraduate Committee.

Submitting Scores

Only University of Houston administrations of appropriate tests or official score reports from an approved testing agency are acceptable for credit, (e.g., official reports from the Educational Testing Service (ETS) are required for the College Board CLEP Tests and the Advanced Placement Program). Informal score reports or results of special administrations of national tests from other institutions are not accepted for credit.

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<th>Test</th>
<th>Minimum Score</th>
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<th>Core Component Area</th>
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Course Test Minimum Score Total Hours/Credit Core Component Area Notes

- **PHIL 1301**
  - IB (HL) or IB (SL) with Diploma: Philosophy
  - Minimum Score: 4
  - Total Hours/Credit: 3
  - Core Component Area: (040)
  - Notes: 

- **PHYS 1101**
  - IB (HL) or IB (SL) with Diploma: Physics
  - Minimum Score: 4
  - Total Hours/Credit: 1
  - Core Component Area: 
  - Notes: 

- **PHYS 1102**
  - IB (HL) or IB (SL) with Diploma: Physics
  - Minimum Score: 4
  - Total Hours/Credit: 1
  - Core Component Area: 
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- **PHYS 1301**
  - AP: Physics B
  - Minimum Score: 5
  - Total Hours/Credit: 3
  - Core Component Area: (030)
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<tr>
<td></td>
<td>IB (HL) or IB (SL) with Diploma: Physics</td>
<td>4</td>
<td>3</td>
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<tr>
<td>PHYS 1302, PHYS 1102</td>
<td>AP: Physics 2</td>
<td>3</td>
<td>4</td>
<td>(030)</td>
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<tr>
<td></td>
<td>AP: Physics C (Electricity and Magnetism)</td>
<td>3</td>
<td>4</td>
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<tr>
<td>PHYS 1321</td>
<td>Departmental Exam</td>
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<td>3</td>
<td>(030)</td>
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<tr>
<td>PHYS 1321, PHYS 1121</td>
<td>AP: Physics C (Mechanics)</td>
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<td>4</td>
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<td>PHYS 1322</td>
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<td>(030)</td>
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<tr>
<td>PHYS 1322, PHYS 1122</td>
<td>AP: Physics C (Electricity and Magnetism)</td>
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<td>4</td>
<td>(030)</td>
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<tr>
<td>POLS 1337</td>
<td>AP: U.S. Government and Politics</td>
<td>3</td>
<td>3</td>
<td>(070)</td>
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<tr>
<td></td>
<td>CLEP: American Government</td>
<td>50</td>
<td>3</td>
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<tr>
<td>POLS 1336 - POLS 1337</td>
<td>AP: U.S. Government and Politics</td>
<td>4 and passing UH test</td>
<td>6</td>
<td>(070)</td>
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<td></td>
<td>CLEP: American Government</td>
<td>60 and passing UH test</td>
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<tr>
<td>POLS 1335</td>
<td>AP: Comparative Government and Politics</td>
<td>3, 4</td>
<td>3</td>
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<tr>
<td>POLS 3311</td>
<td>AP: Comparative Government and Politics</td>
<td>5</td>
<td>3</td>
<td>(080)</td>
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<tr>
<td>PORT 1505, PORT 2505</td>
<td>IB (HL) or IB (SL) with Diploma: Portuguese</td>
<td>4</td>
<td>5-10</td>
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<tr>
<td>PSYC 1300</td>
<td>AP: Psychology</td>
<td>3</td>
<td>3</td>
<td>(080)</td>
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<td></td>
<td>CLEP: Introductory Psychology</td>
<td>50</td>
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<td>Core Component Area</td>
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<td>RUSS 1301</td>
<td>Departmental Exam: Russian</td>
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<td>Departmental Exam: Russian</td>
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<td>RUSS 1301 - RUSS 1302, RUSS 2301 - RUSS 2302</td>
<td>Departmental Exam: Russian</td>
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<td>RUS 1501/1502, 2301, 2302</td>
<td>IB (HL) or IB (SL) with Diploma: Russian</td>
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<tr>
<td>SOC 1300</td>
<td>CLEP: Introductory Sociology</td>
<td>51</td>
<td>3</td>
<td>(080)</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Test</th>
<th>Minimum Score</th>
<th>Total Hours/Credit</th>
<th>Core Component Area</th>
<th>Notes</th>
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<tbody>
<tr>
<td>SPAN 1505</td>
<td>AP: Spanish Language &amp; Culture</td>
<td>3</td>
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<td>Departmental Exam</td>
<td>356</td>
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<td>SPAN 1505, SPAN 2301</td>
<td>AP: Spanish Language &amp; Culture</td>
<td>4</td>
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<td>Departmental Exam</td>
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<td>Departmental Exam</td>
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<td>IB (HL) or IB (SL) with Diploma: Spanish</td>
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<tr>
<td>SPAN 2302</td>
<td>AP: Spanish Literature and Culture</td>
<td>3</td>
<td>3</td>
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<tr>
<td>SPAN 2302, SPAN 3301</td>
<td>AP: Spanish Literature and Culture</td>
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<td>6</td>
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<td>Course Code</td>
<td>Course Title</td>
<td>Minimum Score</td>
<td>Total Hours/Credit</td>
<td>Core Component Area</td>
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<tr>
<td>SPAN 2302, SPAN 3301, SPAN 3302</td>
<td>AP: Spanish Literature and Culture</td>
<td>5</td>
<td>6 (cap)</td>
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<tr>
<td>SPAN 2307, SPAN 2308, SPAN 3307, SPAN 3308</td>
<td>Departmental Exam</td>
<td>Pass</td>
<td>12</td>
<td>7</td>
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<tr>
<td>TLIM 2371</td>
<td>DANTES: Prin. of Financial Accounting (525)</td>
<td>47</td>
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<td>TLIM 3345</td>
<td>DANTES: Human Resource Management (530)</td>
<td>48</td>
<td>3</td>
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<td>TLIM 3363</td>
<td>DANTES: Technical Writing (820)</td>
<td>46</td>
<td>3</td>
<td>(81)</td>
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<tr>
<td>THEA 1331</td>
<td>IB (HL) or IB (SL) with Diploma: Theater Arts</td>
<td>4</td>
<td>3-6</td>
<td>(050)</td>
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<tr>
<td>TURK 1501/1502, 2301, 2302</td>
<td>IB (HL) or IB (SL) with Diploma: Turkish</td>
<td>4</td>
<td>5-10</td>
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<td>VIET 1501</td>
<td>Departmental Exam: Vietnamese Language</td>
<td>2.5</td>
<td>5</td>
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<td>VIET 1501, 1502</td>
<td>Departmental Exam: Vietnamese Language</td>
<td>3.5</td>
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<td>VIET 1501, 1502, 2301</td>
<td>Departmental Exam: Vietnamese Language</td>
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<td>13</td>
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<td>VIET 1501, 1502, 2301, 2302</td>
<td>Departmental Exam: Vietnamese Language</td>
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<td>11-16</td>
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<td>VIET 1501/1502, 2301, 2302</td>
<td>IB (HL) or IB (SL) with Diploma: Vietnamese</td>
<td>4</td>
<td>5-10</td>
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</tbody>
</table>

**Non-Core Elective Credits**

See Your Advisor – May Not Be Useful in all Academic Plans.

<table>
<thead>
<tr>
<th>Unspecified Course</th>
<th>Test</th>
<th>Minimum Score</th>
<th>Total Hours/Credit</th>
<th>Core Component Area</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Freshman (1000-level) general elective</td>
<td>AP: Environmental Science</td>
<td>3</td>
<td>3</td>
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<td>---------------------------------------</td>
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<td>---</td>
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<tr>
<td>Non-core Social Science elective hours</td>
<td>AP: Capstone RESEARCH</td>
<td>3</td>
<td>3</td>
<td>10</td>
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<tr>
<td>Non-core Social Science elective hours</td>
<td>AP: Capstone SEMINAR</td>
<td>3</td>
<td>3</td>
<td>10</td>
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<tr>
<td>Biological Science</td>
<td>CLEP: Natural Sciences 53 (Bio Sci)</td>
<td>3</td>
<td>8</td>
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<tr>
<td>Biological Science</td>
<td>CLEP: Natural Sciences 520 (paper)</td>
<td>3</td>
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<tr>
<td>Biological Science</td>
<td>CLEP: Natural Sciences 52 (CBT)</td>
<td>3</td>
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<tr>
<td>Fine Arts</td>
<td>CLEP: Humanities 520 (paper)</td>
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<tr>
<td>Fine Arts</td>
<td>CLEP: Humanities 52 (CBT)</td>
<td>3</td>
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<tr>
<td>Management</td>
<td>IB (HL) or IB (SL) with Diploma: Business and Management</td>
<td>4</td>
<td>3-6</td>
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<td>Foreign Languages</td>
<td>IB (HL) or IB (SL) with Diploma: Other Languages</td>
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<td>History</td>
<td>IB (HL) or IB (SL) with Diploma: History (The Americas)</td>
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<td>3-6</td>
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<tr>
<td>Physical Science</td>
<td>CLEP: Natural Sciences 52 (Phy Sci)</td>
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<tr>
<td>Physical Science</td>
<td>CLEP: Natural Sciences 500 (paper)</td>
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<td>Physical Science</td>
<td>CLEP: Natural Sciences 50 (CBT)</td>
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<td>Social Science</td>
<td>CLEP: Social Science History 52 (Soc Sci)</td>
<td>3</td>
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<tr>
<td>Social Science</td>
<td>CLEP: Social Science History 530 (paper)</td>
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<tr>
<td>Social Science</td>
<td>CLEP: Social Science History 53 (CBT)</td>
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<tr>
<td>World History</td>
<td>CLEP: Social Science History 52 (Hist)</td>
<td>3</td>
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<tr>
<td>World History</td>
<td>CLEP: Social Science History 530 (paper)</td>
<td>3</td>
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<tr>
<td>World History</td>
<td>CLEP: Social Science History 53 (CBT)</td>
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**Core Component Area CODES:**
Component Area Option:

90  Math Reasoning
81  Writing in the Disciplines

<table>
<thead>
<tr>
<th>Footnote</th>
<th>Footnote Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Maximum 13 credit hours capped.</td>
</tr>
<tr>
<td>2</td>
<td>CHEM 1111, credit available only to those who are also receiving credit for 1331. The Lab Departmental Assessment involves a review of the student's Advanced Placement Lab Book. Please contact Dr. Arek Czader at the Department of Chemistry at <a href="mailto:agczader@central.uh.edu">agczader@central.uh.edu</a>.</td>
</tr>
<tr>
<td>2a</td>
<td>Completion of CHEM 1331H, CHEM 1332H, and CHEM 1112H (all honors) with a grade of at least C- in each course.</td>
</tr>
<tr>
<td>3</td>
<td>For Core Curriculum requirement - Not for Science, Math, Engineering, or Computer Science majors.</td>
</tr>
<tr>
<td>5</td>
<td>Must not have taken either CHEM 1331 or equivalent course at another college-level institution.</td>
</tr>
<tr>
<td>6</td>
<td>Other than Physics, Math, and Engineering majors.</td>
</tr>
<tr>
<td>7</td>
<td>Students may not receive credit for both SPAN 2301-SPAN 2302 and SPAN 2307-SPAN 2308 nor for both SPAN 3302 and SPAN 3308.</td>
</tr>
<tr>
<td>8</td>
<td>For non-science majors only.</td>
</tr>
</tbody>
</table>
| 9        | CREDIT BY EXAMINATION FOR AMERICAN SIGN LANGUAGE INTERPRETING PROGRAM (ASLI)  
ASLI faculty offers a comprehensive testing system that measures the ability of students to express and also comprehend American Sign Language. The test will consist of three components:  
Proficiency interview (question and answer) facilitated by a UH ASLI Faculty member;  
Written component requiring students demonstrate the ability to comprehend aspects of language (i.e. vocabulary, grammar, sentence structure, finger spelling and numbers) and knowledge of cultural components taught in the desired level of ASL being tested; |
Expressive component requiring students demonstrate the ability to produce a narrative in American Sign Language, using language components as taught in the desired level of ASL being tested.

The Proficiency Interview will be conducted in accordance with the standards set by the American Sign Language Proficiency Interview (ASLPI) evaluation tool. Students will be awarded an overall proficiency level of 0-5 (explanations of levels available at: http://www.gallaudet.edu/the-american-sign-language-proficiency-interview/aslpi/aslpi-video-samples-level-0-5).

Written and Expressive scores vary based on the typical course expectations for students and the need for increased language ability required in higher-level ASL courses. The combined interview (ASLPI), written component and expressive component will be graded—see chart below for a list of minimum passing scores.

| 10 | Please consult with your academic advisor on the number of credit hours that can be used in your degree program. Excessive credit hours may have possible negative consequences. |
| 11 | Non-Music Majors |
| 12 | Music Majors |
| 13 | ART 1301 credit may be requested through submission of a drawing portfolio for faculty review. Students may not earn credit for both ART 1301 and ART 1397. Please contact the KGMCA Academic Advising Center for instructions. |
Placement without Credit

Texas Success Initiative (TSI)

All entering college students are required to demonstrate their college readiness by meeting established minimum standards on TSI Assessments in math, reading and writing or by demonstrating an exemption for each area. Students who have not met the TSI requirement in any one of the areas of math, reading and writing should consult their academic advisors for a success plan, which may include enrolling in appropriate developmental courses designed to improve their academic skills and prepare them for college level courses. For details on TSI requirements, please see: http://www.uh.edu/ussc TSI/

First-Time-In-College Students

- English Placement
  - Incoming freshmen who are TSI complete should enroll in ENGL 1303.

- Mathematics Placement
  - All freshmen entering from high school and freshmen transferring into UH with less than 15 hours of college credits, even those who are TSI complete are required to take the mathematics placement test.
  - Mathematics placement examinations are offered through Courseware: www.casa.uh.edu/.
  - Additional information about the Math Placement is available at:
    - http://www.online.math.uh.edu/MathPlacement/index.html and
    - http://www.casa.uh.edu/casa/MPFAQ.htm
  - Those who enroll for a course for which they lack the proper placement score may be dropped from the course and will be required to re-enroll at the appropriate level.

- Reading Placement
  - Students who are not TSI complete in the area of reading may not be able to take courses for which TSI completion in reading is a prerequisite.

- Chemistry 1331 Pre-Assessment
  - To gauge chemistry and math preparation for CHEM 1331, students are required to take a Preparation Assessment (PA).
  - Additional information is available on the Testing Services website at http://ussc.uh.edu/ under Assessments for Placement.

Language Placement

Students who have completed two or more years of French, German, Latin, or Spanish in high school or one or more semesters of German at another college or whose heritage language is one of these languages are required to take a language examination for placement without credit before enrolling in a course in that language.

Language Placement with credit is available for Arabic, Hindi, and Vietnamese.

Please review the Credit by Exam options at the Testing services website to determine language credit that is awarded based on Advanced Placement (AP), International Baccalaureate (IB) and other test programs.

For additional information please visit: http://ussc.uh.edu/.
Tuition and Fees

General Information

Tuition and Fees

In accordance with Chapter 54 of the Texas Educational Code, the University of Houston may collect from students attending the institution any tuition, fee, or charge of any kind as permitted by law.

To assist you in estimating the cost of your tuition and fees, current rates and a tuition and fee calculator can be located on the Student Business Services website at: www.uh.edu/sbs/. This information is to be used for estimation purposes only. Tuition and fee charges are based upon the student’s residency status, course of study, and number of hours taken. Students should be aware that other fees, such as laboratory fees, course fees, parking decals, etc., are not included in the tuition and fee calculator estimates. The university reserves the right to update rates for tuition, fees and other charges as approved by university board of regents or the Texas Legislature.

It is the student’s responsibility to be aware of all respective payment due dates. Payment due dates can be found on the Student Business Services website at: http://www.uh.edu/financial/payment/billing-due-dates/. Prior to enrollment each term all students will be required to acknowledge the payment terms agreement.

University Fees

University Fees are listed for both undergraduate and graduate students on the Student Business Services website.

Depending upon your course of study, additional course/lab fees may be applicable. Please check with your advisor or the class listing to see if additional charges apply.

Miscellaneous Fees

"Miscellaneous Fees" may be viewed by accessing the Student Business Services Web site at www.uh.edu/sbs.

Course Auditing

Approval to audit must be approved by the dean of the college in which the course is offered. Students who choose to audit a class will pay the applicable rate for tuition and fees assessed to students enrolled in a for credit class.

Payment Plans

Installment Payment Plans

The University of Houston offers payment plans which allows students to pay tuition and fees in four installments. Students accept the installment plan through student self-service. In order to enroll students must pay a $25.00 service fee and a minimum of 25% of current term charges. Installment plan due dates are published at the following Web site: http://www.uh.edu/financial/payment/ under the Billing Due Dates section. All installments are due by the published due dates. Installments not paid by the due date will be assessed a $25.00 and late fee.

Deferred Payment Plan
The university offers two loan plans to assist students in paying their tuition and fees. These plans are referred to as the Emergency Loan Plan & Short Term Loan Plan.

- **Emergency Loan Plan**
  - The Emergency Loan extends payment of the current term's tuition and mandatory fees.
  - The emergency loan is due no later than either the 90th calendar day of the term or by the last class day, whichever comes first.
  - This loan does not cover room and board fees.

- **Short Term Tuition Loan Plan**
  - The Short Term Tuition Loan covers 100% of all current term tuition and fees, as well as room and board charges.
  - This short term loan is due by the 45th calendar day of the term or by the last class day, whichever comes first.

- **Book Loans**
  - Book loans are available each term and must be used during the first 20 calendar days of the term.
  - The Book Loan is $400.00 during the fall or spring term and $200.00 during the summer session.

University Payment Plans and Book Loans are only available online through student self-service. For more information please visit the following Web site: [www.uh.edu/sbs](http://www.uh.edu/sbs) or speak to a Customer Service Representative at the Welcome Center.

Students with a prior term balance will not be eligible to enter a new payment plan or qualify for a book loan until all past due amounts are paid in full.

## Tuition and Fees Exemptions and Residency Waivers

The University of Houston extends to students any waivers and exemptions for which they qualify. The university reserves the right to evaluate each individual waiver and exemption for compliance with existing regulations and will base any decision on the merit of such review.

Effective fall 2014, all Texas public institutions of higher education must comply with new legislation passed by the Texas Legislature that has been added to the Texas Education Code Section 54.2001 Continued Receipt of Exemptions or Waivers. In order to continue receiving certain waivers and exemptions, graduate and undergraduate students must now meet the University's grade point average requirement for making satisfactory academic progress toward a degree or certificate in accordance with the institution's policy regarding eligibility for financial aid. In addition, hours considered excessive under Texas Education Code, Section 54.014 Tuition for Repeated or Excessive Hours, may not be eligible for exemption.

A listing of the most common statutory waivers can be located on the Student Business Services website at: [www.uh.edu/sbs](http://www.uh.edu/sbs). Once there, select "Tuition and Fee Exemptions and Waivers."

## Tuition and Fees Refund Policy

### Dropped Courses

**Students who drop courses but maintain enrollment for that academic term (i.e., do not drop all their courses)** may be eligible for a refund for the dropped courses(s) subject to refund guidelines established by the state legislature. Withdrawal after the first class day may result in the student owing money to the university. Students who have unpaid obligations under a payment plan may be liable for any unpaid obligations. Read Refunds Under Installment Payment Plans in this section for additional information. Please visit: [www.uh.edu/financial/payment/refunds/](http://www.uh.edu/financial/payment/refunds/) for the University of Houston refund schedule.

Administrative offices are not open on weekends. If the percentage of refund due to a withdrawal changes over a weekend, the student must submit their withdrawal to the Office of the University Registrar by 5 p.m. the Friday before that weekend in order to obtain the higher percentage of refund.
Any refund of charges calculated on dropped (or withdrawn) courses is determined by the drop (or withdrawn) dates on record. Refund percentages are found at: www.uh.edu/financial/payment/refunds/. Payments applied to an account will be subtracted from the total "remaining charges." When payments received exceed the "remaining charges," the excess will be returned to the student.

If a credit balance is the result of dropped or withdrawn courses, or an overpayment, or credit(s) issued on an account, and no financial aid has been received, refunds must be requested online by the student through myUH. If a credit balance is the result of the application of excess financial aid to an account, and eligibility for financial aid is maintained with the existing course load, then a refund will automatically be generated to the student. It is not necessary to access myUH in this situation to request a refund.

Optional fee refunds for such items as parking, yearbooks, etc., are processed in the respective offices or departments.

Students must withdraw from school or drop classes at the Office of the University Registrar, 128 Welcome Center, for these transactions to be recognized as valid. Students who have received financial aid may also be required to repay to the university a portion of their aid upon withdrawal.

Refunds Under Installment Payment Plans

Dropping courses or withdrawing from the university does not relieve a student of the responsibility for unmet financial obligations to the university. Students enrolled in installment payment plans must continue making payments until the nonrefundable portions of their accounts are paid in full.

Contact the Bursar’s Office for more information.

Undergraduate Tuition Rebate

As a Texas public baccalaureate-granting general academic university, UH is required to offer rebates to eligible students. UH shall rebate up to $1,000.00, pursuant to the procedures described in the Manual of Administrative Policies and Procedures, to those eligible undergraduate students who meet the criteria established within Section 54.0065 of The Texas Education Code.

For complete information on this policy and how to apply for the rebate visit: Tuition Rebate. Students must apply to their colleges for the rebates prior to receiving their baccalaureate degrees. Students must keep the institution apprised of their addresses for at least 60 days after their graduation date.

Undergraduate Enrollment Limit

Enrollment Cap

The Texas Education Code (54.014, Tuition for Repeated or Excessive Undergraduate Hours) applies only to undergraduate students who are Texas residents paying resident tuition and who enrolled for the first time in a Texas college or university in Fall term 1999 or after. This code authorizes a limit on the number of hours those students may attempt while paying in-state tuition.

Attempted hours are calculated for courses in which a student is enrolled on the Official Reporting Day (ORD) (typically twelfth class day or fourth class day in summer), not by the courses in which a student receives a grade (passing, failing, or W).

When students to whom this law applies enroll for courses that exceed this limit, state law authorizes the university to charge additional fees up to a maximum of the out-of-state tuition rates. If you stop attending a class with the intent to drop, be sure you drop on or before the Official Reporting Day (ORD) (typically twelfth class day or fourth class day in summer) or these hours will count toward your in-state tuition limit. See your advisor if you have questions about this policy.

Course Cap
The State of Texas authorizes institutions to charge a premium tuition rate for courses attempted three or more times. Attempted hours are calculated for courses in which a student is enrolled on the Official Reporting Day (ORD) (typically twelfth class day or fourth class day in summer), not by the courses in which a student receives a grade (passing, failing, or W).
Scholarships and Financial Aid

General Information

Planning ahead is essential when applying for financial aid. The entire financial aid process can take up to eight weeks. It is important for you to get started as soon as possible after January 1 to ensure you receive your award in time to pay tuition and fees. We know that the financial aid process can be confusing. The Office of Scholarships and Financial Aid is available to help answer your questions on a walk-in basis or by appointment.

How to Apply

To apply for federal, state or university funding, you must complete a Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov. The University of Houston Federal School Code is 003652.

Awards may range from scholarships and grants to work-study and student loans. Most, but not all, programs require a student to demonstrate financial need.

You must have your FAFSA and all required documents submitted to the Office of Scholarships and Financial Aid by the priority deadline of March 15, to receive the maximum consideration for limited financial aid resources. Other grant funds, such as the Texas Grant, may have different priority deadline dates, please check our website for more information.

Please visit our Web site at www.uh.edu/finaid for more details on all the financial aid programs available at the University of Houston.

Disbursement of Aid

Each term, financial aid disbursement begins no earlier than the first day of classes. Proceeds from loan funds will begin disbursing on the first day of class and proceeds from grant funding will begin paying on the 13th class day. If you have satisfied all application and disbursement requirements and met the conditions of your award, your financial aid will be automatically credited to your UH student account as payment. If you have financial aid remaining after your tuition has been paid, you will receive a refund that will be processed by the office of Student Business Services.

Revisions and Cancellations of Aid

The university reserves the right to review, revise, or cancel all financial aid at any time due to changes in your financial and/or academic status or failure to comply with federal or state laws and regulations, including financial verification, audit procedures, and university policies. In addition, all financial aid is subject to revision based on the funds received by the university from the federal or state government and any changes to federal or state laws, regulations or policies.

Aid Revisions After Drop/Add Period

If your financial aid is disbursed at the beginning of the term and you reduce your number of enrolled hours within the drop/add period, your aid will later be adjusted to reflect your term enrollment (registration). If your reduced enrollment results in less eligibility for aid, your will be charged for the overpayment of financial aid - creating a balance due on your UH student account.

Maintaining Eligibility
The various federal and state regulations governing student financial assistance programs require that an institution develop a standard to measure students' reasonable progress towards a degree objective - Satisfactory Academic Progress. Academic progress is reviewed at the conclusion of each term. Failure to maintain satisfactory academic progress will result in the denial or cancellation of your financial aid.

The Office of Scholarships and Financial Aid may administratively grant one appeal year of assistance for students whose academic progress does not meet the minimum standards at the conclusion of their first academic year of enrollment at UH. Students failing to meet SAP must apply to appeal.

The following qualitative and quantitative standards must be met to remain eligible for financial aid at the University of Houston. Certain programs, including Texas Grant and B-On-Time Loan, may have higher standards than those listed below.

**Qualitative Measures of Academic Progress**

The qualitative measure of academic progress is a grading scale of 0.00 to 4.00, based on students' enrollment classification.

<table>
<thead>
<tr>
<th>Classification</th>
<th>GPA Minimum Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>2.00</td>
</tr>
<tr>
<td>Post-baccalaureate</td>
<td>2.00</td>
</tr>
<tr>
<td>Graduate</td>
<td>3.00</td>
</tr>
<tr>
<td>Optometry</td>
<td>2.00</td>
</tr>
<tr>
<td>Law</td>
<td>2.50</td>
</tr>
</tbody>
</table>

**Quantitative Measures of Academic Progress**

Students cannot receive financial aid beyond a specified total of attempted credit hours, and they must complete a certain percentage of the credit hours for which they are enrolled.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Maximum Attempted Hours Including Transfer Hours</th>
<th>Ratio of Completed Hours vs. Attempted Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>180 credit hours</td>
<td>67%</td>
</tr>
<tr>
<td>Post-baccalaureate</td>
<td>180 credit hours</td>
<td>67%</td>
</tr>
<tr>
<td>Graduate and Professional</td>
<td>100 hours beyond bachelor’s</td>
<td>67%</td>
</tr>
</tbody>
</table>
Law and Optometry | Varies per program | 67%

NOTE: Hours completed DO NOT include grades of: I (incomplete), U (unsatisfactory), F (failed), Q or W (withdrawal); however, these hours are included in hours attempted.

Withdrawal Policy

For any student who officially or unofficially withdraws from the university or fails to earn a passing grade in any class, federal regulations require a refund calculation for all students receiving Federal Title IV Funds. The calculation of the return of these funds may result in your owing a balance to the university. Also, any future aid will be canceled. For any withdrawal prior to the 12th class day, all state and institutional aid will be canceled. Withdrawing from classes will impact your Satisfactory Academic Progress and may cause you to be ineligible for future financial aid. All students should visit with a financial aid advisor prior to withdrawing.

Fraud Policy

Misconduct Involving the Administration and/or Receipt of Financial Aid

There are situations where students and/or parents may willfully falsify or misrepresent information or engage in other misconduct for the purpose of obtaining financial aid. As administrators of Title IV programs and funds, the University is obligated to ensure processes are in place to protect against fraud by applicants, staff, or third party servicers. The Office of Scholarships and Financial Aid is required to have a policy of referral when confronted with actual or suspected cases of fraud and abuse [34 CFR 668.53(a)(5), 668.14(g)].

The Office of Scholarships & Financial Aid (OSFA) must identify and resolve discrepancies in the information received from different sources with respect to a student’s application for Title IV aid. These items include, but are not limited to:

- Student aid applications
- Need analysis documents (e.g., Institutional Student Information Records (ISIRs) and Student Aid Reports (SARs))
- Federal income tax returns
- Documents and information related to a student’s citizenship
- School credentials (e.g., high school diploma)
- Documentation of the student’s Social Security Number (SSN)
- Compliance with the Selective Service registration requirement and other factors related to students’ eligibility for Title IV funds

Some forms of financial aid fraud include, but are not limited to, the following:

- False claims of independent student status;
- False claims of citizenship;
- Use of false identities;
- False statements of income;
- Forged signatures on an application, verification documentation or master promissory notes
- Falsified documents, including reporting members that are not part of your household
- Use of fictitious names, addresses, SSNs

Procedures for Fraud
If a financial aid officer suspects or determines misrepresentation of facts, false statements, or alteration of documents which resulted or could result in the awarding or disbursement of funds for which the student is not eligible, the information shall be reported to the Executive Director of Scholarships & Financial Aid. The Executive Director of Scholarships & Financial Aid shall consider the information and if deemed advisable refer the matter to University officials for further review.

If an employee of the Office of Scholarships and Financial Aid suspects a supervisor or the Director of fraud, an anonymous complaint can be filed with Mysafecampus.com. The complaint will be reviewed and referred by an independent university official for further action.

Once University officials ascertain the possibility that suspicious activity or misconduct occurred, the University will refer the matter to the Office of Inspector General of the Department of Education, and/or other applicable federal or state regulatory or law enforcement authorities as necessary and without delay.

Students and/or University personnel who engage in or who are suspected of engaging in fraud or misconduct will be dealt with in accordance with University policies and may face disciplinary sanctions for their involvement, up to and including dismissal from the University.

Cases of fraud will be reported to the Office of Inspector General (OIG):

Inspector General’s Hotline: 1-800-MIS-USED

http://www.ed.gov/about/offices/list/oig/hotline.html

Office of Inspector General
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-1510
Academic Fresh Start

Undergraduate students applying for admission to the University of Houston may elect to have all academic coursework completed at any institution of higher education 10 or more years prior to the starting date of the term in which the applicant seeks to enroll at the University of Houston ignored for admission purposes. Once admitted under academic fresh start the student may not receive any course credit for courses undertaken 10 or more years prior to enrollment. Once ignored this coursework cannot be used to satisfy prerequisite or degree requirements at the University of Houston. The Academic Fresh Start program is open to transfer students and former students who are readmitted. Students seeking postbaccalaureate admissions are not eligible for Academic Fresh Start.

Courses that are removed from consideration under provisions of the Academic Fresh Start Program will not be removed from the student's academic record, but the student's UH transcript shall be annotated to identify the courses that have been removed from consideration.

For former students, academic standing resulting from coursework within 10 years of enrollment will be considered in determining future academic standing (academic warning, probation or suspension). Any academic probations and suspensions that resulted from course work removed from consideration under this program will not be counted in any future determination as to whether the student is placed on academic warning, academic probation, or academic suspension.

There may be implications for financial aid and veterans benefits for students enrolled under Academic Fresh Start. Students should contact these offices for more information.

Students admitted or readmitted under Academic Fresh Start may elect to use the provisions of this program only once at the University of Houston and only at the point of admission or readmission to the University of Houston.
Academic Honesty


1.01 **Rationale.** The University of Houston can best function and accomplish its objectives in an atmosphere of high ethical standards. It expects and encourages all students, faculty and staff to contribute to such an atmosphere in every way possible and especially by observing all accepted principles of academic honesty. It is recognized, however, that a large university will include a few students who do not understand, appreciate, and practice these principles. As a consequence, alleged cases of academic dishonesty will inevitably occur, and students will be accused. The following procedures are designed to handle these cases in fairness to all concerned: the accused student, the faculty, and the University of Houston.

1.02 **General Jurisdiction.** Matters relating to academic honesty are within the general jurisdiction of the senior vice president for academic affairs and provost. Allegations of scientific misconduct against students engaged in research supported by funding from the University of Houston or other sources will be handled according to the University of Houston Ethical Conduct in Academic Research and Scholarship Policy (To obtain a paper copy, contact the Division of Research at 713-743-9222 or at www.research.uh.edu).

1.03 **College with Jurisdiction.** Specific jurisdiction in academic honesty matters rests in each college of the University of Houston. The college with jurisdiction is determined by the course in which dishonesty occurs. If the student involved majors in a college other than that offering the course, the college offering the course has jurisdiction. If the college with jurisdiction cannot be determined from the relationship between the alleged actions of a student or group of students and a particular course, then the provost will designate which has jurisdiction.

1.04 **Colleges to which the Policy Applies.** The policy on academic honesty applies to all colleges within the university. However, any college may present to the provost a code separate from this university policy. After approval by the provost, and after such publication as the provost shall direct, academic honesty matters over which that college has jurisdiction shall be governed by that code. Honor systems within the professional colleges are especially encouraged.

1.05 **Questions Regarding Applicability of Policies.** All questions regarding the applicability of college codes or University of Houston policy or special provisions of either shall be determined finally by the provost.

1.06 **Compass of Actions Taken Against Students.** Actions taken against students are university-wide in their effect, unless otherwise specified.

1.07 **Faculty or Instructor of Record Responsibility.** Faculty or instructor of record shall have the responsibility of reporting incidents of alleged academic dishonesty through their departmental hearing officer to their college hearing officer.

1.08 **Proctor or Teaching Assistant Responsibility.** Proctors or Teaching Assistants shall have the responsibility of reporting incidents of alleged academic dishonesty to the instructor of record involved, or to the appropriate authority if the alleged act is not associated with a specific class.

1.09 **Student Responsibility.** Students shall have the responsibility of reporting incidents of alleged academic dishonesty to the instructor of record involved, or to the appropriate authority if the alleged act is not associated with a specific class.

1.10 **Purpose of Procedures.** The purpose of these procedures is to provide for the orderly administration of the Academic Honesty Policy consistent with the principles of due process of law. Reasonable deviations from these procedures will not invalidate a decision or
proceeding unless the provost determines, upon written appeal from the accusing and/or accused parties, that the deviation will result in prejudice to one or more of the parties involved.

1.11 **Amendment of Policy.** The academic honesty policy shall be reviewed every two years by a joint sub-committee comprised of representatives of both the Undergraduate Committee and the Graduate and Professional Studies Committee. Any amendments to the academic honesty policy must be approved by both Committees.

1.12 **Definitions.**

1.12.01 **Class Day.** Class days, for purposes of this policy, are defined as days the University of Houston is open and classes are meeting (excluding Saturdays) as posted in the university academic calendar, excluding professional colleges and programs.

1.12.02 **Internal Use.** Internal use defines who has access to a student's records. Records for internal use will be released only to University of Houston officials who have an educational purpose to know the information included in the student's records.

1.12.03 **Academic Record.** Academic record includes documents, forms, copies, reports, statements, recordings, etc. that are acquired while a student attends the University of Houston. The information is available to outside sources according to the procedures established by the Family Education Rights and Privacy Act.

1.12.04 **Sanction.** Sanction means the penalty assessed for a violation of the Academic Honesty Policy.

1.12.05 **Instructor.** Instructor refers to a faculty member, lecturer, teaching assistant, or teaching fellow in charge of the section in which an alleged violation of this Academic Honesty Policy has occurred. Such individuals will typically be the instructor of record of the course section in question. In instances where this is not the case, instances of alleged cheating should be reported to the instructor of record.

1.12.06 **Departmental Hearing Officer.**

Departmental hearing officer refers to the person responsible for facilitating the departmental procedures related to the alleged violation(s) of the academic honesty policy. Typically the department chair serves in the role or an individual designated by the department chair.

If the college responsible for the course in question does not have individual departments for the course, departmental hearing officer as used below shall refer to the individual designated by the dean of the college to act as the initial hearing officer in academic honesty cases (see Article 5.02).

1.12.07 **College Hearing Officer.** The college hearing officer is designated by the dean of the college in which the alleged violation of the academic honesty policy occurs and is responsible for facilitating the college procedures related to the alleged violation of the academic honesty policy.

1.12.08 **Student.** Student refers to any individual who has ever registered and paid (made a complete payment or has made at least one installment payment) for a course, or courses at the University of Houston. This definition would normally include undergraduate students, graduate students, postbaccalaureates, professional school students and individuals auditing courses.
1.12.09 **Waiver of Departmental Hearing.** Students with no academic honesty violations on record may have the option to waive a departmental hearing under agreement with the instructor and departmental hearing officer. Waiver of departmental hearing is not an option for cases involving sanctions of disciplinary probation or that require a college hearing [see Article 5.01a].

1.12.10 **Waiver of Automatic College Hearing.** Departmental sanctions of suspension or expulsion require an automatic college hearing. Students wishing to waive the college hearing and thereby accept such sanctions must review and sign a waiver form issued by the Dean of Students Office (see Article 5.04).

1.13 **Notification.** All required written notices shall be addressed to the student via their UH email. It is the responsibility of the student to keep his/her destination email address up to date on his/her student record (my.uh.edu). A notice properly addressed and so sent shall be presumed to have been received by the student.

1.14 **Retaliation.** The University of Houston prohibits retaliatory action against persons who report incidents of alleged academic dishonesty under this policy, are suspected of having reported incidents of alleged academic dishonesty under this policy, who are identified to serve or have served as witnesses in any academic honesty proceeding, or who are identified to serve or have served on an Academic Honesty Panel. Any acts of retaliation will be referred to the appropriate office for review and response.

**Article 2. Preventive Practices**

2.01 **Preventive Measures.** Instructors can help students comply with the academic honesty policy by minimizing temptation to act dishonestly. Measures instructors should consider are:

   a. Maintaining adequate security precautions in the preparation and handling of tests;
   
   b. Structuring the type and sequence of examination questions so as to discourage dishonesty;
   
   c. Providing ample room for proper spacing of students during examinations, when possible;
   
   d. Monitoring examinations, especially in large classes and in classes where not all students are known to the instructor or the assistant;
   
   e. Making clear to their students the rules concerning the use of electronic devices;
   
   f. Making clear to their students, in writing, what constitutes academic dishonesty, particularly in those classes where group activities (laboratory exercises, generation of field reports, etc.) are part of the instructional process;
   
   g. Requiring students to submit their own work and defining for their students particular aspects of dishonesty, such as plagiarism and self-plagiarism;
   
   h. Requiring students to show a picture ID and sign major assignments and exams; and
   
   i. Helping raise consciousness of the issue of academic honesty by asking students to sign an honor pledge in the first week of class and to write a short honor pledge in their own hand on their major assignments.

**Article 3. Categories of Academic Dishonesty**

3.01 **Application of the Academic Honesty Policy.** This policy applies to those acts of dishonesty committed by a student while enrolled at the University of Houston.
3.02 **Academic Dishonesty Prohibited.** “Academic dishonesty” means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at the University of Houston or by a course instructor to fulfill any and all academic requirements. Academic dishonesty includes, but is not limited to, the following:

**Plagiarism**

a. Representing as one’s own work the work of another without acknowledging the source (plagiarism). This would include submitting substantially identical laboratory reports or other materials in fulfillment of an assignment by two or more individuals, whether or not these used common data or other information, unless this has been specifically permitted by the instructor. Plagiarism includes copying verbatim text from the literature, whether printed or electronic, in written assignments, candidacy exams, and theses/dissertations;

**Cheating and Unauthorized Group Work**

b. Openly cheating in an examination, as copying from another’s paper;

c. Being able to view during an examination, quiz or any in-class assignment an electronic device that allows communication with another person, access to unauthorized material, access to the internet, or the ability to capture an image, unless expressly permitted by the instructor;

d. Using and/or possessing "crib notes," as unauthorized use of notes or the like to aid in answering questions during an examination;

e. Giving or receiving unauthorized aid during an examination, such as trading examinations, whispering answers, and passing notes, and using electronic devices to transmit or receive information;

f. Securing another to take a test in the student’s place. Both the student taking the test for another and the student registered in the course are at fault;

**Fabrication, Falsification, and Misrepresentation**

g. Changing answers or grades on a test that has been returned to a student in an attempt to claim instructor error;

h. Using another’s laboratory results as one’s own, whether with or without the permission of the owner;

i. Falsifying results in laboratory experiments;

j. Misrepresenting academic records or achievements as they pertain to course prerequisites or corequisites for the purpose of enrolling or remaining in a course for which one is not eligible;

k. Representing oneself as a person who has earned a degree without having earned that particular degree

**Stealing and Abuse of Academic Materials**

l. Stealing, as theft of tests or grade books, from faculty offices or elsewhere, or knowingly using stolen tests or materials in satisfaction of exams, papers, or other assignments; this includes the removal of items posted for use by the students;

m. Mutilating or stealing library materials; misshelving materials with the intent to reduce accessibility to other students;

**Complicity in Academic Dishonesty**

n. Failing to report to the instructor or departmental hearing officer an incident which the student believes to be a violation of the academic honesty policy;
Academic Misconduct

- Any other conduct which a reasonable person in the same or similar circumstances would recognize as dishonest or improper in an academic setting.

Article 4. Sanctions

4.01 Sanctions. The sanctions for confirmed violations of this policy shall be commensurate with the nature of the offense and with the record of the student regarding any previous infractions.

Sanctions may include, but are not limited to: a lowered grade, failure on the examination or assignment in question, failure in the course, probation, suspension, or expulsion from the University of Houston, or a combination of these.

If a sanction of probation or suspension is assigned, it must have a specified starting and ending date, unless the sanction is expulsion, in which case, an end date is not specified. Students are not permitted enrollment under sanctions of suspension and expulsion.

A student who is found to have violated the Academic Honesty Policy at the departmental or college level before the end of an academic term may remain enrolled in the course at issue while any appeal provided for under this policy is pending. Sanctions do not become final and may not be applied while any appeal provided for under this policy is pending. Once a sanction becomes final, if the case occurs in a college outside of the student’s college, the department hearing officer/college hearing officer will notify the dean of the student’s college.

A doctoral student receiving a sanction of suspension must file a leave of absence for the duration of the suspension, in accordance with the continuous enrollment policy as specified in the Graduate Catalog.

Students may not receive a W for courses in which they have been found guilty of a violation of the Academic Honesty Policy. If a W is received prior to a guilty finding, the student will become liable for the Academic Honesty penalty, including F grades.

4.02 Probation, Suspension, and Expulsion. The terms probation, suspension and expulsion as used herein refer to these sanctions only as they are imposed as a result of violations of this Academic Honesty Policy. All policies and procedures for the imposition and appeal of these sanctions are contained within this policy.

Article 5. Departmental Hearing

5.01 Departmental Hearing. When an instructor has reasonable grounds to believe that a student has committed an act of academic dishonesty, the instructor shall notify the departmental hearing officer of the concerned department, in writing, within five class days of discovery.

Students who believe they have observed an act of academic dishonesty shall report the incident to the instructor, as soon as possible, who shall then report the incident in writing to the departmental hearing officer within five class days.

The Departmental Hearing Officer will check to see if the accused student has any prior violations of academic honesty listed with the Provost Office. A student is eligible for a waiver of departmental hearing only if he/she has no prior waiver of departmental hearing and no previous findings of violation of the Academic Honesty Policy.

a. Waiver of Departmental Hearing.

Upon notifying the departmental hearing officer of the alleged violation, the faculty member shall have the option of suggesting to the departmental hearing officer a sanction for the alleged violation of the Academic Honesty Policy that would, if acceptable to the student, instructor, and departmental hearing officer, preclude a departmental hearing. Such sanctions would normally
include reduced or zero credit for a test assignment, a grade of "F" in a course, or other such agreed upon sanctions. Sanctions involving disciplinary probation or sanctions requiring a college level hearing cannot be used.

In cases for which the instructor suggests a sanction so as to preclude the departmental hearing, within five class days of receiving the instructor's report the accused shall be notified, in writing, by the departmental hearing officer informing the accused student of the nature of violation, the recommended sanction, and ask the student to select between the choice of: (1) admitting the alleged academic honesty violation, waiving the formal departmental hearing, and accepting the associated sanction; or (2) proceeding to a formal departmental hearing.

The waiver of a departmental hearing must be agreed to by the instructor, the student, and the departmental hearing officer. In the event that all three cannot agree to a waiver, the case must be moved to a formal departmental hearing.

The waiver of a departmental hearing is agreed to by completing a Departmental Hearing Waiver form that must be signed by the student, instructor and departmental hearing officer. Upon agreement of the waiver of departmental hearing, a copy of the completed waiver form will be shared with the college dean's office and the Provost Office to be included on a list of recorded cases of academic honesty violations. Following graduation, the student can request that his/her name be removed from these lists. An agreement to settle an academic honesty infraction via a waiver of the formal departmental hearing will not result in any record being kept that is reflected on the student's transcript.

If the departmental hearing officer has not received a response from the student within 10 class days of the notification of these options, the departmental hearing officer shall, within the next five class days, schedule a departmental hearing.

b. Departmental Hearing Procedures.

In case a waiver of a departmental hearing is not an option, the departmental hearing officer shall, within 10 class days of receiving the instructor’s report, schedule a departmental hearing. To schedule a departmental hearing, the departmental hearing officer shall notify the instructor, the accused student and the accusing party, if other than the instructor, of the nature of the alleged violation and the time and date of the hearing as provided in Article 1.13. Should any of the parties fail to appear, without good cause, at the departmental hearing, the departmental hearing officer may render a decision in their absence.

Both the instructor and the student shall have an opportunity to present their cases during the above hearing. This may include the introduction of documents and/or physical evidence as well as statements from individuals who have knowledge of the circumstances. If either party intends to have individuals appear at the hearing for such statements, the departmental hearing officer must be notified at least three class days before the hearing. Both parties have an opportunity to examine the documents pertaining to the alleged violations during the hearing.

If either party intends to have legal counsel attend the hearing, the departmental hearing officer must be notified at least three class days before the hearing. The hearing cannot be held with such counsel in attendance unless a representative from University of Houston legal counsel is also present. If either party will be advised by legal counsel, this individual may attend the hearing but shall not directly participate in the hearing or enter into discussion with the parties present.

If physical evidence or witness testimony is presented in a departmental hearing, and if either party needs reasonable time to review the evidence and/or consider the witness testimony, either party may request a postponement of the departmental hearing. Decisions on postponement of the hearing will be made at the discretion of the departmental hearing officer.

The departmental hearing officer shall render a decision within three class days after the hearing and forward copies of the decision to the student, instructor, and college hearing officer of the college responsible for the course in which the alleged violation occurred. Both the accused student and the instructor have equal option of appeal if the decision of the departmental hearing officer is not acceptable.

If a written appeal is not received by the college hearing officer of the college within ten class days of the decision at the departmental level, the action recommended by the departmental hearing officer shall be implemented and the Provost Office
shall be notified of the outcome of the case [see Article 8.02]. A departmentally recommended sanction involving suspension or expulsion shall be reviewed in a college hearing unless such hearing is waived as provided in Article 5.04 below.

5.02 Colleagues Without Departments. For colleges that do not have individual departments, the decision of the initial hearing officer designated by the dean of the college shall constitute the equivalent of a departmental decision. Only if this decision is reviewed and upheld by the college by virtue of appeal or automatic review would a college decision be rendered. The hearing officer for the college appeal or review shall not be the initial hearing officer.

5.03 Group Violations of the Academic Honesty Policy. At the discretion of the departmental hearing officer, in instances where two or more students are alleged to be involved in the same infraction of the academic honesty policy, the case against the whole group will be dealt with at a single hearing. The facts common to all cases will be presented with all students allegedly involved in attendance. Each student shall be allowed to present his/her statement to the departmental hearing officer separately. If requested by the presenting student, such statements shall be presented outside the hearing of the other students.

5.04 Waiver of Automatic College Hearing. If a student wishes to accept a departmentally recommended sanction of suspension or expulsion, he or she may submit a written waiver form to the college hearing officer no later than 10 class days after being notified of the departmental decision. The waiver form is issued from the Office of the Dean of Students only after the student has met with the dean of students (or his/her designated representative), who will ensure that the student is aware of his/her rights in the appeal process. The college hearing officer shall then implement the departmental decision and notify the appropriate parties of the disposition of the case within five class days of receipt of the waiver request. The sanction is considered a college level decision.

5.05 Conflict of Interest. When departmental or college hearing officers are themselves party to a case, they shall in no way participate in the administration of the policy in that case. Such responsibilities shall pass to faculty and administrators not directly involved in the case.

Article 6. College Hearing

6.01 College Hearing. If either the student or the instructor wishes to appeal the decision of the departmental hearing officer, he or she must file a written request for a hearing with the college hearing officer within 10 class days of the departmental hearing officer’s decision. Within 10 class days of receipt of such a request, the college hearing officer will set a time, date and place for the hearing. The college hearing is a de novo hearing in which the Panel must consider all the evidence on all the issues presented in the appeal as though no previous action has been taken.

6.02 College Hearing Officer. The college hearing officer shall be appointed by the dean. Typically the college hearing officer will be appointed for a full academic year. Correspondence with the college hearing officer should be addressed to the office of the dean of the college.

6.03 Duties of the College Hearing Officer. It shall be the duty of the college hearing officer to:

   a. Select a college academic honesty panel;
   b. Set and give notice of the time and place of the college hearing;
   c. Conduct the hearing in an orderly manner so that both sides are given an opportunity to state their case;
   d. Rule on procedural matters;
   e. Leave the hearing room during the panel’s deliberations but remain available to answer questions on procedural matters; and
f. Prepare and submit one copy of the decision to the dean, one copy to the provost, and one copy to the dean of the Graduate School for matters involving graduate students. The college hearing officer shall not take part in the vote or otherwise participate in the deliberations of the panel.

6.04 Academic Honesty Panel. The college academic honesty panel shall consist of two faculty members and three students. The panel will be selected by the college hearing officer from faculty and currently enrolled students from the accused student's academic peer group in the college. Faculty and students serving on the panel should be from the college in which the alleged violation occurred, and preferably from departments outside of either parties' academic department or program, where possible. The chair of the panel shall be a student appointed by the college hearing officer.

6.05 The Dean of Students. The dean of students, or his or her designee, shall be required to attend all college hearings to serve as a University of Houston resource person. This individual shall not have a vote at a college hearing or be present during the deliberations of the panel.

6.06 College Hearing Procedure.

a. The date of the hearing must be adhered to. Any delay must be approved by the college hearing officer. Only documented, extenuating circumstances will be considered.

b. Three class days prior to the hearing, all parties notify the college hearing officer in writing of the names of their witnesses, if any, and the subject of their testimonies. At that time, the parties will also submit a copy of the documents they intend to present during the hearing. Upon request, the college hearing officer will make available to the parties the information and documents referenced in this section.

c. The hearing shall have an audio recording. The parties involved may obtain a copy of the recording from the college hearing officer at the expense of the requesting party.

d. The hearing shall be held in two phases. The first phase is the determination of violation, followed, if necessary, by the sanction phase.

e. All parties shall be afforded the opportunity to present statements, pertinent documentation and witnesses and have an opportunity to examine the documents pertaining to the alleged violations during the hearing.

f. All parties shall have the right to advice of counsel of choice. If either party intends to have legal counsel attend the hearing, the college hearing officer must be notified at least three class days before the hearing. The hearing cannot be held with such counsel in attendance unless a representative from University of Houston legal counsel is also present. If either party will be advised by legal counsel, this individual may attend the hearing but shall not directly participate in the hearing or enter into discussion with the parties present.

g. The cases presented to the panel must be made by the accusing individual and the accused student. The instructor or other individuals who reported the alleged misconduct shall present the relevant information, including statements by witnesses. The accused student shall then present his/her statement and relevant information, including statements by witnesses. Neither party shall ask questions of or solicit answers directly from the other party or its witnesses. Where it appears that there are matters of disputed fact, the college hearing officer shall request the panel to ask appropriate questions of either or both parties and/or their respective witnesses so as to clarify the points in dispute.

h. The panel shall have the right to question any and all witnesses and to examine documentation presented.

i. At the conclusion of each phase of the hearing, the panel shall meet in a closed session to render a decision. A student is found in violation of the academic honesty policy by a vote of four or more members of the panel, and the sanction has to be agreed
to by three or more members of the panel. Upon reaching a decision in either phase, the panel shall reconvene with all parties present and inform all parties of its judgment.

j. The college hearing officer shall notify in writing all parties, including the dean of the college and the provost, of the disposition of the case within five class days of receipt of the panel’s judgment.

6.07 Group Violations of the Academic Honesty Policy. In instances where two or more students are alleged to be involved in the same infraction of the academic honesty policy, at the discretion of the college hearing officer, the case against the whole group will be heard by a single academic honesty panel. The facts common to all cases will be presented with all students allegedly involved in attendance. Each student shall be allowed to present his/her case and/or statements to the panel separately. If requested by the presenting student, such statements shall be presented outside the hearing of the other students.

Article 7. Senior Vice President for Academic Affairs and Provost Appeal

7.01 Appeal of the Panel's Decision. Within five class days of the panel's decision, either party may file an appeal for review with the provost or that officer designated by the provost. The appeal shall be in writing and shall specifically address the issues to be reviewed.

7.02 Senior Vice President for Academic Affairs and Provost Procedural Review. The provost shall review the appeal within 15 class days of the receipt of the appeal. If either party has requested an appearance or is requested to appear by the provost, then both parties must be informed. Because the case was heard by a peer group, the intent of the provost's review is not to modify the sanction nor to substitute the judgment of the provost for that of the peer panel which heard the case, or hear new or additional facts on the case. The intent of this review is to ensure that the college hearing and judgment were not arbitrary, capricious or discriminatory, did not violate the due process of the accused, and did not violate the concepts of fair play to both parties. The provost shall notify all parties of the decision within three class days of the completion of the review.

7.03 Actions Which the Senior Vice President for Academic Affairs and Provost May Take.

The provost may conclude that one or more of the basic concepts involved in a fair hearing at the college level were violated and may subsequently pursue one of the following actions:

a. For undergraduate students, return the case to the college for another hearing with a different panel in accordance with Article 6 and resubmission for provost procedural review; or

b. For undergraduate students, if, in a rare case, the provost deems that another hearing in the same college would not result in a fair hearing, the provost may send the case to another college with the disciplinary expertise to hold a fair hearing, for a new hearing there in accordance with Article 6 and resubmission for provost procedural review; or

c. For undergraduate students, if, in a rare case, the provost independently deems that the sanction assessed in the college hearing is not commensurate with the violation, then the provost may send the case back to the college as described above; and

d. For graduate students, refer the case to the Vice Provost/Dean of the Graduate School for review. Review by the Dean of the Graduate School shall be for the purpose of determining: (i) Whether the appealing party was given a reasonable opportunity to be heard at the departmental and college levels and (ii) whether the college’s decision was reasonably reached. Procedural violations which would not affect the substantive result or are not substantially prejudicial to either party are not grounds for appeal.

Upon receiving a referral from the provost for review the Vice Provost/Dean of the Graduate School will review the appeal and will, within 10 working days, return the case to the college for another hearing with a different panel in accordance with Article
For additional guidance regarding this policy, please refer to the UH Provost's website:

http://www.uh.edu/provost/shared-interest/policy-guidelines/honesty-policy/
Academic Standing

Academic Standing

The standards below apply to all undergraduate and post baccalaureate students. Students who entered under a previous catalog will be held to these standards.

Colleges may have their own limits and definitions of academic standing. Students are encouraged to review academic standing policies for their majors as they may be more stringent than the university policies stated below. The dean of each college maintains final authority to determine academic standing for student majors within that college.

Disciplinary actions and certain circumstances may impact or prevent enrollment or academic progress regardless of academic standing. Such actions may include but are not limited to, violations of academic honesty, conduct code violations, or payment default of financial responsibility to the university.

Good Academic Standing

An undergraduate student with a cumulative grade point average (GPA) of 2.00 or above is considered to be in good academic standing with the university.

Academic Warning, Academic Probation, and Academic Suspension

1. First Time In College (FTIC) students who earn less than a 2.00 grade point average in the first long term (i.e., Fall or Spring) of enrollment at the University of Houston shall be placed on academic warning.
2. Second term First Time In College (FTIC) students who have completed their first long term and all other students whose cumulative grade point average falls below 2.00 shall be placed on academic probation. They are urged to seek advising in their major departments.
3. Students on academic probation whose term grade point average is below 2.00 are placed on academic suspension.
   a. The first academic suspension is for a period of at least one long term (fall or spring).
      i. Students placed on academic suspension for the first time at the end of a fall term may apply for readmission for the following fall at the earliest.
      ii. Students placed on academic suspension for the first time at the end of a spring term may apply for readmission for the following spring at the earliest.
   b. The second academic suspension is for a period of at least 12 months.
   c. After the third academic suspension, students will not be eligible to re-enroll at the University of Houston.
4. Students on academic probation whose cumulative grade point average is below 2.00 but whose term grade point average is 2.00 or higher will remain on academic probation.
5. Students on academic probation will be removed from that status when their semester grade point average is 2.00 or higher and their cumulative grade point average is at or above 2.00.

Summer visiting students are not subject to academic probation or suspension while in that status. If, however, they are later admitted as regular students, the grades that they earned in their summer visiting status will be included in all subsequent calculations of their cumulative grade point average at the university.

Without regard to these regulations, the dean of a college may place any majors in that college whose academic performance is deficient on academic probation, continued probation, or suspension.
Readmission from Academic Probation and Suspension

This applies to students on academic probation who have interrupted their enrollment for 13 months or longer and all students on academic suspension.

1. Only the dean of the college in which students are seeking readmission may readmit students on academic suspension from UH. Only the Assistant Vice Provost of Exploratory Studies at UH may readmit students who have not declared a major.
2. Readmission from academic suspension is neither automatic nor guaranteed. Students seeking readmission must reapply to the university using the Apply Texas Application (ATA) and must pay the required application fee.

Students must also appeal to the dean of the college in which they wish to earn their degrees in accordance with the college's policies and procedures pertaining to readmission from academic suspension. Colleges may have different appeal processes. Therefore, students seeking readmission should consult the appropriate college section in this catalog or request information from the office of the academic dean for specific college requirements.
Adding Courses

Generally, the last day to add courses is determined by the length of the session.

<table>
<thead>
<tr>
<th>Session Name</th>
<th>Session length</th>
<th>Last day for students to add courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1 (Regular)</td>
<td>16 weeks</td>
<td>6th class day (M-F)</td>
</tr>
<tr>
<td>Session 2</td>
<td>5 weeks</td>
<td>3rd class day (M-F)</td>
</tr>
<tr>
<td>Session 3</td>
<td>8 weeks</td>
<td>3rd class day (M-F)</td>
</tr>
<tr>
<td>Session 4</td>
<td>5 weeks</td>
<td>3rd class day (M-F)</td>
</tr>
<tr>
<td>Session 5</td>
<td>8 weeks</td>
<td>3rd class day (M-F)</td>
</tr>
<tr>
<td>Session 6</td>
<td>5 weeks</td>
<td>3rd class day (M-F)</td>
</tr>
<tr>
<td>Mini Session</td>
<td>3-4 weeks</td>
<td>2nd class day (any)</td>
</tr>
</tbody>
</table>

Please refer to the academic calendar for specific dates.
Class Attendance

Properly enrolled students are required to attend the first day of class. Failure to attend may result in the student being dropped from the class.

The university has no specific policy regarding the number of excused absences, but expects students to attend class regularly. Students whose absences are determined by their instructors to be excessive may be dropped from the course. Unavoidable absences should be reported to the instructor as soon as possible.

Absences caused by participation in a campus-sponsored activity are considered official if the sponsor of the activity has received approval from the appropriate university administrator. Students must make up the work missed even though the absences are official.

Related policies:

- Excused Absence Policy
- Excused Absence for Military Service
- Religious Holy Days
Co-operative Education (Co-op) and Curricular Practical Training (CPT)

At the University of Houston, Co-op/CPT is approved for students in many Colleges and Departments as an "Experience Track". To satisfy the requirements for the Experience Track, students must declare their intention to pursue the track and complete an approved Co-op/CPT internship. Zero-credit courses, as well as courses for academic credit, are available to satisfy the requirements for the Experience Track for select majors, if approved by the respective Academic Department. Co-op is available to all UH students in a participating program. Students on an F-1 visa must meet the additional requirements outlined in the section below titled "Information about Curricular Practical Training".

Information about Co-operative Education (Co-op)

Students are required to adhere to all deadlines and requirements set by the Cooperative Education & Internship Programs Office, (713) 743-4230. The information below is also available at this link: http://career.egr.uh.edu/students/coop.

Students should know the following about the course work, fees and reporting of the co-op experience.

- Co-op education/training appears on the official transcript; therefore, students in the program must enroll each term of Co-op using their myUH account to enroll and pay for the Co-op course. Students must pay before the specified deadline each term of Co-op. All Co-op students must submit a Co-op Data Form in person at the Co-op Office or via email to complete the process.
- There is a processing fee charged for each term a student received education/training as a Co-op intern. The fee is posted directly to the student’s myUH account. Some employers reimburse the student for the processing fee; it is up to the student to discuss with the employer regarding Co-op fee reimbursement. If the employer agrees to reimburse the student, the student should provide the employer with documentation that the fee has been paid through myUH account and request that the employer issue the reimbursement separate from the student paycheck to ensure the student receives the full reimbursement with no taxes removed.
- A Co-op Work Report is a pre-formatted 6-8 page document which must be completed to verify the work incorporates educational training in a particular field of study. The following points relate to the work report:
  - A letter grade is assigned by the instructor of record based upon completion of the Work Report submitted by the student each term of Co-op.
  - Co-op interns must complete and submit a work report each term to verify the Co-op internship experience is within their field of study. A review of the Work Report (which includes an employer evaluation) assists in determining the letter grade received on the official transcript.
  - Work reports must be completed, submitted and signed by the appropriate employment supervisor and faculty advisor before each term deadline.
  - Work reports and evaluations should be scanned and submitted via email to ecareers@central.uh.edu to confirm the date and time of the submission.
  - Submitting the work report after the deadline will result in the student receiving a lower grade.
- Three reminders will be sent to each Co-op student’s UH email address each term of the Co-op experience to ensure awareness of policies and deadlines.
- Students who are officially enrolled for Co-op and do not receive email reminders should call (713)743-4230 to ensure the Co-op Office has the correct UH email address on file.

Information about Curricular Practical Training (CPT)

For students on an F-1 visa, all of the guidelines and deadlines above are applicable. In addition, the following requirements will have to be completed prior to taking courses specified in the Experience Track.

F-1 students must visit the ISSS (International Student and Scholar Services) office to receive a CPT form. This form must be signed by the Academic Department to verify that the practical training constitutes valid professional experience. This form is submitted to the ISSS before the start of the
term in which the student intends to participate in an internship. The CPT form is to be accompanied by a formal offer on the hiring company's stationery that provides a description of the work to be performed, a beginning and ending date, and the salary offered. As with all internships, the work must be related to the student's major.

CPT students are allowed only half-time employment during Fall and Spring terms. Full-time employment is allowed during the Summer term.

Follow the link below to learn more about eligibility for internships, steps to declare the experience track, and eligible coursework for each College or Department that offers CPT.

Bauer College of Business - Experience Track
Gerald D. Hines College of Architecture and Design - Experience Track
College of Natural Sciences and Mathematics - Experience Track
College of Technology - Experience Track
Cullen College of Engineering - Industrial Experience

Kathrine G. McGovern College of the Arts (KGMCA)
Moores School of Music - Experience Track

College of Liberal Arts and Social Sciences
Department of Economics - Experience Track
Department of Sociology - Experience Track
Jack J. Valenti School of Communication - Experience Track
Course Enrollment Restrictions

1. Students must complete prerequisites for all courses in which they enroll.
2. Students are limited to a maximum of three enrollments in a specific 3000- or 4000-level course (See item #3 under General Degree Requirements for a Baccalaureate Degree). An enrollment shall be defined as having occurred in any case in which a grade is awarded (including U, S, W, I, F, or any passing grade). This rule will not apply to courses that may be repeated for credit when topics vary.
3. Courses numbered 6000 or higher are normally limited to graduate students. Seniors and post baccalaureate students may request permission from their department or college to enroll in these classes.
4. International Students holding F-1 Visas: No more than the equivalent of one on-line/distance education class or 3 semester credit hours per session may count towards the “full course of study” requirement. For additional information contact:

International Student and Scholar Services
Student Center North Room 203
Houston, TX. 77204-5065
www.uh.edu/oiss/.
Course Load

Undergraduate Full-time Status

All undergraduate students are classified as carrying a full-time course load if enrolled (registered) for at least

- 12.0 credit hours during a fall or spring term,
- 8.0 credit hours during Summer Session 1 or Summer Session 3
- 4.0 credit hours during Summer Session 2 or Summer Session 4

Some agencies outside the university may set different guidelines for full-time status and satisfactory academic progress. Students should comply with such guidelines without contradicting university purposes and regulations.

- For visa regulatory purposes, F and J visa holders who are enrolled 6 hours during the summer term are considered carrying a full course load.

Selected colleges and departments may have more restrictive or more permissive policies than the university policies listed below.

Recommended Course Load

An undergraduate student should recognize that course work in college will require a significant amount of work outside the classroom—traditionally recommended at 2-3 hours for every hour in class. That ratio will vary with subject, but the underlying principle will not: being in college is a time-consuming activity. Any other commitments while enrolled in college courses should be balanced against the time required to attend to one’s college classes and assignments.

Taking a recommended 3:1 ratio for the sake of illustration, a student carrying a 12 credit hour course load should plan to devote an additional 36 hours per week to course-related work. That would represent a total recommended time commitment of 48 hours; 15 credit hours would obligate one to perhaps 60 hours of work a week for satisfactory performance during the fall and spring terms. These course demands need to be kept in mind when deciding whether to live on-campus or off-campus. Students living off-campus need to allow time in their schedule for commuting. Working students need to consider how many hours remain in the 168 hours of the week after deducting time for eating, sleeping, recreation, and other extracurricular activities. This recommendation would also apply for online or other distance courses.

Students who work while going to school should balance their work-related activities against the hours needed to study.

Maximum Course Load

The course load for undergraduate students is dependent on the degree plan for which they enroll. For those students who expect to complete the requirements for a bachelor’s degree in about four years, the cumulative maximum undergraduate course load each fall or spring term is as follows:

Maximum Course Load by College

<table>
<thead>
<tr>
<th>College</th>
<th>Term Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerald D. Hines College of Architecture and Design</td>
<td>21</td>
</tr>
<tr>
<td>Student on Probation/Academic Warning</td>
<td>13</td>
</tr>
<tr>
<td>College of the Arts</td>
<td>19 (Please see CotA Academic Information)</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>C.T. Bauer College of Business</td>
<td>18</td>
</tr>
<tr>
<td>Student on Probation/Academic Warning</td>
<td>12</td>
</tr>
<tr>
<td>College of Education</td>
<td>18</td>
</tr>
<tr>
<td>Student on Probation/Academic Warning</td>
<td>13</td>
</tr>
<tr>
<td>Cullen College of Engineering</td>
<td>19</td>
</tr>
<tr>
<td>Conrad N. Hilton College of Hotel and Restaurant Management</td>
<td>18</td>
</tr>
<tr>
<td>Freshman</td>
<td>16</td>
</tr>
<tr>
<td>Sophomore, Junior Senior, Postbaccalaureate</td>
<td>19</td>
</tr>
<tr>
<td>Student on Probation/Academic Warning</td>
<td>13</td>
</tr>
<tr>
<td>College of Liberal Arts, and Social Sciences</td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>16</td>
</tr>
<tr>
<td>Sophomore, Junior Senior, Postbaccalaureate</td>
<td>19</td>
</tr>
<tr>
<td>Student on Probation/Academic Warning</td>
<td>12</td>
</tr>
<tr>
<td>College of Natural Sciences and Mathematics</td>
<td>18</td>
</tr>
<tr>
<td>Student on Probation/Academic Warning</td>
<td>13</td>
</tr>
<tr>
<td>College of Pharmacy</td>
<td>19</td>
</tr>
<tr>
<td>Student on Probation/Academic Warning</td>
<td>13</td>
</tr>
<tr>
<td>College of Technology</td>
<td>18</td>
</tr>
<tr>
<td>Exploratory Studies at UH</td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>16</td>
</tr>
<tr>
<td>Sophomore, Junior Senior, Postbaccalaureate</td>
<td>18</td>
</tr>
<tr>
<td>Student on Probation/Academic Warning</td>
<td>12</td>
</tr>
</tbody>
</table>

Please consult the Graduate Catalog for maximum graduate course load information.
The maximum undergraduate course load for summer sessions, regardless of college or major, is as follows:

### Maximum Summer Session Course Load

<table>
<thead>
<tr>
<th>Session</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Session 2</td>
<td>7</td>
</tr>
<tr>
<td>Summer Session 4</td>
<td>7</td>
</tr>
<tr>
<td>Cumulative Summer Session 2 and Summer Session 4</td>
<td>14</td>
</tr>
</tbody>
</table>

One-half of the hours in Summer Session 1 or Summer Session 3 should be added to any Summer Session 2 or Summer Session 4 - hours to determine total course load for Summer Session 1 or Summer Session 4.

### Academic Probation/Academic Warning

An undergraduate or postbaccalaureate student who is on Academic Probation or Academic Warning shall enroll in no more than 13 hours in a fall or spring term for all majors except majors in the College of Liberal Arts and Social Sciences\* and Exploratory Studies at UH, both of which allow no more than 12 hours in a fall or spring term. An undergraduate or postbaccalaureate student who is on Academic Probation or Academic Warning shall enroll in no more than 5 hours in Summer Session 2 or Summer Session 4, or 10 hours in Summer Session 1 or Summer Session 3.

These totals include all courses for which students may enroll. Permission to take course loads above these maximums must be obtained in advance of enrollment (registration) from the dean of the college of the student's major.

### Overload

No student may enroll in a course load exceeding the college's suggested course load for a specific term as listed in the Maximum Course Load Table without prior written permission of the dean of the college of the student's major. Students who enroll in an overload without this permission may be dropped from selected courses at the discretion of the dean and may not receive a tuition refund.

To be considered for a course overload, the student must submit a petition to the dean and should meet the following criteria:

1. Have a 3.00 minimum grade point average in the preceding two summer sessions (minimum: 12 credit hours) or in the preceding fall or spring term (minimum: 12 credit hours) at the university, or
2. Be in good academic standing in the college if in the last term before graduation.

Students should consult the appropriate college section of the catalog for any additional conditions that must be met to qualify for an approved petition for an overload. A student must file the petition for overload prior to enrollment (registration) or add/drop.

The maximum overload permitted in any college by an approved petition is a load totaling 22 hours for a fall or spring term, 9 hours in a Summer Session 2 or Summer Session 3, and 15 hours for any combination of summer enrollments.

Refer to the Graduate and Professional Studies catalog for information on graduate course overloads.

For the College of the Arts - please see CotA Academic Information section for explanation.
Dean's List

To qualify for this recognition, undergraduate students must earn a 3.50 minimum grade point average (the grade of S is not counted) on nine or more semester hours completed during the term (The Colleges of Architecture, Business, Engineering, Liberal Arts and Social Sciences, and Natural Sciences and Mathematics require a 3.50 or better on a minimum of 12 credit hours). Students who earn a grade of I (except in a senior honors thesis course), D, F, or U during the term are excluded from consideration for the Dean's List. Some colleges have additional requirements for the Dean's List. For information, consult the catalog for the college of major or contact the office of the dean.
Dropping Courses

Students are expected to commit themselves to courses as early as possible in order to succeed in their courses.

The last day to drop or withdraw from a course without receiving a grade is the Official Reporting Day (ORD). Please see the academic calendar for the exact date.

Before dropping courses:

- Students receiving financial aid should consult with a financial aid advisor
- All F-1 and J-1 international students must consult with an advisor in the International Student and Scholar Services Office
- Athletes must consult with the Associate Director of Athletics for Student-Athlete Services

Beginning in Fall term 2007, all students (current, transfer, and first time in college students) are permitted a total of six Ws (withdrawals), whether student or instructor initiated. Ws may be used at any time during their college career to drop a course up through the last day to drop a course or withdraw from all courses. When these six Ws have been used, the student must complete all subsequent courses. When enrollment in a course requires concurrent enrollment in another class (e.g., lecture/lab combination), the dropping of such a course combination whether for credit or not will count as one withdrawal if dropped within the same term. The academic department offering the course must verify the concurrent enrollment requirement.

The last day to drop a course with a W is near the end of a term. The specific term deadline is posted on the academic calendar.

Through the last day to drop a course with a grade of W, enrollment in a course may be terminated in any one of the ways listed below. Termination of enrollment does not entitle the student to receive a refund of tuition and fees if the drop date is after the refund date. Should an attempted drop result in exceeding the six W limit, the student will remain enrolled in the course and the instructor will assign the grade earned, which may be an F.

1. Undergraduate students who wish to drop a course must do so online by logging in to their myUH account at https://my.uh.edu.
2. Through the last day to drop a course with a grade of W, an instructor may drop students for any of the reasons listed below. After the last day to drop a course and until the official closing date of the term, instructors may drop students for one of the reasons listed below only with the approval of the dean of the college offering the course. Instructors should notify students of this action.
   a. Lack of prerequisites or corequisites for the course listed in the current catalog. Students who enroll in a course for which they are not eligible and remain in the course knowingly misrepresent their academic records or achievements as they pertain to course prerequisites or corequisites and are in violation of the university’s Academic Honesty Policy.
   b. Excessive absences
   c. Causes that tend to disrupt the academic process (except those actions involving academic honesty, which come under the jurisdiction of the academic honesty policy). Disruptive behavior includes the use of or the failure to deactivate cell phones, pagers, and other electronic devices likely to disrupt the classroom. Students may appeal such a decision in writing within 30 days through the office of the dean of the college in which the course is taught.
3. After the last day for dropping courses, undergraduate students may be dropped from a course with a W, only for rare, urgent, substantiated, nonacademic reasons. Students wishing to initiate such actions must submit the request in writing to the Senior Vice President for Academic Affairs (or designated representative) with accompanying documentation. Students have 90 days after the posting of a grade to initiate this action. Until a decision on this request has been made, the instructor should assign whatever grade is appropriate other than an Incomplete. The review procedure will be the same as that applied for consideration of medical and administrative withdrawals. The student and instructor will be notified in writing of the final decision.

The effective date recorded for termination of enrollment for all matters relating to University of Houston records will be the date the student drops the course through his/her myUH account at https://my.uh.edu or the date the properly approved enrollment change request form is processed by the Office of the University Registrar in the Welcome Center.

Students are responsible for verifying that they have been dropped from a course by logging in to their myUH account at https://my.uh.edu or at the Office of the University Registrar in the Welcome Center.
Students may not receive a W for a course in which they have been found guilty of a violation of the Academic Honesty Policy. If a W is received prior to a guilty finding, the student will become liable for the Academic Honesty penalty, which may be a grade of F.

Term withdrawals (dropping to zero credit hours) do not count toward the limit of six Ws.

Texas Education Code §51.907 provides that, except for several specific instances of good cause, undergraduate students who enrolled for the first time in a Texas public institution of higher education in Fall 2007 or after will be limited to a total of six dropped courses during their entire undergraduate career. This statute applies to courses dropped at public institutions of higher education in Texas including community and technical colleges, health science centers that offer undergraduate programs, and universities. Courses dropped at independent/private institutions, or at colleges and universities outside of Texas, do not count against the student’s six drop limit. Students may also refer to the Texas Administrative Code §4.10.
Examinations

Within Term Examinations

Examinations in undergraduate courses within the term shall be given during the scheduled time and day of the class as designated in the class listings. Any exception to this policy must be approved by the dean of the college and the Provost. All classroom and laboratory examinations are subject to this campus policy.

When it is known prior to the beginning of the term that there will be examinations scheduled at times other than the regularly scheduled time period for the class and for which written approval has been obtained, such examinations shall be footnoted in the class listings.

When examinations are to be scheduled at times other than the regularly scheduled time period for the class and where written approval has been obtained, and in recognition of students' needs and responsibilities within and outside the university, written notification (e.g., course syllabus) shall be provided to the students during the drop/add period for the term.

Final Examinations

Final examinations, if given, shall be administered during the time and date designated in the official university class schedule.

If during the summer a final examination is scheduled to conflict with a scheduled class, the final examination shall take precedence over the class and the instructor of the class shall not penalize any student who misses the class to take the final exam. The student who has the conflict shall notify both instructors of that conflict as soon as possible, but no later than the week before the scheduled exam. The student's absence from class shall be considered to be official, and the instructor shall allow the student to either make up missed work or be exempt without penalty from making it up.

An instructor shall not require previously unscheduled work in the form of tests, papers, or reports during the 14 calendar days prior to the examination period of each term or five calendar days prior to the examination period of each summer session.

There shall be no required undergraduate class meetings, other than for final examination purposes, after the last day of classes. There shall be no final examinations during the reading period (see the Academic Calendar section of this catalog).

Related Policies:

- Excused Absence Policy
- Religious Holy Days
- Grade Appeal Policy (under Final Grade Reports)
Excused Absence Policy

Regular class attendance, participation, and engagement in coursework are important contributors to student success and consistent with expectations outlined in the Class Attendance Policy. Absences will be excused as provided in the University of Houston Undergraduate Excused Absence Policy which applies to all undergraduate courses in all delivery modes.

1. EXCUSED ABSENCES

Absences from class including exams and submission of assignments or other course requirements may be excused for the following reasons:

   a. **Medical**
      i. Injury or illness of a student that is too severe or contagious to attend class or participate in course requirements. Students should not come to class or participate in campus activities if they are sick and may be contagious and should contact the Student Health Center or their health care provider as necessary.
      ii. Illness of a dependent family member.
      iii. Serious illness of a close family member (parents, siblings, grandparents, spouse, cohabitating partner, child, cohabitating partner/spouse's child, cohabitating partner/spouse's parents, cohabitating partner/spouse's grandparents, step-parents, step-siblings, step-grandparents, grandchild, step-grandchild, legal guardian, and others as approved by course instructor, college dean, or dean's designee).

   b. **Death in Family** - Death of a close family member (parents, siblings, grandparents, spouse, cohabitating partner, child, cohabitating partner/spouse's child, cohabitating partner/spouse's parents, cohabitating partner/spouse's grandparents, step-parents, step-siblings, step-grandparents, grandchild, step-grandchild, legal guardian, and others as approved by course instructor, college dean, or dean's designee).

   c. **Legal or Government Proceeding** - Participation in legal or government proceeding that cannot be rescheduled.

   d. **Professional and Educational Activities**
      i. Mandatory interviews for graduate or professional school that cannot be rescheduled.
      ii. Mandatory interviews for full-time employment or internships that are related to the student's academic program and cannot be rescheduled.
      iii. Presentation of research or scholarship at a professional conference that is related to the student's academic program.

   e. **University Sponsored Activity** - As indicated in the Class Attendance policy, absences caused by participation in a campus-sponsored activity are considered official if the sponsor of the activity has received approval from the appropriate university administrator.

   f. **Athletic Competition** - Mandatory participation as a student athlete in NCAA-sanctioned competition.

   g. **Weather Related Events** - Dangerous weather conditions in which driving or other means of travel is considered by local authorities to be unsafe.

   h. **Other** - Additional compelling reasons as approved by instructor or college dean.

2. EXCUSED ABSENCE APPROVAL PROCESS

   a. **Notification**
      i. Students are required to submit an excused absence request in writing (email is acceptable) to the instructor(s) of the course(s) in which absences occur. Students should contact their instructor(s) by phone if written or email communication is not possible. Instructor(s) phone numbers can be found in the Campus Directory.
      ii. Requests for planned absences should be submitted to instructors as soon as the conflict becomes known and no later than 5 business days, if possible, before the anticipated absence.
      iii. Unexpected absences should be communicated to the instructor before the next class meeting, or as soon as possible afterwards with an explanation regarding why the notice could not be sent before the next class meeting.

   b. **Documentation**
      i. Documentation to support requests for excused absences may include but is not limited to the following:
         - Written confirmation from the student's medical provider if medical professionals are involved in the care of the student. Confirmation should include the date and time of the medical assessment and the date at which the student may return to classes. Students cannot be required to provide detailed medical information.
• Written confirmation from the medical provider involved in the care of the student’s close family member or dependent if medical professionals are involved in the care of the family member or dependent. Students cannot be required to provide detailed medical information.
• Death notice, obituary, or death certificate for a student’s immediate family member.
• Copy of appropriate documentation related to legal activities.
• Confirmation of mandatory athletic participation from an appropriate Athletics administrator.
• Confirmation of mandatory interviews from employers or appropriate officials at institutions of higher education.
• Conference program including documentation confirming that the student will be a presenter of scholarly work.
• Confirmation of participation in a University sponsored activity from an appropriate administrator.
• A number of reasons for absence are not documentable, and instructors are encouraged to use their best judgment in evaluating student requests.

ii. Providing false information or documentation is unacceptable. Allegations of misconduct will be referred for review and may be considered as prohibited conduct under the Student Code of Conduct or an act of academic dishonesty under the Academic Honesty Policy.

c. Verification and Decision
   i. An instructor may verify a student’s absence documentation or defer verification and decision, including cases when documentation is not available, to the college dean or dean’s designee.
   ii. The instructor, dean, or dean’s designee must provide the student with a decision in writing regarding whether the excused absence is approved within three business days of receiving the student’s request. Decisions must be made irrespective of the grade the student is currently earning in the class.

d. Appeal
   i. A student may appeal an instructor’s decision regarding an excused absence request within 3 business days of receiving the decision. The appeal should be submitted in writing (email is acceptable) to the college dean or dean’s designee who must provide a decision in writing to the student within 3 business days of receiving the appeal.
   ii. A student may appeal the decision of a dean or dean’s designee within 3 business days of receiving the decision. The appeal should be submitted in writing (email is acceptable) to the appropriate administrator in the Office of the Provost who must provide a decision in writing to the student within 3 business days of receiving the appeal.
   iii. The decision of the Office of the Provost is final and further appeal is not permitted.

3. MAKE UP WORK
If a student’s absence is excused, the instructor must either provide the student an opportunity to make up any quiz, exam or other work that contributes to the course grade or provide a satisfactory alternative by a date agreed upon by the student and instructor.

4. EXTENDED ABSENCES
   a. **Excused Absence Limit** - Excused absences under this policy may be granted for a maximum percentage of coursework as determined by the instructor in each class, typically 15%. Coursework limit may include “clicker” questions, exams, quizzes, and homework. The limit does not include the final exam.
   b. **Extended Absence Alternatives** - Students with absences that exceed 15% of coursework are encouraged to seek potential alternative options provided in other policies including Dropping Courses, Withdrawals, and temporary grades of Incomplete. Faculty also have the option to drop students for excessive absences until the official closing date of the term.

5. RELATED POLICIES
Additional policies address excused absences for reasons that are not covered in this policy including the following:
   c. Pregnancy and Related Conditions: University of Houston System Anti-Discrimination Policy.
   d. Disability: University of Houston System Student Academic Adjustments/Auxiliary Aids Policy.

Additional policies that address extended absences:
   a. Emergency Withdrawal: Medical/Administrative Withdrawal
   b. Military Withdrawal: Students Called to Active Duty
Excused Absence for Military Service

In accordance with section 51.9111 of the Texas Education Code and the General Provisions under Chapter 4 of the Texas Administrative Code, a student is excused from attending classes or engaging in other required activities, including exams, if he or she is called to active military service of a reasonably brief duration.

A student who has been called to active military service after a term begins should immediately initiate the request for excused absence by providing the course faculty a copy of the military orders.

The student shall be excused from attending class and be allowed to complete an assignment or take an examination from which the student is excused within a reasonable time after the absence, as determined by the faculty member, with consideration of the date of the student's return from active duty and within one academic term from the date of the student’s return from active duty.

An excused absence granted under this policy is designed to cover a period of time no longer than the equivalent of 25% of the overall class content (i.e., in-class hours, assignments), excluding the final exam period. Students with an absence longer than the equivalent of 25% of the overall class content may request military withdrawal under a separate policy.

Further guidelines include:

1. Students enrolled in distance learning, hybrid, and other asynchronous courses are to receive equivalent consideration for granting of an absence under this policy.
2. Faculty must retain a student's completed course work and the course syllabus or other instructional plan, to ensure that the student is able to complete the course under the same course requirements as when they initially registered for the class.
3. If an excused absence is granted under this policy, faculty are encouraged to outline and document the parameters and deadlines for completing make-up requirements and the consequences of a student's failure to meet these requirements by the agreed upon deadlines.
4. Disputes arising as a consequence of a student failing to meet such parameters and deadlines for make-up requirements should be resolved according to the Undergraduate Academic Grievances policy.

Related Policies:

- Excused Absence Policy
- Students Called to Active Duty
# Grades

## Grading System

### Meaning of Letter Grades

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent, superior achievement</td>
</tr>
<tr>
<td>A-</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Good, exceeding all requirements</td>
</tr>
<tr>
<td>B-</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Average, satisfactorily meeting all requirements</td>
</tr>
<tr>
<td>C-</td>
<td></td>
</tr>
<tr>
<td>D+</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Poor, passing</td>
</tr>
<tr>
<td>D-</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Failing or withdrawal while doing failing work</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>NR</td>
<td>Not reported</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
</tr>
</tbody>
</table>

In the case of Foundations courses (ENGL 1300, MATH 1300, READ 1300), and Senior Honors Theses, an “in progress” grade may be awarded. (See Grade Explanations below for information about "in progress" grades).
Grade Assignment

Grades are awarded in courses in which students are officially enrolled after the last day to drop or withdraw from a course without receiving a grade. This date is indicated in the Academic Calendar for each enrollment period.

Grade Explanations

1. Passing grades for which semester hours of credit are awarded are A, A-, B+, B, B-, C+, C, C-, D+, D, D-, and S. (Pharmacy students should refer to the College of Pharmacy section.)
2. The grades of S (satisfactory) and U (unsatisfactory) may be awarded in certain specified courses.
3. The temporary grade of I (incomplete) is a conditional and temporary grade assigned when students for non-academic reasons beyond their control have not completed a relatively small part of all requirements for a course.
   The student must:
   • be currently passing the course or have a reasonable chance of passing the course, in the judgment of the instructor;
   • contact the instructor immediately regarding the reasons that prevent the student from completing the course, final assignment and/or final examination;
   • initiate the request for an I grade within 90 days of the posting of the course grade;
   • make arrangements with the instructor to complete the course requirements, if assigned;
   • understand that the only way to have an I grade changed to a passing grade is to fulfill course requirements in accordance with the conditions specified by the instructor;
   • understand that the grade of I may be changed only to another letter grade. If the student does not complete the course requirements in the time allotted (a maximum of one year) the grade will convert to an F grade and will be noted as a lapsed incomplete on the student's transcript. An I grade once lapsed to an F grade may not be changed to a grade of W; and
   • not re-enroll for the courses in which their grade is currently recorded as an I. Even when the conditions for fulfilling the course requirements include participation in all or part of the same course in another term, the student must not re-enroll for the course.
   All grades of I shall be computed as grades of F in calculating a student’s cumulative grade point average for purposes of determining fulfillment of grade requirements for a degree.

After the student has completed the remaining coursework, the instructor will submit a grade change via the myUH Faculty Center to change the I grade to the grade earned.

4. The grade of W is assigned to a course only after the last day to drop or withdraw without receiving a grade by the official census date (ORD) (see Academic Calendar), and before the final day to drop or withdraw (generally four weeks prior to the last day of classes in a fall or spring term). Students are responsible for initiating action to drop or withdraw from classes. Students who fail to do so will be retained on the class rolls even though they may be absent for the remainder of the term. In such instances a grade of F (or U in S/U graded courses) will be awarded unless the conditions for a grade of I have been met.

Grade Point Average

Grade points are awarded as follows for each semester hour in which students receive a grade.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
</table>

Grade Points Awarded for Each Grade
The grade point average is the quotient obtained by dividing the total number of grade points earned by the number of semester hours in which students receive a letter grade. Grades of S, U, I, and W are not assigned grade point values and are not used in the computation of the grade point average.

A change in grade (other than I, incomplete) will affect the academic status of the term in which the grade was earned and all subsequent terms. Students should be aware that a change of grade from I will affect the cumulative grade point average effective the term the incomplete is earned and all terms including the term the I is completed (or changed to F or U).

Decimals beyond two places are truncated, not rounded, in computing the grade point average.

**Cumulative Grade Point Average**

The cumulative grade point average is based upon all work taken at the University of Houston, including courses that are repeated, for which grade point values are assigned.

A repeated course, including courses repeated during a summer session, is equivalent to a new course both in the determination of classification and in computing the cumulative grade point average.

All grades of I shall be computed as grades of F in calculating a student’s cumulative grade point average for the purposes of determining fulfillment of grade requirements for a degree.

**First-year Grade Exclusion Policy**
1. Grade exclusion will not retroactively alter academic or financial aid actions, decisions, or sanctions that resulted from the original grade or original semester GPA.

2. Students who receive a grade of D+ or below in a course within the first twelve months from students' initial matriculation semester in residence are eligible to repeat the course and have the original grade excluded from the computation of their cumulative grade point average.

3. Grade exclusion may only be used once per course and is applicable to a maximum of three courses, only one of which may be at a 3000-level. No 4000 and 5000-level courses are eligible for grade exclusion.

4. The course must be repeated at UH within twelve months of earning the original grade.

5. The original course and grade will continue to appear on the student’s transcript with a notation that the course was repeated and that the original grade was not included in the computation of the student’s cumulative GPA.

The grade exclusion policy is not applicable for course(s) in which the student’s grade of D+ or below resulted from a UH Academic Honesty policy violation.

Final Grade Reports

Students may view and/or print grades by logging into their myUH account at https://accessuh.uh.edu.

Instructors submit final grades through myUH. During the final exam period for each term, grades are posted every three hours and are viewable after posting.

All unreported grades (NR) automatically convert to a grade of F or U (as appropriate) 90 days after the formal closing of the term.

Students are encouraged to contact the instructor of record or submit written requests to the department chair whenever questions arise concerning a grade received in a course. Grade appeals must be made within 90 days after the posting of the grade.

Scholastic Requirements

A minimum of a 2.00 (average grade of C) minimum cumulative grade point average (GPA) is required for graduation, undergraduate and post-baccalaureate students are expected to maintain a 2.00 or higher GPA throughout their academic career. Students who do not maintain a minimum 2.00 GPA are subject to scholastic action in any term in which one or more semester credit hours are attempted. Please consult the Graduate Catalog for maximum graduate course load information.
Maintaining a Learning Environment

In order to respect the learning process and the dignity and rights of all persons, students and instructors are expected to maintain a classroom environment conducive to academic excellence. Students should deactivate cell phones, pagers, and other electronic devices likely to interrupt a class. Students anticipating possible emergencies should make the instructor aware of the situation beforehand. Disruptive behavior of any kind compromises the academic process and will not be tolerated.

Related Information:

Dean of Students Office: http://www.uh.edu/dos/

Conduct Assessment and Response Team (CART): http://www.uh.edu/dos/behavior-conduct/cart/index.php
Religious Holy Days

The University of Houston respects the religious observances of students even though they may conflict with university class meetings, assignments, or examinations.

The University of Houston excuses a student from classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose.

A student whose absence is excused under this policy shall be treated consistently with the instructor’s policies and procedures relating to other excused absences, except that no instructor’s policy may deny the opportunity for make-up work, as described below.

Students are encouraged to inform instructors about upcoming religious holy days early in the term to enable better planning and coordination of work assignments (and examinations).

Instructors are encouraged to announce reasonable time periods for make-up work (and exams) in the course syllabus and to make clear the consequences of a student’s failure to meet such time requirements.

If a student and an instructor disagree about whether the absence is for the observance of a religious holy day, or if they disagree about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may appeal to the Office of Undergraduate Academic Affairs. All parties must abide by the decision of that office.

Eligible religions are those whose places of worship are exempt from property taxation. For further information about state law, please see the Texas Higher Education Coordinating Board Texas Administrative Code §4.4 Student Absences on Religious Holy Days; or contact the offices of the Office of Undergraduate Academic Affairs, the Dean of Students, and/or the A.D. Bruce Religion Center to review the policy.

Related Policies:

- Excused Absence Policy
Student Classifications

Undergraduate

Undergraduate students' classifications are based on the total number of credit hours earned at the University of Houston and accepted in transfer from other colleges and universities regardless of whether or not the courses involved are applicable to the major or degree plan. Credit awarded by examination and hours earned with a grade of S are counted in determining classification, but not in determining the grade point average.

Undergraduate Classifications

<table>
<thead>
<tr>
<th>Classification</th>
<th>Number of Credit Hours</th>
<th>Minimum Cumulative Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>0-29 credit hours</td>
<td>2.00</td>
</tr>
<tr>
<td>Sophomore</td>
<td>30-59 credit hours</td>
<td>2.00</td>
</tr>
<tr>
<td>Junior</td>
<td>60-89 credit hours</td>
<td>2.00</td>
</tr>
<tr>
<td>Senior and postbaccalaureate</td>
<td>90 or more credit hours</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Law, Optometry, Pharmacy

Special classifications are used for students majoring in the professional areas of law, optometry, and pharmacy.

Post Baccalaureate

The postbaccalaureate classification describes students who have degrees but are not enrolled in a formal graduate degree program. (See Graduate and Professional Studies catalog for details.)

Credit for graduate level courses taken by postbaccalaureate students is awarded as undergraduate credit. The grade point average and minimum cumulative grade point average is calculated according to the above listing.

There are restrictions and limitations on the application of postbaccalaureate hours toward a graduate degree. All such hours must be approved by the degree-granting college and department.

Graduate

The university classifies a student as a graduate student when an admission application and the required credentials have been approved and the student has enrolled (registered) for classes as a graduate student at the University of Houston. All graduate students must go through the formal application process in order to obtain the graduate student classification.
Student Records

Note: Most requests or change of information forms are available at department Web sites (e.g., Office of the University Registrar). Go to www.uh.edu/our for further information.

Change of Address

Students can update and review their address online through their myUH account at https://my.uh.edu.

Students will not be excused from penalties on the grounds that communications mailed from the University of Houston were not received if they have failed to report a new address. Students may update and review their address online through their myUH account at https://my.uh.edu.

- The University of Houston recognizes e-mail as an official medium for communication to its students. While U.S. Postal Service mail may also be used in some instances, fee bills, account statements and other critical documents will be delivered to currently enrolled students via e-mail correspondence only.
- Each student is assigned an e-mail alias at the time of admission.
- It is the responsibility of the student to ensure the UH e-mail alias points to a working e-mail address at all times. Students may update their e-mail address information by logging on to their myUH account at https://my.uh.edu.
- Any student may request an e-mail account from the University of Houston, to which the assigned alias may be pointed. Aliases may also be pointed to accounts outside the University. If a student chooses to have the alias point to a non-university account, the university cannot be responsible for the service.
- Enrolled students who do not have the capability to access e-mail off campus will be able to access it on campus in locations such as the library, college service centers, campus kiosks, etc.
- It is the student's responsibility to read e-mail correspondence frequently and consistently. The University recommends students read e-mails at least once a day.
- Faculty may require the use of e-mail for completion of course work.
- E-mail aliases are classified as directory information and may be listed in University of Houston directories unless students have set FERPA/Directory restrictions in their myUH account or they have a valid Request to Withhold or Release Public Information form on file in the Office of the University Registrar. Distribution of e-mail addresses both within the University and outside the University will follow the same guidelines that apply to other directory information.
- Official university communications sent by e-mail are subject to the same privacy and records retention requirements and policies as other official university communications.
- Responsibility for implementation and administration of this policy rests with the Senior Vice President for Academic Affairs.

Change of Major

A change of major is a formal procedure requiring official approval and documentation. Students must submit an Undergraduate General Petition form requesting a change of major. This form is filed by the student in the department in which she or he wishes to major. Approval from both the department chair and the college dean is required. Students should consult an advisor in the department of their intended major for help with the change of major process.

- For students who wish to major in Business, this process has been automated and is available online on the Bauer College of Business Web site under "Student Services": www.bauer.uh.edu.

The senior vice president for academic affairs has approved the following guidelines for a change of major. (Note: This policy does not apply to the Colleges of Architecture, Law, Optometry, or Pharmacy, or to the Graduate College of Social Work.)
1. Students changing majors within the university shall meet the same requirements as students seeking admission to an academic unit (department, school, or college) from outside the university who have completed the same number of semester credit hours.

2. Students applying to transfer from one unit to another within the university shall not be required to supply copies of any records which are already on file within the university (such as transcripts). Performing and Fine Arts departments may require additional documentation for transfer. For more specific information, students should contact the unit into which they wish to transfer.

The university offers vocational and career planning services through University Career Services. For academic information, as well as for help in coordinating career goals with academic plans, students may meet with academic advisors in the various departments and colleges, and Undergraduate Scholars at UH.

Change of Name

University records of a name are based upon applications for admission. Subsequent name changes, along with copies of documentation, should be promptly reported to the Office of the University Registrar, 128 Welcome Center.

Confidentiality

Student Records: Family Educational Rights and Privacy Act Notice of Student’s Rights

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights are as follows:

1. Students have the right to inspect and review their education records within 45 days of the day the University receives the request.
2. Students have the right to request amendment of their education records that they believe are inaccurate or misleading. If the University denies a student requested amendment, the student has the right to a hearing regarding the requested amendment to his/her education record.
3. Students have the right to consent to disclosures of personally identifiable information in their education records, except to the extent that FERPA authorizes disclosure without consent.
4. Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. Such complaints may be sent to:

   Family Compliance Office  
   U.S. Department of Education  
   400 Maryland Avenue, S.W.  
   Washington, D.C. 20202-4605

Directory Information

At its discretion the University of Houston may provide "directory information" to the general public without student consent. "Directory information" is defined by FERPA as follows:

- Name
- Address
- University assigned E-mail address
- Telephone listing
- Major field of study
- Date and place of birth
- Dates of attendance
- Degrees, awards, and honors received
- Most recent previous education institution attended
- Classification
- Participation in officially recognized sports and activities
- Height/weight (athletes only)
- Enrollment status (undergraduate or graduate, full-time or part-time)
If a student does not want "directory information" regarding him or her to be released, the student must set FERPA/Directory restrictions in their myUH account or notify the Office of the University Registrar, 128 Welcome Center, Houston, TX 77204 in writing or by completing the Request to Withhold Public Information form, during the first week of class to ensure that information is not released by the university or published in the Student Directory. Students are responsible for requesting the release of their information once a request for withholding "directory information" has been placed on record.

**Disclosure of Education Records**

The University of Houston will not disclose information from a student’s education records without the written consent of the student (PDF) except in the following instances in which FERPA authorizes disclosure without prior student consent:

1. To school officials who have a legitimate educational or administrative interest in the records. A school official is defined as a person employed by the University in an administrative, supervisory, academic, or support staff position (including the University's police department and health care staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Regents; or a person assisting another school official in performing his or her official duties. A school official has a legitimate education interest if the official needs to review an education record in order to fulfill his or her professional responsibilities.
2. To other schools in which the student seeks to enroll.
3. To authorized representatives of the U.S. Secretary of Education, the U.S. Comptroller General, and state and local educational authorities, in connection with certain state or federally supported education programs; and the U.S. Attorney General for law enforcement purposes.
4. In connection with a student’s request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid.
5. To state and local officials or authorities in accordance with state law.
6. To organizations conducting studies for or on behalf of the University to develop, validate, or administer predictive tests; administer student aid programs; or improve instruction.
7. To accrediting organizations to carry out their functions.
8. To parents of "dependent" student as defined under the federal tax laws.
9. To comply with a judicial order or a lawfully issued subpoena.
10. To appropriate parties in connection with a health or safety emergency.
11. As it relates to "directory information" unless the student restricts "directory information".
12. To alleged victim of any crime of violence or non-forcible sex offense regarding the final results of any disciplinary proceeding conducted against the alleged perpetrator of that crime or offense with respect to that crime or offense, regardless of whether the student was found to have committed the violation.
13. To the public regarding the final results of any disciplinary proceeding in which the student was alleged to have committed a crime of violence or non-forcible sex offense and pursuant to the disciplinary proceeding the student was found to have violated a University disciplinary rule or policy.
14. To parents of a student who is under the age of 21 regarding the student’s violation of federal, state, or local law, or any University rule or policy, governing the use or possession of alcohol or a controlled substance.
15. To the court where the student has initiated legal action against the University or the University has initiated legal action against the student.

**Procedure to Inspect Education Records**

A student has the right to inspect his or her educational records and to challenge the contents. To review records, a student must make a request in writing to the Custodian of those records. (See Custodians of Records below.) The written request must identify as precisely as possible the record or records he or she wishes to inspect.

**Procedure to Amend Education Records**
If a student believes the information in his or her education record contains information that is inaccurate, misleading, or in violation of the student’s rights of privacy, the student should submit a written request for amendment to the appropriate custodian of the record (See the list of Custodians of Records below). The written request should clearly identify the part of the record the student wants changed and specify why it is inaccurate, misleading, or in violation of the student’s rights of privacy. The University will notify the student within a reasonable time regarding whether or not the record will be amended. If the University denies the student’s request for amendment of his or her record, the student has the right to a hearing regarding the requested amendment.

** Note: This procedure does not govern grade appeals.

**Procedures for a Hearing under FERPA**

1. To request a hearing pursuant to the University's denial of a student's request to amend information in his or her education record that the student believes is inaccurate, misleading, or in violation of the student's rights of privacy the student should submit a written request for a hearing that clearly identifies the part of the record the student wants changed and specifying why it is inaccurate, misleading, or in violation of the student's rights of privacy to the custodian of the record that the student seeks to challenge.
2. The University will hold a hearing within a reasonable time after receiving the student's written request for a hearing.
3. The University will give the student notice of the date, time, and place of the hearing reasonably in advance of the hearing.
4. The hearing will be conducted by an individual who does not have a direct interest in the outcome of the hearing. The hearing official will be appointed by the vice president to whom the custodian of the records in question reports.
5. The student will be provided the opportunity to present evidence supporting his or her allegation that his or her education record contains information that is inaccurate, misleading, or in violation of the student's rights of privacy. The student may, at his or her own expense, be assisted during the hearing by one individual, including legal counsel. The student must notify the hearing official no later than three (3) business days before the hearing that he or she will have legal counsel present at the hearing.
6. The custodian of the record in question and the author of that record (if appropriate) will also be provided an opportunity to respond to the student's allegations.
7. Upon hearing all of the evidence, the hearing official will render a written determination within a reasonable time after the hearing. The written determination will include a summary of the evidence and the reasons for the hearing official's determination.
8. Any information in the student's education record that is determined to be inaccurate, misleading, or a violation of the student's rights of privacy will be amended with the correct information and the student will be notified in writing of the change.
9. If it is determined that the student record is correct and does not merit amendment, the University will notify the student of his or her right to place a statement in the education record commenting on the information in the record, and/or presenting any reasons for disagreeing with the University's decision.
10. Any statement placed by the student in his or her education record shall remain a part of the record for as long as the record is maintained by the University.

**Custodians of Records**

- Office of the University Registrar
  The Welcome Center
- Director of Scholarships and Financial Aid
  The Welcome Center
- Director of Student Financial Services
  The Welcome Center
- Director of the Student Health Center
  100 Health Center
- Director of Learning and Assessment
  210 Student Service Center
- Director of University Career Services
  106 Student Service Center
- Dean of Students
  252 University Center
- Dean of the appropriate college
Student Responsibility

Basic Responsibilities and Expectations

A responsible student is a successful student. At the University of Houston, students are expected to conduct themselves in a mature and responsible manner, respect the opinions, rights, and personal property of others, and meet their financial obligations. Students are responsible for seeking help and guidance from all of the resources that the university makes available to them. They are expected to be proactive and remain informed about university dates and deadlines, and understand academic and disciplinary policies. They are responsible for communication with their professors, advisors, and university staff, and the commitment to being organized and prepared to learn. Above all, our students are expected to strive for honesty and academic integrity throughout their period of study at the University of Houston.

Student Identification Number

All students at the University of Houston have been assigned a PeopleSoft ID number. For security purposes, students are required to use this university student ID number for all electronic and hard-copy forms/communication. The ID number can be found by going to https://accessuh.uh.edu/login.php.

Identification Cards

Persons on the premises of the University of Houston or utilizing its services may be required to furnish proof of identity when requested. Students are required to obtain and show proof of a valid university ID card and present it when requested to do so by a university official. Cougar1 Cards are available in room 101, Welcome Center Parking Garage.

Student E-mail Accounts

It is mandatory that students obtain and activate a University of Houston e-mail address. Beginning in 2001, all students admitted to the university have been assigned an e-mail alias that points to the e-mail address first provided to UH when the student applied for admission (it is blank if one was not provided). E-mail messages addressed to the alias are automatically forwarded to the student’s preferred e-mail account. This alias will be used to send official university information regarding billing, emergency closings, and/or information from the student’s college and department. All students must check their University of Houston e-mail account on a regular basis. Students are also responsible for keeping their UH e-mail alias updated and pointed to the e-mail address they are currently using. Students who do not have an e-mail account or alias should request one from the university either online, or by going to the Information Technology Support Center service counter is located in room 58 of M.D. Anderson Library. For additional questions about the university e-mail account or alias, please contact the IT Support Center at 713-743-1411, or send e-mail to support@uh.edu.

University Dates and Deadlines

Students are responsible for knowing and adhering to all university and college dates and deadlines. Such dates and deadlines include those for enrollment (registration), adding and dropping of courses, payment and refunds, and applying for graduation.

Academic Advising
Students are expected to meet with an advisor on a regular basis, preferably, prior to each enrollment (registration) period. This will help to ensure that the appropriate courses have been taken in the proper sequence and that all prerequisites have been met.

University Communication

University of Houston students must verify the correct local and permanent addresses, telephone numbers, and e-mail address listed in their myUH account. Any changes in student contact information should be updated in myUH immediately. Official correspondence from the university is sent to the e-mail address, or in some cases, the mailing address in myUH. If the student has moved and failed to correct his or her contact information, they will not be relieved of the responsibility on the grounds that the correspondence was not received.

International Students

International students are responsible for maintaining continuous contact with the Office of International Students and Scholars Services (OISSS). This office provides students with current information concerning SEVIS regulations in order to maintain their legal status. F-1 and J-1 students must maintain their full-time student status at the university and are expected to comply with the U.S. Department of Homeland Security and the U.S. Department of State requirements regarding their lawful presence in the United States, as well as all university policies. In addition, UH students studying abroad must adhere to the same rules and responsibilities as those students at the university’s main campus.

Academic Policies

Students are expected to know and abide by the university’s academic policies and regulations. The University of Houston, however, reserves the right to change the provisions of both the Undergraduate and Graduate catalogs, as well as the listings in the Academic Calendar, as may be necessitated by university or legislative action. These change may include, but are not limited to, degree requirements, course offerings, fees, academic rules, and regulations. Earlier versions of the Undergraduate and Graduate catalogs are available in hard copy and archived online.

Academic Honesty and Disciplinary Policies

Specific policies regarding student life and academic honesty are available in the Dean of Students Office. These policies are also published in the Student Handbook, available online and through the Dean of Students Office. Professors are responsible for the initial enforcement of Academic Honesty Policy at UH, but the responsibility for enforcing student life policies rests with the Dean of Students, the campus police, and the University Hearing Board. Disciplinary records are confidential and are not released to anyone off campus without the student’s written permission unless subpoenaed.

Maintenance of Individual Records

Students are responsible for the submission and verification of their own official university paperwork. They are expected to retain copies of all documents of enrollment (registration) and course adjustments, as well as any other university transactions. This will ensure a smooth resolution if any problems should arise regarding tuition and financial aid, housing, academic records, enrollment, and/or graduation. In order to protect student rights and records, it is the student’s responsibility to provide original written consent if they wish to have their records released as per the Family Educational Rights and Privacy Act (FERPA) regulations.
Undergraduate Academic Grievances

Issues of grievance regarding grades, course requirements and classroom procedures can occur. The first and best source for resolving the problem is with the professor. The university expects most issues to be resolved amicably and informally with the professor. In the event that an informal resolution is not possible, students may file a written grievance on a General Petition Form, available in department and college offices, and online at www.uh.edu/academics/forms. These forms must be filed with the professor within 90 calendar days of the posting of the final grades for the course. Appeals may be considered at the following levels, as necessary: professor, departmental chair, college dean, senior vice president for academic affairs (or designated representative at all levels). Faculty are required to retain all evaluated student material not previously returned for a six month period after the end of the last class of the term evaluated.

Because assigning a grade for evaluating a student's work performance involves the faculty's professional judgment and is an integral part of the faculty's teaching responsibilities, disagreement with an instructor concerning a grade or evaluation is not a justifiable grievance to be considered under this policy unless a violation of university, college, or department academic policies or procedures can be shown to have affected that grade or evaluation.

Please note that appeals for decisions in the following areas are guided by separate appeal or grievance policies and procedures: Affirmative Action, Academic Honesty, Student Life, and Financial Responsibility.
Veterans and Dependents GI Bill

Veterans and dependents who wish to claim GI Bill education benefits should visit The Office of the University Registrar in the Welcome Center for information and assistance. Once GI Bill benefits have been initiated, recertification is necessary each term for veterans who wish to continue to receive GI Bill educational benefits.

The Office of the University Registrar is responsible for submitting certifications for educational benefits to the Veterans Administration under federal guidelines. Requests for enrollment certification, including the submission of all documentation should be made at room 128 Welcome Center.

Requests for certification may be submitted at this office as well during regular office hours which are:

- 8:00 a.m. - 7:00 p.m. Monday and Tuesday, and
- 8:00 a.m. - 5:00 p.m. Wednesday - Friday

Related:

Rules and Regulations for Determining Residence for Tuition Purposes
Withdrawals

Withdrawal Defined

The phrase 'withdrawal' applies to the dropping of all courses in all sessions of the current term for which the student is enrolled (registered) at the University of Houston. It may be initiated by students.

Official Term Withdrawal

In addition to following the procedure for dropping all courses for a term withdrawal, students must return all library books and laboratory equipment and have their UH record clear in every respect. Students who wish to withdraw must submit their request by following the process outlined on the Academic Forms website: http://www.uh.edu/academics/forms/index.php#termwithdraw

The recorded date for withdrawal will be the date the withdrawal is received by the Office of the University Registrar.

A student whose enrollment in a course is terminated on or before the last day to drop or withdraw without receiving a grade (Census/Official Reporting Date, as listed in the Academic Calendar) will not have the course or grade appear on the permanent record. When termination is made after this date, the permanent record will show a grade of W for each withdrawn course and the date of withdrawal.

Withdrawal from the university is exempted from the 6W count.

Any refund due to the student will be based on the date that the Term Withdrawal Request Form was received by the Office of the University Registrar.

Deadline

- Generally, Undergraduate Students may request a term withdrawal through the last day to drop or withdraw with a 'W', as posted in the Academic Calendar.
  - Students are responsible for initiating action to withdraw from classes on or before the last day to withdraw.
  - Students who fail to do so will be retained on the class rolls even though they may be absent for the remainder of the term. In such instances, grades of F (or U in S/U graded courses) will be given unless mitigating circumstances warrant grades of I (incomplete).
- Exceptions
  - Military withdrawal situations use a different process and deadline. Please consult with UH Veteran Services for more information.
  - Medical and personal emergency situations use a different process and deadline. Please consult with Undergraduate Academic Affairs for more information.

Procedure

- Domestic Students - two ways to submit a request
  1. MyUH
To initiate the term withdrawal process, the student must log on to their MyUH account and select the Academic Records tile for the Request Term Withdrawal link.

2. Fax or In-Person
   - Required document(s)
     - the pdf version of the Term Withdrawal Form
   - Fax number: (713) 743-8342
   - Drop-off location: Office of the University Registrar in the UH Welcome Center

- International Students holding F1 or J1 Visas - one way to submit a request
  - All International Students holding F1 or J1 Visas must FIRST meet with a representative of the Office of International Student and Scholar Services (OISSS).
  - MyUH
    - Due to strict visa requirements, all international students ARE NOT able to initiate the withdrawal process via MyUH.

1. Fax or In-Person
   - Required document(s)
     - the pdf version of the Term Withdrawal Form
     - Reduce Course Load form (required for Fall or Spring term)
     - Early Withdraw form (for OISSS)
   - Fax number: (713) 743-8342
   - Drop-off location is the Office of the University Registrar in the UH Welcome Center

University Withdrawal

In addition to suspension for academic or disciplinary causes, students may be withdrawn by the University for medical or financial reasons.

1. Financial Responsibility
   - All University of Houston students will accept the Payment Terms Agreement at the beginning of each term prior to completing enrollment in a class. The Payment Terms Agreement outlines the student’s financial responsibilities to the university necessary to maintain enrollment.
   - Students who have a check returned as unpaid by their bank will be notified by Student Business Services. All returned checks will be assessed a $25 service charge. Returned checks for initial fee payment may result in dis-enrollment for unpaid tuition and fees.
   - Students with two or more returned checks will forfeit check-writing privileges for one year and must petition for future eligibility. Students must then pay by cash, cashier’s check, money order, or credit card.
   - Students who fail to make their first payment indicated on their initial fee bill may be canceled from their courses for non-payment. Students who make their initial payment then fail to make subsequent payment by the final payment deadline provided will have a financial stop placed on their account and are subject to the following actions until the balance is cleared:
     - One time $50 severance of service fee.
- Blocked from future enrollment.
- No degree will be conferred.
- University housing may be denied.
- Transcripts or statements regarding courses or prior credits will not be provided to or on behalf of the student.

- Continued delinquency may result in the placement of the account with an external collection agency and assessment of a collection fee of at least 25% of the outstanding balance.

2. **Undergraduate Medical Withdrawal**

   A student may request withdrawals from all courses in which the student is enrolled in cases where the student experiences a medical situation that impedes academic progress. The policy and procedures for requesting a medical withdrawal follow.

   **A. Policy: Undergraduate and Postbaccalaureate Students**

   1. The senior vice president for academic affairs (or designated representative) may grant medical withdrawals at any time to students who must withdraw for medical reasons from all courses for which they are enrolled (registered) at the University of Houston. It is expected that the request will be filed as soon as possible, no later than 140 calendar days after the close of the term in which the coursework was taken.

   2. Students who receive medical withdrawals after the last day to withdraw without receiving a grade shall normally receive a **W** in each course for which they were enrolled (registered), although the instructor has the option of assigning an **I** or **F**.

   3. Students may not receive medical withdrawals for courses in which they have been found guilty of a violation of the Academic Honesty Policy. If a medical withdrawal is completed prior to a guilty finding, the student will become liable for the Academic Honesty penalty, including **F** grades.

   4. Students who receive medical withdrawals must obtain permission from the Senior Vice President for Academic Affairs (or designated representative) to enroll again at the University of Houston.

   **B. Procedures**

   1. Students (or their appointed representatives if they are unable to act for themselves) who seek to withdraw for medical reasons from all courses for which they are enrolled (registered) at the university shall, as soon as possible, submit a medical withdrawal request to the senior vice president for academic affairs (or designated representative), submitting all appropriate documentation, including a statement from a physician or psychologist, with their written request.

   2. The senior vice president for academic affairs (or designated representative) shall

      a. review each request and its accompanying documentation,
      b. make inquiries and seek recommendations from instructors of record and others as appropriate,
      c. decide whether to approve or deny the request,
      d. inform both the student and the dean of the college of the student’s major of the decision in writing, and
      e. if the request is approved, place a medical withdrawal enrollment "stop" on the student’s record unless otherwise noted by physician, clinical psychologist or licensed clinical practitioner.

   3. If the medical withdrawal is requested with an effective date after the last day for a student to withdraw from classes without receiving a grade, the senior vice president for academic affairs (or designated representative) shall, in making inquiries and seeking recommendations from each instructor of record, notify each that if approved, the withdrawal will normally result in a grade of **W**.

   4. The senior vice president for academic affairs (or designated representative) shall determine the student’s final grade when approving the request, and shall inform the student and each instructor’s dean, the Office of the University Registrar (which will enter the assigned grades into the student’s record), the Office of Scholarships and Financial Aid, and the Student Financial Services Department.

   5. Students who receive medical withdrawals and later seek to return to the university shall submit a written request, including a statement from a physician or psychologist, to the Senior Vice President for Academic Affairs (or designated representative justifying their readiness to resume their studies.

      a. review each request to resume study at the university,
      b. make inquiries and seek recommendations as appropriate,
      c. decide whether to approve or deny the request,
      d. inform both the student and the dean of the college of the student’s major of the decision in writing, and
2. Undergraduate Administrative Withdrawal

A student may request withdrawals from all courses in which the student is enrolled in cases when the student experiences an extenuating personal or family situation, beyond the control of the student, that impedes academic progress. The policy and procedures for requesting an administrative withdrawal follow.

A. Policy: Undergraduate and Postbaccalaureate Students

1. The senior vice president for academic affairs (or designated representative) may grant administrative withdrawals at any time to a student who must withdraw from all courses for which he or she is enrolled (registered) at the University of Houston based on an extenuating circumstance beyond the control of the student. It is expected that the request will be filed as soon as possible, no later than 140 days after the close of the term in which the coursework was taken.

2. Students who receive administrative withdrawals after the last day to withdraw without receiving a grade shall normally receive a W in each course for which they were enrolled (registered), although the instructor has the option of assigning an I or F.

3. Students may not receive Administrative Withdrawals for courses in which they have been found guilty of a violation of the Academic Honesty Policy. If an Administrative Withdrawal is completed prior to a guilty finding, the student will become liable for the Academic Honesty penalty, including F grades.

B. Procedures

1. Students (or their appointed representatives if they are unable to act for themselves) who seek to withdraw for administrative reasons from all courses for which they are enrolled (registered) at the university shall, as soon as possible, submit an administrative withdrawal request to the senior vice president for academic affairs (or designated representative), submitting all appropriate documentation, including a statement from a physician, psychologist or legal advisor, with their written requests. In the event of death of an immediate family member (mother, father, grandparent, sister, brother, child, spouse) an official death certificate will be required.

2. The senior vice president for academic affairs (or designated representative) shall
   a. review each request and its accompanying documentation,
   b. make inquiries and seek recommendations from instructors of record and others as appropriate,
   c. decide whether to approve or deny the request,
   d. inform both the student and the dean of the college of the student’s major of the decision in writing, and

3. If the administrative withdrawal is requested with an effective date after the last day for a student to withdraw from classes without receiving a grade, the senior vice president for academic affairs (or designated representative) shall, in making inquiries and seeking recommendations from each instructor of record, notify each that if approved, the withdrawal will normally result in a grade of W.

4. The senior vice president for academic affairs (or designated representative) shall determine the student’s final grade when approving the request, and shall inform the student and each instructor’s dean, the Office of the University Registrar (which will enter the assigned grades into the student’s record), the Office of Scholarships and Financial Aid, and the Student Financial Services Department.
Additional Bachelor's Degree

A student must earn a minimum of 30 semester hours beyond any previously awarded degree for each additional bachelor’s degree pursued.
Bachelor of Arts Degree Special Requirements

Candidates for any Bachelor of Arts degree must have documented proficiency at the second term of 2000-level or higher in one foreign language.

The foreign language requirement can be met the following ways:

- Students typically satisfy this requirement by completing six consecutive semester hours at the 2000-level or higher in one foreign language.
- Satisfactory completion may require up to four (4) terms of sequential level courses starting with two (2) semesters of 5 credit hour freshman level foreign language courses for a total of 16 credit hours.
- Students with foreign language competency may satisfy part of or all of this requirement by placement or credit by examination
- Students who place out of the freshman and first term sophomore level of and (approved) foreign language may satisfy the requirements by completion of three (3) semester hours of credit at the second term sophomore level or higher.
- Students should contact the UH Testing Center for UH approved placement/credit by exams options.

*Placement exams are required prior to enrollment in Spanish courses at UH.
*High School foreign language credit does not apply unless UH approved AP or IB credit is awarded.
*It is highly recommended that all levels of the foreign language courses are completed at one institution.

Deans may waive this requirement for students majoring in their college who can demonstrate that they meet at least one of the following requirements:

1. students whose first language is not English who presented a TOEFL (Test of English as a Foreign Language) score to qualify for admission to the university, or other language exam verified by the UH Testing Center or
2. completed at least eight years of formal education in schools where English was not the primary language of instruction.
Bachelor of Science Degree Special Requirements

Candidates for any Bachelor of Science degree must complete at least 12 credit hours in the quantitative or formal sciences, i.e., mathematics, computer science, formal logic, statistics, or other disciplines in which quantitative or formal analytical reasoning plays a major part. At least 6 credit hours must be in mathematics. Courses applied to this requirement must either be core-approved mathematics or mathematics/reasoning courses or have at least 6 credit hours of such courses as prerequisites.
Binding and Distribution of Honors Thesis

Two originals and two copies of the approved honors thesis should be submitted to the office of the dean of the college responsible for the academic field of study in which the thesis was written for binding before or on the college’s binding deadline. Students who fail to meet these deadlines may be required to refile applications for graduation for a subsequent term.

Two original copies of the thesis are retained by the M.D. Anderson Library for public access, one copy goes to the Honors College, and one copy may go to the major department/college responsible for the academic field of study in which the thesis was written. Binding fees for theses vary. Students should check with the office of the dean of the college responsible for the academic field of study in which the thesis was written for specific procedures and requirements.
UH Core Curriculum 2020-2021

Texas Core Curriculum

The Texas Core Curriculum is a 42 semester credit hour (SCH) core curriculum for all undergraduate students in Texas. All bachelor’s degrees from the University of Houston require completion of the Texas state-mandated 42 hour Core Curriculum.

The courses listed here are approved by the Texas Higher Education Coordinating Board to fulfill basic core requirements for the University of Houston. Students must meet the credit hour requirements for all ten of the component areas.

Students should always consult with their academic advisor to determine what courses they should take to satisfy the Texas Core Curriculum and degree requirements of their declared major.

More Information on the Core Curriculum

To view Core Curriculum in catalogs prior to fall 2016, use the drop-down menu above and to the right.

For catalogs prior to fall 2012 see Undergraduate Catalog Archives

Alphabetical Listing of Core Requirements

UH Core Requirements by Component Area

- Communication (6 hours)
- Mathematics (3 hours)
- Life and Physical Sciences (6 hours)
- Language, Philosophy & Culture (3 hours)
- Creative Arts (3 hours)
- American History (6 hours)
- Government/Political Science (6 hours)
- Social & Behavioral Sciences (3 hours)
- Mathematics/Reasoning (3 hours)
- Writing in the Disciplines (3 hours)

Important Notes About the Required Hours:

Students should note the following:

- Typically, 3 hours equals one course, but that may not be true for all courses.
- It is recommended to verify the selected number of courses necessary to add up to the required hours for each component area.
- Each course listed is linked to its full description elsewhere in this catalog.
- Many areas of study require specific core course choices and may also require additional courses which are not listed here.
- UH Core courses may be cross-listed only if both courses are approved UH Core under the same component area.
- Selected Topics and Independent Study courses - typically those courses numbered xx94-xx98 - may not be used to meet any Core requirements.
- Students should always seek assistance with an academic advisor to verify credit hours, course prerequisites and to ensure selection of the right courses to meet degree plan requirements.
Further information on Core eligibility and on courses that satisfy Core Curriculum requirements can be obtained by reviewing the information available throughout this Catalog, by consulting the current UH Course Listing, by reviewing the Texas Common Course Numbering System information, and/or by contacting an academic advisor.
Core Curriculum Foundations

Texas Core Curriculum

Each institution of higher education that offers an undergraduate academic degree program shall develop its core curriculum by using the Board-approved purpose, core objectives, and foundational component areas of the Texas Core Curriculum.

Statement of Purpose

Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

Core Objectives

- Critical Thinking Skills
  - To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- Communication Skills
  - To include effective development, interpretation and expression of ideas through written, oral and visual communication.
- Empirical and Quantitative Skills
  - To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- Teamwork
  - To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
- Social Responsibility
  - To include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.
- Personal Responsibility
  - To include the ability to connect choices, actions and consequences to ethical decision-making.

Foundational Component Areas

There are nine Foundational Component Areas (FCA), including one Component Area Option (CAO). The CAO may provide options for students to choose additional courses from the other FCA. Each FCA has a component description as definition, a set number of Semester Credit Hours (SCH) required for completion of a component, and specified core objectives requirements.

The nine Foundational Component Areas are:

- Communication (6 SCH)
- Mathematics (3 SCH)
- Life and Physical Sciences (6 SCH)
- Language, Philosophy and Culture (3 SCH)
- Creative Arts (3 SCH)
- American History (6 SCH)
- Government/Political Science (6 SCH)
- Social and Behavioral Sciences (3 SCH)
- The Component Area Option (6 SCH) - *University of Houston component area options are Math/Reasoning (3 SCH) and Writing in the Disciplines (3 SCH).*

**History And Constitution Requirements**

Senate Bill 254, passed by the 54th Legislature and amended by House Bill 935 of the 60th Legislature, provides that no individuals may receive an undergraduate degree unless they have credit for six semester hours or its equivalent in American history and six semester hours credit in the constitutions of the United States and Texas.

Please see the "American History" and "Government/Political Science" core categories respectively for specific information about how these History and Constitution Requirements impact the UH Core Curriculum.
### Core Requirements by Alphabetical Listing

*Summary of Core Curriculum Requirements by UH Core Curriculum by Component.*

<table>
<thead>
<tr>
<th>Core Curriculum Course</th>
<th>Core Component Area</th>
<th>Effective Date for Recent Additions to the Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAMS 2300 - Introduction to Asian American Studies</td>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
</tr>
<tr>
<td>AAS 2320 - Introduction to African American Studies</td>
<td>Language, Philosophy &amp; Culture</td>
<td></td>
</tr>
<tr>
<td>AAS 2330 - Black Liberation Theology</td>
<td>Language, Philosophy &amp; Culture</td>
<td>August 27, 2012</td>
</tr>
<tr>
<td>ANTH 1300 - Introduction to Anthropology</td>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
</tr>
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<td>Frames of Modernity II - Postmodernity and Globalization</td>
<td>Writing in the Disciplines (CAO)</td>
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<td>WCL 4356</td>
<td>World Film &amp; Film Theory</td>
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<td>WCL 4365</td>
<td>World Fiction &amp; Reportage</td>
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<td>WCL 4367</td>
<td>Voices from Exile and Diaspora</td>
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<td>WGSS 2350</td>
<td>Introduction To Women's Studies</td>
<td>Language, Philosophy &amp; Culture</td>
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<tr>
<td>WGSS 2360</td>
<td>Introduction to GLBT Studies</td>
<td>Language, Philosophy &amp; Culture</td>
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**Notes:**

*The following Core courses may be applied to satisfy the Mathematics or the Math/Reasoning component area: MATH 1312, MATH 1313, MATH 1314, MATH 1330, MATH 1431, MATH 1450 and MATH 2311.*

**The following Core courses may be applied to satisfy the Creative Arts or the Writing in the Disciplines component area: DAN 2307, DAN 3310.*

***The following Core courses may be applied to satisfy the Language, Philosophy & Culture or the Writing in the Disciplines component area: JWST 3371, RELS 3371.*
Communication Objectives

Communication Objectives (6 hours)

Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively.

Courses involve the command of oral, aural, written, and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience.

The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, Teamwork, and Personal Responsibility.

The following courses satisfy the core requirements in Communication. See the current Course Listing, published each term, for prerequisites and other restrictions, additions, and deletions.
Communication: Approved Core Courses

- ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
- ENGL 1370 - Freshman Composition II - Honors **Credit Hours: 3.0**
- ENGL 2361 - Western World Literature II - Honors **Credit Hours: 3.0**
Mathematics Objectives

Mathematics Objectives (3 credit hours)

Courses in this category focus on quantitative literacy in logic, patterns, and relationships.

Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

The following three Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, and Empirical and Quantitative Skills. The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

The following courses satisfy the core requirements in Mathematics. See the current Course Listing for prerequisites and other restrictions, additions, and deletions.
Mathematics: Approved Core Courses

- BUSI 2305 - Business Statistics  Credit Hours: 3.0 *
- MATH 1310 - College Algebra  Credit Hours: 3.0
- MATH 1311 - Elementary Mathematical Modeling  Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning  Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications  Credit Hours: 3.0 *
- MATH 1314 - Calculus for Business and the Life Sciences  Credit Hours: 3.0 *
- MATH 1330 - Precalculus  Credit Hours: 3.0 *
- MATH 1431 - Calculus I  Credit Hours: 4.0 *
- MATH 1450 - Accelerated Calculus  Credit Hours: 4.0 *
- MATH 2311 - Introduction to Probability and Statistics  Credit Hours: 3.0 *

* Notes:

BUSI 2305, MATH 1312, MATH 1313, MATH 1314, MATH 1330, MATH 1431, MATH 1450, and MATH 2311 may also be applied to satisfy Core Math/Reasoning.
Life and Physical Sciences Objectives

Life and Physical Sciences Objectives (6 credit hours)

Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method.

Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, and Teamwork.

The following courses satisfy the core requirements in Life and Physical Sciences. See the current Course Listings for prerequisites and other restrictions, additions, and deletions.
Life and Physical Sciences: Approved Core Courses

- BIOL 1305 - Human Biology for the Informed Citizen  Credit Hours: 3.0
- BIOL 1309 - Human Genetics and Society  Credit Hours: 3.0
- BIOL 1310 - General Biology 1  Credit Hours: 3.0
- BIOL 1320 - General Biology 2  Credit Hours: 3.0
- BIOL 1361 - Introduction to Biological Science 1  Credit Hours: 3.0
- BIOL 1362 - Introduction to Biological Science 2  Credit Hours: 3.0
- BIOL 2315 - Biology of Food  Credit Hours: 3.0
- CHEM 1301 - Foundations of Chemistry  Credit Hours: 3.0
- CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0
- CHEM 1332 - Fundamentals of Chemistry 2  Credit Hours: 3.0
- GEOL 1302 - Introduction to Global Climate Change  Credit Hours: 3.0
- GEOL 1330 - Physical Geology  Credit Hours: 3.0
- GEOL 1340 - Earth Systems  Credit Hours: 3.0
- GEOL 1350 - Introduction to Meteorology  Credit Hours: 3.0
- GEOL 1360 - Introduction to Oceanography  Credit Hours: 3.0
- GEOL 1370 - Natural Disasters  Credit Hours: 3.0
- GEOL 1376 - Historical Geology  Credit Hours: 3.0
- NUTR 2332 - Introduction To Human Nutrition  Credit Hours: 3.0
- PHAR 2362 - Principles of Drug Action  Credit Hours: 3.0
- PHYS 1301 - Introductory General Physics I  Credit Hours: 3.0
- PHYS 1302 - Introductory General Physics II  Credit Hours: 3.0
- PHYS 1305 - Introductory Astronomy - The Solar System  Credit Hours: 3.0
- PHYS 1306 - Introductory Astronomy - Stellar and Galactic Systems  Credit Hours: 3.0
- PHYS 1321 - University Physics I  Credit Hours: 3.0
- PHYS 1322 - University Physics II  Credit Hours: 3.0
Language, Philosophy & Culture Objectives

Language, Philosophy & Culture Objectives (3 credit hours)

Courses in this category focus on how ideas, values, beliefs, and other aspects of culture express and affect human experience.

Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.

The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, Personal Responsibility, and Social Responsibility.

The following courses satisfy the core requirements in Language, Philosophy & Culture. See the current Course Listings for prerequisites and other restrictions, additions, and deletions.
Language, Philosophy & Culture: Approved Core Courses

- AAS 2320 - Introduction to African American Studies  Credit Hours: 3.0
- AAS 2330 - Black Liberation Theology  Credit Hours: 3.0
- ARAB 3340 - Modernity and Rationalism in Islamic Tradition  Credit Hours: 3.0
- ARTH 1300 - Ways of Seeing: Art and Our Visual World  Credit Hours: 3.0
- ARTH 1380 - Art and Society: Prehistoric to Gothic  Credit Hours: 3.0
- CHNS 3352 - Chinese Culture and Society Through Modern Literature  Credit Hours: 3.0
- CHNS 3360 - A Look Into Modern China  Credit Hours: 3.0
- CLAS 3307 - Greek and Roman Myths of Heroes  Credit Hours: 3.0
- CLAS 3308 - Myths and Cult of the Greek Gods  Credit Hours: 3.0
- CLAS 3366 - The Trojan War  Credit Hours: 3.0
- CLAS 3374 - Women in the Ancient World  Credit Hours: 3.0
- ENGL 2305 - Introduction to Fiction  Credit Hours: 3.0
- ENGL 2306 - Introduction to Poetry  Credit Hours: 3.0
- ENGL 2308 - Introduction to Nonfiction Prose  Credit Hours: 3.0
- ENGL 2315 - Literature and Film  Credit Hours: 3.0
- ENGL 2316 - Literature and Culture  Credit Hours: 3.0
- ENGL 2323 - Literature and Identity  Credit Hours: 3.0
- ENGL 2325 - Literary Traditions of the Nonwestern World  Credit Hours: 3.0
- ENGL 2340 - Cosmic Narratives  Credit Hours: 3.0
- ENGL 3306 - Shakespeare: The Major Works  Credit Hours: 3.0
- ENGL 3324 - The Development of the Novel  Credit Hours: 3.0
- ENGL 3325 - Structures of Poetry  Credit Hours: 3.0
- ENGL 3327 - Masterpieces of British Literature to the Eighteenth Century  Credit Hours: 3.0
- ENGL 3328 - Masterpieces of British Literature from the Eighteenth Century  Credit Hours: 3.0
- ENGL 3350 - American Literature to 1865  Credit Hours: 3.0
- ENGL 3351 - American Literature Since 1865  Credit Hours: 3.0
- ENGL 3360 - Survey of African American Literature  Credit Hours: 3.0
- ETHN 2300 - Introduction to Ethnic Studies  Credit Hours: 3.0
- FREN 3318 - History of French Cinema  Credit Hours: 3.0
- FREN 3319 - History of French Cinema  Credit Hours: 3.0
- FREN 3321 - Cinema of French-Speaking Africa  Credit Hours: 3.0
- FREN 3322 - Cinema of French-Speaking Africa  Credit Hours: 3.0
- FREN 3362 - Paris - Berlin: Tales of Two Cities  Credit Hours: 3.0
- FREN 3364 - Writing Holocausts: The Literatures of Genocide  Credit Hours: 3.0
- GERM 3350 - Understanding the 20th Century through German Culture  Credit Hours: 3.0
- GERM 3362 - Paris - Berlin: Tales of Two Cities  Credit Hours: 3.0
- GERM 3364 - Writing Holocausts: The Literatures of Genocide  Credit Hours: 3.0
- GERM 3369 - World War I in Literature, Visual Arts, and Film  Credit Hours: 3.0
- HISP 2373 - Spanish Culture and Civilization  Credit Hours: 3.0
- HISP 2374 - Spanish American Culture and Civilization  Credit Hours: 3.0
- HISP 2375 - United States Hispanic Culture and Civilization  Credit Hours: 3.0
- HIST 2349 - Latina/o Jewish History  Credit Hours: 3.0
- HIST 2351 - Western Civilization to 1450  Credit Hours: 3.0
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<td>WCL 3377</td>
<td>The Modern Middle East: Literature, Politics, and Ideas</td>
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<tr>
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<td>Introduction to GLBT Studies</td>
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</table>
**Notes:**

JWST 3371 and RELS 3371 may be applied to satisfy the Writing in the Disciplines component.
Creative Arts Objectives

Creative Arts Objectives (3 credit hours)

Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human imagination.

Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.

The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, Teamwork, and Social Responsibility.

The following courses satisfy the core requirements in Creative Arts. See the current Course Listings for prerequisites and other restrictions, additions, and deletions.
Creative Arts: Approved Core Courses

- ARCH 2350 - Survey of Architectural History I Credit Hours: 3.0
- ARTH 1381 - Art and Society: Renaissance to Modern Credit Hours: 3.0
- CLAS 3345 - Myth and Performance in Greek Tragedy Credit Hours: 3.0
- CLAS 3381 - From Homer to Hollywood: Archaic and Classical Greek Themes in Modern Cinema Credit Hours: 3.0
- DAN 2307 - Introduction to Dance Credit Hours: 3.0 *
- DAN 3310 - Dance History I Credit Hours: 3.0 *
- ENGL 2307 - Introduction to Drama Credit Hours: 3.0
- ENGL 2318 - Creation and Performance of Literature Credit Hours: 3.0
- GERM 3363 - Themes in German Drama Credit Hours: 3.0
- GERM 3381 - History of German Cinema Credit Hours: 3.0
- GERM 3384 - Fascism and German Cinema Credit Hours: 3.0
- GERM 3385 - East German Cinema Credit Hours: 3.0
- HIST 4371 - Latin American History Through Film Credit Hours: 3.0
- INDS 2355 - Design History I Credit Hours: 3.0
- MUED 2342 - Music for Children Credit Hours: 3.0
- MUSI 2302 - Listening to Jazz Credit Hours: 3.0
- MUSI 2362 - History of Music I Credit Hours: 3.0
- MUSI 3301 - Listening to World Music Credit Hours: 3.0
- PHIL 1361 - Philosophy and the Arts Credit Hours: 3.0
- POLS 2346 - The Politics of Greek Theatre Credit Hours: 3.0
- SPAN 3386 - Screen Memories: Spanish Culture Through Film Credit Hours: 3.0
- THEA 1331 - Introduction to the Theatre Credit Hours: 3.0
- THEA 1332 - Fundamentals of Theatre Credit Hours: 3.0
- WCL 3366 - Latin American and Latino Film Studies Credit Hours: 3.0

* Notes:

DAN 2307 and DAN 3310 may be applied to satisfy the Writing in the Disciplines component.
American History Objectives

American History Objectives (6 credit hours)

Courses in this category focus on the consideration of past events and ideas relative to the United States, with the option of including Texas History for a portion of this component area.

Courses involve the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role.

The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, Personal Responsibility, and Social Responsibility.

The following courses satisfy the core requirements in American History. See the current Course Listings for prerequisites and other restrictions, additions, and deletions.
American History: Approved Core Courses

Students must have earned credit for six credit hours or its equivalent in American History; three credit hours may be in Texas History.

- HIST 1376 - The United States To 1877 Credit Hours: 3.0
- HIST 1377 - The U.S To 1877 Credit Hours: 3.0
- HIST 1378 - The U.S Since 1877 Credit Hours: 3.0
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0
- HIST 2348 - U.S. Latino/a Histories Credit Hours: 3.0

Texas History

Up to only three credit hours of Texas history may be used in partial satisfaction of this requirement.

- HIST 2341 - Texas To 1865 Credit Hours: 3.0
- HIST 2343 - Texas Since 1865 Credit Hours: 3.0

Note(s):

Credit in both HIST 1376 and HIST 1377 cannot be applied toward a degree; credit in both HIST 1378 and HIST 1379 cannot be applied toward a degree.

Credit in both HIST 2341 and HIST 2343 cannot be applied toward the American History component area.

State History and Constitutions Requirements

Senate Bill 254, passed by the 54th Legislature and amended by House Bill 935 of the 60th Legislature, provides that no individuals may receive an undergraduate degree unless they have credit for six credit hours or its equivalent in American history and six credit hours credit in the constitutions of the United States and Texas.

For information on advanced placement or credit by examination, consult the University Testing Services, 204 Student Service Center.

For more information visit the Texas Higher Education Coordinating Board web site (see Sec. 51.302. American or Texas History).

For information about meeting the State's Constitutions Requirements, please see the Government category of the UH Core Curriculum.
Government/Political Science Objectives

Government/Political Science Objectives (6 credit hours)

Courses in this category focus on consideration of the Constitution of the United States and the constitutions of the states, with special emphasis on that of Texas.

Courses involve the analysis of governmental institutions, political behavior, civic engagement, and their political and philosophical foundations.

The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, Personal Responsibility, and Social Responsibility.

The following courses satisfy the core requirements in Government/Political Science. See the current Course Listing for prerequisites and other restrictions, additions, and deletions.
Government/Political Science: Approved Core Courses

- POLS 1107 - Texas Constitution and Government **Credit Hours: 1.0**
- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
- POLS 2336 - U.S. and Texas Constitutions, Politics, and Institutions **Credit Hours: 3.0**

State History and Constitutions Requirements

Senate Bill 254, passed by the 54th Legislature and amended by House Bill 935 of the 60th Legislature, provides that no individuals may receive an undergraduate degree unless they have credit for six semester hours or its equivalent in American history and six semester hours credit in the constitutions of the United States and Texas.

**Note(s):**

- TCCNS GOVT 2305 Federal Government (formerly GOVT 2302) = UH POLS 1337
- TCCNS GOVT 2306 Texas Government (formerly GOVT 2301) = UH POLS 1336
- TCCNS GOVT 2107 = UH POLS 1107

For purposes of Transfer Credit of the Texas Common Core the following combinations are permitted:

- GOVT 2301 and GOVT 2302
- GOVT 2303 and GOVT 2306
- GOVT 2301 and GOVT 2305
- GOVT 2301 and GOVT 2306
- GOVT 2302 and GOVT 2305 and GOVT 2107 or
- GOVT 2302 and GOVT 2306 and GOVT 2107

For information on advanced placement or credit by examination consult the University Testing Services, 204 Student Service Center.

For more information, visit the Texas Higher Education Coordinating Board web site (see Sec. 51.301. Government or Political Science).

For information about meeting the State's History Requirements, please see the History category of the UH Core Curriculum.
Social and Behavioral Sciences Objectives

Social and Behavioral Sciences (3 credit hours)

Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human.

Courses involve the exploration of behavior and interactions among individuals, groups, institutions, and events, examining their impact on the individual, society, and culture.

The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, and Social Responsibility.

The following courses satisfy the core requirements in Social and Behavioral Sciences. See the current Course Listings for prerequisites and other restrictions, additions, and deletions.
Social and Behavioral Sciences: Approved Core Courses

- AAMS 2300 - Introduction to Asian American Studies Credit Hours: 3.0
- ANTH 1300 - Introduction to Anthropology Credit Hours: 3.0
- ANTH 2301 - Introduction to Physical Anthropology Credit Hours: 3.0
- ANTH 2302 - Introduction to Cultural Anthropology Credit Hours: 3.0
- ANTH 2303 - Introduction to Archaeology Credit Hours: 3.0
- ECON 2301 - Global Economic Concepts Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0
- HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0
- HRMA 2365 - Tourism Credit Hours: 3.0
- KIN 1304 - Public Health Issues in Physical Activity and Obesity Credit Hours: 3.0
- POLS 3311 - Introduction to Comparative Politics Credit Hours: 3.0
- POLS 3354 - Law and Society Credit Hours: 3.0
- PSYC 1300 - Introduction to Psychology Credit Hours: 3.0
- PSYC 2350 - Child Development Credit Hours: 3.0
- PSYC 2351 - Psychology of Adolescence Credit Hours: 3.0
- SOC 1300 - Introduction to Sociology Credit Hours: 3.0
- TECH 1313 - Impact of Modern Technology on Society Credit Hours: 3.0
Math/Reasoning Objectives

Component Area Option (A): Mathematics/Reasoning Objectives (3 credit hours)

The University of Houston includes in its core curriculum courses that build students' skills in mathematical and logical thinking, including approved courses in mathematics, logic, computer science, and statistics.

The following courses satisfy the core requirements in Mathematics/Reasoning. See the current Course Listings for prerequisites and other restrictions, additions, and deletions.
Mathematics/Reasoning: Approved Core Courses

- BUSI 2305 - Business Statistics  Credit Hours: 3.0 *
- COSC 1306 - Computer Science & Programming  Credit Hours: 3.0
- CUIN 2320 - Mathematics for Elementary and Middle School Teachers  Credit Hours: 3.0
- ECON 2370 - Introduction to Economic Data Analysis  Credit Hours: 3.0
- ELET 2300 - Introduction to C++ Programming  Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning  Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications  Credit Hours: 3.0 *
- MATH 1314 - Calculus for Business and the Life Sciences  Credit Hours: 3.0 *
- MATH 1330 - Precalculus  Credit Hours: 3.0 *
- MATH 1431 - Calculus I  Credit Hours: 4.0 *
- MATH 1432 - Calculus II  Credit Hours: 4.0
- MATH 1450 - Accelerated Calculus  Credit Hours: 4.0 *
- MATH 1451 - Accelerated Calculus  Credit Hours: 4.0
- MATH 2311 - Introduction to Probability and Statistics  Credit Hours: 3.0 *
- PHIL 1321 - Logic I  Credit Hours: 3.0
- POLS 3312 - Arguments, Data, and Politics  Credit Hours: 3.0
- POLS 3316 - Statistics for Political Scientists  Credit Hours: 3.0
- PSYC 3301 - Introduction to Psychological Statistics  Credit Hours: 3.0
- TMTH 3360 - Applied Technical Statistics  Credit Hours: 3.0

* Notes:

BUSI 2305, MATH 1313, MATH 1314, MATH 1330, MATH 1431, MATH 1450, and MATH 2311 may be applied to satisfy Core Mathematics.
Writing in the Disciplines Objectives

Component Area Option (B): Writing in the Disciplines (3 credit hours)

The objective of a writing in the disciplines component of a core curriculum is to enable the student to communicate effectively in clear and correct prose in a style appropriate to the subject, occasion, and audience.

Writing intensive courses require substantial writing (at least 3000 words, including at least one piece of work done outside of class and returned to the student prior to the end of the term with the instructor’s written evaluation of grammar, style, and content).

The following courses satisfy the core requirements in Writing in the Disciplines. See the current Course Listings for prerequisites and other restrictions, additions, and deletions.
Writing in the Disciplines: Approved Core Courses

- ANTH 2304 - Introduction to Language and Culture Credit Hours: 3.0
- ANTH 3348 - Anthropology of Religion Credit Hours: 3.0
- ANTH 3361 - Human Origins Credit Hours: 3.0
- ANTH 3381 - Global Hinduism Credit Hours: 3.0
- ARAB 3314 - Women and Gender in Arabic Literature Credit Hours: 3.0
- ARCH 1359 - Design Since 1945 Credit Hours: 3.0
- ARTH 3312 - Pre-Columbian Art Credit Hours: 3.0
- ARTH 3314 - Women and Gender in Arabic Literature Credit Hours: 3.0
- ARCH 1359 - Design Since 1945 Credit Hours: 3.0
- BUSI 4350 - Business Law and Ethics Credit Hours: 3.0
- CLAS 4305 - Fifth-Century Athens: Readings in Intellectual, Literary, and Political History Credit Hours: 3.0
- CLAS 4381 - Latin Classics in Translation Credit Hours: 3.0
- DAN 2307 - Introduction to Dance Credit Hours: 3.0 *
- DAN 3310 - Dance History I Credit Hours: 3.0 *
- ECON 3344 - History of Economic Doctrine Credit Hours: 3.0
- ECON 3350 - American Economic Growth Credit Hours: 3.0
- ENGL 2304 - Technical Communications for Engineers Credit Hours: 3.0
- ENGL 2330 - Writing in the Discipline of English Credit Hours: 3.0
- HEDS 1300 - Human Ecosystems and Technological Change Credit Hours: 3.0
- HEDS 1300 - Development of Contemporary Families Credit Hours: 3.0
- HIST 3314 - Liberals vs. Conservatives: FDR to the Present Credit Hours: 3.0
- HIST 333 - Chicano History Since 1910 Credit Hours: 3.0
- HIST 3351 - Work and Family Life in Modern Europe Credit Hours: 3.0
- HIST 3369 - Colonial Mexico Credit Hours: 3.0
- HIST 4321 - The History of Jewish Food Credit Hours: 3.0
- HON 2341 - Classics of Modernity Credit Hours: 3.0
- HON 3300 - Introduction to Social Medicine Credit Hours: 3.0
- HRMA 3358 - Hospitality Industry Law Credit Hours: 3.0
- IDNS 4392 - History of 20th Century Science Credit Hours: 3.0
- ITAL 3307 - Italian Renaissance Credit Hours: 3.0
- ITAL 3309 - Women Writers and Filmmakers of Modern Italy Credit Hours: 3.0
- ITAL 4308 - Dante and His World Credit Hours: 3.0
- JWST 3371 - Women in the Hebrew Bible/Old Testament Credit Hours: 3.0 **
- LAST 3300 - Latin American Studies: Interdisciplinary Perspectives Credit Hours: 3.0
- MAS 3342 - Mexican Immigration To the US Credit Hours: 3.0
- MAS 3345 - Latino Leadership, Activism & Organizing Credit Hours: 3.0
- MATH 4388 - History of Mathematics Credit Hours: 3.0
- MUSI 3303 - Popular Music in the Americas Since 1840 Credit Hours: 3.0
- NURS 4312 - Leadership and Management in Professional Nursing Practice Credit Hours: 3.0
- PHIL 1334 - Minds and Machines Credit Hours: 3.0
- PHYS 3313 - Advanced Laboratory I Credit Hours: 3.0
- POLS 3310 - Introduction to Political Theory Credit Hours: 3.0
- POLS 3348 - Left, Right, and Center Credit Hours: 3.0
• POLS 3349 - Foundations in American Political Thought  
  Credit Hours: 3.0
• PSYC 2344 - Cultural Psychology  
  Credit Hours: 3.0
• PSYC 3310 - Industrial-Organization Psychology  
  Credit Hours: 3.0
• PSYC 4321 - Abnormal Psychology  
  Credit Hours: 3.0
• RELS 2340 - Introduction to Hinduism  
  Credit Hours: 3.0
• RELS 2350 - Introduction to Islam  
  Credit Hours: 3.0
• RELS 2360 - Introduction to Buddhism  
  Credit Hours: 3.0
• RELS 3370 - The Bible and Modern Science  
  Credit Hours: 3.0
• RELS 3371 - Women in the Hebrew Bible/Old Testament  
  Credit Hours: 3.0 **
• RELS 3381 - Global Hinduism  
  Credit Hours: 3.0
• SOC 3300 - Introduction to Sociological Theory  
  Credit Hours: 3.0
• SOC 3315 - Sexuality and Society  
  Credit Hours: 3.0
• SOC 3351 - Social Class and Mobility in America  
  Credit Hours: 3.0
• SOC 3360 - Sociology of Food  
  Credit Hours: 3.0
• SPAN 3384 - Introduction to Hispanic Literature  
  Credit Hours: 3.0
• TLIM 3363 - Technical Communications  
  Credit Hours: 3.0
• THEA 2344 - American Drama  
  Credit Hours: 3.0
• WCL 3348 - Enlightenment Stories  
  Credit Hours: 3.0
• WCL 4351 - Frames of Modernity I  
  Credit Hours: 3.0
• WCL 4352 - Frames of Modernity II - Postmodernity and Globalization  
  Credit Hours: 3.0
• WCL 4356 - World Film & Film Theory  
  Credit Hours: 3.0
• WCL 4365 - World Fiction & Reportage  
  Credit Hours: 3.0
• WCL 4367 - Voices from Exile and Diaspora  
  Credit Hours: 3.0

* Notes:

* DAN 2307 and DAN 3310 may be applied to satisfy the Creative Arts component.

** JWST 3371 and RELS 3371 may be applied to satisfy the Language, Philosophy & Culture component.
Degrees Granted

by the University of Houston

Please see the individual college sections elsewhere in this catalog for more information about specific degree offerings and requirements.

Baccalaureate

Bachelor of Architecture (B.Arch.)
Bachelor of Arts (B.A.)
Bachelor of Business Administration (B.B.A.)
Bachelor of Fine Arts (B.F.A.)
Bachelor of Music (B.M.)
Bachelor of Science (B.S.)
Bachelor of Science in Biomedical Engineering (B.S.B.E.)
Bachelor of Science in Chemical Engineering (B.S.Ch.E.)
Bachelor of Science in Civil Engineering (B.S.C.E.)
Bachelor of Science in Computer Engineering (B.S.Cp.E.)
Bachelor of Science in Electrical Engineering (B.S.E.E.)
Bachelor of Science in Industrial Engineering (B.S.I.E.)
Bachelor of Science in Mechanical Engineering (B.S.M.E.)
Bachelor of Science in Petroleum Engineering (B.S.P.E.T.E.)

Masters

Master of Architecture (M.Arch.)
Master of Arts (M.A.)
Master of Business Administration (M.B.A.)
Master of Education (M.Ed.)
Master of Fine Arts (M.F.A.)
Master of Hospitality Management (M.H.M.)
Master of Laws (LL.M.)
Master of Music (M.M.)
Master of Science (M.S.)
Master of Science in Accountancy (M.S.Acy.)
Master of Chemical Engineering (M.Ch.E.)
Master of Science in Chemical Engineering (M.S.Ch.E.)
Master of Civil Engineering (M.C.E.)
Master of Science in Civil Engineering (M.S.C.E.)
Master of Electrical Engineering (M.E.E.)
Master of Science in Electrical Engineering (M.S.E.E.)
Master of Industrial Engineering (M.I.E.)
Master of Science in Industrial Engineering (M.S.I.E.)
Master of Mechanical Engineering (M.M.E.)
Master of Science in Mechanical Engineering (M.S.M.E.)
Master of Petroleum Engineering (M.P.E.)
Master of Science in Petroleum Engineering (M.S.P.E.)
Master of Science in Physiological Optics (M.S.P.O.)
Master of Social Work (M.S.W.)

Doctoral

Doctor of Education (Ed.D.)
Doctor of Jurisprudence (J.D.)
Doctor of Musical Arts (D.M.A.)
Doctor of Optometry (O.D.)
Doctor of Pharmacy (Pharm.D.)
Doctor of Philosophy (Ph.D.)
Degree Plan

Students must file a degree plan no later than the end of the second regular term immediately following the term in which they earned a cumulative total of 45 or more credit hours. These hours include transfer courses, international baccalaureate courses, dual credit courses, course credit awarded by examination, and any other course for which the student received college course credit. A degree plan is a statement of the course of study requirements that an undergraduate student at an institution of higher education must complete in order to be awarded a degree from the institution. Therefore, the UH Degree Progress Report which identifies the courses needed to earn a degree will satisfy this requirement.

Colleges may also have additional requirements regarding the filing of degree plans at the college level. Students should see their major academic advisor(s) for specific details.
Degree Requirement Exceptions

Students may petition for exceptions to university or college degree requirements with good reason. A petition should be filed with the major department. It will be forwarded to the office of the dean of the college. College requirements may be decided by the dean. University requirements (e.g., residency requirements) must be forwarded to the Office of the Senior Vice President for Academic Affairs for final action.
Double Major

At the University of Houston, students may earn a baccalaureate degree with two majors (i.e., a double major) provided they meet all the following requirements:

1. The baccalaureate degree must be the same for both majors (e.g.: B.A., B.S., B.B.A., B.F.A.).
2. Students must satisfy the college and major degree requirements for their primary major that were in effect at the time they were admitted into the primary major and those for their second major in effect at the time they were admitted into the second major.
3. Students may not add a second major to a baccalaureate degree they have already received.
4. Students may not receive official university recognition in a single degree for having earned both a major and a minor in the same field of study.
5. Students must earn a 2.00 minimum grade point average in all courses attempted in each major at the university.
6. Students must complete a minimum of nine credit hours of advanced work in residence in each major.

Students pursuing a double major must identify one of the two majors as the primary one for purposes of establishing an academic home of record. Students pursuing a double major should apply for one degree plan for both majors to the dean of the college or departmental advisor of their primary major no later than the beginning of their junior year. The college of the student’s primary major will issue the university diploma.

Students pursuing a double major who complete all degree requirements for one major but not the other may graduate with a single major but only after they obtain written approval from the dean of the college of their primary major (and, if their second major is in a different college, from the dean of that college) to change from double-to single-major status.

The University of Houston does not recognize a triple major or any number of majors above two for a single baccalaureate degree. Students who want official university recognition for more than a double major must earn more than one baccalaureate degree.
General Requirements for a Baccalaureate Degree

All candidates for a bachelor’s degree at the University of Houston must meet certain minimum requirements. Additional requirements may be imposed by the individual department or college. Students should refer to the department or college section of this catalog for complete requirements and total number of hours prescribed for the specific degree.

The following are the minimum requirements for a bachelor’s degree:

1. Students must complete at least 120 credit hours of courses. At least 36 of the 120 credit hours must be advanced, according to the requirements of respective degree plans.
2. A repeated course cannot be counted as elective credit toward satisfying the requirement for graduation or counted toward the minimum of 120 hours credit toward graduation, unless the course is identified in the Undergraduate Studies catalog as repeatable. Repeatable courses, such as Independent Study or Selected Topics courses, are often designed to be taken more than once for additional credits each time.
3. A repeated course, including courses repeated during a summer session, is equivalent to a new course both in the determination of classification and in computing the cumulative grade point average. Students may not enroll in any course more than three times, including W, F, and I grades, without permission from the college of their major. When a course is repeated, only the best attempt will be considered toward degree requirements. All attempts will remain on the student’s official transcript and count toward the student’s major and minor grade point averages and cumulative grade point average calculations. Please note that minimum grades may be required in specific courses in the student’s degree plans. This policy does not apply to courses referred to as repeatable in Requirement 2 above (e.g., Selected Topics courses).
4. Students must complete the state-mandated 42 hour core curriculum (see Core Curriculum Requirements section of this catalog).
5. Students must complete all course requirements of the major as specified in the college section of the catalog, some of which may also satisfy university core curriculum requirements.
6. Students must earn a 2.00 minimum cumulative grade point average in courses with the subject code of the minor attempted at the university. Exceptions to this policy may be found in the requirements of specific minors.
7. Students must earn a 2.00 minimum cumulative grade point average in courses with the subject code of the major attempted at the university. Exceptions to this policy may be found in the requirements of specific majors.
8. Students must earn a 2.00 minimum cumulative grade point average at the university.
9. In addition to these general requirements, candidates for graduation must meet all special degree requirements as specified in the appropriate college sections in which the major is completed.
10. Students cannot satisfy any degree requirements in their major with advanced courses that were completed more than seven years before the term in which the degree is awarded, unless they receive permission from their college dean.
11. Students must complete at least 25 percent of the credit hours required for a degree in residence or if 25 percent includes a fraction of a credit hour, the requirement must be rounded up to the nearest whole number of a credit hour.
   a. These residence hours are not to include credit by examination, independent study, or individual research courses taken at the University of Houston.
   b. A minimum of nine credit hours of advanced work in the major field must be completed in residence.
12. Twenty-four (24) of the last thirty (30) credit hours to be applied toward a bachelor’s degree must be taken in residence. The 6 credits allowed to be taken at external institutions within the final residency may be used only for:
   a. Core Requirements
   b. 1000 and 2000 level foreign language courses
   Always consult your UH academic advisor before enrolling courses off campus.
13. Students may petition for exceptions to university or college degree requirements with good reason. A petition should be filled with the major department. It will be forwarded to the offices of the dean of the college. College requirements may be decided by the dean. University requirements (e.g. residency requirements) must be forwarded to the Office of the Senior Vice President for Academic Affairs for final action.
Graduation

Graduation Application

Degrees are not awarded automatically upon completion of scholastic requirements. To be considered a candidate for a degree, the student must submit an online application for graduation by logging in to myUH.

Applications should be filed during the graduation filing period as listed in the Academic Calendar. Students cannot apply for the same degree in multiple terms simultaneously. Once a graduation application has been submitted, a decision must be made to approve or disapprove based on whether all of the requirements of the degree have been met by the graduation date. A student is not able to submit a subsequent application for the same degree until decision on a pending graduation application has been processed as disapproved.

A non-refundable application fee will be assessed for each graduation application filed during the regular graduation filing period and a non-refundable late graduation application fee assessed for those filed thereafter. Candidates for multiple degrees are required to complete an application for each degree they are seeking and will be assessed the appropriate fees. For current fees, please see the University Registrar's website.

A student who has been disapproved for their degree must submit a new graduation application in a future term that they expect to meet the requirements to be considered a candidate for the degree. Each subsequent graduation application submitted will be assessed the appropriate graduation application fee according to the filing period during which the application is submitted.

Certification for graduation is performed by the dean's office in the college of the student's major and a decision of approved or disapproved is rendered within 4-6 weeks after the close of the term. Diplomas are typically mailed within 1-2 weeks from the time the approved certifications for graduation are processed.

Cap and Gown

Students are responsible for ordering and paying for caps and gowns at the University Bookstore for all commencement exercises.

Graduation with Honors

Undergraduate students who have completed the graduation requirements of the Honors College, including a senior honors thesis or senior honors project, are graduated with "University Honors with Honors in Major." Undergraduate students who have completed all requirements of the Honors College except for the thesis or project are graduated with "University Honors." (See University Honors College.) Undergraduate students who successfully complete a senior honors thesis or senior honors project and who are not members of the Honors College are graduated with "Honors in Major."

Undergraduate students who complete their degree requirements under catalogs beginning in Fall 2010 will graduate with the stated academic honors if they achieve the following grade point averages earned in the last fifty-four (54) hours (all of which must be A, B, C, ..., letter grade courses) completed at the University of Houston. Grades of S, U, I and W are not assigned grade point values and are not used in the computation of the grade point average.

<table>
<thead>
<tr>
<th>GPA</th>
<th>Honors Description</th>
</tr>
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<tbody>
<tr>
<td>3.90 to 4.0</td>
<td>Summa Cum Laude (with highest honors)</td>
</tr>
<tr>
<td>3.70 to 3.89</td>
<td>Magna Cum Laude (with high honors)</td>
</tr>
<tr>
<td>3.50 to 3.69</td>
<td>Cum Laude (with honors)</td>
</tr>
</tbody>
</table>
Further, the honors calculation will include all hours completed in the term in which the first of those final fifty-four (54) hours was completed. See Catalog archives for honors policy for students beginning under catalogs prior to Fall 2010.
Graduation Under a Particular Catalog

Students normally are entitled to graduate under the degree provisions of the catalog in effect at the time of their first completed term of enrollment. These exceptions apply:

1. A catalog more than seven years old shall not be used.
2. The programs of students who interrupt their enrollment at the University of Houston for more than 13 months shall be governed by the catalog in effect at the time of the students’ reentrance to the university. For these purposes, enrollment is defined as enrollment (registration) for and successful completion of at least one three-credit-hour course during a term or summer session. Students forced to withdraw for adequate cause before completion of a course may petition the dean of the college of their major for a waiver of this provision at the time of withdrawal.
3. Students who change their majors at this university, provided they do not interrupt their enrollment at the University of Houston for more than 13 months, are entitled to graduate under the general degree requirements in effect at the time they enrolled at the university, but must satisfy the college and major degree requirements in effect at the time the change of major becomes effective.
4. Students who add a second major at this university, provided they do not interrupt their enrollment at the University of Houston for more than 13 months, are entitled to graduate under the general degree requirements in effect at the time they enrolled at the university, the college and primary major degree requirements in effect at the time their primary major became effective, and the major degree requirements of the second major (and, if the second major is in a different college from the primary major, the degree requirements of that college) in effect at the time their second major became effective.
5. Students will be required to comply with all changes in the curriculum made subsequent to the years enrolled. Careful consideration will be given to all deletions and additions of courses, and will be of approximately equal credit so that no student will have an overall appreciable increase of total credits required for graduation, unless otherwise approved by the Dean of the college.
6. A student who transfers from another Texas public institution of higher education may choose a catalog for the purpose of specifying graduation requirements, based upon the dates of attendance at the receiving institution and at the transferring institution, in the same manner that a non-transfer student may choose a catalog.
Requirements for a Minor

In most fields of study at the undergraduate level, students may earn a minor by satisfying certain requirements. The general requirements are as follows:

1. Students must complete a minimum of 15 credit hours of work in the minor field.
2. At least nine of the 15 credit hours must be advanced.
3. At least six of the nine advanced credit hours must be taken in residence.
4. Students must earn a 2.00 minimum cumulative grade point average on courses attempted in the minor at the University of Houston. Departments and colleges may include additional requirements but cannot require more than 21 credit hours of work in the minor field of study.

Not all departments and colleges offer minors, but those that do provide academic advice for the students who seek minors in their areas.

Students should consult the general and departmental requirements listed in the college sections of this catalog for more detailed information on the availability of and requirements for minors.
Enrollment

Overview

The university's online enrollment services system, myUH, provides a convenient option to simplify the enrollment process. For your convenience several opportunities to enroll using the online system are offered each term, including summer sessions. Specific dates, detailed instructions, and a listing of the courses offered each term are included in the UH Self Service Center, also available online after logging in to myUH.

In order to qualify for financial aid students must have an approved change of degree objective posted in their student information system (myUH) prior to the first day of the term in which they are enrolling. Students must be advised by their academic advisor prior to enrollment and to ascertain that they have an approved degree objective posted.

Cancellation

Students may cancel their enrollment after payment by dropping courses through the online enrollment (registration) system at myUH prior to the first day of class each term. Students may also receive assistance through the Office of the University Registrar, 128 Welcome Center.

Students who do so are entitled to a full refund minus a small matriculation fee and are regarded as never having officially enrolled in that term. In the event you are placed on academic suspension, courses for which you have enrolled in any future term will be automatically cancelled - regardless of whether you have paid tuition and fees. Should you be given approval from the dean of your college to enroll, you will be required to re-enroll.

Class Membership

Students may not attend a class unless properly enrolled. Failure to follow proper enrollment (registration) procedures may jeopardize a student's good standing at the university and result in a loss of credit. Class rosters are comprised solely from the official enrollment records of the Office of the University Registrar. Students whose names do not appear on the official class roster in each of their classes should immediately verify enrollment (registration) by logging into myUH. Students must then log into Student Self Service in order to verify enrollment.

Course Auditing

Approval to audit, or visit, a course is sometimes granted to qualified students by the dean of the college in which the course is offered. Such approval conveys only the privilege of observing and does not include submitting papers, taking tests, or participating in laboratories or field work.

Students may obtain audit application forms from the office of the appropriate dean.

The Bursar's Office will assess any appropriate fees.

Students wishing to audit may enroll only after late enrollment.

Credit is not given for an audited course, nor may a change to credit status be made after students have enrolled.

Students auditing courses will pay the regular tuition and fees.

Students 65 years of age or older may audit any course offered by the university without payment of a fee if space is available. These students should first obtain audit application forms from the office of the appropriate dean, and then contact the Bursar's Office, 129 Welcome Center, for a fee waiver application.
Discontinued Classes

The university reserves the right, whenever necessary, to discontinue classes or to alter the schedule otherwise. Should a class be discontinued, students will be notified at the first class meeting, or before, so they may enroll for alternate courses. Students who are enrolled in a discontinued class will be automatically dropped from that course. If they wish to enroll in another section they must go through the official procedure to add the course, whether online or though the department offering the course.

Schedule of Classes

A listing of courses and approved core curriculum for the university may be accessed well in advance of the beginning of each term, including the summer sessions. Information is provided on the Web site at myUH.

Section or Course Changes

Students may make changes to their course schedule only during the dates indicated in the Academic and Enrollment calendars using myUH. After the last day to drop without a grade students may drop or withdraw from a class(es) online by logging in to their myUH account, provided they have not exceeded their limit of 6 Ws (see the 6 W rule).

Undergraduate Enrollment Limit

Enrollment Cap

The Texas State Education Code (54.014, Tuition for Repeated or Excessive Undergraduate Hours) applies only to undergraduate students who are Texas residents paying resident tuition and who enrolled for the first time in a Texas college or university in Fall term 1999 or after.

This code authorizes a limit on the number of hours those students may attempt while paying in-state tuition.

- Students who initially enrolled in or after Fall 1999 and before Fall 2006 are allowed to attempt only the number of hours necessary to complete a degree in their approved major plus 45 hours.
- Students who initially enrolled in or after Fall 2006 are allowed to attempt only the number of hours necessary to complete a degree in their approved major plus 30 hours.

Students who have not chosen a major are considered, by state law, to have degree requirements of 120 hours.

Attempted hours are calculated for courses in which a student is enrolled on the Official Reporting Day (ORD) (typically twelfth class day or fourth class day in summer), not by the courses in which a student receives a grade (passing, failing, or W).

When students to whom this law applies enroll for courses that exceed this limit, state law authorizes the university to charge additional fees up to a maximum of the out-of-state tuition rates.

If you stop attending a class with the intent to drop, be sure you drop on or before the Official Reporting Day (ORD) (typically twelfth class day or fourth class day in summer) or these hours will count toward your in-state tuition limit. See your advisor if you have questions about this policy.

**FAQs to Enrollment Cap**

Course Cap
The Texas Higher Education Coordinating Board Rules (under Chapter 13) authorize institutions to charge out of state tuition for students who enroll in a course for the third or more time.

Students may be charged for semester credit hours or contact hours attempted in any course, other than a non-degree-credit developmental course, containing the same content for a third or more times at their institutions since Fall Term 2002. Attempted hours are calculated for courses in which a student is enrolled on the Official Reporting Day (ORD) (typically twelfth class day or fourth class day in summer), not by the courses in which a student receives a grade (passing, failing, or W). This provision is effective for the Spring 2004 term for credit students and for Third Quarter 2004 for continuing education students.

Semester credit hours or contact hours attempted by students for the following types of coursework are exempt from the provisions of this section:

- thesis and dissertation courses.
- courses that may be repeated for credit because they involve different or more advanced content each time they are taken, including but not limited to, individual music lessons, Workforce Education Course Manual Special Topics courses (when the topic changes), theater practicum, music performance, ensembles, certain physical education and kinesiology courses, and studio art.
- independent study courses.
- special topics and seminar courses.

If you stop attending a class with the intent to drop, be sure you drop on or before the Official Reporting Day (ORD) (typically twelfth class day or fourth class day in summer) or these courses will count towards your two attempts. See your advisor if you have questions about this policy.
New Student Conferences

New Students

New Student Conferences are designed to acquaint new students with the campus and the many available campus resources that enhance both academic success and personal development. The programs focus on several important areas, including the curriculum, academic advising, college success, scholarships and financial aid, campus activities, student services, student organizations, Cougar Spirit, and campus facilities. Enrollment (registration) for coursework also takes place during the event. New students will have an opportunity to interact with upperclassmen, faculty, academic advisors, and university staff members. By attending NSO or ART, new students will be best prepared for the start of the first term.

Freshman

- New Student Orientation (NSO) is mandatory for all incoming freshmen.

Transfer Students

- Advising and Registration for Transfers (ART) is mandatory for all incoming transfer students and post baccalaureates that are seeking a second bachelor’s degree and are new to the University of Houston.

Information about the appropriate New Student Conference is e-mailed directly to students upon acceptance to the university. Questions about New Student Conferences should be directed to:

orientation@uh.edu, or

University of Houston
New Student Orientation
4434 University Drive
Houston, Texas 77204-2023
713-743-1010, option 4

http://www.uh.edu/admissions/admitted/conferences/

International Students

In addition to NSO or ART, international students are required to attend check-in and orientation sessions organized by International Student and Scholar Services. For additional information contact:

University of Houston
International Student and Scholar Services
4465 University Dr.
University Center North Room 203
Houston, TX. 77204-3024
713-743-5065

www.uh.edu/oisss/
Re-Apply as a Former Student

Effective for fall 2011, if you are ready to return after an interruption of at least four terms or 13 consecutive months, you will need to apply for readmission as a former student at www.ApplyTexas.org.

Regardless of academic standing, you will need to meet re-entry requirements and deadlines and pay the $50 readmission fee in order to be readmitted and enroll. Former undergraduate students who have questions pertaining to readmission should contact the Academic Advisor or their intended readmitted major.

Former undergraduates who are returning from suspension will also need to meet college specific re-entry requirements and deadlines.
Rules and Regulations for Determining Residence for Tuition Purposes

According to the Texas Higher Education Coordinating Board Bulletin and Pursuant to Title 3, Texas Education Code Effective Fall 2006:

Your status as a resident, nonresident or international (foreign) student will be determined prior to your enrollment (registration). The determination is based on state statutes and rules and regulations promulgated by the Texas Higher Education Coordinating Board. You must be prepared to pay tuition and other required fees by specified due dates. If you have knowledge of an error in your residency status for tuition purposes, it is your responsibility to notify the Residence Determination Officer immediately. You may do so by submitting a Residency Questionnaire pdf.

Any questions should be directed to the Residency Determination Officer by email at: residency@uh.edu or by calling 713) 743-1010. You may also find the complete rules and regulations on the College for All Texans web site. Additional information may be found in the UH Admissions information website: http://www.uh.edu/admissions/admitted/residency-requirements/.
Undeclared Major

Exploratory Studies is a short-term entry major that intentionally integrates academic support with career counseling to allow undecided students to make informed decisions about, and prepare for, declaring a degree-seeking major.

All freshmen students will declare a major by the beginning of their sophomore year (30 credit hours), if they have not already done so.

Newly admitted undeclared transfer students

- with less than 30 credit hours are to choose a major within their second term, prior to registration for their third term courses.
- with 30-44 credit hours are to choose a major within their first term at UH, prior to registration for 2nd term courses.
- with 45 or more credit hours are to choose a major prior to attending UH (i.e., these students will only be accepted into UH with a major).
Gerald D. Hines College of Architecture and Design

Contact Information

Office of the Dean
713-743-2400

General College Information
713-743-2400

William R. Jenkins Architecture and Art Library
713-743-2340

Student Services Office
713-743-3463

Internet Address
http://www.arch.uh.edu/

Who's Who in the College of Architecture and Design

Dean: Patricia Belton Oliver, B.A., University of California, Los Angeles; M.Arch., University of California, Los Angeles

Associate Dean: Lannis Kirkland, B.Arch., Auburn University; M.Arch., Rice University

Director of Graduate Studies: Gail Peter Borden, Master of Architecture, Harvard University; Bachelor of Arts in Architecture, Rice University; Bachelor of Arts in Fine Arts, Rice University; Bachelor of Arts in Art History, Rice University

Assistant Dean and Director of Student Affairs and International Programs: Trang Phan, B.A., M.Ed., University of Houston

Business Administrator: Cecilia Rodriguez

Overview

Design reconciles conflicting visions and exploits all available technologies to shape and sustain a better world. Houston's hot-humid environment, low-lying Gulf-Coast geography, and dispersed pattern of un-zoned metropolitan development presents designers with an extraordinary laboratory, full of challenges and opportunities. The proposals seeded in the vast urban sprawl of Houston are transmutable to cities around the globe.

The Gerald D. Hines College of Architecture and Design offers its students a platform of integrated disciplines - architecture, space architecture, interior architecture, and industrial design - from which to negotiate the complexities of contemporary practice in a world that is grappling with diminishing economic and natural resources, the realities of post disaster re-construction, and, at the same time, continued, rapid urbanization. Faculty and students work together in a studio-centric curriculum, supported by a premier digital fabrication facility. Open studios seamlessly incorporate coursework into project-based learning through material investigations and applied research. At the Gerald D. Hines College of Architecture and Design, making is not simply an action or a craft, but a form of critical thinking, calling forth innovative solutions for contemporary conditions. Our programs foster an environment where ideas find form, where practices that are socially equitable and fundamentally ecological establish a model from which to develop Houston’s future and to inform and shape design strategies globally.

We seek applicants to our programs that possess curiosity, commitment, initiative, creativity and a solid work ethic. We strive to graduate students who become reflective practitioners and leaders in their fields. The curriculum is designed to prepare our graduates for professional practice in architecture, industrial design or interior architecture, by equipping them with a depth of understanding of human needs and a command of a range of technologies that will enable them to shape their environments and the objects in them. We are keenly aware of our responsibilities toward our environment and our concentration on sustainable design has forged collaborative projects across the disciplines.
Architectural Accreditation

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an 8-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards. Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The University of Houston, Gerald D. Hines College of Architecture and Design offers the following NAAB-accredited degree programs:

- B. Arch. (160 undergraduate credits)
- M Arch. (pre-professional degree + 60 graduate credits)
- M Arch. (non-pre-professional degree + 97 credits)

Next accreditation visit for all programs: 2022

William R. Jenkins Architecture and Art Library

The Architecture and Art Library, located within the college, affords easy access to a collection of more than 89,000 books and periodical volumes in the fields of architecture, industrial design, and art. The library’s online catalog provides access to the collection of the Architecture and Art Library as well as the holdings of the campus and system libraries. The Architecture and Art Library Special Collections include the personal libraries of architects John F. Staub and Kenneth Franzheim, Fellow of the American Institute of Architects.

Resource Areas

The College of Architecture and Design offers many opportunities for students to be involved in classes and research programs which are of special significance to the community and the design professions. These activities are found within the resource areas of the college and include:

- The Computer Design Laboratory, established in 1983, extends its mission beyond teaching computer literacy to include academic research and practical investigation of the computer as a design tool, with emphasis placed on modeling, visualization, and animation using both Macintosh and PC platforms.

Foreign Studies

- The Pan American Program is a summer program in Latin America introducing students to architecture theory, history, and design studios, all led by UH faculty, in an international setting. Students travel and work in varying Latin American countries.
- The Barcelona Internships sponsor upper-level students in six-month internships with the internationally recognized architectural firms of Miralles/Tagliabue-EMBT.

Advising

Students of all classifications benefit from advising. However, advising and enrollment (registration), although related, should not occur simultaneously. The college provides advisors for all students. Students should consult their advisors about matters relating to course sequences,
selection of electives, academic course requirements, prerequisites, or any petition for deviation from the required curriculum in anticipation of future enrollment (registration). Appointments with a college advisor may be made with the College's Student Services Office.

Students entering the university and the college are required to participate in orientation as their first meeting with the college advisors before enrollment (registration). Advisors will discuss transfer credit, required curriculum, and educational objectives of the college and determine the courses for enrollment (registration).

Faculty

Professors:
Leonard Bachman, Larry Bell, Geoffrey Brune, Gail Peter Borden, Joseph Colaco, Donna Kacmar, EunSook Kwon, Rafael Longoria, Patricia Oliver, Patrick Peters, Bruce Race, Shafik Rifaat, Ronnie Self, Peter Zweig

Associate Professors:
Alan Bruton, Tom Diehl, Dietmar Froehlich, Matthew Johnson, Susan Rogers, William Truitt

Assistant Professors:
Jorge Dorribo-Camba, George Chow, Feng Feng, Saleh Kalantari, Lannis Kirkland, Michael Kubo, Ziad Qureshi, Marta Rodriguez

Lecturers:
Admission Requirements - College of Architecture and Design

Introduction to the Degree

Design reconciles conflicting visions and exploits all available technologies to shape and sustain a better world. Houston's hot-humid environment, low-lying Gulf-Coast geography, and dispersed pattern of un-zoned metropolitan development presents designers with an extraordinary laboratory, full of challenges and opportunities. The proposals seeded in the vast urban sprawl of Houston are transmutable to cities around the globe.

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Admission Requirements - College of Architecture and Design

UNDERGRADUATE ADMISSIONS

Admission to the College of Architecture and Design is a two-stage process. First, applicants must be admitted to the University of Houston. Applicants who indicate Architecture, Interior Architecture, or Industrial Design as their first choice major will then be considered for admission into the College of Architecture and Design. No additional application is required.

Official transcripts must be sent directly to the University of Houston Office of Admissions.

There are three categories of applicants:

1. First Time in College Freshmen
2. Transfer Students
3. Change of Majors

Procedure for Admission to the College of Architecture and Design

First Time in College Freshmen

The ApplyTexas application must be completed. Applicants must meet general University requirements before being accepted by the University of Houston. Applicants who indicate Architecture, Interior Architecture, or Industrial Design as their first choice major will be considered for admission into the College of Architecture and Design. No additional application is required.
The ApplyTexas application and portfolio should be submitted by the February 1 priority application deadline. All transcripts must be submitted to the University of Houston Office of Admissions.

Transfer Students

Applicants are considered transfer students if you:

- are a student who earned 15 or more transferable hours of college credit after high school graduation (during fall/spring semester) and
- do not qualify for readmission and
- are a U.S. citizen, have applied for permanent residency, or qualify for Texas residency based on Senate Bill 1528

The ApplyTexas application and portfolio should be submitted by the February 1 priority application deadline. Applicants must meet general University requirements before being accepted by the University of Houston. Applicants who indicate Architecture, Interior Architecture, or Industrial Design as their first choice major will be considered for admission into the College of Architecture and Design. No additional application is required.

Change of Major to Architecture, Industrial Design or Interior Architecture

Students already attending University of Houston must fill out a General Petition requesting a change of major to the College of Architecture and Design.

The General Petition and portfolio should be submitted by the February 1 priority application deadline. Refer to the College of Architecture and Design website for instructions for portfolio submission process for Change of Majors.

International Students

Along with the ApplyTexas application and portfolio, international applicants have additional admissions requirements. Please see the Undergraduate Application Guide for international applicants.

Portfolio

All applicants are strongly encouraged to submit a portfolio that includes a statement of interest in their selected major upon applying. Given the competitive admissions process, a portfolio demonstrates the applicant’s abilities and the statement of interest communicates the applicant’s interest in the field of design.

A successful portfolio:

- Includes a statement of interest on the first page of the portfolio with the applicant's name, myUH ID, and email address. No Social Security Numbers should be included.
- Includes any form of design or creative works including, but not limited to: drawing, sketching, painting, sculpture, photography, graphic design, or creative writing.
- Is a PDF file no larger than 10MB.

Steps to submit a portfolio (for freshman or transfer students):

- Prepare an electronic copy of your portfolio
- Go to accessuh.uh.edu
- Click the myUH Self Service link
- Find your "To Do List" and click "CoAD Portfolio Submission"
- Click "Upload/View Document" and submit.
Applicants can check the status of their application by logging into myUH to verify information.

Applicants will need to retrieve a myUH number, issued by the University upon applying and set a password. If applicants have difficulties logging in, UH Information Technology can be contacted at support@uh.edu or by calling 713-743-1411.

**INFORMATION SESSIONS**

The College of Architecture and Design's Student Services Office hosts Information Sessions for all prospective Freshman, Transfer, and Change of Major students interested in an undergraduate degree program offered at the Gerald D. Hines College of Architecture and Design.

The Information Sessions cover the following information:

- Program overview
- Current majors and degree plans
- Required coursework
- Portfolio and letter of intent
- Admissions process and requirements
- Question and answer session
- Building tour

**Register Today**

To make a reservation for an Information Session, prospective students may register in one of the following ways:

- Register HERE. Please fill out all portions of the registration form.
- Call the Student Services Office at 713-743-3463.
- Visit the Student Services Office in Room 151 of the College of Architecture Building.

**UNDERGRADUATE ORIENTATION**

All accepted students shall attend an orientation session before July 1 in order to be guaranteed a place for the Fall semester.

Incoming students do not need to make appointments to see an advisor before orientation. Enrollment, credits, class schedules, and any other questions will be addressed during the orientation sessions.

The enrollment hold placed on all new student accounts will be removed after attending an orientation session.

**Freshmen Orientation**

Incoming freshmen must sign up to attend a Freshman Orientation through their myUH accounts.

This two-day program will expose students to many resources, tips, and information about the University of Houston and the College of Architecture and Design. During this program, students will meet with academic advisors, and enroll in their first semester courses.

**Transfer Students Orientation**

Transfer students must sign up to attend a Transfer Orientation session through their myUH accounts.

This one-day program will expose students to many resources, tips, and information about the University of Houston and the College of Architecture and Design. During this program, students will meet with academic advisors and enroll in their courses.
Change of Major Students Orientation

Current UH students who change their majors must attend a Change of Major session offered through the College of Architecture and Design’s Student Services Office. During this program, students will meet with academic advisors and enroll in their courses.

Information regarding orientation session dates and times will be sent by e-mail.

If you do not receive information about the Change of Major session by April 1, please call the College of Architecture and Design Student Services Office at 713-743-3463 or email archsso@central.uh.edu.

International Students Orientation

International students are required to attend a new student orientation session as well as a separate orientation hosted by International Student & Scholar Services Office.

All holds will be removed after attending a new student orientation and the ISSSO orientation. If you are unable to attend orientation, please call the Student Services Office at 713-743-3463 or email archsso@central.uh.edu.
Academic Information - Gerald D. Hines College Of Architecture And Design

College Requirements

All grades of I (incomplete) that are not otherwise changed within one academic year of the date awarded will automatically convert to F. A grade of D+ or lower in a design studio may not be used toward graduation or as a prerequisite to the next studio. A grade of I is lower than D+. To take a design studio more than twice, a student must have written permission from the dean.

Courses in the college are generally sequential and must be taken in the correct order. They may not be skipped, doubled up, or otherwise taken out of sequence. Most of the courses are offered only in either the Fall or Spring semesters and are therefore unavailable, if missed, until the next year.

Architecture and interior architecture students are evaluated at the end of the third studio for continuation in the design studio sequence. Industrial design students are evaluated in INDS 2501 for continuation in the design studio sequence.

A review of architecture students’ progress occurs at the end of the sixth studio in the studio sequence (ARCH 3501). A positive portfolio review is required for matriculation into the advanced studios of semesters 7-10 and completion of the Bachelor of Architecture degree. The portfolio review is independent of grades received from courses previously taken; the primary intent of the portfolio review is to confirm preparedness and seriousness of study required for enrollment in the Professional Studios. Students not receiving a positive evaluation have the option of completing the curriculum for the Bachelor of Science in Environmental Design degree.

All student work may be retained permanently by the college.

Other Programs

The Gerald D. Hines College of Architecture and Design recognizes the value of supporting students' professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship/CPT experience by a transcript notation.
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- About the College
- Admissions Requirements
- Academic Information
- Graduate Programs
- Programs
- Courses

Gerald D. Hines College of Architecture and Design

Office of the Dean
713-743-2400

General College Information
713-743-2400

William R. Jenkins Architecture and Art Library
713-743-2340

Student Services Office
713-743-3463

Internet Address
http://www.arch.uh.edu/

William R. Jenkins Architecture and Art Library
713-743-2340
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- About the College
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- Courses

**Programs**

- Architecture Minor
- Architecture, B.Arch.
- Environmental Design, B.S.
- Gerald D. Hines College of Architecture and Design - Experience Track
- Industrial Design, B.S.
- Interior Architecture, B.S.
- World Cities Minor

**Other**

**Architecture Minor**

To qualify for a minor in architecture, students must complete 15 semester hours in architecture, including ARCH 2350, ARCH 2351, plus nine additional semester hours at the 3000-level or above. Students must take nine semester hours, at least six of them advanced, in residence and earn a 2.00 minimum cumulative grade point average in all minor courses attempted at this university. The minor program must be approved by an undergraduate advisor in Architecture.
Architecture, B.Arch.

The program for the Bachelor of Architecture degree (first professional degree) is a five-year curriculum of at least 160 credit hours. The focus of the curriculum is preparation for professional practice in architecture and emphasizes sustainability, critical thinking, research and technology. The curriculum is divided into four segments: Foundation; Intermediate; Comprehensive Design; and Professional.

The curriculum includes at least 100 semester credit hours of architecture courses, 61 of which are advanced (3000 level or higher), the university required core courses, 1 approved general elective, and 15 semester credit hours of general elective courses.

Foundation

Fall Semester

- ARCH 1358 - Introduction to Design Culture **Credit Hours: 3.0**
- ARCH 1500 - Design Studio I **Credit Hours: 5.0**
- ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
- MATH 1310 - College Algebra **Credit Hours: 3.0**

Total 17

Spring Semester

- ARCH 1210 - History and Theory of Design Media **Credit Hours: 2.0**
- ARCH 1501 - Architecture and Interior Architecture Design Studio II **Credit Hours: 5.0**
- ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
- HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**
- MATH 1330 - Precalculus **Credit Hours: 3.0**

Total 16

Fall Semester

- ARCH 2500 - Architecture and Interior Architecture Design Studio III **Credit Hours: 5.0**
- ARCH 2327 - Technology **Credit Hours: 3.0**
- ARCH 2350 - Survey of Architectural History **Credit Hours: 3.0**
- PHYS 1301 - Introductory General Physics **Credit Hours: 3.0**
- Language, Philosophy & Culture Core Course **Credit Hours: 3.0**

Total 17

Intermediate
Spring Semester

- ARCH 2501 - Architecture Design Studio IV Credit Hours: 5.0
- ARCH 2328 - Technology 2 Credit Hours: 3.0
- ARCH 2351 - Survey of Architectural History II Credit Hours: 3.0
- ARCH Elective Credit Hours: 3.0
- PHYS 1302 - Introductory General Physics II Credit Hours: 3.0

Total 17

Fall Semester

- ARCH 3500 - Architecture Design Studio V Credit Hours: 5.0
- ARCH 3327 - Technology 3 Credit Hours: 3.0
- ARCH 3230 - Programming and Building Regulations Credit Hours: 2.0
- Architectural History Elective Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0

Total 16

Spring Semester

- ARCH 3501 - Architecture Design Studio VI Credit Hours: 5.0
- ARCH 3328 - Technology 4 Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- Social and Behavioral Sciences: Approved Core Courses Credit Hours: 3.0
- Approved Elective Credit Hours: 3.0

Total 17

Comprehensive Design

Fall Semester

- ARCH 4510 - Integrated Architectural Solutions Credit Hours: 5.0
- ARCH 4373 - Urban Environments Credit Hours: 3.0
- ARCH 4327 - Technology 5 Credit Hours: 3.0
- Architectural History Elective Credit Hours: 3.0

Total 14

Professional
Spring Semester

- ARCH 5500 - Architecture Design Studio IX **Credit Hours: 5.0**
- ARCH 4328 - Technology 6 Practice of Architecture **Credit Hours: 3.0**
- Architectural Elective **Credit Hours: 3.0**
- Elective **Credit Hours: 4.0**

Total 15

Fall Semester

- ARCH 5500 - Architecture Design Studio IX **Credit Hours: 5.0**
- Architecture Research Elective **Credit Hours: 3.0**
- Writing in the Disciplines: Approved Core Courses **Credit Hours: 3.0**
- Elective **Credit Hours: 3.0**

Total 14

Spring Semester

- ARCH 5500 - Architecture Design Studio IX **Credit Hours: 5.0**
- Interdisciplinary Elective **Credit Hours: 3.0**
- Approved Integrative Course **Credit Hours: 3.0**
- Electives **Credit Hours: 6.0**

Total 17

Note:

The Bachelor of Architecture requires a successful review of work after the 3rd semester and the 6th semester for advancement in the degree.

The Bachelor of Science in Environmental Design requires a successful review of work after the 3rd semester for advancement in the degree.

The Bachelor of Science in Industrial Design requires a successful review of work after the 4th semester for advancement in the degree.

College Website URL for Degree Information

http://www.uh.edu/architecture/programs/undergraduate-programs/architecture/

Faculty Contact

Meg Jackson, Instructional Assistant Professor & Foundation Level Coordinator

mhjackson@uh.edu
Environmental Design, B.S.

The program for the Bachelor of Science in Environmental Design degree (preprofessional) is a four-year curriculum of at least 128 semester credit hours.

The curriculum includes at least 73 semester credit hours of architecture courses, 34 of which are advanced (3000 level or higher). The degree includes the university’s required core curriculum and 4 semester hours of elective courses. The program maintains the same focus as the Bachelor of Architecture program with less emphasis on professional practice.

Foundation

Fall Semester

- ARCH 1358 - Introduction to Design Culture *Credit Hours: 3.0*
- ARCH 1500 - Design Studio I *Credit Hours: 5.0*
- ENGL 1303 - First Year Writing I *Credit Hours: 3.0*
- HIST 1377 - The U.S. To 1877 *Credit Hours: 3.0*
- MATH 1310 - College Algebra *Credit Hours: 3.0*

Total 17

Spring Semester

- ARCH 1210 - History and Theory of Design Media *Credit Hours: 2.0*
- ARCH 1501 - Architecture and Interior Architecture Design Studio II *Credit Hours: 5.0*
- ENGL 1304 - First Year Writing II *Credit Hours: 3.0*
- HIST 1378 - The U.S. Since 1877 *Credit Hours: 3.0*
- MATH 1330 - Precalculus *Credit Hours: 3.0*

Total 16

Fall Semester

- ARCH 2500 - Architecture and Interior Architecture Design Studio III *Credit Hours: 5.0*
- ARCH 2327 - Technology *Credit Hours: 3.0*
- ARCH 2350 - Survey of Architectural History *Credit Hours: 3.0*
- PHYS 1301 - Introductory General Physics I *Credit Hours: 3.0*
- Language, Philosophy & Culture Core Course *Credit Hours: 3.0*

Total 17

Intermediate
Spring Semester

- ARCH 2501 - Architecture Design Studio IV **Credit Hours: 5.0**
- ARCH 2328 - Technology II **Credit Hours: 3.0**
- ARCH 2351 - Survey of Architectural History II **Credit Hours: 3.0**
- ARCH Elective **Credit Hours: 3.0**
- PHYS 1302 - Introductory General Physics II **Credit Hours: 3.0**

Total 17

Fall Semester

- ARCH 3500 - Architecture Design Studio V **Credit Hours: 5.0**
- ARCH 3327 - Technology III **Credit Hours: 3.0**
- ARCH 3230 - Programming and Building Regulations **Credit Hours: 2.0**
- Architecture History Elective **Credit Hours: 3.0**
- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**

Total 16

Spring Semester

- ARCH 3501 - Architecture Design Studio VI **Credit Hours: 5.0**
- ARCH 3328 - Technology IV **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
- Social and Behavioral Science Core Course **Credit Hours: 3.0**
- Approved Elective **Credit Hours: 3.0**

Total 17

Upper Level

Fall Semester

- ARCH 4373 - Urban Environments **Credit Hours: 3.0**
- ARCH Elective **Credit Hours: 3.0**
- Architecture History Elective **Credit Hours: 3.0**
- Writing in the Disciplines: Approved Core Courses **Credit Hours: 3.0**
- Elective **Credit Hours: 3.0**

Total 15

Spring Semester
• Interdisciplinary Elective **Credit Hours: 3.0**
• ARCH Elective **Credit Hours: 3.0**
• Electives **Credit Hours: 7.0**

Total 13

Note:

The Bachelor of Architecture requires a successful review of work after the 3rd semester for advancement in the degree.

The Bachelor of Science in Environmental Design requires a successful review of work after the 3rd semester for advancement in the degree.

The Bachelor of Science in Industrial Design requires a successful review of work after the 4th semester for advancement in the degree.

**College Website URL for Degree Information**

http://www.uh.edu/architecture/programs/undergraduate-programs/environmental-design/

**Faculty Contact**

Meg Jackson, Instructional Assistant Professor & Foundation Level Coordinator

mhjackson@uh.edu

**Gerald D. Hines College of Architecture and Design - Experience Track**

The Gerald D. Hines College of Architecture and Design recognizes the value of supporting students' professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship/Curricular Practical Training (CPT) experience by a transcript notation.

**Eligibility for Internship**

• Students with a UH grade point average 2.5 or greater, or permission of a department chair, are eligible for internship courses under the Experience Track.

• Students are eligible for internships after completing the first four semesters of studio in their respective degree program, and at least one full semester in the Hines College.

• The work must be related to the student’s major.

• Internships must be approved by an academic advisor in the Hines College Student Services Office.

• Additional restrictions apply to CPT for F-1 students (see below).

**Steps to Declare the Experience Track**
1. Students must declare, by submitting a General Petition to their academic advisor, their intention to pursue this track prior to processing the paperwork for approval of the internship/CPT.

2. The academic advisor will verify the student’s academic eligibility for the internship/CPT. The student will be notified by email when the petition has either been approved or disapproved by the Hines academic advisor.

3. The Hines College Student Services Office (SSO) will review the internship, including the formal job offer on the hiring company’s stationery, a description of the work to be performed, a beginning and ending date, and the salary offered. The SSO will determine whether or not the internship/CPT will provide the student with appropriate experience relating to their major field of study. If a positive determination is made, then:
   1. If the student wants to enroll for credit, then SSO will enroll the student in INDS 4380, otherwise
   2. If the student wants to enroll for a zero-credit co-op internship/CPT, the student takes the approved petition and the internship approval from the SSO to the Co-op Office in the career center of the Cullen College of Engineering to complete the process.

F-1 students seeking CPT should visit the International Student Scholar Services Office (ISSS) for special instructions prior to the steps above.

For more information about Co-op Education and CPT, please visit the Co-operative Education (Co-op) and Curricular Practical Training (CPT) page.

Eligible Coursework

To satisfy the requirements for the Experience Track, students must declare their intention to pursue the track and complete an approved internship/CPT.

Zero-Credit Courses

- COOP 0011 - COOP Education Work Period I Credit Hours: 0.0
- COOP 0012 - COOP Education Work Period II Credit Hours: 0.0
- COOP 0013 - COOP Education Work Period III Credit Hours: 0.0
- COOP 0014 - COOP Education Work Period IV Credit Hours: 0.0
- COOP 0015 - COOP Education Work Period V Credit Hours: 0.0
- COOP 0016 - COOP Education Work Period VI Credit Hours: 0.0
- COOP 0017 - COOP Education Work Period VII Credit Hours: 0.0

Courses for Academic Credit

Courses for academic credit are also available to satisfy the requirements for the Experience Track for select majors, if approved by the respective Academic Department.

- INDS 4380 - Design Internship Credit Hours: 3.0
  Design Internship exists for students who wish to receive academic credit for the internship experience. This course, while required for Industrial Design majors, is available to all students and they may take this course if they meet the equivalent requisites in their major (Architecture, Environmental Design, or Interior Architecture).

Industrial Design, B.S.

The program for the Bachelor of Science in Industrial Design degree is a four-year curriculum of at least 132 semester credit hours. The degree includes the university’s required core curriculum, 6 credit hours of approved electives, and 6 credit hours of elective courses. Because of the mutual and overlapping bonds of architecture, interior architecture and industrial design, the programs share a common first semester curriculum. The
program in Industrial Design can be characterized by the keywords: accessible, flexible, virtual, ubiquitous, connected, collaborative, authentic, and learner-centered.

Students interested in the Bachelor of Science in Industrial Design should follow the procedure for application to the College of Architecture.

First Year

Fall Semester

- ARCH 1358 - Introduction to Design Culture **Credit Hours: 3.0**
- ARCH 1500 - Design Studio I **Credit Hours: 5.0**
- ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- MATH 1310 - College Algebra **Credit Hours: 3.0**
- INDS 1360 - Visual Thinking **Credit Hours: 3.0**

Total 17

Spring Semester

- INDS 2170 - Digital Sketch Techniques I **Credit Hours: 1.0**
- INDS 1501 - Industrial Design Studio II **Credit Hours: 5.0**
- ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
- MATH 1330 - Precalculus **Credit Hours: 3.0**
- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**

Total 15

Second Year

Fall Semester

- INDS 2500 - Industrial Design Studio III **Credit Hours: 5.0**
- INDS 2340 - Visual Communication **Credit Hours: 3.0**
- INDS 2260 - Materials and Fabrication Methods **Credit Hours: 2.0**
- INDS 2355 - Design History I **Credit Hours: 3.0**
- INDS 2270 - Digital Sketch Techniques II **Credit Hours: 2.0**
- PHYS 1301 - Introductory General Physics I **Credit Hours: 3.0**

Total 18

Spring Semester

- INDS 2501 - Industrial Design Studio IV **Credit Hours: 5.0**
- INDS 2341 - Computer Aided Industrial Design I **Credit Hours: 3.0**
• INDS 2356 - Design History II **Credit Hours: 3.0**
• INDS 2160 - Materials and Manufacturing Methods **Credit Hours: 1.0**
• INDS 2165 - Design Research Methods I **Credit Hours: 1.0**
• PHYS 1302 - Introductory General Physics II **Credit Hours: 3.0**

Total 16

Third Year

Fall Semester

• INDS 3500 - Industrial Design Studio V **Credit Hours: 5.0**
• INDS 3160 - Design Issues I **Credit Hours: 1.0**
• INDS 3340 - Computer Aided Industrial Design II **Credit Hours: 3.0**
• INDS 3360 - Human Factors **Credit Hours: 3.0**
• HIST 1378 - The U.S. Since 1877 **Credit Hours: 3.0** or equivalent
• Industrial Design Elective **Credit Hours: 3.0**

Total 18

Spring Semester

• INDS 3501 - Industrial Design Studio VI **Credit Hours: 5.0**
• INDS 3265 - Design Research Methods II **Credit Hours: 2.0**
• Approved Elective **Credit Hours: 3.0**
• Social and Behavioral Sciences: Approved Core Courses **Credit Hours: 3.0**
• POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**

Total 16

Summer Semester

• INDS 4380 - Design Internship **Credit Hours: 3.0**

Total 3

Fourth Year

Fall Semester

• INDS 4500 - Industrial Design Studio VII **Credit Hours: 5.0**
• INDS 4260 - Design Issues II **Credit Hours: 2.0**
• Industrial Design Elective **Credit Hours: 3.0**
• Language, Philosophy & Culture Core Course **Credit Hours: 3.0**

Total 13

Spring Semester

• INDS 4501 - Industrial Design Studio VIII **Credit Hours: 5.0**
• Approved Elective **Credit Hours: 2.0**
• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
• Writing in the Disciplines: Approved Core Courses **Credit Hours: 3.0**
• Elective **Credit Hours: 3.0**

Total 16

Note:

The Bachelor of Architecture requires a successful review of work after the 3rd semester and the 6th semester for advancement in the degree.

The Bachelor of Science in Environmental Design requires a successful review of work after the 3rd semester for advancement in the degree.

The Bachelor of Science in Industrial Design requires a successful review of work after the 4th semester for advancement in the degree.

The Bachelor of Science in Interior Architecture requires a successful review of work after the 3rd semester for advancement in the degree.

**College Website URL for Degree Information**

http://www.uh.edu/architecture/programs/undergraduate-programs/industrial-design/

**Faculty Contact**

Dr. EunSook Kwon, Professor

Director, Industrial Design Program

ekwon@uh.edu

**Interior Architecture, B.S.**

The program for the Bachelor of Science in Interior Architecture degree is a four-year program focusing on the design of architectural interiors with particular focus on sustainability, materiality, color theory, lighting, and the social and cultural aspects of habitable space. The program offers 132 semester hours and includes 77 semester hours of interior architecture and architecture courses, 38 of which are advanced hours (3000-level or higher). The degree includes the university’s required core curriculum and 7 semester hours of elective courses. Because of the mutual and overlapping bonds of architecture, industrial design and interior architecture, the programs share a common first semester curriculum, and Interior Architecture and Architecture share studios through the Foundation sequence.

**Foundation**
Fall Semester

- ARCH 1358 - Introduction to Design Culture Credit Hours: 3.0
- ARCH 1500 - Design Studio I Credit Hours: 5.0
- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0 or equivalent
- MATH 1310 - College Algebra Credit Hours: 3.0

Total 17

Spring Semester

- ARCH 1210 - History and Theory of Design Media Credit Hours: 2.0
- ARCH 1501 - Architecture and Interior Architecture Design Studio II Credit Hours: 5.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0 or equivalent
- MATH 1330 - Precalculus Credit Hours: 3.0

Total 16

Fall Semester

- ARCH 2500 - Architecture and Interior Architecture Design Studio III Credit Hours: 5.0
- ARCH 2327 - Technology I Credit Hours: 3.0
- ARCH 2350 - Survey of Architectural History I Credit Hours: 3.0
- Language, Philosophy & Culture Core Course Credit Hours: 3.0
- PHYS 1301 - Introductory General Physics I Credit Hours: 3.0

Total 17

Intermediate

Spring Semester

- INAR 2501 - Interior Architecture Design Studio IV Credit Hours: 5.0
- ARCH 2328 - Technology 2 Credit Hours: 3.0
- ARCH 2351 - Survey of Architectural History II Credit Hours: 3.0
- PHYS 1302 - Introductory General Physics II Credit Hours: 3.0

Total 14

Fall Semester
• INAR 3500 - Interior Architecture Design Studio V **Credit Hours: 5.0**
• INAR 3300 - History of Interior Architecture **Credit Hours: 3.0**
• INDS 3360 - Human Factors **Credit Hours: 3.0**
• ARCH 3230 - Programming and Building Regulations **Credit Hours: 2.0**
• POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0** or equivalent
• **Approved Elective** **Credit Hours: 3.0**

Total 19

Professional

Spring Semester

• INAR 3501 - Interior Architecture Design Studio VI **Credit Hours: 5.0**
  • **Interior Architecture Elective** **Credit Hours: 3.0**
• INAR 3310 - Materials & Methods of Interior Architecture **Credit Hours: 3.0**
• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
• **Approved Elective** **Credit Hours: 3.0**

Total 17

Fall Semester

• INAR 4500 - Interior Architecture Design Studio VII **Credit Hours: 5.0**
• INAR 4393 - Senior Project Preparation **Credit Hours: 3.0**
• **Social and Behavioral Science Core** **Credit Hours: 3.0**
• **Elective** **Credit Hours: 4.0**

Total 15

Spring Semester

• INAR 4360 - Practice of Interior Architecture **Credit Hours: 3.0**
• **Interdisciplinary Elective** **Credit Hours: 3.0**
• **Approved Integrative Course** **Credit Hours: 3.0**
• **Writing in the Disciplines: Approved Core Courses** **Credit Hours: 3.0**

Total 17

Note:

The Bachelor of Architecture requires a successful review of work after the 3rd semester and the 6th semester for advancement in the degree.

The Bachelor of Science in Environmental Design requires a successful review of work after the 3rd semester for advancement in the degree.
The Bachelor of Science in Industrial Design requires a successful review of work after the 4th semester for advancement in the degree.

The Bachelor of Science in Interior Architecture requires a successful review of work after the 3rd semester for advancement in the degree.

College Website URL for Degree Information

http://www.uh.edu/architecture/programs/undergraduate-programs/interior-architecture/

Faculty Contact

Alan Bruton, Associate Professor
Director, Interior Architecture Program
apbruton@uh.edu

World Cities Minor

Housed in the Gerald D. Hines College of Architecture, this interdisciplinary and inter-departmental minor encourages students to critically explore cities of the world from different geographical, chronological and disciplinary perspectives in an effort to help them develop analytical tools for understanding complex urban phenomena.

To qualify for the World Cities minor, students must complete 15 semester hours of courses designated for the minor, including:

1. Four additional courses selected from the approved list for the minor. No more than one independent study can be applied to the minor.
2. Course selection must reflect a broad geographic and disciplinary distribution. No more than two courses from any one discipline may be used to fulfill the minor requirements.
3. A cumulative GPA of 2.5 or better is required in those courses completed for the minor.

Students must take nine semester hours, at least six of them advanced, in residence. The minor program must be approved by an undergraduate advisor in Architecture.

For a current listing of courses approved for the World Cities minor, consult an advisor in the College of Architecture.
Graduate Programs

The Master of Architecture degree, with two entrance levels, is an accredited professional degree in architecture. This degree is designed for students who intend to pursue licensing and professional practice in the field of architecture in the United States and Canada. Level I is the entry level for students with bachelor’s degrees in disciplines unrelated to architecture. Level II is the entry level for students who have four-year environmental design degrees.

The Master of Science in Architecture degree is a post-professional degree. This degree is intended for students who already have a professional degree in architecture and who may already be licensed to practice architecture. This degree offers an opportunity for specialization and advanced study following standard degree plans, or custom tailored programs of study.

The Master of Arts in Architectural Studies degree is for students who have degrees or professional experience in related fields and who wish to study architecture at an advanced level, but who do not wish to pursue a professional degree. Like the Master of Science in Architecture degree, this degree offers an opportunity for specialization and advanced study, following standard degree plans, or custom tailored programs of study.

For more information on graduate program admission requirements and a listing of all courses, consult the College Web site at www.arch.uh.edu or contact the College.
Kathrine G. McGovern College of the Arts (KGMCA)

Office of the Dean

**Dean**: Andrew Davis, Ph.D., Indiana University

**Associate Dean**: Beckham Dossett, M.F.A., Cranbrook Academy of Art

**Associate Dean for Special Initiatives**: David G. Bertman, M.M., University of Houston

Bert F. Winston Band Complex, E128

www.uh.edu/kgmca

713-743-3019

The Katherine G. McGovern College of the Arts (KGMCA) comprises the performing and visual arts schools at the University of Houston, including the Schools of Art, Music, and Theatre & Dance. The College is also home to the interdepartmental Master of Arts in Arts Leadership program as well as to the Cynthia Woods Mitchell Center for the Arts, the Blaffer Art Museum, and the Center for Arts Leadership.

Kathrine G. McGovern College of the Arts provides training in the classical traditions across the visual and performing arts; cross-disciplinary training through collaborations between the College and other academic units on campus; and professional, social, and entrepreneurial training through collaborations with arts and cultural organizations in the City of Houston-America’s fourth-largest city and one of America’s great arts destination cities for the twenty-first century.

Kathrine G. McGovern College of the Arts is responsible for numerous cultural, professional, professional-development, and leadership programs every year, among them the Texas Music Festival, the Houston Shakespeare Festival, the Counter-Current Festival, The Contemporary Project, and the Leadership in the Arts Summit, all on top of year-round exhibitions and performances on the University of Houston campus-one of Houston's most active, dynamic, and innovative arts neighborhoods.
Academic Information

KGMCA Policies and Procedures

Advising

The goal of the advisors in the KGMCA Academic Affairs Center is to ensure that each student has access to competent academic advising at all stages of the student’s college career.

All incoming freshmen and transfer students are required to go through orientation, where pertinent policies and procedures are introduced and potential problems are discussed.

The college provides an overall view of the college, then undergraduate advisors in each department help students with the initial task of schedule planning and enrollment (registration). Thereafter, advisors are available on an ongoing basis should any questions or problems concerning academic progress occur.

Specific times when academic advising is suggested:

- upon entering as a freshman or transfer (required)
- for enrollment (registration) and add/drop questions
- to declare or change a major
- to declare or change a minor
- to clarify any academic policy or procedure
- anytime UH term GPA falls below 2.0 to discuss UH resources for success, enrollment limitations and requirements in order to avoid suspension
- anytime UH cumulative GPA falls below 2.0 (required) to discuss UH resources for success, enrollment limitation and requirements in order to avoid suspension
- at or before 90 hours and each term thereafter until graduation to verify that all requirements will be met as expected (required)

Declaration of Major

Many entering students have a well-defined career objective and major course of study. These students should declare their majors upon entering the college and should seek academic counsel from their major departments. Students who are admitted to a major in the college must enroll in appropriate courses each term in approved coursework for their declared major requirements.

For further information on degree requirements, please read: General Degree Information - KGMCA.

Double Majors in the Arts

The Kathrine G. McGovern College of the Arts will not award double degrees within the same discipline or school, but students may double major within a discipline or school to earn one degree. Music students can double major within the School of Music, but may not earn two Bachelor of Music degrees. KGMCA students may not earn two BFA degrees within the School of Art or within the School of Theater and Dance, but can double major within a discipline to earn one BFA degree.

Declaration of Minor
Students who wish to declare a minor to any of the college's degree programs must have established at least a 2.00 minimum cumulative UH grade point average and meet the requirements of the individual department. Some minor programs may have additional requirements.

For further information on minor requirements, please read: Minor Requirements - KGMCA.

Change of Major

Students who wish to change their majors to any of the college's degree programs must have established at least a 2.00 minimum cumulative UH grade point average and meet the requirements of the individual department. Some departments, including Art, Music, Theater, and Dance, have additional requirements, which may include an audition and additional application materials.

Students with less than a 2.00-grade point average are encouraged to obtain academic advising from the department to which they wish to change; however, they are not eligible to officially change their major until the required grade point average is attained.

Repeated Courses

Students may not count repeated course hours toward their graduation total or towards their 36 required advanced hours unless courses are listed in the catalog as repeatable, are designated as special/selected topics or are required for their major.

Deadlines

KGMCA strictly adheres to the university calendar, e.g., deadlines for admission and enrollment (registration), and drop dates, and application for graduation, etc. Exceptions are considered only for documented, extenuating, nonacademic circumstances.

Grade Changes

Questions regarding grades in KGMCA courses must be resolved within 90 calendar days following the posting of the grade. Grade changes are approved only for correction of errors in computing the grade, and a grade change form must be submitted no later than the close of the term/summer session following the posting of the grade.

Grades of I (incomplete) must be resolved within one year of the posting of the grade. Incomplete grades must be resolved with the instructor awarding the grade. Incomplete grades cannot be resolved by re-enrolling (re-registering) for the course in question.

Fulfillment of Grade Requirements for a Degree

To determine the fulfillment of degree requirements, the required grade point average for graduation is calculated as described in the Academic Regulations and Degree Requirements section of this catalog with the following differences:

- No incomplete grades (grades of 'I') can be remaining at the time of graduation.
- All courses taken in major and minor fields in KGMCA, including repeated and failed courses, will be considered when determining major and minor GPAs.

Applying for Graduation
Degrees are not awarded automatically upon completion of the scholastic requirements. To be a candidate for a degree, students must submit an application for graduation by the stated deadline in the university schedule, for the intended term of graduation. Candidates for graduation who were previously disapproved must reapply. Graduation applications are submitted online through myuh.

Successful graduation candidates can anticipate the posting of the degree within 60 days after the official closing date of the term, and the receipt of their diplomas approximately two weeks after the degree is posted.

**Undergraduate Course Load**

Course loads for undergraduate students are determined by university policy, curriculum of study, and personal factors such as work and family responsibilities. See the Academic Regulations and Degree Requirements section of this catalog for a complete discussion of course loads. In general, for those students who expect to complete the requirements for a bachelor’s degree in about four years, the maximum undergraduate course loads for the Fall and Spring terms are as follows:

<table>
<thead>
<tr>
<th>Classification (and in Good Academic Standing)*</th>
<th>Term/Session</th>
<th>Maximum Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>Fall or Spring</td>
<td>16.0</td>
</tr>
<tr>
<td>Sophomores, Juniors, Seniors, Post-Baccalaureates</td>
<td>Fall or Spring</td>
<td>19.0</td>
</tr>
<tr>
<td>All</td>
<td>Summer 1 or Summer 3</td>
<td>12.0</td>
</tr>
<tr>
<td>All</td>
<td>Summer Session 2</td>
<td>7.0</td>
</tr>
<tr>
<td>All</td>
<td>Summer Session 4</td>
<td>7.0</td>
</tr>
<tr>
<td>All</td>
<td>All Sessions Combined</td>
<td>14.0</td>
</tr>
</tbody>
</table>

*An undergraduate or post-baccalaureate student who is on Academic Probation or Academic Warning shall enroll in no more than 5 hours in Summer Session 2 or Summer Session 4, or 10 hours in Summer Session 1 or Summer Session 3.

The totals listed above include all courses for which students may wish to enroll. Permission to take course loads above these maximums must be approved by the faculty advisor (or the chair of the major department) and dean. *(See Regulations and Requirements section for details on maximum course loads and overloads for Fall, Spring, and Summer sessions. Students on probation or academic warning must check regulations and requirements for specific class load limitations.)*

**Academic Grievance Policy**

In the normal conduct of education at the University of Houston, justifiable grievances may arise concerning the violation of university, college, or department academic policies or procedures. KGMCA is committed to resolving these grievances in a fair, orderly, and expeditious manner. To that end, the college has established informal and formal procedures beginning at the department level for settling academic grievances.

An academic grievance refers to an action taken against a student by a member of the faculty (including part-time instructors and teaching assistants), staff, or administration that either violates a university, college, or department academic policy or procedure or prejudicially treats the student on the basis of race, color, national origin, religion, sex, age, handicap, veteran status, or any other nonacademic status.
Because assigning a grade or evaluating a student's work performance involves the faculty's professional judgment and is an integral part of the faculty's teaching responsibilities, disagreement with an instructor concerning a grade or evaluation is not a justifiable grievance to be factors such as those mentioned in the previous paragraph can be shown to have affected that grade or evaluation.

A student with a justifiable grievance that can be substantiated should initiate academic grievance proceedings within 90 calendar days of the action in dispute.

Any student who believes he or she has an academic grievance involving KGMCA should first try to resolve the grievance informally with the faculty member or other involved parties within 90 calendar days of the action in dispute. In some cases, the student may have to discuss the grievance with the department chair, the college officer designated by the dean, or both before obtaining a satisfactory resolution.

If the informal discussions do not resolve the academic grievance, the aggrieved student may initiate a formal grievance by submitting a written complaint to the chair of the department involved (or the college officer designated by the dean if the chair is the focus of the grievance) as soon as the informal proceedings have ended.

The aggrieved student who does not obtain a satisfactory resolution at the departmental level may file a formal appeal first with the office of the dean and then, failing to obtain satisfaction, with the office of the senior vice president for academic affairs.

**Academic Warning**

First time in college (FTIC) freshman students who earn less than a 2.00-grade point average in the first long/full term (i.e., Fall or Spring) of enrollment at the University of Houston shall be placed on academic warning. Students on academic warning must be advised by their major department advisor and may also be required to be advised by the Academic Advising Center of Undergraduate Scholars at UH. KGMCA students on academic warning may not enroll for more than 12 credit hours of enrollment in Fall and Spring terms and no more than five hours in Summer Session 2 or Summer Session 4, or 10 hours in Summer Session 1 or Summer Session 3.

**Academic Probation**

Students are placed on academic probation if their cumulative grade point average falls below 2.00. Freshman and sophomore students on academic probation are required to seek advising in their major departments in order to obtain academic support to improve academic performance and avoid academic suspension. KGMCA students on probation may not enroll for more than 12.0 credit hours of enrollment in Fall and Spring terms and no more than five hours in Summer Session 2 or Summer Session 4, or 10.0 credit hours in Summer Session 1 or Summer Session 3.

Students on academic probation whose cumulative grade point average is below 2.00 but whose term GPA is higher will remain on continued academic probation. Students on academic probation will be removed from that status when their cumulative grade point average is at or above 2.00.

Students on academic probation whose cumulative grade point average is below 2.00 and whose term GPA is below 2.00 will be placed on academic suspension and will be restricted from future enrollment until the terms of their suspension have been met.

**Suspension & Readmission**

Any student suspended from the college for academic or disciplinary reasons is ineligible to return during the designated period of suspension. Effective Fall 2011 all suspended students must reapply to the university through UH Admissions. Students from other Colleges seeking readmission to KGMCA should refer to the KGMCA Policies and Procedures for Readmission and Contracts:

While on suspension at UH, a KGMCA student may not enroll in classes as follows:

- First suspension: student must sit out the next full term, either the Fall or the Spring. (Summer does not count as a full term).
• Second suspension: student must sit out one full year (12 months).
• Third suspension: student will not be readmitted to UH.

KGMCA does not grant readmission during Summer terms. Students should be advised that readmission is neither automatic nor guaranteed.

A student readmitted from academic suspension enters the term on probation and must fulfill the following requirements to avoid further academic action.

1. Enroll in no more than 12.0 credit hours of approved courses during the term of reentry and each term thereafter while on continued academic probation.
2. Earn a minimum 2.00-grade point average during the term of reentry and each term thereafter while on continued academic probation.
3. Monitor progress of course work closely and properly drop any course if necessary.
4. Additional requirements may apply.

Failure to attend the university during the term of readmission cancels the readmission approval. Students may reapply for any subsequent Fall or Spring term by posted deadlines.

**Independent Study Courses and Internships**

Each KGMCA area provides opportunities for majors and minors to take independent study courses and/or internships. Participation in independent study courses and/or internships requires an approved petition to be on file in the appropriate department. KGMCA students may use no more than 6 credit hours of Independent Study and/or Internship courses to satisfy any major requirements in KGMCA, and no more than 6 credit hours to satisfy any minor requirements in KGMCA.

Manual verification is needed to ensure that no more than 6 credit hours of Independent Study/Internships are used towards either all KGMCA major requirements or all KGMCA minor requirements.

Note: If a student takes nine or more hours of internship/independent study courses, no more than nine hours will be given a letter grade.

**Transfer Credit**

Questions concerning transfer credit are resolved by the petition process. This process originates in the department of the major, and the petitions are routed to the relevant department and dean’s offices.

**Dean's List**

The Dean’s List, a tabulation of the names of all undergraduate honor students, is compiled each term. To qualify for this recognition in KGMCA, students must earn a 3.50 minimum grade point average (the grade of S is not counted) on twelve or more credit hours completed during the term. At least nine of the twelve credit hours must be letter grades. Students who earn a grade of I (except in a senior honors thesis course), D, F, or U during the term are excluded from consideration for the Dean’s List. Students who have filed a Request to Withhold Public Information form with the university will not be listed.

For additional information regarding general degree requirements, please see the General Degree Information - KGMCA.

**Programs Abroad**

For information about study abroad programs sponsored both by the University of Houston and other universities, and for scholarship information on study abroad, contact Learning Abroad, 105 Ezekiel Cullen, 713-743-9167.
Accreditation

Programs in the Moores School of Music are accredited by the National Association of Schools of Music https://nasm.arts-accredit.org/.
General Degree Information - KGMCA

Degree Requirements

All candidates for bachelor's degrees in the Kathrine G. McGovern College of the Arts (KGMCA) - Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music - must meet the following general college requirements. Since some major fields of study may impose additional or higher requirements, students should refer to the department section of this catalog for complete requirements and total number of hours required for a specific major.

The following are the minimum college requirements for a bachelor's degree in the Kathrine G. McGovern College of the Arts (KGMCA).

1. Satisfactory completion of at least 120 semester hours of acceptable credit. (Students sometimes may be able to use a single course to satisfy more than one degree requirement; however, a student may not "double count" such a course for purposes of satisfying the 120 semester hour requirement.)
2. All bachelor's degrees require completion of a core curriculum. Further information on courses that satisfy core curriculum requirements can be obtained by consulting the UH Core Curriculum 2020-2021, the current class listings, or an academic advisor.
3. Satisfactory completion of all university core curriculum requirement.
4. Satisfactory completion of at least 30 semester hours of credit in residence at the University of Houston.
5. Satisfactory completion of the last 30 semester hours of credit to be applied toward the degree in residence at the university; see the university policy for permitted exceptions.
6. Satisfactory completion of at least 36 semester hours of credit in advanced courses (i.e. 3000- or 4000-level). Repeated advanced courses may not count towards this requirement.
7. Satisfactory completion of at least 27 semester hours of credit in one major field of study.
8. Satisfactory completion of at least 18 semester hours of advanced credit in one major field of study. (Students seeking teacher certification must fulfill specific requirements stated under Teacher Certification Program in the College of Education section of this catalog.)
9. Satisfactory completion of at least 15 semester hours of credit, at least 12 of which shall be advanced, in the major, in residence at the university.
10. A minimum cumulative grade point average of 2.00 on all coursework attempted in the major in residence, including:
   a. all coursework attempted in the subject area of the major residence and
   b. all University of Houston coursework outside the subject area of the major if approved by department to meet major requirements.
11. A minimum cumulative grade point average of 2.00 on all coursework attempted in the minor in residence including:
   a. all coursework attempted in the subject area of the minor in residence and
   b. all University of Houston coursework outside the subject area of the minor if approved by the department to meet minor requirements.

Course Limitations and Restrictions

1. Courses designated as remedial courses, such as ENGL 1300, MATH 1300, or READ 1300, shall not apply toward the 120 hour semester requirement for any degree in KGMCA.
2. Students shall not apply more credit toward their degrees in KGMCA than is indicated below for the following courses:
   a. No more than a combined total of 8 semester hours from DAN 1106, 1107, 1110, 1111, 1112, 1113, 1115, 1211, 1213, and DAN 1215.
   b. No more than a combined total of 8 semester hours from MUSI 1100, MUSI 1102, MUSI 1103, MUSI 1110, MUSI 1112, MUSI 1120, MUSI 1121, and MUSI 1140.
   c. No more than a combined total of 8 semester hours from THEA 1111 and THEA 1112.
3. Unless they are obtaining a minor or major in Kinesiology, students can count toward a degree in KGMCA any KIN or PEB course with the following restrictions:
   a. No more than three semester hours in KIN or PEB 1 credit hour physical activity courses.
b. No special problems courses in KIN or PEB.

4. Courses numbered 6000 or higher are normally limited to graduate and postbaccalaureate students. Students may request permission from their department or college to enroll in these classes.

5. KGMCA students may use no more than 6 credit hours of Special Problems and/or Internship courses to satisfy any major requirements in KGMCA, and no more than 6 credit hours to satisfy any minor requirements in KGMCA. Manual verification is needed to ensure that no more than 6 credit hours of special problems/internships are used towards either all KGMCA major requirements or all KGMCA minor requirements.

Bachelor of Arts Degree

In addition to meeting the general university and college degree requirements previously stated, candidates for the Bachelor of Arts degree in KGMCA must complete the following college requirements, all of which may be satisfied either by course credit or credit by examination:

1. Satisfactory completion of six semester hours of credit at the 2000-level or higher in one foreign language. More information is available in the Academic Regulations and Degree Requirements section in this catalog.

2. Satisfactory completion of nine additional semester credit hours, in any three different fields of study offered by departments, schools, and programs within the Kathrine G. McGovern College of the Arts (ARLD, ARTH, ART, DAN, IART, MUSI, THEA) or in the departments of English (ENGL) or WGSS. Additionally, the following courses may be used: GERM 3369 World War I in Literature, Visual Arts, and Film, WCL 2351 World Cultures Through Literature and Art, or PHIL 1361 Philosophy and the Arts.

The following restrictions apply:

a. credit must be in a field of study outside the student’s major and must be in addition to courses used toward the student’s major degree program requirements.

b. credit must be in addition to that used to satisfy any core curriculum requirement.

c. credit must be in addition to that used to satisfy the B.A. degree’s foreign language requirement.

d. One credit hour physical activity courses in KIN and PEB cannot be used towards this requirement.

e. Physical Education Basic Instruction (PEB) special problems/independent studies courses cannot be used towards this requirement.

Satisfactory completion of one of the following requirements:

a. a second bachelor’s degree.

b. a second major.

c. an approved minor.

d. a senior honors thesis.


Bachelor of Fine Arts Degree

Candidates for the Bachelor of Fine Arts degree in KGMCA must satisfactorily complete the university core curriculum requirements previously listed and the stated requirements for the major.

Bachelor of Music Degree
Candidates for Bachelor of Music degree in KGMCA must satisfactorily complete the university core curriculum requirements previously listed and stated requirements for the major.

**Advanced Degrees**

The university offers several advanced degrees through KGMCA. For more information about advanced degrees, refer to the appropriate department or Graduate and Professional Studies catalog.
Minor Requirements - KGMCA

Minimum requirements for a minor from KGMCA

1. Fifteen credit hours of which nine must be advanced
2. Nine credit hours in residence of which six must be advanced.
3. A 2.00 cumulative GPA on all courses attempted in the minor field at the University of Houston

For additional requirements and other information regarding minor courses of study, refer to the specific department section and contact the department that offers the minor.
Who's Who in the School of Art

Director:

David Politzer

Professors:

Suzanne Bloom (Emeritus), Michael Ray Charles, Sibylle Hagmann, Ed Hill (Emeritus), David L. Jacobs (Emeritus), Rex Koontz, Rick Lowe, Delilah Montoya, Aaron Parazette, Leopoldine Prosperetti (Instructional), John Reed, Raphael Rubinstein, Gael Stack

Associate Professors:


Assistant Professors:

Dana Frankfort, Natilee Harren, Yoon Kim, Anna Mayer, Joshua Unikel

School Overview

The School of Art offers:

1. Bachelor of Arts in Art History
2. Bachelor of Arts in Art
3. Bachelor of Fine Arts with studio concentrations in:
   o Graphic Design
   o Painting
   o Photography/Digital Media
   o Sculpture
4. Master of Fine Arts with studio concentrations in:
   o Graphic Design
   o Painting
   o Photography/Digital Media
   o Interdisciplinary Practice and Emerging Forms
   o Sculpture

For information on admission to the graduate program, degree requirements, and course listing, contact the director of graduate studies in the School of Art and refer to the Graduate and Professional Studies catalog.

Admission to the School of Art

Freshman (FTIC) Students
In addition to meeting all requirements for admission to the University of Houston, all students applying for acceptance as majors in the School of Art must submit samples of creative work. Application instructions will be updated each year on the School of Art and Katherine G. McGovern College of the Arts websites. Students who are accepted to the School of Art will not be directly accepted to a specific studio concentration. Acceptance to a studio concentration is determined by a portfolio review in a student’s junior year.

Transfer Students

In addition to meeting all requirements for admission to the University of Houston, all transfer students applying for acceptance as majors in the School of Art must submit samples of creative work. Application instructions will be updated each year on the School of Art and Katherine G. McGovern College of the Arts websites. Transfer students who are accepted to the School of Art will not be directly accepted to a specific studio concentration. Acceptance to a studio concentration is determined by a portfolio review in the student’s junior year.

Degrees and Concentrations

Although priority is given to art majors, students majoring in other departments at the university may enroll in any 1000-level studio course offered by the department, depending upon availability. Upon completion of four 1000-level studio courses students may enroll in 3000-level related arts studio courses for which they have completed the fundamentals courses. Art history courses at the 1000-level are open to all students who have completed ENGL 1303.

All transfer students applying for Admission to the School of Art must have a minimum of six credit hours of completed coursework in ART and/or Art History.

Transfer students who plan to major in art or who are interested in taking a studio art course should, upon learning of their admission to the University of Houston, confer with the department.

Bachelor of Arts

The School of Art offers the Bachelor of Arts degree in Art History and in the Bachelor of Arts in Art. In addition to the requirements for these specific majors, students should also refer to the sections on the college and the university-wide degree requirements.

Bachelor of Arts

Art History, B.A.

The Art History program at the University of Houston provides undergraduate students with a firm grounding in the discipline of art history within a Tier-1 research university, alongside close contact with the collections of major arts institutions. Our program is profoundly engaged in the city of Houston, a dynamic urban cultural center and gateway to the international art world. With generous electives options, students can craft an educational experience suited to their individual needs and interests and take advantage of internship opportunities in tandem with art history studies.

I. Thirty-Six Credit Hours in Art History

Thirty-six semester hours in art history, of which 18 hours must be advanced (3000- or 4000-level), as listed below. In addition to seeking academic advising from the undergraduate advisor in the School of Art, art history majors are encouraged to meet with a faculty member to find out about internship and research opportunities. Major course requirements are:
A.

- ARTH 1380 - Art and Society: Prehistoric to Gothic Credit Hours: 3.0
- ARTH 1381 - Art and Society: Renaissance to Modern Credit Hours: 3.0

B.

- ARTH 4388 - Methods of Art History Credit Hours: 3.0

C.

To provide balance in their course of study, students must take a minimum of one course from each of the following four categories. For these twelve hours, students should check in the School of Art Office for the current list of courses, including topics courses, which address these specific categories.

- Ancient and Medieval Art
- Renaissance, Baroque and Eighteenth Century
- Nineteenth Century, Twentieth Century, and Contemporary
- Art of Asia, Africa, Oceania and the Americas

D.

For the remaining 15 hours of art history electives, students need to be aware of the following:

Students may apply only three hours of Critical Studies courses which are identified as

- ARTH 3301 - Critical Theory Credit Hours: 3.0
- ARTH 3302 - Contemporary Art Criticism Credit Hours: 3.0
- ARTH 3395 - Selected Topics in Critical Theory and Criticism Credit Hours: 3.0
- ARTH 3396 - Selected Topics in Critical Studies in Film and Video Credit Hours: 3.0
- ARTH 1300 - Ways of Seeing: Art and Our Visual World Credit Hours: 3.0 May not be applied to the major in Art History.
- ARTH 4385 - Senior Seminar in Art History Credit Hours: 3.0

Students who are considering graduate school are strongly encouraged to take ARTH 4385 to fulfill three hours in this category.

II. Nine Hours of Humanities and Social Sciences Courses

Nine hours of humanities and social science courses, which may include History at the 2000-level or above (that is not used to meet the American History core requirement), Anthropology, or other courses within the College of Liberal Arts and Social Sciences that support the student’s field of art historical interest. A list of specific options is available, and additional options may be petitioned through the undergraduate advisor.

Art, B.A.

The Bachelor of Arts degree in Art will benefit students wishing to pursue a program that places great emphasis on the liberal arts, but with a strong concentration in the field of art. In addition to the college requirements for the Bachelor of Arts, a minimum of 51 credit hours in Art is required.
Students who are interested in careers in teaching Art from Early Childhood through 12th Grade and wish to work toward eventual teaching certification, may benefit from incorporating the Minor in Education in fulfillment of the BA degree requirements. Students interested in the Minor in Education should contact the College of Education about the minor requirements and application process, and they should also seek advising in the School of Art about content courses that support this goal.

**University of Houston - Core Requirements (42 hours)**

<table>
<thead>
<tr>
<th>College of the Arts Bachelor of Arts Requirements (15 hours)</th>
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<tbody>
<tr>
<td>1. Two Courses</td>
</tr>
<tr>
<td>2. Three Courses</td>
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</tbody>
</table>
| 3. Completion of one of the following requirements | • Approved minor  
• Second major  
• Second bachelor’s degree  
• Senior honors thesis | (varies) |

**Major Requirements: (51 hours)**

**Art History: Four courses (12 Hours)**

(ARTH 1300 may not be applied towards the major.)

**Mandated**

- ARTH 1380 - Art and Society: Prehistoric to Gothic  **Credit Hours: 3.0**
- ARTH 1381 - Art and Society: Renaissance to Modern  **Credit Hours: 3.0**
- ARTH 3000/4000 level (any subject in the 20th or 21st Century)
- ARTH 2000/3000/4000 level elective

**Fundamentals: Five 1000 or 2000 level studio courses (15 hours)**

**Mandated**

- ART 1301 - Fundamentals of Drawing  **Credit Hours: 3.0**
- ART 1360 - Fundamentals of Sculpture  **Credit Hours: 3.0**

**Recommended**

- ART 1304 - Fundamentals-Painting  **Credit Hours: 3.0**
- ART 1350 - Fundamentals of Ceramics  **Credit Hours: 3.0**
- ART 1371 - Fundamentals of Photography/Digital Media  **Credit Hours: 3.0**
• ART 1382 - Fundamental of Digital Tools **Credit Hours: 3.0**

**Related Arts: Eight studio courses (24 hours)**

- Seven courses must be 3000 or 4000 level
- No more than three 3000/4000-level courses in any one studio discipline

**Studio Disciplines:** Drawing, Ceramics, Graphic Design, New Media, Painting, Photography/Digital Media, Printmaking and Sculpture

**Total 120 hours**

**Bachelor of Fine Arts**

**Art, B.F.A.**

Students seeking the Bachelor of Fine Arts degree must fulfill the 42-hour university core curriculum, complete 3 hours of electives and complete 81 credit hours in studio art and art history courses as follows:

1. Twelve credit hours of 1000-level or 2000-level fundamentals program studio courses.
2. Thirty credit hours of approved related arts courses for studio major concentrations in Painting, Photography/Digital Media and Sculpture.
3. Twenty-seven credit hours in approved related arts courses for the studio major concentration in Graphic Design.
4. Twelve credit hours in art history including ARTH 1380 and ARTH 1381 and six credit hours of art history at the 2000-level or above.
5. A minimum of 57 credit hours must be earned in 3000- or 4000-level studio courses.

Students should refer to the recommended courses of study for each of the four specific studio majors.

**Fundamentals Courses**

Twelve credit hours (four 1000-level or 2000-level studio courses) and Art History I and II (ARTH 1380 and ARTH 1381) constitute an acceptable fundamentals program for studio major concentrations.

**Related Arts Courses**

A basic prerequisite for any related arts studio course is completion of 12 credit hours of fundamental studio courses. A minimum of 30 credit hours in related arts courses is required for the Bachelor of Fine Arts degree with a concentration in Painting, Photography/Digital Media and Sculpture. A minimum of 27 credit hours in related arts courses is required for the Bachelor of Fine Arts degree with a concentration in Graphic Design.

The term "related arts" is meant to include all intermediate-level courses offered by the school. These courses are taken after fundamentals courses and before junior-level major concentration courses. Students must have completed the fundamental course in a discipline before they take an intermediate level course in that discipline or have specific consent of the instructor. Related arts courses can include any art history course at the 2000 or higher level, any course approved by a major program's faculty that is offered by another department, and any 3000-4000-level art or design studio course.

**Exception:** Students wishing to begin work in studio concentration courses who have not previously taken the fundamental course in the concentration, should take the corresponding 1000-level or 2000-level course, which can be petitioned for related arts credit.
Normally, students are expected to complete a minimum of 12-15 credit hours of related arts courses, including at least one 3000-level premajor studio course in the same discipline as the intended major, before applying for admission to the major concentration.

Admittance to a major concentration is not guaranteed. This process involves a competitive portfolio review of a student's work and a vote by the faculty of the major concentration. Students are allowed to participate in the competitive portfolio review no more than two times.

**Studio Major Concentration Courses**

Prerequisites for the major concentration vary among the studio majors. All major concentrations require participation in the competitive portfolio review and formal individual approval by the major faculty.

On completion of junior courses in the concentration, a review of the student's progress by the major faculty is mandatory. No student is allowed to continue in the major concentration until formal approval has been granted by the major faculty. Students must have an approved degree plan on file in the Art Office before they begin their senior major program. Any substitutes for junior or senior major concentration courses must be approved by the faculty of the major area.

At a minimum, transfer students must take the final 30 credit hours of the Bachelor of Fine Arts program, including one three-credit pre major studio course and a full 27 credit hours in the Graphic Design major concentration or 36 credit hours in the Painting, Photography/Digital Media or Sculpture major concentration. Students may not apply any major concentration courses completed more than seven years prior to the graduation semester in fulfillment of degree requirements.

**Studio Majors**

**Bachelor of Fine Arts (BFA) in Studio Art - Concentration in Graphic Design**

**Art History (12 hours)**

**Required Courses**

- ARTH 1380 - Art and Society: Prehistoric to Gothic **Credit Hours: 3.0**
- ARTH 1381 - Art and Society: Renaissance to Modern **Credit Hours: 3.0**
- 2 courses: ARTH 2000/3000/4000 **Credit Hours: 3.0 each**

**Recommended Course**

- ARTH 3334 - History of Graphic Design **Credit Hours: 3.0**

**Fundamentals (12 hours)**

**Required Courses**

- ART 1301 - Fundamentals of Drawing **Credit Hours: 3.0**
- ART 1330 - Fundamentals of Graphic Design **Credit Hours: 3.0**

**Recommended Courses**
• ART 1310 - Fundamentals-Printmaking Credit Hours: 3.0
• ART 1360 - Fundamentals of Sculpture Credit Hours: 3.0
• ART 1371 - Fundamentals of Photography/Digital Media Credit Hours: 3.0
• ART 1372 - Fundamentals of Video Art Credit Hours: 3.0
• ART 1382 - Fundamental of Digital Tools Credit Hours: 3.0

Related Arts (21 hours)

Required Courses

• ART 3303 - Color, Materials and Methods Credit Hours: 3.0
• ART 3330 - Intermediate Graphic Design Credit Hours: 3.0
• ART 3334 - Introduction to Typography Credit Hours: 3.0

Recommended Courses

• ART 3313 - Silkscreen Credit Hours: 3.0
• ART 3328 - Rendering and Sketching Credit Hours: 3.0
• ART 3331 - Graphic Design Software Credit Hours: 3.0
• ART 3361 - Wood and Metal Fabrication Credit Hours: 3.0
• ART 3383 - Digital Fabrication Credit Hours: 3.0

Required Courses - Major Concentration (36 hours)

Fall Semester

• ART 3335 - Junior Graphic Design Major Credit Hours: 3.0
• ART 3336 - Junior Graphic Design Major Credit Hours: 3.0
• ART 3337 - Junior Graphic Design Major Credit Hours: 3.0

Spring Semester

• ART 3335 - Junior Graphic Design Major Credit Hours: 3.0
• ART 3336 - Junior Graphic Design Major Credit Hours: 3.0
• ART 3337 - Junior Graphic Design Major Credit Hours: 3.0

Fall Semester

• ART 4330 - Senior Graphic Design Major I Credit Hours: 3.0
• ART 4331 - Senior Graphic Design Major I Credit Hours: 3.0
• ART 4332 - Senior Graphic Design Major I Credit Hours: 3.0

Spring Semester

• ART 4333 - Senior Graphic Design Major II Credit Hours: 3.0
• ART 4334 - Senior Graphic Design Major II  Credit Hours: 3.0
• ART 4335 - Senior Graphic Design Major II  Credit Hours: 3.0

Bachelor of Fine Arts (BFA) in Studio Art - Concentration in Painting

Required Courses - Art History (12 hours)

• ARTH 1380 - Art and Society: Prehistoric to Gothic  Credit Hours: 3.0
• ARTH 1381 - Art and Society: Renaissance to Modern  Credit Hours: 3.0
• ARTH 4383 - Contemporary Painting  Credit Hours: 3.0
• 1 course: ARTH 2000/3000/4000 level  Credit Hours: 3.0 each

Fundamentals (12 hours)

Required Courses

• ART 1301 - Fundamentals of Drawing  Credit Hours: 3.0
• ART 1304 - Fundamentals-Painting  Credit Hours: 3.0

Recommended Courses

• ART 1310 - Fundamentals-Printmaking  Credit Hours: 3.0
• ART 1360 - Fundamentals of Sculpture  Credit Hours: 3.0
• ART 1371 - Fundamentals of Photography/Digital Media  Credit Hours: 3.0

Related Arts (30 hours)

Required Courses

• ART 3300 - Intermediate Drawing  Credit Hours: 3.0
• ART 3304 - Intermediate Painting  Credit Hours: 3.0

Recommended Courses

• ART 3301 - Life Drawing  Credit Hours: 3.0
• ART 3360 - Intermediate Sculpture  Credit Hours: 3.0
• ART 3370 - Traditional Photography  Credit Hours: 3.0
• ART 3374 - Computer Imaging  Credit Hours: 3.0
• ART 3397 - Sel Tops in Fine Arts  Credit Hours: 3.0
• ART 4392 - Sel Top in Contemporary Art  Credit Hours: 3.0
• ART 4397 - Sel Topics in Fine Arts  Credit Hours: 3.0
• ART 4000 Level Internship  Credit Hours: 3.0 (See Academic Advisor)
• ART 3000 Level Printmaking Course  Credit Hours: 3.0
Required Courses - Major Concentration (27 hours)

- ART 3309 - Jr Painting Major Credit Hours: 3.0
- ART 3310 - Jr Painting Major Credit Hours: 3.0
- ART 3311 - Jr Painting Major Credit Hours: 3.0
- ART 4300 - Senior Painting Major I Credit Hours: 3.0
- ART 4301 - Senior Painting Major I Credit Hours: 3.0
- ART 4302 - Senior Painting Major I Credit Hours: 3.0
- ART 4303 - Senior Painting Major II Credit Hours: 3.0
- ART 4304 - Senior Painting Major II Credit Hours: 3.0
- ART 4305 - Senior Painting Major II Credit Hours: 3.0

Bachelor of Fine Arts (BFA) in Studio Art - Concentration in Photography/Digital Media

Required Courses - Art History (12 hours)

- ARTH 1380 - Art and Society: Prehistoric to Gothic Credit Hours: 3.0
- ARTH 1381 - Art and Society: Renaissance to Modern Credit Hours: 3.0
- ARTH 3379 - History of Twentieth- and Twenty-First Century Photography Credit Hours: 3.0
- 1 course: ARTH 2000/3000/4000 Credit Hours: 3.0

Fundamentals (12 hours)

Required Courses

- ART 1371 - Fundamentals of Photography/Digital Media Credit Hours: 3.0
- ART 1372 - Fundamentals of Video Art Credit Hours: 3.0

Recommended Courses

- ART 1310 - Fundamentals-Printmaking Credit Hours: 3.0
- ART 1360 - Fundamentals of Sculpture Credit Hours: 3.0
- ART 1330 - Fundamentals of Graphic Design Credit Hours: 3.0
- ART 1382 - Fundamental of Digital Tools Credit Hours: 3.0

Related Arts (30 hours)

Required Courses

- ART 3374 - Computer Imaging Credit Hours: 3.0
- ART 3372 - Intermediate Video Art Credit Hours: 3.0
- ART 3371 - Photography/Digital Media Portfolio Development Credit Hours: 3.0
Recommended Courses

- ART 3370 - Traditional Photography **Credit Hours: 3.0**
- ART 3361 - Wood and Metal Fabrication **Credit Hours: 3.0**
- ART 3313 - Silkscreen **Credit Hours: 3.0**
- ART 3383 - Digital Fabrication **Credit Hours: 3.0**
- ART 3397 - Sel Tops in Fine Arts **Credit Hours: 3.0**
- ART 4000 Level Internship **Credit Hours: 3.0** (See Academic Advisor)

Required Courses - Major Concentration (27 hours)

Spring Semester

- ART 3375 - Junior Photography/Digital Media Major **Credit Hours: 3.0**
- ART 3376 - Junior Photography/Digital Media Major **Credit Hours: 3.0**
- ART 3377 - Junior Photography/Digital Media Major **Credit Hours: 3.0**

Fall Semester

- ART 4370 - Senior Photography/Digital Media Major I **Credit Hours: 3.0**
- ART 4371 - Senior Photography/Digital Media Major I **Credit Hours: 3.0**
- ART 4372 - Senior Photography/Digital Media Major I **Credit Hours: 3.0**

Spring Semester

- ART 4373 - Senior Photography/Digital Media Major II **Credit Hours: 3.0**
- ART 4374 - Senior Photography/Digital Media Major II **Credit Hours: 3.0**
- ART 4375 - Senior Photography/Digital Media Major II **Credit Hours: 3.0**

Bachelor of Fine Arts (BFA) in Studio Art - Concentration in Sculpture

Required Courses - Art History (12 hours)

- ARTH 1380 - Art and Society: Prehistoric to Gothic **Credit Hours: 3.0**
- ARTH 1381 - Art and Society: Renaissance to Modern **Credit Hours: 3.0**
- 2 courses: ARTH 2000/3000/4000 level **Credit Hours 3.0 each**

Fundamentals (12 hours)

Required Courses

- ART 1301 - Fundamentals of Drawing **Credit Hours: 3.0**
- ART 1350 - Fundamentals of Ceramics **Credit Hours: 3.0**
- ART 1360 - Fundamentals of Sculpture **Credit Hours: 3.0**
Recommended Courses

- ART 1304 - Fundamentals-Painting Credit Hours: 3.0
- ART 1371 - Fundamentals of Photography/Digital Media Credit Hours: 3.0

Related Arts (30 hours)

Required Courses

- ART 3360 - Intermediate Sculpture Credit Hours: 3.0
- ART 3361 - Wood and Metal Fabrication Credit Hours: 3.0

Recommended Courses

- ART 3350 - Intermediate Ceramics Credit Hours: 3.0
- ART 3383 - Digital Fabrication Credit Hours: 3.0
- One 3000-level Drawing course (ART 3300, 3301, 3321, 3328) Credit Hours: 3.0
- One 3000-level or above Printmaking course Credit Hours: 3.0
- ART 3374 - Computer Imaging Credit Hours: 3.0
- ART 3396 - Selected Topics in Studio Practice Credit Hours: 3.0 OR
- ART 4396 - Selected Topics in Studio Practice Credit Hours: 3.0
- ART 3397 - Sel Tops in Fine Arts Credit Hours: 3.0 OR
- ART 4397 - Sel Tops in Fine Arts Credit Hours: 3.0
- ART 4392 - Sel Top in Contemporary Art Credit Hours: 3.0 OR

Required Courses - Major Concentration (27 hours)

- ART 3365 - Junior Sculpture Major Credit Hours: 3.0
- ART 3366 - Junior Sculpture Major Credit Hours: 3.0
- ART 3367 - Junior Sculpture Major Credit Hours: 3.0

- ART 4360 - Senior Sculpture Major I Credit Hours: 3.0
- ART 4361 - Senior Sculpture Major I Credit Hours: 3.0
- ART 4362 - Senior Sculpture Major I Credit Hours: 3.0

- ART 4363 - Senior Sculpture Major II Credit Hours: 3.0
- ART 4364 - Senior Sculpture Major II Credit Hours: 3.0
- ART 4365 - Senior Sculpture Major II Credit Hours: 3.0

Minor

Art History for Other Majors Minor

For students in degree programs outside the School of Art, the minor in art history requires:
Fifteen semester hours in art history including ARTH 1380 or ARTH 1381, plus nine semester hours at 3000- or 4000-level.

At least nine semester hours in residence, of which six must be 3000- or 4000-level.

A 2.00 minimum cumulative grade point average on all minor courses attempted at the University of Houston.

The proposed minor must be approved by the undergraduate advisor in the School of Art.

**Art History for Studio Art or Art Majors Minor**

For students pursuing the B.F.A. in a Studio Art major, or the B.A. in Art, the minor in Art History requires:

1. Fifteen hours in Art History all of which are 2000, 3000 or 4000 level. Twelve hours must be unique to the major.
2. At least nine semester hours in residence, of which six must be 3000- or 4000-level;
3. A 2.00 grade point average on all minor courses attempted at the University of Houston.
4. The proposed minor must be approved by the undergraduate advisor in the School of Art.

**Arts (Studio) Minor**

Students who wish to take a minor in studio arts are required to complete:

1. Twenty-one credit hours including:
   a. Twelve hours in Foundation Program studio courses (1000-level or 2000-level courses).
   b. Nine semester hours in advanced Related Arts studio courses (3000- and 4000-level) in studio areas in which the 1000-level or
      2000-level courses were taken. (For example, a student may take ART 3350 - Intermediate Ceramics, provided that ART 1350 -
      Fundamentals of Ceramics was successfully completed.)
2. At least 12 credit hours in residence, of which six must be 3000- or 4000-level.
3. A minimum 2.00 grade point average on all minor courses attempted at this campus.

**Interdisciplinary Arts Minor**

The minor in interdisciplinary arts requires a minimum of 15 semester hours, 9 of which must be advanced. Nine of the 15 hours must be taken in residence, of which at least 6 must be at the 3000- or 4000-level. Twelve of the credit hours used to fulfill the requirements below must be unique to the minor. A minimum 2.00-grade point average on all courses applied to the minor is required.

Students seeking the minor in interdisciplinary arts are required to complete:

- IART 1300 - The Arts in Society **Credit Hours: 3.0**
- IART 3300 - Introduction to Interdisciplinary Art **Credit Hours: 3**
- IART 4300 - Collaboration Among the Arts **Credit Hours: 3**
- 6 hours from the following:
  a. Any course from the following departments as long as they are outside of the student's major degree plan. If the student’s major is not in
     the KGM College of Arts, all 6 hours must be in KGM College of the Arts as long as requirements and pre-requisites are met. Art (ART), Art
     History (ARTH), Arts Leadership (ARLD), Classics (CLAS), Comparative Culture Studies (CCL), Dance (DAN), Music (MUSI), Theater (THEA),
     creative writing in the English Department (ENGL), World Cultures and Literatures (WCL), Women’s Gender & Sexuality Studies (WGSS).

**Moores School of Music**
Who's Who in the Moores School of Music

Director:
Courtney Crappell

Associate Director:
Katherine Turner

Director of Graduate Studies:
Marcus Maroney

Director of Undergraduate Studies:
Cynthia Clayton

Professors:
Cynthia Clayton, Courtney Crappell, Matthew Dirst, Joseph Evans, Andrzej Grabiec, Charles Hausmann, Timothy Hester, Timothy Jones, Timothy Koozin, Franz Anton Krager, Barbara Rose Lange, Howard Pollack, Arnold (Buck) Ross, Robert T. Smith, John Snyder, Melanie Sonnenberg, Betsy Cook Weber, David Ashley White, Blake Wilkins

Associate Professors:
Paul Bertagnolli, Raymond Harvey (Clinical), Julie Kastner, Noe Marmolejo, Marcus Maroney, Tali Morgulis, Jeb Mueller, Andrew Staupe, Brian Suits (Instructional), Lawrence Wheeler, Kirsten Yon

Assistant Professors:
Dan Gelok (Instructional), Erin Hansen, Ji Yeon Lee, Cory Meals, Nancy Murphy, Daryl Robinson, Hector Vasquez (Instructional), Alec Warren, Dennis Whittaker (Instructional)

Professors of Practice:
David Bertman, Dana Pradervand

Lecturers:
Cora Bigwood, Cory Lafevers, Anna Langley, Kevin Miller, Katherine Turner, Chapman Welch
Affiliate Artists:


Degrees

The Moores School of Music offers Bachelor of Music, Master of Music, and Doctor of Musical Arts degrees. In addition, it is possible to earn a Bachelor of Arts degree with a major in music through the College of the Arts. Information on graduate degrees is available in the Graduate and Professional Studies catalog.

Bachelor of Arts

The Bachelor of Arts degree in music is offered to students wishing to pursue a program that places great emphasis on the liberal arts, but with a strong concentration in the field of music. In addition to the college requirements for the Bachelor of Arts, a minimum of 50 semester hours in music is required.

Bachelor of Music

Two baccalaureate music degrees are offered: Bachelor of Music and Bachelor of Music in Applied Music. The Bachelor of Music degree offers majors in Composition, Music Theory, and with Elective Studies in Teacher Certification (instrumental or choral), Marketing, Nonprofit Leadership, and Religion. The Bachelor of Music in Applied Music offers performance concentrations in Piano, Organ, Voice, Winds, Brass, Strings, or Percussion.

Course Requirements for a Bachelor of Music Degree:

In addition to all university and college requirements, students must complete all requirements for each B.M. degree as outlined below. Note that requirements for the various concentrations for the Bachelor of Music in Applied Music degree appear separately, as do the different areas of elective studies.

Bachelor of Music in Applied Music with concentrations in:

- Piano Performance, Organ Performance
- Instrumental Performance
- Vocal Performance

Bachelor of Music:

- Composition Major
- Music Theory Major
- Elective Studies in Teacher Certification (Instrumental or Choral)
Admission to Specific Areas of Specializations in Music

Although a successful audition will allow a student to enroll as a music major at the Moores School of Music, formal acceptance into specific areas of specialization (applied music, theory, composition, music education) may not occur until the end of the sophomore year.

Students who wish to apply for admission to an area of specialization must pass the admissions requirements established by the area of specialization. Although areas of specialization are not officially recognized until the end of the sophomore year, students should indicate their interest to appropriate faculty members and the academic advisor as early as possible for effective advising.

Ensemble Participation

Students enrolled in applied music instruction must participate in the large ensemble appropriate for the instrument or voice. The ensemble directors determine ensemble placement via audition results. These policies remain in force even after degree requirements have been met.

Accreditation

The Moores School of Music is accredited by the National Association of Schools of Music and a member of the Texas Association of Music Schools.

Admission to the Moores School of Music

New Students

In addition to meeting all requirements for admission to the University of Houston, all students applying for acceptance as majors in the Moores School of Music must pass an audition on their principal instrument or voice and be able to meet at least a freshman level of performance. In addition, they must take an examination for placement in music theory, aural skills, and piano.

Transfer Students

In addition to meeting all requirements for admission to the University of Houston, all transfer students applying for acceptance as majors in the Moores School of Music must pass an audition on their principal instrument or voice. Music majors transferring from other institutions must have a 2.50 minimum grade point average in all music courses attempted. Courses within the Texas "Field of Study Curriculum for Music" will transfer if minimum grade point and proficiency requirements are met. As required of Moores School of Music's native students, transfer students must take and pass applicable prerequisite proficiency exams before enrolling in designated theory and aural skills courses.

Transfer students in composition must have a 3.25 GPA in all previous music theory, aural skills and composition course work in order to be accepted into the composition program. Transfer students in music theory must have a 3.0 GPA in all freshman and sophomore level theory and aural skills courses to be fully admitted to the music theory program in the junior year and a GPA of 3.25 in all theory courses to graduate.

For more information, please visit http://www.uh.edu/kgmca/music.
Post Baccalaureate Students

Post-baccalaureate applicants for teacher certification in music must first meet requirements of the College of Education, apply to the Moores School of Music through Acceptd and provide the following materials: (a) unofficial transcripts, (b) statement of intent, (c) two references, and (d) a 15-minute video of a solo performance on a primary instrument or of classroom music teaching. Applicants must also complete an interview with a music education faculty member. Additional information is available on the Moores School of Music website.

Recital Attendance

Programs covering a wide range of literature and varied media of performance are presented each term by faculty and by students. All music majors must attend a total of 96 recitals prior to graduation. Music education majors will be exempt from recital attendance the term of student teaching. If student teaching is completed in the 8th term of study, music education majors need only accumulate a total of 84 recitals. Students must attend a minimum of four Tuesday recitals each term they are enrolled in nine or more hours until their total recital requirement has been met.

To request preparation of a degree plan or schedule a junior recital, students must have attended 60 recitals. To schedule a senior recital, students must have attended 72 recitals. Graduation paperwork will not be approved until the total requirement has been met. Students should attend 12 recitals each term to meet these requirements. In the rare instance when a non-degree applicable recital is requested and approved, the student must be current on recital attendance before the event can be scheduled. The numbers required are 12 recitals (freshman), 36 recitals (sophomores), and 60 recitals (junior).

Only Moores School of Music sponsored recitals will be counted for credit. Performances in which the student is a participant will not count toward recital attendance. Attendance is documented electronically with the CougarOne card, or by turning in recital programs within two weeks of the performance. Please contact the undergraduate advisor for details.

C- Rule

For all MUSA, MUSI, and MUED courses required for the music major or minor degree, with the exception of ensembles, students must earn a grade of C- or better in order to apply the course toward a Bachelor of Music, Bachelor of Arts in Music, or a minor degree in music. Furthermore, a minimum grade of C- is required for advancement to the subsequent course in all sequential courses.

Theory and Aural Skills Proficiency Examinations

Proficiency exams are prerequisites for several courses in the theory and aural skills sequences. A passing grade on these exams will likewise be at least C-. Furthermore, proficiency examinations are valid only through the next offering of the course for which they are prerequisite; if a student, having qualified for a course for which a proficiency examination is prerequisite, fails to complete that course the next time it is offered, the student must retake and pass the proficiency exam(s) for that course before enrolling in it.

Participation in Music Courses by Nonmajors

A number of music courses can be used by nonmusic majors to fulfill certain core course requirements. In addition, students majoring in other areas may elect to participate in ensembles, typically with consent of the instructor. Instruction in applied music for college credit is not generally available to nonmajors. Anyone interested in noncredit private lessons should contact the Community Arts Academy at 713-743-3398 or visit www.uh.edu/kgmca/music/caa.

Bachelor of Arts
Music, B.A.

The Bachelor of Arts degree in music is offered to students wishing to pursue a program that places great emphasis on the liberal arts, but with a strong concentration in the field of music. In addition to the college requirements for the Bachelor of Arts, a minimum of 50 credit hours in music is required.

University of Houston - Core Requirements (42 hours)

College of the Arts BA Requirements (15 hours)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Two courses:</td>
<td>2000 level or above in Foreign Language</td>
</tr>
<tr>
<td>2. Three courses:</td>
<td>College courses outside of the major requirements, core, and language requirements</td>
</tr>
<tr>
<td>3. Completion of one of the following requirements:</td>
<td>Approved minor</td>
</tr>
<tr>
<td></td>
<td>Second major</td>
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<tr>
<td></td>
<td>Second bachelor’s degree</td>
</tr>
<tr>
<td></td>
<td>Senior honors thesis</td>
</tr>
</tbody>
</table>

In addition to all university and college requirements, students must complete the following:

Course Requirements

- Applied music (instrument or voice) four semesters **Credit Hours: 8.0**
- MUSI 1160 - Group Piano I **Credit Hours: 1.0**
- MUSI 1161 - Group Piano II **Credit Hours: 1.0**
- MUSI 1170 - Aural Skills I **Credit Hours: 1.0**
- MUSI 1171 - Aural Skills II **Credit Hours: 1.0**
- MUSI 2170 - Aural Skills III **Credit Hours: 1.0**
- MUSI 2171 - Aural Skills IV **Credit Hours: 1.0**
- MUSI 1310 - Theory I **Credit Hours: 3.0**
- MUSI 1311 - Theory II **Credit Hours: 3.0**
- MUSI 2210 - Theory III **Credit Hours: 2.0**
- MUSI 2214 - Techniques of Music Since 1900 **Credit Hours: 2.0**
- MUSI 2361 - Music and Culture **Credit Hours: 3.0**
- MUSI 2362 - History of Music I **Credit Hours: 3.0**
- MUSI 3363 - History of Music II **Credit Hours: 3.0**
- MUSI 3364 - History of Music III **Credit Hours: 3.0**
- Large or small ensemble - two semesters **Credit Hours: 2.0**
- Advanced theory elective **Credit Hours: 3.0**
- Advanced music history/literature elective **Credit Hours: 3.0**
- Approved Advanced Electives **Credit Hours: 6.0**
Total 50

Bachelor of Music

Applied Music, B.M.

Private study is offered in the areas listed below.

Music majors generally pursue instruction in only one performance area. Occasionally, requests for concurrent study in a secondary area are approved. Nonmajors are encouraged to seek private instruction through the School’s Preparatory and Continuing Studies Program but, with approval of the School’s director, are allowed to enroll in private lessons for credit.

During regular semesters, students enrolled (registered) in two credit hours receive one half-hour lesson and attend studio class each week. Students enrolled (registered) in three or four semester credit hours receive a one-hour lesson and attend studio class each week.

Applied music credit is offered at all levels from freshman through graduate; the level is determined by audition for new students and by recommendation of the appropriate faculty for continuing students.

Concurrent enrollment in an appropriate large ensemble, even beyond degree requirements, is required of all students taking applied music courses.

Areas of applied music study currently available include:

- Bassoon
- Clarinet
- Double Bass
- Euphonium
- Flute
- French Horn
- Harp
- Harpsichord
- Jazz Bass
- Jazz Guitar
- Jazz Percussion
- Jazz Saxophone
- Oboe
- Organ
- Percussion
- Piano
- Saxophone
- Trombone
- Trumpet
- Tuba
- Viola
- Violin
- Violoncello
- Voice
- Conducting
- Composition

All of these areas are accredited by the National Association of Schools of Music.

Piano Pedagogy

The concentration in Piano Pedagogy provides Applied Music piano majors the option to gain comprehensive teacher training in addition to their applied study.

Requirements
• MUSI 4250 - Performance Pedagogy **Credit Hours: 2.0**
• MUSI 1170 - Aural Skills I  **Credit Hours: 1.0**
• MUSI 1171 - Aural Skills II  **Credit Hours: 1.0**
• MUSI 2170 - Aural Skills III  **Credit Hours: 1.0**
• MUSI 2171 - Aural Skills IV  **Credit Hours: 1.0**
• MUSI 1310 - Theory I  **Credit Hours: 3.0**
• MUSI 1311 - Theory II  **Credit Hours: 3.0**
• MUSI 2188 - Keyboard Skills and Collaborative Techniques  **Credit Hours: 1.0**
• MUSI 2210 - Theory III  **Credit Hours: 2.0**
• Large Ensemble: Six semesters  **Credit Hours: 6**
• MUSI 2214 - Techniques of Music Since 1900  **Credit Hours: 2.0**
• MUSI 2361 - Music and Culture  **Credit Hours: 3.0**
• MUSI 2362 - History of Music I  **Credit Hours: 3.0**
• MUSI 3363 - History of Music II  **Credit Hours: 3.0**
• MUSI 3364 - History of Music III  **Credit Hours: 3.0**
• MUSI 3160 - Advanced Sight Reading for Keyboard Players  **Credit Hours: 1.0**
• MUSI 3215 - Introduction To Large Forms  **Credit Hours: 2**
• MUSI 3216 - Analysis  **Credit Hours: 2**
• MUSI 3261 - Keyboard Harmony  **Credit Hours: 2.0**
• MUSI 4100 - Chamber Music  **Credit Hours: 1.0**  (Two semesters, 1 credit hours each.)
• MUSI 4198 - Independent Study  **Credit Hours: 1.0**

• MUSI 4220 - Choral Conducting I  **Credit Hours: 2.0** or
• MUSI 4230 - Instrumental Conducting I  **Credit Hours: 2.0**

• MUSI 4250 - Performance Pedagogy  **Credit Hours: 2.0**
• MUSI 4251 - Advanced Performance Pedagogy  **Credit Hours: 2.0**
• Advanced music literature/history elective  **Credit Hours: 3.0**
• MUSI 4160 - Internship in Piano Teaching I  **Credit Hours: 1.0**
• MUSI 4161 - Internship in Piano Teaching II  **Credit Hours: 1.0**

Total: 84

Piano Performance

Requirements

Complete 28 credit hours in the applied music lessons course:
• MUSA 1300 Applied Lessons: Piano - credit hours: 6.0
• MUSA 2300 Applied Lessons: Piano - credit hours: 6.0
• MUSA 3400 Applied Lessons: Piano - credit hours: 8.0
• MUSA 4400 Applied Lessons: Piano - credit hours: 8.0
• MUSI 1170 - Aural Skills I  **Credit Hours: 1.0**
• MUSI 1171 - Aural Skills II  **Credit Hours: 1.0**
• MUSI 2170 - Aural Skills III  **Credit Hours: 1.0**
• MUSI 2171 - Aural Skills IV  Credit Hours: 1.0
• MUSI 1310 - Theory I  Credit Hours: 3.0
• MUSI 1311 - Theory II  Credit Hours: 3.0
• MUSI 2188 - Keyboard Skills and Collaborative Techniques  Credit Hours: 1.0
• MUSI 2210 - Theory III  Credit Hours: 2.0
• MUSI 2214 - Techniques of Music Since 1900  Credit Hours: 2.0
• MUSI 2361 - Music and Culture  Credit Hours: 3.0
• MUSI 2362 - History of Music I  Credit Hours: 3.0
• MUSI 3363 - History of Music II  Credit Hours: 3.0
• MUSI 3364 - History of Music III  Credit Hours: 3.0
• MUSI 3160 - Advanced Sight Reading for Keyboard Players  Credit Hours: 1.0
• MUSI 3215 - Introduction To Large Forms  Credit Hours: 2
• MUSI 3216 - Analysis  Credit Hours: 2
• MUSI 3261 - Keyboard Harmony  Credit Hours: 2.0
• MUSI 4100 - Chamber Music  Credit Hours: 1.0
• MUSI 4198 - Independent Study  Credit Hours: 1.0

Select one conducting course from the following:
• MUSI 4220 - Choral Conducting I  Credit Hours: 2.0 or
• MUSI 4230 - Instrumental Conducting I  Credit Hours: 2.0
• MUSI 4250 - Performance Pedagogy  Credit Hours: 2.0
• Advanced music literature/history elective  Credit Hours: 3.0
• Advanced music electives  Credit Hours: 3.0
• Large ensemble - requirement completed from the following courses:  Credit Hours: 6.0
  • MUSI 1102 Wind Ensemble
  • MUSI 1103 Cougar Brass
  • MUSI 1110 Jazz Orchestra
  • MUSI 1120 University Chorus
  • MUSI 1121 Concert Chorus
  • MUSI 1140 Orchestra
  • MUSI 1160 Group Piano I
  • MUSI 1161 Group Piano II

Total 84

Organ Performance

Requirements

• Applied music: organ  Credit Hours: 28.0
  Six hours at the freshman level; six hours at the sophomore level; eight hours at the junior level (including junior recital); and eight hours at the senior level
• MUSI 1170 - Aural Skills I  Credit Hours: 1.0
• MUSI 1171 - Aural Skills II  
  Credit Hours: 1.0
• MUSI 2170 - Aural Skills III  
  Credit Hours: 1.0
• MUSI 2171 - Aural Skills IV  
  Credit Hours: 1.0
• MUSI 1310 - Theory I  
  Credit Hours: 3.0
• MUSI 1311 - Theory II  
  Credit Hours: 3.0
• MUSI 2210 - Theory III  
  Credit Hours: 2.0
• MUSI 2214 - Techniques of Music Since 1900  
  Credit Hours: 2.0
• MUSI 2361 - Music and Culture  
  Credit Hours: 3.0
• MUSI 2362 - History of Music I  
  Credit Hours: 3.0
• MUSI 3363 - History of Music II  
  Credit Hours: 3.0
• MUSI 3364 - History of Music III  
  Credit Hours: 3.0
• MUSI 3160 - Advanced Sight Reading for Keyboard Players  
  Credit Hours: 1.0
• MUSI 3215 - Introduction To Large Forms  
  Credit Hours: 2
• MUSI 3216 - Analysis  
  Credit Hours: 2
• MUSI 3261 - Keyboard Harmony  
  Credit Hours: 2.0
• MUSI 4220 - Choral Conducting I  
  Credit Hours: 2.0
• MUSI 4250 - Performance Pedagogy  
  Credit Hours: 2.0
• MUSI 4298 - Independent Study  
  Credit Hours: 2.0
• Large ensemble - eight semesters  
  Credit Hours: 8.0
• Advanced music literature/history elective  
  Credit Hours: 3.0
• Advanced music electives  
  Credit Hours: 3.0

Total 84

Instrumental Performance (Winds, Brass, Strings, Percussion)

Requirements

• Applied music: major instrument  
  Credit Hours: 28.0
  Six hours at the freshman level; six hours at the sophomore level; eight hours at the junior level (including junior recital); and eight hours at the senior level
• MUSI 1160 - Group Piano I  
  Credit Hours: 1.0
• MUSI 1161 - Group Piano II  
  Credit Hours: 1.0
• MUSI 1170 - Aural Skills I  
  Credit Hours: 1.0
• MUSI 1171 - Aural Skills II  
  Credit Hours: 1.0
• MUSI 2170 - Aural Skills III  
  Credit Hours: 1.0
• MUSI 2171 - Aural Skills IV  
  Credit Hours: 1.0
• MUSI 1310 - Theory I  
  Credit Hours: 3.0
• MUSI 1311 - Theory II  
  Credit Hours: 3.0
• MUSI 2210 - Theory III  
  Credit Hours: 2.0
• MUSI 2214 - Techniques of Music Since 1900  
  Credit Hours: 2.0
• MUSI 2361 - Music and Culture  
  Credit Hours: 3.0
• MUSI 2362 - History of Music I  
  Credit Hours: 3.0
• MUSI 3363 - History of Music II  
  Credit Hours: 3.0
• MUSI 3364 - History of Music III  
  Credit Hours: 3.0
• MUSI 3215 - Introduction To Large Forms  Credit Hours: 2
• MUSI 3216 - Analysis  Credit Hours: 2
• MUSI 4100 - Chamber Music  Credit Hours: 1.0 per semester. Four semesters required for a total of 4.0 Credit Hours.
• MUSI 4198 - Independent Study  Credit Hours: 1.0
• MUSI 4230 - Instrumental Conducting I  Credit Hours: 2.0
• MUSI 4250 - Performance Pedagogy  Credit Hours: 2.0
• Large ensemble - eight semesters  Credit Hours: 8.0
• Elective in chamber music or repertoire  Credit Hours: 1.0
• Advanced music literature/history elective  Credit Hours: 3.0
• Advanced music electives  Credit Hours: 3.0 *

Total 84

*Students in winds and brass will use chamber music to satisfy the elective requirement. Students in strings and percussion will use orchestra repertoire to satisfy the elective requirement. Percussion majors will take two semesters of percussion ensemble (in lieu of chamber music) and two semesters (one credit hour each) of Applied Jazz Percussion-MUSA 1176). Double-bass majors have the option of taking up to two semesters of jazz bass lessons (in lieu of chamber music) pending the approval of the instructor.

Vocal Performance

Requirements

• Applied music: voice  Credit Hours: 28.0
  Six hours at the freshman level; six hours at the sophomore level; eight hours at the junior level (including junior recital); and eight hours at the senior level
• MUSI 1160 - Group Piano I  Credit Hours: 1.0
• MUSI 1161 - Group Piano II  Credit Hours: 1.0
• MUSI 2160 - Group Piano III  Credit Hours: 1.0
• MUSI 2161 - Group Piano IV  Credit Hours: 1.0
• MUSI 1170 - Aural Skills I  Credit Hours: 1.0
• MUSI 1171 - Aural Skills II  Credit Hours: 1.0
• MUSI 2170 - Aural Skills III  Credit Hours: 1.0
• MUSI 2171 - Aural Skills IV  Credit Hours: 1.0
• MUSI 1310 - Theory I  Credit Hours: 3.0
• MUSI 1311 - Theory II  Credit Hours: 3.0
• MUSI 2101 - Vocal Diction  Credit Hours: 1.0
• MUSI 2210 - Theory III  Credit Hours: 2.0
• MUSI 2214 - Techniques of Music Since 1900  Credit Hours: 2.0
• MUSI 2361 - Music and Culture  Credit Hours: 3.0
• MUSI 2362 - History of Music I  Credit Hours: 3.0
• MUSI 3363 - History of Music II  Credit Hours: 3.0
• MUSI 3364 - History of Music III  Credit Hours: 3.0
• MUSI 3215 - Introduction To Large Forms  Credit Hours: 2
• MUSI 4102 - Acting for Opera  Credit Hours: 1.0
• MUSI 4198 - Independent Study  Credit Hours: 1.0
• MUSI 4220 - Choral Conducting | Credit Hours: 2.0
• MUSI 4250 - Performance Pedagogy | Credit Hours: 2.0
• MUSI 4370 - Art Song Repertoire | Credit Hours: 3.0
• Large ensemble - eight semesters | Credit Hours: 8.0
• Advanced music literature/history elective | Credit Hours: 3.0
• Freshman-level French, German, or Italian (with labs) | Credit Hours: 6.0-10.0

Total 89-93

Music (Areas of Elective Studies), B.M.

Kathrine G. McGovern College of the Arts >Moores School of Music >Music (Areas of Elective Studies), B.M.

In addition to the common courses for all elective studies areas, each student seeking this degree must fulfill the requirements for one of the four elective studies areas listed below. At least 36 total hours need to be at the advanced level. See the music advisor for more details.

Bachelor of Music Areas of Elective Studies:

• 1. Elective Studies in Teacher Certification: Choral Program
   (Note: Elective Studies in Teacher Certification (Choral) results in a Texas All-Level (EC-12) Certification.)
   o Voice
   o Piano
   o Organ
• 2. Elective Studies in Teacher Certification: Instrumental Program
   (Note: Elective Studies in Teacher Certification (Instrumental) results in a Texas All-Level (EC-12) Certification.)
   o Woodwind
   o Brass
   o Percussion
   o Strings
• 3. Elective Studies in Music Marketing
• 4. Elective Studies in Religion
• 5. Elective Studies in Nonprofit Leadership

Common Courses for all Elective Studies Areas:

• Applied Music in the major instrument or voice: Credit Hours: 14.0
  Four hours at the freshman, sophomore, and junior levels; and two hours at the senior level including senior recital
• Chamber Music or Accompanying (as appropriate) (1 credit hour required for student pursuing elective Studies in Teacher Certification (instrumental) | Credit Hours: 1.0 - 2.0

• MUSI 1160 - Group Piano I | Credit Hours: 1.0
• MUSI 1161 - Group Piano II | Credit Hours: 1.0
• MUSI 2160 - Group Piano III | Credit Hours: 1.0
• MUSI 2161 - Group Piano IV | Credit Hours: 1.0 (plus proficiency exam)

• MUSI 1170 - Aural Skills I | Credit Hours: 1.0
• MUSI 1171 - Aural Skills II | Credit Hours: 1.0
• MUSI 2170 - Aural Skills III Credit Hours: 1.0
• MUSI 2171 - Aural Skills IV Credit Hours: 1.0
• MUSI 1310 - Theory I Credit Hours: 3.0
• MUSI 1311 - Theory II Credit Hours: 3.0
• MUSI 2210 - Theory III Credit Hours: 2.0
• MUSI 2214 - Techniques of Music Since 1900 Credit Hours: 2.0
• MUSI 2361 - Music and Culture Credit Hours: 3.0
• MUSI 2362 - History of Music I Credit Hours: 3.0
• MUSI 3363 - History of Music II Credit Hours: 3.0
• MUSI 3364 - History of Music III Credit Hours: 3.0
• MUSI 3215 - Introduction To Large Forms Credit Hours: 2

• MUSI 4220 - Choral Conducting I Credit Hours: 2.0 or
• MUSI 4230 - Instrumental Conducting I Credit Hours: 2.0

• Large ensemble (appropriate to the applied area) Credit Hours: 7.0

Total 56-57

Elective Studies Areas:

1. Elective Studies in Teacher Certification: Choral Program

Choral Program Requirements

• Voice
• Piano
• Organ

Students must make special application to the College of Education in order to enter the teacher certification program. Also, certain core courses must be specifically selected from the options listed in the catalogue. See the Coordinator of Music Education for more details.

• Chamber music listed above must include MUSI 4102
• Pianists and organists must take four hours of class or private voice in lieu of piano class listed above and will complete MUED 3107 - Basic Vocal Techniques in lieu of MUED 3108 - Piano for Choral Directors.
• MUSI 2101 - Vocal Diction Credit Hours: 1.0 (2 semesters)
• MUED 2320 - Computers for Musicians Credit Hours: 3.0
• MUED 3108 - Piano for Choral Directors Credit Hours: 1.0
• MUED 4221 - Choral Conducting II Credit Hours: 2.0
• MUSI 4250 - Performance Pedagogy Credit Hours: 2.0
• MUED 4343 - Materials for Children’s Choirs Grades 4-12 Credit Hours: 3.0
• MUED 3320 - Introduction to Education in Music Credit Hours: 3.0
• MUED 4305 - General Music in Elementary and Secondary Schools Credit Hours: 3.0
• CUIN 3347 - Reading in the Content Area Credit Hours: 3.0
• EDUC 4318 - Student Teaching: Music - Elementary Credit Hours: 3.0
• EDUC 4319 - Student Teaching: Music - Secondary Credit Hours: 3.0
• HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0

Total 31

Total hours 126 (including remaining 36 Core hours)

2. Elective Studies in Teacher Certification: Instrumental Program

Instrumental Program Requirements

• Woodwind
• Brass
• Percussion
• Strings

Students must make special application to the College of Education in order to enter the teacher certification program. Also, certain core courses must be specifically selected from the options listed in the catalogue. See the Coordinator of Music Education for more details.

Large ensemble for woodwind, brass, and percussion students must include at least two semesters of marching band. (Strings students are exempt.)

• MUED 2320 - Computers for Musicians Credit Hours: 3.0
• MUED 3100 - Woodwinds Credit Hours: 1.0
• MUED 3101 - Woodwinds Credit Hours: 1.0
• MUED 3102 - Brasses Credit Hours: 1.0
• MUED 3103 - Brasses Credit Hours: 1.0
• MUED 3104 - Strings Credit Hours: 1.0
• MUED 3105 - Strings Credit Hours: 1
• MUED 3106 - Percussion Credit Hours: 1.0
• MUED 3107 - Basic Vocal Techniques Credit Hours: 1.0
• MUED 4231 - Instrumental Conducting II Credit Hours: 2.0
• MUED 4340 - Elementary and Middle School Instrumental Administration Credit Hours: 3.0
• MUED 4344 - MS/JS/HS Instrumental Administration and Ensemble Techniques Credit Hours: 3.0
• MUED 3320 - Introduction to Education in Music Credit Hours: 3.0
• MUED 4305 - General Music in Elementary and Secondary Schools Credit Hours: 3.0
• CUIN 3347 - Reading in the Content Area Credit Hours: 3.0
• EDUC 4318 - Student Teaching: Music - Elementary Credit Hours: 3.0
• EDUC 4319 - Student Teaching: Music - Secondary Credit Hours: 3.0
• HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0

Instrument Classes

Six one-hour credits, from the following course list:

• MUED 3100 - Woodwinds Credit Hours: 1.0
• MUED 3101 - Woodwinds Credit Hours: 1.0
• MUED 3102 - Brasses Credit Hours: 1.0
• MUED 3103 - Brasses Credit Hours: 1.0
• MUED 3104 - Strings Credit Hours: 1.0
• MUED 3105 - Strings Credit Hours: 1
• MUED 3106 - Percussion Credit Hours: 1.0

Total 36

Total 128 (including remaining 36 Core hours)

3. Elective Studies in Music Marketing

Music Marketing Requirements

• Additional Applied Music at the Senior level Credit Hours: 2.0
• Additional appropriate Large Ensemble Credit Hours: 1.0
• Approved Advanced Music Electives Credit Hours: 9.0
• Marketing Minor (includes 15 advanced hrs.) Credit Hours: 15.0

Total 27

Total hours 120 (including remaining 36 Core hours)

4. Elective Studies in Religion

Religion Requirements

• Additional Applied Music at the Senior level Credit Hours: 2.0
• Additional appropriate Large Ensemble Credit Hours: 1.0
• Approved Advanced Music Electives Credit Hours: 6.0
• Religious Studies Minor (must include 9 adv. hrs.) Credit Hours: 18.0

Total 27

Total hours 122 (including remaining 36 Core hours)

5. Elective Studies in Nonprofit Leadership

Nonprofit Leadership Requirements

• Additional Applied Music at the Senior level Credit Hours: 2.0
• Additional appropriate Large Ensemble Credit Hours: 1.0
• Approved Advanced Music Electives Credit Hours: 6.0
• Nonprofit Leadership Courses Credit Hours: 15.0
Total 24

Total hours 120 (including remaining 36 Core hours)

**Music Composition, B.M.**

Course Requirements for a Bachelor of Music Degree with a Major in Composition

In addition to all university and college requirements, students must complete all requirements for the B.M. degree as outlined below.

**Condition for Admission**

Note: A condition for admission to this program is a 3.00-grade point average in the following courses:

- MUSI 1310 - Theory I  **Credit Hours: 3.0**
- MUSI 1311 - Theory II  **Credit Hours: 3.0**
- MUSI 1170 - Aural Skills I  **Credit Hours: 1.0**
- MUSI 1171 - Aural Skills II  **Credit Hours: 1.0**
- MUSI 2210 - Theory III  **Credit Hours: 2.0**
- MUSI 2214 - Techniques of Music Since 1900  **Credit Hours: 2.0**
- MUSI 2170 - Aural Skills III  **Credit Hours: 1.0**
- MUSI 2171 - Aural Skills IV  **Credit Hours: 1.0**

Students may be admitted to the program after completing the sophomore music theory courses. A 3.25-grade point average must be maintained in all music theory courses for graduation.

**Course Requirements**

- Applied composition  **Credit Hours: 20.0**
  Four hours at the sophomore level; eight hours at the junior level; and eight hours at the senior level
- Applied music (instrument or voice)  **Credit Hours: 12.0**
  Four hours at the freshman level, four hours at the sophomore level, four hours at the junior level
- MUSI 1160 - Group Piano I  **Credit Hours: 1.0**
- MUSI 1161 - Group Piano II  **Credit Hours: 1.0**
- MUSI 2160 - Group Piano III  **Credit Hours: 1.0**
- MUSI 2161 - Group Piano IV  **Credit Hours: 1.0**
- MUSI 1170 - Aural Skills I  **Credit Hours: 1.0**
- MUSI 1171 - Aural Skills II  **Credit Hours: 1.0**
- MUSI 2170 - Aural Skills III  **Credit Hours: 1.0**
- MUSI 2171 - Aural Skills IV  **Credit Hours: 1.0**
- MUSI 1310 - Theory I  **Credit Hours: 3.0**
- MUSI 1311 - Theory II  **Credit Hours: 3.0**
- MUSI 2210 - Theory III  **Credit Hours: 2.0**
- MUSI 2214 - Techniques of Music Since 1900  **Credit Hours: 2.0**
- MUSI 2361 - Music and Culture  **Credit Hours: 3.0**
• MUSI 2362 - History of Music I **Credit Hours: 3.0**
• MUSI 3363 - History of Music II **Credit Hours: 3.0**
• MUSI 3364 - History of Music III **Credit Hours: 3.0**
• MUSI 3215 - Introduction To Large Forms **Credit Hours: 2**
• MUSI 3216 - Analysis **Credit Hours: 2**
• MUSI 4198 - Independent Study **Credit Hours: 1.0**
• MUSI 4122 - Electronic Composition **Credit Hours: 1.0**
• MUSI 4220 - Choral Conducting I **Credit Hours: 2.0** or
  • MUSI 4230 - Instrumental Conducting I **Credit Hours: 2.0**
• MUSI 4312 - Orchestration **Credit Hours: 3.0**
• MUSI 4365 - Contemporary Concert Music **Credit Hours: 3**
  • Advanced music literature/history elective **Credit Hours: 3.0**
  • Large or small ensemble - two semesters **Credit Hours: 2.0**
  • Large and/or small ensembles - four semesters **Credit Hours: 4.0**

**Total 85**

**Music Theory, B.M.**

In addition to all university and college requirements, students must complete all requirements for the B.M. degree as outlined below.

Note: A condition for admission to this program is a 3.00 grade point average in the following courses: MUSI 1310, MUSI 1311, MUSI 1170, MUSI 2210, MUSI 2170, and MUSI 2171. Students may be admitted to the program after completing the sophomore music theory courses. A 3.25 grade point average must be maintained in all music theory courses for graduation.

**Course Requirements**

• Applied music **Credit Hours: 12.0**
  Four hours at the freshman level, four hours at the sophomore level, four hours at the junior level
  • MUSI 1160 - Group Piano I **Credit Hours: 1.0**
  • MUSI 1161 - Group Piano II **Credit Hours: 1.0**
  • MUSI 2160 - Group Piano III **Credit Hours: 1.0**
  • MUSI 2161 - Group Piano IV **Credit Hours: 1.0**
  • MUSI 1170 - Aural Skills I **Credit Hours: 1.0**
  • MUSI 1171 - Aural Skills II **Credit Hours: 1.0**
  • MUSI 2170 - Aural Skills III **Credit Hours: 1.0**
  • MUSI 2171 - Aural Skills IV **Credit Hours: 1.0**
  • MUSI 1310 - Theory I **Credit Hours: 3.0**
  • MUSI 1311 - Theory II **Credit Hours: 3.0**
  • MUSI 2210 - Theory III **Credit Hours: 2.0**
  • MUSI 2214 - Techniques of Music Since 1900 **Credit Hours: 2.0**
  • MUSI 2361 - Music and Culture **Credit Hours: 3.0**
• MUSI 2362 - History of Music I  **Credit Hours: 3.0**
• MUSI 3363 - History of Music II  **Credit Hours: 3.0**
• MUSI 3364 - History of Music III  **Credit Hours: 3.0**
• MUSI 3215 - Introduction to Large Forms  **Credit Hours: 2.0**
• MUSI 3216 - Analysis  **Credit Hours: 2.0**
• MUSI 4220 - Choral Conducting I  **Credit Hours: 2.0 or**
• MUSI 4230 - Instrumental Conducting I  **Credit Hours: 2.0**
• MUSI 4312 - Orchestration  **Credit Hours: 3.0**
• Advanced music theory electives  **Credit Hours: 9.0**
• MUSA 2202 - Applied Composition (Two semesters at each level)
• MUSA 3202 - Applied Composition (Two semesters at each level)
• Large ensemble - four semesters  **Credit Hours: 4.0**
• Large and/or small ensembles - four semesters  **Credit Hours: 4.0**
• Advanced music literature/history elective  **Credit Hours: 3.0**
• Senior Thesis  **Credit Hours: 6.0**

Total 85

Minor

Music Minor

A minor in music in one of two areas - music theory or music literature/history - requires 21 semester hours in music, of which at least nine must be advanced. Nine of the total hours must be taken in residence, of which at least nine must be advanced. Nine of the total hours must be taken in residence, of which at least six must be advanced. A 2.00 minimum grade point average is required in all minor courses attempted at the University of Houston. All courses to be applied to the minor, including transfer courses, must be approved by the School of Music.

Music Literature/History Minor

Required lower division courses

Requirements

• MUSI 2170 - Aural Skills III  **Credit Hours: 1.0**
• MUSI 2171 - Aural Skills IV  **Credit Hours: 1.0**
• MUSI 2210 - Theory III  **Credit Hours: 2.0**
• MUSI 2214 - Techniques of Music Since 1900  **Credit Hours: 2.0**
• MUSI 2361 - Music and Culture  **Credit Hours: 3.0**
• MUSI 2362 - History of Music I  **Credit Hours: 3.0**

Nine additional advanced hours from the following courses listed below
• MUSI 3363 - History of Music II  Credit Hours: 3.0  
• MUSI 3364 - History of Music III  Credit Hours: 3.0  
• MUSI 4357 - Music in the Seventeenth Century  Credit Hours: 3.0  
• MUSI 4358 - Music of Bach and Handel  Credit Hours: 3.0  
• MUSI 4360 - Haydn, Mozart, Beethoven, and the Classical Style  Credit Hours: 3.0  
• MUSI 4361 - Music of the Romantic Period I (1800 - 1848)  Credit Hours: 3.0  
• MUSI 4363 - Music of the Romantic Period II (1848 - 1914)  Credit Hours: 3.0  
• MUSI 4364 - Music in the Twentieth Century I  Credit Hours: 3.0  
• MUSI 4365 - Contemporary Concert Music  Credit Hours: 3  
• MUSI 4366 - Music in the United States  Credit Hours: 3.0  
• MUSI 4380 - Opera Literature  Credit Hours: 3.0  
• MUSI 4382 - Symphonic Music  Credit Hours: 3.0  
• MUSI 4386 - Choral Literature  Credit Hours: 3.0  
• MUSI 4388 - Piano Literature  Credit Hours: 3.0  
• MUSI 4397 - Selected Topics in Music  Credit Hours: 3  

Total Hours: 21

Music Theory Minor

Required lower division courses

Required

• MUSI 2170 - Aural Skills III  Credit Hours: 1.0  
• MUSI 2171 - Aural Skills IV  Credit Hours: 1.0  
• MUSI 2210 - Theory III  Credit Hours: 2.0  
• MUSI 2214 - Techniques of Music Since 1900  Credit Hours: 2.0

Required upper division courses

Required

• MUSI 3300 - Listening to Music Masterworks  Credit Hours: 3.0  
• MUSI 3301 - Listening to World Music  Credit Hours: 3.0

Nine additional advanced hours from the following courses listed below

• MUSI 3215 - Introduction To Large Forms  Credit Hours: 2  
• MUSI 3216 - Analysis  Credit Hours: 2  
• MUSI 4301 - Modal Counterpoint  Credit Hours: 3.0  
• MUSI 4302 - Eighteenth Century Counterpoint  Credit Hours: 3.0  
• MUSI 4304 - Chromatic Harmony  Credit Hours: 3.0  
• MUSI 4312 - Orchestration  Credit Hours: 3.0  
• MUSI 4397 - Selected Topics in Music  Credit Hours: 3
Total Hours: 21

Internship and Practical Training

Moores School of Music - Experience Track

The Moores School of Music recognizes the value of developing students' professional development as an integral part of their academic career. Students who add the Experience Track to their degree program and satisfy its requirements will receive recognition for internship and curricular practical training (CPT) experience by a transcript notation.

To satisfy the requirements for the Experience Track, students must declare their intention to pursue the track and complete an approved internship/CPT. Zero-credit courses (such as COOP 0011,..., COOP 0017) are available for this purpose.

Internship/CPT experience will be approved by the Academic Department. Co-op internship/CPT experiences conform to the rules of the Co-op Office in the career center of the Cullen College of Engineering. CPT experiences conform to the rules of the International Student Scholar Services Office.

Eligibility for Experience Track

- Students are eligible with approval from an area coordinator and an academic advisor
- Professional experience must be related to the student’s major
- Additional restrictions apply for F-1 students, and are listed here: http://www.uh.edu/oisss/students/f-1-f-2-visa/f-1/employment/off-campus/CPT/

Steps to declare and register for Experience Track

1. Students must declare their intention to pursue the Experience Track by submitting a General Petition (signed by their area coordinator) to their academic advisor.
2. The Academic Department will verify the student’s academic eligibility for the Experience Track.
3. The Academic Department will review the internship, including:
   - formal job offer on the hiring company’s stationery
   - a description of the work to be performed
   - a beginning and ending date
   - the salary offered
4. The Academic department will determine whether or not the internship/CPT will provide the student with appropriate experience related to their major field of study.
5. If approved, the approved petition and internship approval will be forwarded from the Academic Department to the Co-op office in the career center of the Cullen College of Engineering to complete the process. Students must complete the steps listed on the "UH CO-OP INTERN REQUIREMENTS" form in order to apply and register for the Experience Track (Co-operative Education).
6. F-1 students seeking CPT should visit the International Student Scholar Services Office (ISSSO) for special instructions prior to the steps above.

For more information about Co-op Education, please visit the Co-operative Education (Co-op) and Curricular Practical Training (CPT) page.

Eligible Coursework
To satisfy the requirements for the Experience Track, students must declare their intention to pursue the track and complete an approved internship/CPT.

- COOP 0011 - COOP Education Work Period I Credit Hours: 0.0
- COOP 0012 - COOP Education Work Period II Credit Hours: 0.0
- COOP 0013 - COOP Education Work Period III Credit Hours: 0.0
- COOP 0014 - COOP Education Work Period IV Credit Hours: 0.0
- COOP 0015 - COOP Education Work Period V Credit Hours: 0.0
- COOP 0016 - COOP Education Work Period VI Credit Hours: 0.0
- COOP 0017 - COOP Education Work Period VII Credit Hours: 0.0

School of Theatre & Dance

Who's Who in the School of Theatre & Dance

Director:

Robert Shimko

Professors:

Stuart Ostrow, Theresa Rebeck, Kevin Ridgon, Karen Stokes, Steven Wallace, Jack Young

Associate Professors:

Carolyn Boone, Rachel R. Bush (Instructional), Teresa Chapman, Jim Johnson, Barbara Niederer (Instructional), Robert Shimko, Becky Valls, Claremarie Verheyen, Paige Willson (Instructional)

Assistant Professors:

John Beasant III, Mathew Chapman, Jessica Ferrarone (Instructional), Nicholas Jackson, Casey Kearns, Rosie Ward

Overview

The School of Theatre & Dance offers a Bachelor of Fine Arts (BFA) degree, and a Bachelor of Arts (BA) degree, including:

Bachelor of Fine Arts (BFA) in Theatre

Areas of Concentration include:

- Acting
- Playwriting/Dramaturgy
• Production
• Stage Management
• Theatre Education

Bachelor of Arts (BA) in Dance

The Dance Division also offers:

• Minor in Dance
• Teaching Certificate in Dance for Secondary Education, Approved Training Program

Advanced Degrees

The University of Houston offers the Master of Arts and the Master of Fine Arts degrees in the School of Theatre & Dance. For information regarding admission to the graduate programs, degree requirements, and course listing, consult with the director of graduate studies in the School of Theatre & Dance and refer to the Graduate and Professional Studies catalog.

Bachelor of Arts

Dance, B.A.

Students majoring in a Bachelor of Arts (BA) in Dance must complete the university core requirements, and the CLASS college requirements.

The Dance major requires 54 hours in DAN courses of which 36 hours of the total required must be advanced.

Requirements

• DAN 1300 - Dance as a Fine Art Credit Hours: 3.0
• DAN 2300 - Dance Improvisation Credit Hours: 3.0
• DAN 2305 - Dance Composition I Credit Hours: 3.0
• DAN 2309 - Dance Production II Credit Hours: 3.0
• DAN 2306 - Dance Composition II Credit Hours: 3.0
• DAN 2303 - Dance Production I Credit Hours: 3.0
• DAN 3302 - Intermediate Advanced Theory & Technique Credit Hours: 3.0 (2 semesters, 6 SCH total)
• DAN 2304 - Dance Kinesiology Credit Hours: 3.0
• DAN 3310 - Dance History I Credit Hours: 3.0
• DAN 3311 - Dance History II Credit Hours: 3.0
• DAN 4302 - Advanced Technique and Theory Credit Hours: 3.0 (2 semesters, 6 SCH total)
• DAN 4305 - Senior Dance Project with Career Management Credit Hours: 3.0
• DAN 4307 - Teaching Dance in Education Credit Hours: 3.0
• DAN 4308 - Teaching Dance Skills Credit Hours: 3.0
• DAN 4330 - Career Skills for the Practicing Dance Artist Credit Hours: 3.0
• DAN 4331 - PR and Marketing Entrepreneurship for the Arts Credit Hours: 3.0
Teacher Certification

Students seeking to complete Teacher Certification in Secondary Education in Dance should complete a BA in Dance and the Teacher Education Program in the College of Education to fulfill their minor.

Bachelor of Fine Arts

Dance, BFA

Students seeking the Bachelor of Fine Arts degree must fulfill the 42-hour university core curriculum and complete 81 semester hours in dance. In addition to meeting the requirements for admission at the University of Houston, students applying for entry into the BFA in Dance program must pass a performance audition. Students accepted into the BFA Dance program will be placed by the faculty into an appropriate level, as assessed through the audition process. Upon acceptance into the BFA Dance program, the candidates must maintain or exceed the standards of the program. The annual review process of BFA Dance candidates includes:

- Meeting with assigned faculty mentor each semester in the Freshman or first year (transfer students) enrolled at the University of Houston. Thereafter, meeting faculty mentor annually. Student is responsible for contacting mentor and setting up appointments.

- An annual review by faculty of the BFA candidate regarding progress, potential, and ability to successfully complete program. A negative assessment will place the student on probation for the following semester.

- Students who earn below a 2.00 (C) in any dance course will be placed on department probation.

- To satisfy degree requirements, students in the BFA Dance program must maintain a cumulative 2.67 (B-) average in all major courses. Falling below this mark will place the student on department probation.

Requirements

- DAN 1300 - Dance as a Fine Art Credit Hours: 3.0
- DAN 1202 - Ballet I Part II Credit Hours: 2.0 / DAN 1212 - Modern Dance I Part II Credit Hours: 2.0
- DAN 1103 - Freshman Seminar in Somatics Credit Hours: 1.0 /
  DAN 3103 - Junior Seminar in Somatics Credit Hours: 1.0 (4 semesters)
- DAN 2214 - Modern II Part II Credit Hours: 2.0
- DAN 2300 - Dance Improvisation Credit Hours: 3.0
- DAN 2303 - Dance Production I Credit Hours: 3.0
- DAN 2304 - Dance Kinesiology Credit Hours: 3.0
- DAN 2305 - Dance Composition I Credit Hours: 3.0
- DAN 2306 - Dance Composition II Credit Hours: 3.0
- DAN 2309 - Dance Production II Credit Hours: 3.0
- DAN 3302 - Intermediate Advanced Theory & Technique Credit Hours: 3.0 (2 semesters, 6 SCH total)
• DAN 3203 - Contact Improvisation **Credit Hours: 2.0**
• DAN 3306 - Dance Composition III **Credit Hours: 3.0**
• DAN 3310 - Dance History I **Credit Hours: 3.0**
• DAN 3311 - Dance History II **Credit Hours: 3.0**
• DAN 3314 - Technology in Dance **Credit Hours: 3.0**
• DAN 4302 - Advanced Technique and Theory **Credit Hours: 3.0** (2 semesters, 6 SCH total)
• DAN 4305 - Senior Dance Project with Career Management **Credit Hours: 3.0**
• DAN 4307 - Teaching Dance in Education **Credit Hours: 3.0**
• DAN 4308 - Teaching Dance Skills **Credit Hours: 3.0**

• DAN 4110 - Dance Ensemble **Credit Hours: 1.0 /**
• DAN 4330 - Career Skills for the Practicing Dance Artist **Credit Hours: 3.0**
• DAN 4331 - PR and Marketing Entrepreneurship for the Arts **Credit Hours: 3.0**

**Electives**

DAN (or ARTS) ELECTIVE (to include 3 credit internship option). The following list shows approved program course electives. Other undergraduate elective courses can be applied to the program subject to the approval of the Program Director/advisor.

• DAN 2308 - Design Elements for Dance **Credit Hours: 3.0**
• DAN 3312 - STOTT PILATES: Intensive Mat Certification **Credit Hours: 3.0**
• DAN 4110 - Dance Ensemble **Credit Hours: 1.0 /**
• DAN 4197 - Selected Topics **Credit Hours: 1.0**
• DAN 4204 - Jazz Dance III **Credit Hours: 2.0**
• DAN 4397 - Selected Topics in Dance **Credit Hours: 3.0**
• DAN 4398 - Independent Study **Credit Hours: 3.0**

**Total Hours: 81.0**

**Theatre, B.F.A.**

**Admission of New Students to the School of Theatre & Dance**

In addition to meeting all requirements for admission to the University of Houston, all students applying for acceptance as majors in the School of Theatre & Dance must pass a performance audition or portfolio review. Applicants must audition or present a portfolio for a specific degree and area of concentration and will either be accepted or not accepted by faculty consensus. Students who are accepted into a theatre or dance degree will be "placed" into the curriculum at an appropriate level based on the faculty's assessment. Audition or portfolio may be presented live (live preferred) or submitted electronically.

**Admission of Transfer Students to the School of Theatre & Dance**

In addition to meeting all requirements for admission to the University of Houston, all transfer students applying for acceptance as majors in the School of Theatre & Dance must pass a performance audition or portfolio review. Applicants must audition or present a portfolio for a specific degree
Standards for Continuation in the Program

Upon acceptance into the School of Theatre & Dance, all students must maintain the following standards for continuation in the program:

All students in the School of Theatre & Dance are expected to meet high standards of work and discipline. To strengthen the quality of education for those who meet and exceed these standards, those who fail to maintain these standards will not be permitted to continue in the program.

1. Each major will be assigned a faculty mentor who will meet with the student at least once a semester to review the student’s progress and to address perceived problems. Students are responsible for contacting their mentor to schedule all such meetings.

2. All students will be reviewed at least annually by a quorum of faculty members within their area of concentration. Faculty members conducting the review will consider the trainability and potential of the student. Students failing below minimum standards will be placed on departmental probation or will not be allowed to continue as Theatre or Dance majors.

3. To satisfy degree prerequisites and degree requirements, majors must earn a minimum C- (1.67) grade in each course attempted in theatre and dance (both required and elective) at the University of Houston School of Theatre and Dance.

Bachelor of Fine Arts (BFA) in Theatre

Students majoring in a Bachelor of Fine Arts (BFA) in Theatre must complete the university core requirements, the CLASS college requirements, and elect to follow one of these areas of concentration:

Acting

Playwriting/Dramaturgy

Production

Stage Management

Theatre Education

Consult the appropriate Area of Concentration for requirements listed below.

Bachelor of Fine Arts (BFA) in Theatre - Concentration in Acting

Requirements

- Four semesters of THEA 1111 or THEA 1112 - Production Credit Hours: 1.0
- THEA 1332 - Fundamentals of Theatre Credit Hours: 3.0
- THEA 1338 - Acting I Credit Hours: 3.0
- THEA 1339 - Acting II Credit Hours: 3.0
- THEA 2320 - Acting III Credit Hours: 3.0
- THEA 2321 - Acting IV Credit Hours: 3.0
• THEA 3320 - Acting V  Credit Hours: 3.0
• THEA 3321 - Acting VI  Credit Hours: 3.0
• THEA 4320 - Acting VII  Credit Hours: 3.0
• THEA 4321 - Acting VIII  Credit Hours: 3.0
• THEA 2332 - Voice and Movement for the Actor I  Credit Hours: 3.0
• THEA 2335 - Scenic Technology  Credit Hours: 3.0
• THEA 2336 - Lighting and Sound Technology  Credit Hours: 3.0
• THEA 2373 - Costume Technology  Credit Hours: 3.0
• THEA 2342 - Dramatic Structures and Genres  Credit Hours: 3.0
• THEA 2344 - American Drama  Credit Hours: 3.0
• THEA 2350 - Movement for the Actor II  Credit Hours: 3.0
• THEA 3350 - Movement for the Actor III  Credit Hours: 3.0
• THEA 4350 - Movement for the Actor IV  Credit Hours: 3.0
• THEA 2380 - Voice for the Actor II  Credit Hours: 3.0
• THEA 3380 - Voice for the Actor III  Credit Hours: 3.0
• THEA 4380 - Voice for the Actor IV  Credit Hours: 3.0
• THEA 3222 - Musical Theatre for Actors  Credit Hours: 3.0
• THEA 2223 - Makeup for Actors  Credit Hours: 2.0
• THEA 3332 - Directing I  Credit Hours: 3.0
• THEA 3335 - History of the Theatre I  Credit Hours: 3.0
• THEA 3336 - History of the Theatre II  Credit Hours: 3.0
• THEA 4390 - Acting Showcase: Capstone  Credit Hours: 3.0

Total 84

Bachelor of Fine Arts (BFA) in Theatre - Concentration in Playwriting/Dramaturgy

Requirements

• Three semesters of THEA 1111 or THEA 1112 - Production  Credit Hours: 1.0
• THEA 1332 - Fundamentals of Theatre  Credit Hours: 3.0
• THEA 1338 - Acting I  Credit Hours: 3.0
• THEA 1339 - Acting II  Credit Hours: 3.0
• THEA 2335 - Scenic Technology  Credit Hours: 3.0
• THEA 2336 - Lighting and Sound Technology  Credit Hours: 3.0
• THEA 2342 - Dramatic Structures and Genres  Credit Hours: 3.0
• THEA 2344 - American Drama  Credit Hours: 3.0
• THEA 2373 - Costume Technology  Credit Hours: 3.0
• THEA 3302 - Playwriting Workshop: Realism  Credit Hours: 3.0
• THEA 3303 - Playwriting Workshop: Non-Realism  Credit Hours: 3.0
• THEA 3304 - Playwriting Workshop: Myth & Ritual  Credit Hours: 3.0
• THEA 3305 - Playwriting Workshop: Comedy  Credit Hours: 3.0
• THEA 3308 - Creative Collaboration  Credit Hours: 3.0
• THEA 3309 - Performance Studies Seminar  Credit Hours: 3.0
• THEA 3332 - Directing I  Credit Hours: 3.0
• THEA 3333 - Directing II Credit Hours: 3.0
• THEA 3335 - History of the Theatre I Credit Hours: 3.0
• THEA 3336 - History of the Theatre II Credit Hours: 3.0
• THEA 4312 - Entering the Entertainment Industry Credit Hours: 3.0
• THEA 4313 - Advanced Playwriting Credit Hours: 3.0
• THEA 4345 - Dramaturgy Practicum Credit Hours: 3.0
• THEA 4352 - Senior Project Capstone Credit Hours: 3.0

Total 72

Bachelor of Fine Arts (BFA) in Theatre - Concentration in Production

Requirements

• Six semesters of THEA 1111 or THEA 1112 - Production Credit Hours: 1.0
• THEA 1332 - Fundamentals of Theatre Credit Hours: 3.0
• THEA 1340 - Fundamentals of Acting Credit Hours: 3.0
• THEA 2334 - Fundamentals of Design Credit Hours: 3.0
• THEA 2335 - Scenic Technology Credit Hours: 3.0
• THEA 2336 - Lighting and Sound Technology Credit Hours: 3.0
• THEA 2373 - Costume Technology Credit Hours: 3.0
• THEA 2342 - Dramatic Structures and Genres Credit Hours: 3.0
• THEA 2344 - American Drama Credit Hours: 3.0
• THEA 2390 - Technical Drawing Credit Hours: 3.0
• THEA 3335 - History of the Theatre I Credit Hours: 3.0
• THEA 3336 - History of the Theatre II Credit Hours: 3.0
• THEA 3362 - Costume Design for the Stage Credit Hours: 3.0
• THEA 3385 - Scenic Design Credit Hours: 3.0
• THEA 3387 - Lighting Design Credit Hours: 3.0
• THEA 3364 - Costume History Credit Hours: 3.0
• THEA 3371 - History of Architecture, Interiors, and Decorative Arts Credit Hours: 3.0
• THEA 3372 - Digital Design Techniques Credit Hours: 3.0
• THEA 2382 - Stage Management I Credit Hours: 3.0
• Theatre or non-theatre electives approved by Head of Production Credit Hours: 6.0

Select 12 hours from:

• THEA 3374 - Intelligent Lighting Credit Hours: 3.0
• THEA 3375 - Costume Technology & Applied Crafts Credit Hours: 3.0
• THEA 3376 - Advanced Drafting Credit Hours: 3.0
• THEA 3384 - Scene Painting Credit Hours: 3.0
• THEA 3386 - Theatre Sound Design Credit Hours: 3.0
• THEA 4367 - Costume Cutting and Draping Credit Hours: 3.0
• THEA 4393 - Theatre Management Credit Hours: 3.0
• Other Theatre or non-theatre elective approved by Head of Production

Select 3 hours from:

• ART 3328 - Rendering and Sketching Credit Hours: 3.0
• Rendering and Sketching (or other ART elective approved by Head of Production)
• MUSI 1300 - Fundamentals of Music Credit Hours: 3.0
• Theatre or non-theatre electives approved by Head of Production, Credit Hours: 6.0

Total 81

Bachelor of Fine Arts (BFA) in Theatre - Concentration in Stage Management

Requirements

• Four semesters of THEA 1111 or THEA 1112 - Production Credit Hours: 1.0
• MUSI 1300 - Fundamentals of Music Credit Hours: 3.0
• THEA 1332 - Fundamentals of Theatre Credit Hours: 3.0
• HLT 2310 - Emergency Care & First Aid Credit Hours: 3.0
• THEA 2334 - Fundamentals of Design Credit Hours: 3.0
• THEA 2335 - Scenic Technology Credit Hours: 3.0
• THEA 2336 - Lighting and Sound Technology Credit Hours: 3.0
• THEA 2373 - Costume Technology Credit Hours: 3.0
• THEA 2342 - Dramatic Structures and Genres Credit Hours: 3.0
• THEA 2344 - American Drama Credit Hours: 3.0
• THEA 2382 - Stage Management I Credit Hours: 3.0
• THEA 2383 - Stage Management II Credit Hours: 3.0
• THEA 2390 - Technical Drawing Credit Hours: 3.0
• THEA 3332 - Directing I Credit Hours: 3.0
• THEA 3335 - History of the Theatre I Credit Hours: 3.0
• THEA 3336 - History of the Theatre II Credit Hours: 3.0
• COMM 3358 - Leadership Communication & Organizations Credit Hours: 3.0
• THEA 3364 - Costume History Credit Hours: 3.0
• THEA 3371 - History of Architecture, Interiors, and Decorative Arts Credit Hours: 3.0
• THEA 3283 - Stage Management III Credit Hours: 2.0
• THEA 3385 - Scenic Design Credit Hours: 3.0
• THEA 3387 - Lighting Design Credit Hours: 3.0
• THEA 3389 - Applied Stage Management Techniques Credit Hours: 3.0
• THEA 4283 - Seminar in Stage Management Credit Hours: 2.0
• THEA 4393 - Theatre Management Credit Hours: 3.0
• THEA 4693 - Professional Stage Management Internship Credit Hours: 6.0

Total 83
Bachelor of Fine Arts (BFA) in Theatre - Concentration in Theatre Education

Requirements

- Three semesters of THEA 1111 or THEA 1112 - Production Credit Hours: 1.0
- THEA 1332 - Fundamentals of Theatre Credit Hours: 3.0
- THEA 1338 - Acting I Credit Hours: 3.0
- THEA 1339 - Acting II Credit Hours: 3.0
- THEA 2100 - Theatre Education Internship Credit Hours: 1.0
- THEA 2223 - Makeup for Actors Credit Hours: 2.0
- THEA 2332 - Voice and Movement for the Actor I Credit Hours: 3.0
- THEA 2334 - Fundamentals of Design Credit Hours: 3.0
- THEA 2335 - Scenic Technology Credit Hours: 3.0
- THEA 2336 - Lighting and Sound Technology Credit Hours: 3.0
- THEA 2373 - Costume Technology Credit Hours: 3.0
- THEA 2342 - Dramatic Structures and Genres Credit Hours: 3.0
- THEA 2344 - American Drama Credit Hours: 3.0
- THEA 3332 - Directing I Credit Hours: 3.0
- THEA 3335 - History of the Theatre I Credit Hours: 3.0

Complete 3.0 credit hours from the following:

- THEA 3336 - History of the Theatre II Credit Hours: 3.0 OR
- THEA 3379 - Stage Design for Educators Credit Hours: 3.0

- THEA 2382 - Stage Management I Credit Hours: 3.0
- THEA 4306 - Educational Theatre & Program Management in Schools Credit Hours: 3.0
- THEA 4600 - Advanced Theatre Education Internship Credit Hours: 6.0

Total 61

College of Education Coursework

In addition to the above THEA courses, Theatre Education students must complete the following courses through the College of Education:

Pre-Teaching
- EDUC 3301 - Introduction to Teaching Credit Hours: 3.0
- CUIN 3121 - Educational Technology for Secondary Teachers Credit Hours: 1.0
- HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0
- CUIN 3347 - Reading in the Content Area Credit Hours: 3.0
- CUIN 4375 - Classroom Management Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
- CUIN 4315 - Assessment of Children Credit Hours: 3.0

Developing Teaching
- THEA 4305 - Theatre in Elementary & Secondary Schools Credit Hours: 3.0
THEA 4307 - Introduction to Educational Theatre  
Credit Hours: 3.0

Student Teaching/Residency

EDUC 4322 - Student Teaching: Theater - Elementary  
Credit Hours: 3.0

EDUC 4323 - Student Teaching: Theater - Secondary  
Credit Hours: 3.0

Minor

Dance Minor

A minor in dance requires completion of 17 semester hours including:

Requirements

- DAN 2300 - Dance Improvisation  
  Credit Hours: 3.0
- DAN 2305 - Dance Composition I  
  Credit Hours: 3.0
- DAN 2306 - Dance Composition II  
  Credit Hours: 3.0
- DAN 3311 - Dance History II  
  Credit Hours: 3.0
- DAN 2303 - Dance Production I  
  Credit Hours: 3.0
  or
- DAN 2309 - Dance Production II  
  Credit Hours: 3.0
- DAN 3302 - Intermediate Advanced Theory & Technique  
  Credit Hours: 3.0
  or two semesters of

Total 17

At least nine semester hours of minor taken in residence, including at least six advanced hours (3000 or 4000 level).

Certificate

Dance Certification

Kathrine G. McGovern College of the Arts > School of Theatre & Dance > Dance Certification

Teaching Certificate in Dance for Secondary Education, Approved Training Program

The Dance Division offers an approved teaching training program for students interested in receiving a Teacher Certificate in Dance for Secondary Education. The required education classes are listed under the College of Education. Students interested in dance certification should consult advisors in both the School of Theatre & Dance and the College of Education.
Art History for Other Majors Minor

For students in degree programs outside the School of Art, the minor in art history requires:

1. Fifteen credit hours in art history including ARTH 1380 and ARTH 1381, plus nine semester hours at 3000- or 4000-level.
2. At least nine credit hours in residence, of which six must be 3000- or 4000-level.
3. A 2.00 minimum cumulative grade point average on all minor courses attempted at the University of Houston.
4. The proposed minor must be approved by the undergraduate advisor in the School of Art.
C.T. Bauer College of Business

Key Contacts

<table>
<thead>
<tr>
<th>Office</th>
<th>Phone</th>
</tr>
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<tbody>
<tr>
<td>Office of the Dean</td>
<td>713-743-4600</td>
</tr>
<tr>
<td>Office of Undergraduate Business Programs</td>
<td>713-743-4900</td>
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<tr>
<td>Office of the MBA Programs</td>
<td>713-743-0700</td>
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<tr>
<td>Rockwell Career Center</td>
<td>832-842-6120</td>
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<tr>
<td>Department of Accountancy and Taxation</td>
<td>713-743-4820</td>
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<td>Department of Decision and Information Sciences</td>
<td>713-743-4747</td>
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<td>Department of Finance</td>
<td>713-743-4755</td>
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<tr>
<td>Department of Management and Leadership</td>
<td>713-743-4646</td>
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<tr>
<td>Department of Marketing and Entrepreneurship</td>
<td>713-743-4555</td>
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Web page: http://www.bauer.uh.edu

College Leadership

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
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<tbody>
<tr>
<td>Dean</td>
<td>Paul Pavlou, Ph.D., University of Southern California</td>
</tr>
<tr>
<td>Senior Associate Dean for Faculty Affairs</td>
<td>Praveen Kumar, Ph.D., Stanford University</td>
</tr>
<tr>
<td>Associate Dean for Undergraduate Studies</td>
<td>Frank Kelley, M.A., M.F.A., McNeese State University</td>
</tr>
<tr>
<td>Assistant Dean for Career Services</td>
<td>Jamie Belinne, M.S., Loyola University</td>
</tr>
<tr>
<td>Associate Dean for Graduate and Professional Programs</td>
<td>Leiser Silva, Ph.D. London School of Economics and Political Science</td>
</tr>
<tr>
<td>Director of Enrollment (Registration) and Records</td>
<td>Mary Gould, M.A., Boston University; M.B.A., University of Houston</td>
</tr>
<tr>
<td>Executive Director, College Business Operations</td>
<td>Sara Brown, M.B.A., University of Houston</td>
</tr>
<tr>
<td>Executive Director of Communications</td>
<td>Jessica Navarro, B.A., M.A., University of Houston</td>
</tr>
<tr>
<td>Director of Alumni Relations</td>
<td>Giovanni Rosselli, B.S., Texas A&amp;M</td>
</tr>
</tbody>
</table>
Overview

Named in August 2000 to honor Houston business leader and philanthropist Charles T. (Ted) Bauer, the C. T. Bauer College of Business has been in operation for more than 60 years at the University of Houston.

The Bauer College of Business provides quality business education for over 6,000 undergraduate business majors and minors. Located in the fourth largest city in the U.S., the Bauer College of Business offers in-class instruction that is industry-focused, with unique internship and career opportunities.

Our academic programs are focused on preparing students for the real world of business. Our undergraduate students are an important source of new talent for many Houston area companies and our graduate programs are a critical tool for employee development and retention for many Houston-area firms.

Because of its high-quality education, business environment, and significant scholarship support, the Bauer College attracts high caliber students, including National Merit Scholars who are also members of the University of Houston Honors College. The Bauer College student population mirrors Houston’s diverse nature. The University of Houston attracts students from 137 different countries; over 350 of these international students are undergraduate business majors.

Accreditation

The Bauer College of Business is a fully accredited member of the AACSB International - The Association to Advance Collegiate Schools of Business, including accreditation of the accounting program. There are 874 business institutions in 56 countries and territories that have earned AACSB Accreditation. Similarly, 190 institutions hold an additional, specialized AACSB Accreditation for their accounting programs. AACSB accreditation is the hallmark of excellence in business education and has been earned by less than five percent of the world’s business schools.

Mission

The mission of the C.T. Bauer College of Business is to offer leading-edge, student-centered education that is accessible and affordable, founded on research and grounded in the real world.

Support Services and Supplementary Requirements

The Bauer College of Business provides services to help business students plan their education and career, and finance the cost of their education through scholarships. Computer support services are available through state-of-the-art computer labs.

Office of Undergraduate Business Programs (UBP), located in 262 Melcher Hall, is committed to providing quality administrative, enrollment (registration), and advising services to currently enrolled and prospective students of the college. The office also maintains information for students interested in learning abroad possibilities. Current and prospective students may contact the office for information and academic advising, at 713-743-4900 (phone), 713-743-4942 (fax), bba@uh.edu (E-mail) and www.bauer.uh.edu/undergraduate (website).

The mission of the Office of Undergraduate Business Programs is to advise and assist students with their academic success and leadership development, in partnership with the Rockwell Career Center, the Bauer Tutoring Services, the UH Writing Center, and other campus student service centers such as the Learning Support Services Center.
UBP offers college information sessions for new and prospective business students. Required sessions include New Student Orientation for newly admitted freshman and transfer students. During their first year, freshman pre-business students have special academic success and social activities either through the Emerging Leaders Academic Success Program (ELASP) or, for students in the Honors College, through the Bauer Business Honors Program.

Part of the requirements for the B.B.A. include BUSI 3302, Connecting Bauer to Business, on career exploration and preparation, and communication skills course. Also included is the Bauer Code of Ethics, which all Bauer College students are expected to understand and assent to as a Bauer College student.

BUSI 3302 also includes administration of a mandatory business writing evaluation (BWE). Students must clear the BWE in order to file a degree plan. Criteria for clearing the BWE is determined by the Bauer College faculty through a representative faculty committee.

A minimum of 2.5 cumulative GPA at UH is required each term while a student is a pre-business major. Pre-business majors with a cumulative GPA at UH below a 2.5 are placed on College Academic Notice. College Academic Notice is a warning that a student does not meet the minimum GPA required to file a degree plan, and a recommendation to participate in academic learning support programs.

**Bauer Business Honors Program**

Launched in Fall 2002, the Bauer Business Honors Program is a specialized program for business students that combines a solid liberal arts foundation from The Honors College with specialized business curriculum. In addition to outstanding academic benefits such as smaller, discussion-based business courses and the opportunity to write a senior honors thesis, Bauer Honors students experience a strong sense of community gained through personalized academic services, networking, and social events.

Bauer Honors students must complete the 10 hours of Human Situation coursework required of all Honors College students and a minimum of 18 hours of Business Honors curriculum (6 courses), including:

- SCM 3301H, which satisfies the Honors College requirement for completion of an upper-division Honors Colloquium.
- Minimum of 15 hours (five courses) taken in designated Bauer Honors sections.

No more than 6 hours of Business Honors credit may be earned through The Honors College petition process.

The 18 hours of Business Honors curriculum can be applied towards the 36 hours of total Honors coursework required by The Honors College.

Students that complete the required Honors coursework and maintain an overall GPA of 3.25 or above will graduate with University Honors from The Honors College.

Students that complete the above requirements and a senior honors thesis for six hours of honors credit will graduate with University Honors and Honors in Major.

For further information on the Bauer Business Honors Program, see www.bauer.uh.edu/bauerhonors/index.html.

**The Rockwell Career Center**

The Rockwell Career Center located on the 2nd floor of Cemo Hall actively provides business students with the information, opportunities, and practical skills necessary to obtain a satisfying career in today's competitive marketplace. The center provides targeted job listings, on-campus recruiting, recruiting events, internships, job search resources and individual counseling sessions to complement C.T. Bauer College students' academic experiences with professional development to help them attain successful and fulfilling business careers.

Through a partnership with the University Career Services office, the Rockwell Career Center offers students from the Bauer College not only university-wide job postings and interview opportunities, but also job opportunities and career resources specifically developed for Bauer students. The unique and personalized services are part of why the Rockwell Career Center received the Professional Change Maker Award and the Excellence
in Diversity Programming Award from The National Association of Colleges and Employers. For further information, please visit the Rockwell Career Center's Web site at www.bauer.uh.edu/career.

Bauer Division of Technology (BDT)

The Bauer Division of Technology offers student computing labs for use in completing course assignments and obtaining hands-on experience with technology mirroring today's business environments. The computer labs provide Bauer students with the latest software and access to network printers. These printers are also able to be utilized from personal student laptops. BDT works with Technology Support Services to ensure wireless network service throughout Melcher Hall, Cemo Hall and the new Classroom and Business Building.

The Ted Bauer Leadership Certificate Program

Central to being a leader is having a vision, and the ability to persuasively communicate that vision so that others follow. Leadership is vision that inspires action. Not everyone will fill the primary leadership role within an organization. But everyone can identify their strengths and develop their own personal vision statement that motivates them to positive action and inspires those within their own sphere of influence. Through the Ted Bauer Leadership Certificate Program, students become more effective leaders and more effective in their own life and as an influencer of others.

The Ted Bauer Leadership Certificate Program is an inclusive program for leadership within a business setting. Bauer College students start the program by identifying their strengths, and then relating those strengths to the traits of success shared by executives and community leaders to develop a personal vision statement. They then apply their strengths and carry out that vision within a group setting of an organization. Students who demonstrate outstanding leadership receive a certificate of completion and may receive scholarships to help pay for their education.

The goals of the program are to provide practical knowledge of professionalism; tools for effective decision making and communication; to help students discover their strengths and how to leverage their personal leadership talents to be effective and influential; and to enhance students capacity to lead ethically and effectively all while being in the service of others.

The program is based on well-known programs such as StrengthsQuest by Gallup and the Leadership Challenge, a widely recognized leadership model based on qualitative research with middle and senior managers. In addition, Bauer College offers more intensive programs such as LeaderShape to further develop the qualities and skills that will help students grow as the leaders of tomorrow. For an overview of the Bauer College’s leadership initiatives, see: www.bauer.uh.edu/leadership.

Bauer Ambassadors

Bauer Ambassadors (BA) is a program for an elite group of undergraduate business students who represent Bauer College, its spirit and values, to the campus and community. Bauer Ambassadors represent the college at key events and activities for the Dean’s Office, Undergraduate Business Programs (UBP), and the Rockwell Career Center (RCC), and serve as Ethics Advocates for their fellow students. Those events and activities include college tours, new student orientations, career events, dean’s events, commencement, and presentations to students on the importance of academic achievement and honesty, and being engaged in the college.

Professional and Honorary Societies

One arena to practice leadership is through student organizations. Before the business community’s presidents, executives and decision-makers can thrive in the corporate world, they must first have experience as a leader. Combining the business savvy, civic responsibility and social graces needed to be a truly effective leader can be a bit like putting together a puzzle.

Here at the C.T. Bauer College of Business at the University of Houston, we offer our students the opportunity to put those pieces together with over 20 student organizations. Our student leaders graduate with the confidence of knowing that they have all the necessary skills for success in their professional and personal lives.
Career Development

Members and officers of student organizations learn more about the real world of business by meeting influential corporate partners and advance their career development skills through career preps, workshops, resume building and interviewing activities.

Community Service

Student leaders from Bauer College are committed to giving back to the Houston community through various service and volunteer activities. Whether it's pitching in at a soup kitchen or mentoring at-risk youth, our students are ready to lend a hand.

Personal Growth

Perhaps the greatest benefit of joining a student organization is the immeasurable bond members feel as they share their collegiate experience with each other. Organizations combine professional activities with social outings and give members a lifelong system of support from peers, faculty, and staff.

Please visit our website at http://www.bauer.uh.edu/leadership/bsa/index.php for more information!

Accounting Society
Alpha Kappa Psi
American Marketing Association
Asian Business Student Association
Association of Certified Fraud Examiners
Bauer Global Brigades
Bauer Honors Student Advisory Board
Bauer Sourcing and Procurement Organization
Bauer Student Union
Bauer Women's Society
Beta Alpha Psi
Black Business Student Association
Collegiate Entrepreneurs' Organization
Delta Sigma Pi
ENACTUS UH
Fashion and Business
Finance Association
Gamma Iota Sigma
Hispanic Business Student Association
Houston Business Healthcare Alliance
Internal Audit Student Association
Investment Banking Scholars Club
Management Information Systems Student Organization
National Association of Black Accountants, Inc
Phi Beta Lambda
Society for Human Resource Management
Undergraduate Real Estate Scholars
Admission, Change of Major to Pre-Business, and Course Limits

Admission to Pre-Business for Degree-Seeking Students

Qualified high school and college transfer students interested in pursuing an undergraduate degree for the first time and seeking a bachelor of business administration (B.B.A.) degree should apply first as a pre-business major. Students may double major in business, but may not pursue two B.B.A. degrees simultaneously or consecutively. Postbaccalaureate students are not eligible to pursue a B.B.A. degree in the Bauer College of Business. For specific admission requirements, consult the University Office of Admissions.

Freshman Admission

Applicants must meet the following criteria:

<table>
<thead>
<tr>
<th>Rank in Class</th>
<th>Minimum Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NEW SAT (CR+M)</td>
</tr>
<tr>
<td>Automatic Admission</td>
<td>Top 20%</td>
</tr>
<tr>
<td>Automatic Admission</td>
<td>21-50%</td>
</tr>
<tr>
<td>Individual Review</td>
<td>51% and lower or not ranked</td>
</tr>
</tbody>
</table>

Individual college review is also required for international FTIC applicants and international transfer applicants with fewer than 30 semester hours of college credit applying for admission as Pre-business majors if a TOEFL score and high school grades are used as the basis for admission rather than SAT or ACT score and rank in class.

Transfer Admission

The criteria for a transfer student with 30-60 semester hours of college credit to be admitted to the Bauer College of Business as a pre-business major is a 3.0 or above cumulative grade point average, including any attempted transfer courses. Students with more than 60 semester hours of college credit must meet the same criteria, but the calculation of cumulative grade point average is based on the last 60 hours (if the 60th hour occurs in the middle of a term, all grades for that term are included in the calculation). Students must have a grade of C or better (or credit by exam) in College Algebra or a higher level mathematics course. Transfer students admitted to UH with 45 or more hours are not eligible to change their major to pre-business once they have enrolled at UH.

Change of Major

Current UH students who have submitted transcripts of all completed college work to the University of Houston may change their major to Pre-business if they meet the following requirements or if approved by individual review. Requests may be submitted on the Bauer Web site at: www.bauer.uh.edu/prospective.

1. 30 or more semester hours of college credit with grades. AP coursework will not count as part of the 30 credit hours. (UH students who do not meet the requirements to change their major to pre-business by the end of the term in which they complete 45 or more hours are not eligible to change their major to pre-business.
2. A 3.0 or higher cumulative GPA, including any attempted transfer work.
3. Students must be in good academic standing with a GPA of 2.5 or higher at the University of Houston; newly admitted students who do not currently have a University of Houston GPA will be ineligible to change their major.
4. In addition, students must have a grade of C or better (or credit by exam) in College Algebra or a higher level mathematics course.

Former UH Students Applying for Readmission

<table>
<thead>
<tr>
<th>Automatic Approval for Readmission</th>
<th>Former UH students, including former business students, who 1) meet the Bauer College admission criteria for Transfer Students; (2) have at least a 2.5 UH GPA; and (3) successfully complete MATH 1310 or higher level math with a C or better (or through credit by examination),</th>
</tr>
</thead>
</table>
| Individual Review                | Former business students who do not meet the automatic approval criteria.  
|                                  | or  
|                                  | Former UH students with 60 or more college credit hours who meet the admission criteria for Transfer Students. |
| Ineligible for Readmission       | Former UH students who left UH as a major other than business who DO NOT meet the automatic approval criteria.  
|                                  | or  
|                                  | Former business students placed on Academic Suspension who are classified as a Junior or Senior |

Admission for Non-Degree-Seeking Reciprocal Exchange and Summer Visiting and Transient Students

Non-degree-seeking reciprocal exchange and summer visiting and transient students must meet the minimum requirements for admission to the university. These applicants are admitted on a non-degree-seeking basis in accordance with university and college guidelines for these categories of admission, and may not be admitted as degree-seeking into the undergraduate business program unless they meet the degree-seeking requirements for admission to pre-business.

Admission to the Certificate of Accountancy Program

Admission requirements for the Certificate of Accountancy Program (CAP) are as follows: (1) the equivalent of a four-year undergraduate degree, and (2) the minimum requirements for undergraduate admission to the university. CAP applicants are admitted on a non-degree-seeking basis and may not be admitted as degree-seeking into the undergraduate business program. (For information on the CAP, see under the Department of Accountancy and Taxation.)

Course Limitations

Except for specifically designated courses, enrollment in advanced level business courses is limited to:

- pre-business majors approved by an academic advisor for a mixed program (limited to 3000-level business courses or by petition for 4000-level business courses for no more than two regular terms),
- students with a declared business major,
- students in a business-related program such as the computer science-business option, the entrepreneurship program, the professional selling program, or reciprocal exchange programs, who are taking business courses to meet specified requirements for these business-related programs.
Academic Information - C.T. Bauer College of Business

Academic Guidelines

Students are advised to read the Regulations and Requirements section of the catalog for general guidelines regarding academic policies and graduation requirements. Of additional note for business majors are the following:

Transfer of Credit

Students transferring into the Bauer College's Undergraduate Program who receive elective rather than specific course-designated credit from the University of Houston Transfer Credit Department for courses taken at other schools may submit transfer course equivalency petitions, along with appropriate documentation, to the Office of Undergraduate Business Programs for departmental evaluation.

Once a student has been admitted to the University of Houston Bauer College of Business, all subsequent business courses must be completed in the University of Houston Bauer College of Business. Students requesting exceptions from this policy must obtain written permission in advance from the Office of Undergraduate Business Programs. No such approval will be given for students who are within 30 hours of graduation as stated in university policy.

Degree Progress and Filing a Degree Plan

Students are required to file a degree plan through the Office of Undergraduate Business Programs (UBP) by the end of the term in which they complete 45 hours, or for students who transfer to UH with 45 or more hours, by the end of their first term at UH, unless an exception is approved by UBP. Pre-business students planning to take 3000-level business courses, except for designated courses, must be approved by their academic advisor for a mixed program, and have completed all specific course prerequisites and corequisites. A mixed program is a one or two-term transition in which pre-business students with a GPA of 2.5 or above are approved to take 3000-level business courses or by petition for 4000-level business courses prior to the next registration cycle. Pre-business majors with 45 or more hours on College Academic Notice (below a 2.5 GPA) should consider alternative majors to business and courses appropriate for transitioning to those majors unless approved by their academic advisor for an exception. In accordance with HB 3025, pre-business majors must file a degree plan in business no later than the end of their second regular term after completing 45 hours, or if they transferred to UH with 45 or more hours, not later than their second regular term at UH, or they must change their major to a non-business major for which they qualify.

In order to declare a business major and file a major degree plan (and for business majors to file a business minor), students must:

1. be a pre-business major with a 2.5 or above cumulative grade point average at the University of Houston,
2. complete 6 hours of core-approved Communication with a passing grade. Core courses for American History, Government/Political Science, Life and Physical Sciences, Language, Philosophy and Culture, Creative Arts, and the Writing in the Disciplines (met through BUSI 4350) requirements may be completed after students file a degree plan (note that the last 30 semester hours for a degree must be completed in residence; see the university policy for permitted exceptions),
3. complete all Business Administration and Management Field of Study courses with a grade of "C" or higher in each course, unless as a transfer student, a student has completed the Business Administration and Management Field of Study (BAMFS), to file a degree plan in a specific major in business. BAMFS courses include BUSI 1301 (formerly INTB 3354), BCIS 1305 (formerly MIS 3300), MATH 1313 (TCCNS MATH 1324), ACCT 2301 (formerly ACCT 2331), ACCT 2302 (formerly ACCT 2332), ECON 2304 (TCCN ECON 2302), ECON 2301 (TCCN ECON 2305), and BUSI 2305.
4. Complete BUSI 3302 (formerly GENB 3302) with a passing grade.
5. pass the Excel Competency Exam and
6. clear Business Writing Evaluation (BWE).
Internships for Credit

No more than six semester hours of internship courses may count toward the Bachelor of Business Administration degree plan; only three hours may count in the student’s major if the internship is within the major. The other three semester hours of internship course work may count as elective credit. Business students within the College of Business with a double major may count three semester hours of internship course work toward the second major if the internship is within that major, not to exceed a total of six semester hours of internship courses toward the bachelor of business administration degree plan.

Independent Study Courses

Independent study courses are available to juniors and seniors with the approval of the instructor, the department chair and the Office of Undergraduate Business Programs. To take an independent study course, the student must first obtain a general petition, complete the form, and have it signed by the faculty member who will be supervising the course and the department chair. The petition must include a description of the course and indicate the term and year in which the study will take place, along with the number of credit hours. The signed petition form must be returned to the Office of Undergraduate Business Programs at least five working days prior to the enrollment (registration) or add/drop period of the term in which the course will be taken in order to assign a section number, which is required for enrollment (registration).

No more than six semester hours of independent study courses may count toward the business administration degree plan; only three of these hours may be in the student’s area of concentration. The other three semester hours of independent study course work may count as elective credit. It is the student’s responsibility to seek a faculty member to help design the independent study course and supervise it.

Business Administration and Management Field of Study

The Texas Higher Education Coordinating Board requires a common set of courses for the B.B.A. as indicated in the chart below. Students with transfer credit for courses that meet the Business Administration and Management Field of Study meet the B. B. A. requirements for the Field of Study. Note that some courses require a grade of C or higher, and some majors may require additional courses in these areas.

<table>
<thead>
<tr>
<th>Title of Course</th>
<th>TCCNS#</th>
<th>UH Course Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Macroeconomics</td>
<td>ECON 2301</td>
<td>ECON 2305</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>ECON 2302</td>
<td>ECON 2304</td>
</tr>
<tr>
<td>Finite Math</td>
<td>MATH 1324</td>
<td>MATH 1313</td>
</tr>
<tr>
<td>Business Computer Applications</td>
<td>BCIS 1305</td>
<td>BCIS 1305</td>
</tr>
<tr>
<td>Principles of Financial Accounting</td>
<td>ACCT 2301</td>
<td>ACCT 2301</td>
</tr>
<tr>
<td>Principles of Managerial Accounting</td>
<td>ACCT 2302</td>
<td>ACCT 2302</td>
</tr>
<tr>
<td>Business Principles</td>
<td>BUSI 1301</td>
<td>BUSI 1301</td>
</tr>
<tr>
<td>Business Statistics</td>
<td>BUSI 2305</td>
<td>BUSI 2305</td>
</tr>
</tbody>
</table>
Prerequisites and Corequisites

Prerequisites and corequisites as specified under the business course listings are strictly enforced by the Bauer College of Business. Students who have taken prerequisites at other schools should make sure those courses are transferred and evaluated by the Transfer Credit Department, and if necessary, evaluated by petition by Departments, before classes begin.

In addition to specific course prerequisites and corequisites, advisors approval for a mixed program and good academic standing at the University of Houston are required for Pre-business majors to take upper-level business courses. Students who drop a corequisite course are subject to be dropped from the courses that require that course as a corequisite.

Residency Requirements

The last 30 semester hours of a bachelor’s degree must be completed in residence; see the university policy for permitted exceptions. Eighteen semester hours of advanced MIS course work in residence are required for the MIS major. A residency requirement of 15 semester hours of advanced accounting course work is required for the accounting major. In the remaining business majors, 12 semester hours of advanced course work in residence are required.

GPA in Major and Other Special Graduation Requirements

Students must earn a 2.0 minimum cumulative grade point average in courses attempted in the major at the university to graduate. All courses with the same rubric as the major are used in the calculation of that grade point average for the major, with the following exceptions: ACCT 2301 and ACCT 2302 are not used to calculate the grade point average for the accounting major; BCIS 1305 (formerly MIS 3300) is not used to calculate the grade point average for the management information systems (MIS) major; and ENTR 3312 is not used to calculate the grade point average for the entrepreneurship major.

Students filing for a bachelor of business administration degree (B.B.A.) must also meet the following requirements:

2. Completion of the confidential AACSB/EBI Undergraduate Assessment Study when administered.
3. Completion of a business competency assessment.

Suspension

In addition to general university policies regarding suspension, the Bauer College of Business has the following policies:

- For a first suspension, a student must sit out the next full term, either the fall or the spring (summer does not count as a full-term).
- For a second suspension, a student must sit out one full year (12 months).
- For a third suspension, a student will not be readmitted to UH.
- The Bauer College of Business does not readmit business students for summer sessions.
- Freshman and sophomore business students are not automatically readmitted. Readmission for freshman and sophomore business students is very selective because pre-business majors must have a 2.5 cumulative GPA at UH to file a degree plan. Students are required to file a degree plan through the Office of Undergraduate Business Programs (UBP) by the end of the term in which they complete 45 hours, or for students who transfer to UH with 45 or more hours, by the end of their first term at UH, unless an exception is approved by UBP.
- Junior and senior students are permanently suspended from the Bauer College and are ineligible to be considered for readmission to the Bauer College of Business.
• Freshman and Sophomore students suspended from a UH college other than business must meet admission requirements for transfer students.

**Business Students with Double Majors or Minors in Business**

Business students with a double major in business can count hours taken in the second major or in the minor toward the advanced business electives required for the first major or toward advanced and general elective requirements for the B.B.A. degree.
Scholarships C.T. Bauer College of Business

All students accepted into the Bauer College of Business are eligible to apply for the Bauer College of Business Scholarships. Every Bauer College of Business student is encouraged to apply, including current undergraduate students, freshmen, transfer students, graduate students, and international students.

The Bauer College of Business Scholarship program awards close to $1 million in scholarships to more than 400 deserving Bauer College of Business majors. Bauer College of Business scholarships range from $250-$5000 and are competitively awarded by the Bauer College of Business Scholarship Committee. Some Bauer College of Business Scholarships are based on academic merit, some are based on financial need, and some are based on a combination of merit and financial need. Other criteria may include classification, major, leadership activities, or other criteria. The specific criteria for each scholarship are established by the scholarship donor and the College.

UH business majors need only complete one Bauer College of Business Scholarship application form to be considered for all the Bauer College of Business Scholarships for which they qualify. There is no deadline for completing the application but, the earlier you apply, the more scholarships there are available for which you will be considered. The majority of the Bauer College of Business scholarships are awarded in the fall term of each academic year.

Bauer College of Business Scholarship information and Web-based application forms are available online at www.bauer.uh.edu/scholarship. Additional information, including scholarship criteria, donors, learning abroad scholarships, information on other external scholarships and financial aid opportunities, may also be found on the Bauer College of Business Scholarship Web page: www.bauer.uh.edu/scholarship.

Department of Accountancy and Taxation

Chair:
Kaye Newberry

Professors:
Arthur Francia (Emeritus), George O. Gamble, Saleha Khumawala, Gerald Lobo, Kaye Newberry, Thomas R. Noland, James W. Pratt (Emeritus)

Associate Professors:
Emre Kilic, Chad Larson, Haijin Lin, Tong Lu, Janet A. Meade, Volkan Muslu, Amy Sun, Yuping Zhao

Assistant Professors:
Novia Chen, Steven Crawford, Joshua Cutler, Annika Wang

Senior Professors of Practice:
Samuel Goble, Joe Seltz, Mary Sykes, J. Barry Teare

Professors of Practice:
John Green, Kathleen Harris, Mohan Kuruvilla, Carolyn Miles, Michael Newman, Darlene Serrato, Ellen Terry

Instructional Assistant Professors:
The Department of Accountancy and Taxation (ACCT)

offers a Bachelor of Business Administration degree in accounting and a number of tracks for accounting majors, along with a post-baccalaureate program for those wanting to meet the educational requirements for the Texas State Board of Public Accountancy Uniform CPA Examination. Interested persons may contact the department’s Professional Accounting Programs Office, located in 304 University Classroom and Business Building, for information or schedule advising by calling 713-743-4696.

The Professional Accounting Programs Office is committed to providing quality advising services to currently enrolled and prospective accounting students, assisting them in determining and accomplishing their academic and career goals, providing a pathway to a master’s degree in accountancy, as well as preparing accounting graduates for career opportunities and leadership roles in business, government, and nonprofit organizations.

Major

Accounting, B.B.A.

Students seeking a BBA in Accounting are required to take 120 hours of coursework to graduate. In addition to the courses and electives required of all C. T. Bauer College business majors, students seeking their BBA in Accounting take courses such as Accounting Information Systems, Financial Statement Auditing, Federal Income Tax, Financial Reporting Frameworks, Intermediate Accounting (1 and 2), and Cost Accounting.

While a track is not required to graduate with a BBA in Accounting, there are three tracks offered to BBA-Accounting students who want to use their business and accounting electives to specialize. These three concentrations include:

- **Professional Program in Accountancy (PPA)** or "150 Hour Program" offers students the opportunity to earn a BBA in accounting and a Master of Science in Accountancy (MSACCY). Students may complete 6 hours of graduate-level courses, reducing the number of hours needed for the MSACCY degree, and meet the educational qualification for the Texas State Board of Public Accountancy Uniform CPA Examination. Students in PPA have a GPA requirement and are expected to attend colloquiums, which are one-hour sessions that meet every Friday during the fall and spring and feature speakers (experts in their fields) from hiring companies and firms. Speakers present "cutting edge" topics and represent firms that offer students paid internships that prepare them for a career in their chosen field.

  To learn more about PPA admission and requirements, visit the Professional Accounting Programs Office located in suite 304 of the University Classroom and Business Building, call 713-743-4696, or link to http://www.bauer.uh.edu/departments/accy/undergraduate/ppa/.

- **Internal Audit track (IA)** is open to all undergraduate majors and offers students three internal audit courses that 1) fulfill elective requirements for the BBA degree and 2) fulfill course requirements for the IA certificate. The IA certificate is issued by the department and is recognized by the Global Institute of Internal Auditors. The IA certificate holds the designation of “Center of Excellence”, one of seven in the world and one in Southeast Texas. Students achieve the IA certificate by:
  1. completing (3) three required courses and completing (1) colloquium listed specifically for the certificate. Courses cannot be substituted for the required list,
  2. earning a minimum of a 3.0 cumulative for all three certificate courses and a letter grade of "S" (satisfactory) for the colloquium, and
  3. earning a minimum of a 2.5 cumulative and accounting GPA.

  To learn more about the Internal Audit certificate, visit the Professional Accounting Programs Office located in suite 304 of the University Classroom and Business Building, call 713-743-4696, or link to http://www.bauer.uh.edu/departments/accy/undergraduate/iap/.
• **Oil & Gas Accounting track (O&G)** offers students a series of three oil and gas courses designed to provide a comprehensive, energy-accounting education about the oil and gas industry. Students who complete the courses 1) fulfill elective requirements for the BBA degree and 2) prepare for accounting careers in the oil & gas industry and 3) have an opportunity to earn the O&G certificate by meeting the certificate requirements. Students may earn the O&G certificate by:
  1. completing (3) three required courses and completing (1) colloquium listed specifically for the certificate. Courses cannot be substituted for the required list,
  2. earning a minimum of a 3.0 cumulative for all three certificate courses and a letter grade of "S" (satisfactory) for the colloquium, and
  3. earning a minimum of a 2.5 cumulative and accounting GPA.

To learn more about the O&G certificate, visit the Professional Accounting Programs Office located in suite 304 of the University Classroom and Business Building, call 713-743-4696, or link to [http://www.bauer.uh.edu/departments/accy/undergraduate/oil-and-gas/](http://www.bauer.uh.edu/departments/accy/undergraduate/oil-and-gas/).

IA and O&G students are also encouraged to continue their education by earning a Master of Science in Accountancy degree.

**Accounting Major Coursework and Electives (42 Credit Hours)**

Business majors must meet the business, nonbusiness, and elective requirements for a baccalaureate degree as well as the following for a Bachelor of Business Administration degree with a major in Accounting:

• ACCT 3377 - Cost Accounting **Credit Hours: 3.0**
• ACCT 3366 - Financial Reporting Frameworks **Credit Hours: 3.0**
• ACCT 3367 - Intermediate Accounting I **Credit Hours: 3.0**
• ACCT 3368 - Intermediate Accounting II **Credit Hours: 3.0**
• ACCT 3371 - Accounting Information Systems **Credit Hours: 3.0**
• ACCT 4331 - Federal Income Tax-Individual **Credit Hours: 3.0**
• ACCT 4335 - Financial Statement Auditing **Credit Hours: 3.0**

Additional Elective Hours Required:

• Advanced Business Electives **Credit Hours: 3.0** (any 3000-4000 level business course) **
• Advanced Electives **Credit Hours: 9.0** (any 3000-4000 level business course)
• General Electives **Credit Hours: 9.0** (any 1000-4000 level course) *
  * The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.
  ** Students interested in Accounting should reserve 9 hours of electives for the Internal Audit or Oil & Gas certificate tracks or PPA.

**General B.B.A. Requirements**

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

• UH Core Courses & College Requirements
• Business Administration and Management Field of Study Courses
• Advanced-Level Business Requirements (required for all business majors),
• Major Coursework Requirements
• Additional Elective Requirements

along with noncredit requirements:

• Assenting to the Bauer Code of Ethics and Professional Conduct, and
• A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I  Credit Hours: 3.0
- ENGL 1304 - First Year Writing II  Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles  Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications  Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications  Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting  Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting  Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles  Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles  Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics  Credit Hours: 3.0

* Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours
• BUSI 3302 - Connecting Bauer to Business  Credit Hours: 3.0

Additional UH Core Courses

24 Credit Hours

**UH Core American History Requirement:**
Choose one of the following:
• HIST 1376 - The United States To 1877  Credit Hours: 3.0
  
or
• HIST 1377 - The U.S To 1877  Credit Hours: 3.0
  
and
Choose one of the following:
• HIST 1378 - The U.S Since 1877  Credit Hours: 3.0
  
or
• HIST 1379 - The United States Since 1877  Credit Hours: 3.0

**UH Core Government Requirement:**
Complete both:
• POLS 1336 - U.S. and Texas Constitution and Politics  Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
• Core Language, Philosophy & Culture  Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Creative Arts  Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Life and Physical Sciences  Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

This section is required for all business majors.

• FINA 3332 - Principles of Financial Management  Credit Hours: 3.0
• INTB 3355 - Global Environment of Business  Credit Hours: 3.0
• MANA 3335 - Introduction to Organizational Behavior and Management  Credit Hours: 3.0
• MARK 3336 - Introduction to Marketing  Credit Hours: 3.0
• MARK 3337 - Professional Selling  Credit Hours: 3.0
• SCM 3301 - Supply Chain Management Fundamentals  Credit Hours: 3.0

4000-level requirement (requires a degree plan on file):
• BUSI 4350 - Business Law and Ethics  Credit Hours: 3.0

Minor

Accounting Minor
Prerequisites:

- ACCT 2301 - Principles of Financial Accounting  **Credit Hours: 3.0**
- BCIS 1305 - Business Computer Applications  **Credit Hours: 3.0**

Required Courses:

- ACCT 2302 - Principles of Managerial Accounting  **Credit Hours: 3.0**
- ACCT 3366 - Financial Reporting Frameworks  **Credit Hours: 3.0**
- ACCT 3367 - Intermediate Accounting I  **Credit Hours: 3.0**
- ACCT 3368 - Intermediate Accounting II  **Credit Hours: 3.0**
- ACCT 3371 - Accounting Information Systems  **Credit Hours: 3.0**

Students cannot count courses toward both the Accounting minor and toward the Accounting major requirements or another business minor. These courses can be used to meet advanced business elective requirements.

Nonbusiness majors seeking the Accounting minor must meet the same grade point average requirement as students changing their major to pre-business at the time of filing for a minor

Certificate

Accountancy Certificate

The Certificate in Accountancy Program (CAP) is a non-degree seeking, post baccalaureate program that offers courses in the evening and occasionally on Saturdays to accommodate working professionals. CAP offers a variety of coursework to help students meet their educational and career goals by:

1. fulfilling the accounting prerequisite course requirements for the Master of Science in Accountancy (MSACCY) program
2. fulfilling the educational requirements necessary for the Uniform CPA Examination in the state of Texas
3. offering personal enrichment for students changing their careers

Students who complete at least ten courses in the program and meet the GPA requirements are awarded the Certificate in Accountancy. Specialized certificates in oil and gas and internal audit are also offered through CAP.

Please see [https://www.bauer.uh.edu/departments/accy/CAP/](https://www.bauer.uh.edu/departments/accy/CAP/) for more information.

Students interested in learning information about CAP may contact the Professional Accounting Program Office by calling 713-743-4696 or e-mailing applycap@uh.edu.

Internal Audit (IA) Certificate

About the Certificate

The Internal Audit (IA) Certificate is open to all undergraduate majors, and its mission is to provide students with the most up-to-date theory and practice in the field of Internal Auditing. The IA courses are taught by current practitioners in the field, who bring a wealth of real world experience to the classroom. The Accountancy & Taxation Department at the C. T. Bauer College of Business has one of only 7 internal audit programs in the world and one of only 4 in the country to be recognized as a Center of Excellence by the Institute of Internal Auditors.
Networking

Students involved in the IA-Certificate are provided increased opportunities to interact and earn internships with firms that employ Internal Auditors. Through corporate events held on campus, Colloquium courses, and mixers, students are able to network with the top employers in the Accounting industry. The Internal Auditing Student Association gives students who are interested in careers in Internal Auditing the opportunity to network with other students with the same goals to build networks and to further their mutual interest in the field of internal auditing.

Requirements

The IA courses are not approved to fulfill the Texas State Board of Public Accountancy's (TSBPA) educational requirement of 30 hours of advanced accounting. However, these courses are approved to fulfill the 150 hours of college credit. For information about the CPA eligibility, visit the TSBPA.

To earn the IA Certificate, a student must:

- complete three (3) required courses and one (1) colloquium listed specifically for the certificate. Courses cannot be substituted for the required list.
- earn a passing letter grade for each certificate course.
- have a minimum cumulative GPA of 3.0 for the 3 certificate courses.
- have a minimum cumulative and accounting GPA of 2.5.
- earn a letter grade of "S" (satisfactory) for the required colloquium.

IA Certificate Courses

- ACCT 4375 - Internal Audit and Entity Control Environment Credit Hours: 3.0
- ACCT 4379 - Enterprise Risk Management Credit Hours: 3.0
- ACCT 4380 - Control & Security of Financial Information: Theory and Practice Credit Hours: 3.0
- ACCT 4108 - Internal Audit Colloquium Credit Hours: 1.0 (Offered during Spring term only)

IA Colloquium Enrollment Requirements

To enroll in the IA Colloquium, a student must:

- have completed or have concurrent enrollment in ACCT 4375
- have a minimum cumulative and accounting GPA of 2.5
- if completed IA course(s), have a minimum cumulative GPA of 2.5 in the IA course(s)

Request Enrollment in the IA Colloquium

To request enrollment in the IA Colloquium or to learn more about the colloquium requirements, please email acctcert@uh.edu.

Request a Certificate

To request a certificate or to learn more about certificates requirements, please email acctcert@uh.edu.
Certificates are processed and usually mailed 4-6 weeks after the final grades are posted to the student’s record.

**Oil & Gas (O&G) Certificate**

**About the Certificate**

The Oil & Gas Certificate (O&G) delivers the tools and cross-functional expertise to prepare students for positions in the Oil & Gas industry. A three-course certificate in the area of Oil & Gas/Energy accounting was developed through a joint effort with Oil & Gas/Energy (upstream, midstream, downstream and other energy) companies, CPA firms, and other affected stakeholders in 2009. The C. T. Bauer College of Business is one of the few schools that offer a course in Oil & Gas Accounting. Houston Oil & Gas/Energy companies and large CPA firms recruit students who have obtained this certificate.

**Networking opportunities**

Throughout the fall semester, representatives from accounting and industry firms host a one credit hour colloquium course. The colloquium is intended to help students learn about the companies, network with the representatives, and learn what it means to be an accountant in the Oil & Gas/Energy industries. Many of these companies offer internships designed to prepare students for a career in Oil & Gas/Energy accounting and provide them with invaluable exposure to practical experiences in the accounting profession.

**Requirements**

The O&G courses are not approved to fulfill the Texas State Board of Public Accountancy’s (TSBPA) educational requirement of 30 hours of advanced accounting. However, these courses are approved to fulfill the 150 hours of college credit. For information about the CPA eligibility, visit the TSBPA.

To earn the O&G Certificate, a student must:

- complete three (3) required courses and one (1) colloquium listed specifically for the certificate. Courses cannot be substituted for the required list.
- earn a passing letter grade for each certificate course.
- have a minimum cumulative GPA of 3.0 for the 3 certificate courses.
- have a minimum cumulative and accounting GPA of 2.5.
- earn a letter grade of "S" (satisfactory) for the required colloquium

**Courses**

- ACCT 4378 - Oil and Gas Accounting I **Credit Hours: 3.0**
- ACCT 4381 - Oil and Gas Accounting 2 **Credit Hours: 3.0**
- ACCT 4382 - Oil and Gas Accounting 3 **Credit Hours: 3.0**
- ACCT 4107 - Oil and Gas Accounting Colloquium **Credit Hours: 1.0 (Offered during Fall term only)**

**O&G Colloquium Enrollment Requirements**

To enroll in the O&G Colloquium, a student must:
• have completed or have concurrent enrollment in ACCT 4378
• have a minimum cumulative and accounting GPA of 2.5
• if completed O&G course(s), have a minimum cumulative GPA of 2.5 in the O&G course(s)

Request Enrollment in the O&G Colloquium

To request enrollment in the O&G Colloquium or to learn more about the colloquium requirements, please email acctcert@uh.edu.

Request a Certificate

To request a certificate or to learn more about certificate requirements, please email acctcert@uh.edu.

Certificates are processed and usually mailed 4-6 weeks after the final grades are posted to the student’s record.

Department of Decision and Information Sciences

Chair:

Norman A. Johnson

Professors:

Wynne Chin, Randolph B. Cooper, Angelika Dimoka, Blake Ives, Norman A. Johnson, Basheer M. Khumawala, Paul Pavlou, E. Powell Robinson, Richard W. Scamell

Associate Professors:

Elizabeth A. Anderson-Fletcher, Michael S. Parks, Xiaosong Peng, Jaana Porra, Funda Sahin, Leiser Silva

Assistant Professors:

George Grimes, Lianlian Jiang, Xiao Ma, Ming Zhao

Senior Professor of Practice:

Victor Wayhan

Professors of Practice:

Emese Felvegi, Bradley Miller, Staci Patterson, Suryanaryan Radhakrishnan, Carl Scott, Dale Tibodeau

Instructional Assistant Professors:

Kathy L. Cossick, Michael Murray

The Department of Decision and Information Sciences (DISC) offers two majors: management information systems and supply chain management. The variety and depth of courses provide an excellent foundation for careers in information systems or business operations.
Decision and Information Sciences Requirements

Business majors must meet the business, nonbusiness, and elective requirements for a baccalaureate degree as well as the following for a Bachelor of Business Administration degree with a major in one of the following options:

Major

Management Information Systems, B.B.A.

Information systems are used in virtually every profession. Sales representatives use information systems to advertise products, communicate with customers, and analyze sales trends. Managers use them to make multimillion-dollar decisions, such as whether to build a manufacturing plant or research a cancer drug. Corporate lawyers use them to develop contracts and other legal documents. Automobile manufacturers use them to develop, test, and manufacture new cars. From a small music store to huge multinational corporations, organizations of all sizes could not survive without information systems to perform accounting and finance operations.

The MIS professional is involved in the identification, creation, and maintenance of the above information systems. He/she operates as an internal consultant to all functional areas of the organization, being knowledgeable about their strategic and operational needs as well as competent in bringing the power of information technology to support these needs. The MIS professional views issues through a global perspective that encompasses the entire organization and the broader industry and business environment in which it operates. As such, the MIS professional is tasked to help an organization thrive in a highly interconnected and highly competitive global environment. And though low-level programming jobs are being offshored to countries such as India, the need for MIS professionals described here are increasing greater than the average of all professions (see the U.S. Bureau of Labor Statistics website at http://www.bls.gov/oco/). The following are examples of the jobs the MIS graduates at the University of Houston take on:

- **Business/Systems Analyst** - is responsible for analyzing the business needs of clients to help identify business problems and propose solutions. The business analyst typically functions as a liaison between the business side of the enterprise and the providers of information technology services to the enterprise.
- **Business Application/Systems Developer** - is a person who uses a set of tools (e.g., programming languages, application generators, database package, etc.) and develops a software product.
- **Business Intelligence Analyst** - use computer tools to query data repositories and generate reports that help managers make business decisions by identifying trends and patterns in a company's data (concerning inventory, sales, customers, etc.) that are usually stored in companywide repositories called data warehouses.
- **Database Administrator** - manages the design and development and maintenance of organizational databases in order to guarantee the databases’ performance, integrity, and quality.
- **Database Analyst** - designs, implements, and maintains organizational databases, thereby ensuring database performance and system integration.
- **Information Systems Manager** - directs IS operations including computer operations, technical support, systems analysis and programming, database management, telecommunications, IS training, and microcomputer technology.
- **Information Systems Development Project Leader** - plans, organizes, and controls the activities of business systems analysts and system developers to ensure that project goals, timelines, and budgets are met.
- **Information Systems User Liaison** - provides the link between user departments and the information technology group by answering and/or obtaining answers to technical questions, ensuring that user department hardware and applications are properly working, and providing guidance to business analysts and developers during new systems development and maintenance projects.
- **Network Administrator** - installs, configures, and maintains the organization's local area network (LAN) server and workstations. He/she sets up and monitors network systems, resolves network problems, and provides technical assistance to users.
- **Web Developer** - determines user strategies and goals and develops and maintains internal and external web pages that meet these needs.
Management Information Systems (MIS) students at the Bauer College learn how to identify and create the types of information systems and take on the jobs described above. Some characteristics that make successful MIS students and great MIS professionals include the following:

- You like to solve problems and to work with people
- You like to take on responsibility for developing and implementing your ideas
- You are good at managing your time and resources

If you are interested in business and would like to keep up with what is technologically hot but don’t want to write programs all your life, then you should seriously consider majoring in MIS.

Management Information Systems Major Coursework (42 Credit Hours)

- MIS 3360 - Systems Analysis and Design Credit Hours: 3.0
- MIS 3370 - Information Systems Development Tools Credit Hours: 3.0
- MIS 3371 - Transaction Processing Systems I Credit Hours: 3.0
- MIS 3376 - Business Applications of Database Management I Credit Hours: 3.0
- MIS 4374 - Information Technology Project Management Credit Hours: 3.0
- MIS 4378 - Admin of Computer-Based MIS Credit Hours: 3.0

Advanced MIS Electives - Complete 6.0 credit hours from the following:

- MIS 4372 - Transaction Processing Systems II Credit Hours: 3.0
- MIS 4381 - Management of Information Security Credit Hours: 3.0
- MIS 4386 - Business Applications of Database Management II Credit Hours: 3.0
- MIS 4390 - Energy Trading Systems Credit Hours: 3.0
- MIS 4397 - Selected Topics in Management Information Systems Credit Hours: 3.0
- MIS 4477 - Network and Security Infrastructure Credit Hours: 4.0

Additional Elective Hours Required:

- Advanced Electives Credit Hours: 9.0 (any 3000-4000 level course)
- General Electives Credit Hours: 9.0 (any 1000-4000 level course) *

* The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.
Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

* Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0
Additional UH Core Courses

24 Credit Hours

UH Core American History Requirement:
Choose one of the following:
- HIST 1376 - The United States To 1877 Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
  and
Choose one of the following:
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0

UH Core Government Requirement:
Complete both:
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
- Core Language, Philosophy & Culture Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

This section is required for all business majors.

- FINA 3332 - Principles of Financial Management Credit Hours: 3.0
- INTB 3355 - Global Environment of Business Credit Hours: 3.0
- MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
- MARK 3336 - Introduction to Marketing Credit Hours: 3.0
- MARK 3337 - Professional Selling Credit Hours: 3.0
- SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0

4000-level requirement (requires a degree plan on file):
- BUSI 4350 - Business Law and Ethics Credit Hours: 3.0

Supply Chain Management, B.B.A.

Supply Chain Management (SCM) encompasses the planning and management of all the activities and resources that organizations use to produce goods and services that satisfy customer demands. There are five core processes common to all supply chains: planning how to satisfy customer demand, sourcing supply chains for raw materials and services, producing the product or service, delivering the product or service to the customer, and managing returned goods for recycle, repair or reuse. These core processes occur in both manufacturing enterprises and service organization,
and apply as well to government agencies and non-profit institutions. Thus the challenges in making all these operations the most efficient and effective are the keys to the success of any organization. As a result the opportunities for initial employment in operations management field and career advancements are tremendous.

Supply Chain Management (SCM) students at the Bauer College learn how to analyze the supply chain core processes and develop recommendations that enable companies to reduce costs, improve productivity, and achieve greater customer satisfaction. Recent graduates of supply chain management have taken jobs as analysts and/or consultants in areas such as service operations, quality management, project management, purchasing, inventory management, manufacturing planning, transportation logistics management, Enterprise Resource Planning (ERP), and many other areas: These jobs include:

- **Supply Chain Management Professional**: Responsibilities include managing supplier relationships, sourcing goods and services globally, effectively planning for production and demand, managing inventory and product movements, and ensuring material quality. Collectively, these tasks can have a significant impact on the Company's profitability.
- **Production Planner**: Responsible for scheduling finished material and intermediate production to maintain inventory levels and satisfy customer demand. Also develops and implements solutions relating to the planning operations using enterprise resource planning systems and other software to improve efficiencies.
- **Transportation Planner**: Responsible for working effectively with carriers and customer service to coordinate various operations affecting outbound bulk and packaged shipments, including exports. Utilizing SAP and PC based systems, this professional will also develop and implement computerized solutions relating to the traffic operations.
- **Buyer/Planner**: Responsible for executing all aspects of daily planning and execution for assemble to order products. Sets up and tracks demand and supply of customer orders and forecasts. Works closely with Customer Service, Marketing, and Engineering to ensure on time delivery to quoted or committed deliveries.

Some characteristics that make successful Supply Chain Management students and highly respected Supply Chain Management professionals include the following:

- Excellent interpersonal skills and a desire to work with people at all levels in an organization
- Ability to think critically about a problem and develop creative solutions
- Strong analytical skills
- Self-motivation and intellectual curiosity

If you are interested in a challenging job with excellent career growth opportunities, then Supply Chain Management could be a great major for you.

**Supply Chain Management Major Coursework and Elective Requirements (42 Credit Hours)**

Prerequisite: a grade of C+ or higher in SCM 3301

- SCM 4301 - Logistics Management **Credit Hours: 3.0**
- SCM 4330 - Business Modeling and Decision Analysis **Credit Hours: 3**
- SCM 4350 - Strategic Supply Management **Credit Hours: 3.0**
- SCM 4362 - Demand and Supply Integration **Credit Hours: 3.0**
- SCM 4367 - Process and Quality Management **Credit Hours: 3.0**
- SCM 4390 - Supply Chain Strategy **Credit Hours: 3.0**

Select six semester hours of advanced business electives from among the following electives:

- SCM 4302 - Energy Supply Chain **Credit Hours: 3.0**
- SCM 4311 - Project Management **Credit Hours: 3.0**
- SCM 4351 - Strategic Sourcing and Spend Analysis **Credit Hours: 3.0**
- SCM 4380 - Enterprise Resource Planning **Credit Hours: 3.0**
- SCM 4385 - Supply Chain Analytics **Credit Hours: 3.0**
- SCM 4397 - Selected Topics in Supply Chain Management **Credit Hours: 3.0**
• FINA 4371 - Energy Value Chain  

Credit Hours: 3.0

Suggested elective combination selections for completion of certificate in specified area: (Note: completion of certificate not required for completion of degree). In order to earn a certificate in Supply Chain Management students must complete the following courses with an average grade of B or better:

<table>
<thead>
<tr>
<th>Certificate:</th>
<th>Business Analytics</th>
<th>Energy Supply Management</th>
<th>Strategic Sourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective Course #1</td>
<td>SCM 4380 - Enterprise Resource Planning</td>
<td>SCM 4302 - Energy Supply Chain or FINA 4371 - Energy Value Chain</td>
<td>SCM 4351 - Strategic Sourcing and Spend Analysis or MANA 4340 - Negotiations and Conflict Management</td>
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<td>and</td>
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<tr>
<td>Elective Course #2</td>
<td>SCM 4385 - Supply Chain Analytics or approved substitute</td>
<td>SCM 4311 - Project Management or approved substitute</td>
<td>SCM 4380 - Enterprise Resource Planning or approved substitute</td>
</tr>
</tbody>
</table>

Additional Elective Hours Required:
- STAT 3331 - Statistical Analysis for Business Applications I  
  Credit Hours: 3.0  
  (with a grade of C or higher as a prerequisite for 4000-level course) *
- Advanced Electives  Credit Hours 6.0  (any 3000-4000 level course)
- General Electives  Credit Hours 9.0  (any 1000-4000 level course) *
  * The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements
Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

* Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0

Additional UH Core Courses
24 Credit Hours

**UH Core American History Requirement:**
Choose one of the following:
- HIST 1376 - The United States To 1877 **Credit Hours: 3.0**
- or
- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
  and
  Choose one of the following:
- HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**
- or
- HIST 1379 - The United States Since 1877 **Credit Hours: 3.0**

**UH Core Government Requirement:**
Complete both:
- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
- Core Language, Philosophy & Culture **Credit Hours: 3.0** - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts **Credit Hours: 3.0** - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences **Credit Hours: 6.0** - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

*This section is required for all business majors.*

- FINA 3332 - Principles of Financial Management **Credit Hours: 3.0**
- INTB 3355 - Global Environment of Business **Credit Hours: 3.0**
- MANA 3335 - Introduction to Organizational Behavior and Management **Credit Hours: 3.0**
- MARK 3336 - Introduction to Marketing **Credit Hours: 3.0**
- MARK 3337 - Professional Selling **Credit Hours: 3.0**
- SCM 3301 - Supply Chain Management Fundamentals **Credit Hours: 3.0**

4000-level requirement (requires a degree plan on file):
- BUSI 4350 - Business Law and Ethics **Credit Hours: 3.0**

Minor

Management Information Systems Minor

Prerequisite

- Junior Standing
Required Courses

Core Course

- MIS 3360 - Systems Analysis and Design Credit Hours: 3.0 *(formerly MIS 3380)

Four (4) of the following courses:

- MIS 3370 - Information Systems Development Tools Credit Hours: 3.0 *
- MIS 3371 - Transaction Processing Systems I Credit Hours: 3.0 *
- MIS 3376 - Business Applications of Database Management I Credit Hours: 3.0 *
- MIS 4477 - Network and Security Infrastructure Credit Hours: 4.0 **
- MIS 4374 - Information Technology Project Management Credit Hours: 3.0 *
- MIS 4372 - Transaction Processing Systems II Credit Hours: 3.0 *
- MIS 4378 - Admin of Computer-Based MIS Credit Hours: 3.0 **
- MIS 4381 - Management of Information Security Credit Hours: 3.0 **
- MIS 4386 - Business Applications of Database Management II Credit Hours: 3.0 *
- MIS 4390 - Energy Trading Systems Credit Hours: 3.0 **
- MIS 4397 - Selected Topics in Management Information Systems Credit Hours: 3.0

Note(s):

Students may take any four courses beyond MIS 3360, but * identifies a more technical track, and ** a more non-technical track, and all other courses for both tracks.

Students cannot count courses toward both the Management Information Systems minor and toward the Management Information Systems major requirements or another business minor. These courses can be used to meet advanced business elective requirements.

Nonbusiness majors seeking the Management Information Systems minor must meet the same grade point average requirement as students changing their major to pre-business at the time of filing for a minor.

Supply Chain Management Minor

Prerequisites:

- MATH 1313 - Finite Math with Applications Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0
- STAT 3331 - Statistical Analysis for Business Applications I Credit Hours: 3.0
  with a grade of C or higher
- (or approved substitutes) and Junior standing

Required Courses

Core Course
• SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0
• with a grade of C+ or higher

Select twelve (12) hours of advanced electives from among the following courses:

• SCM 4301 - Logistics Management Credit Hours: 3.0
• SCM 4302 - Energy Supply Chain Credit Hours: 3.0
• SCM 4311 - Project Management Credit Hours: 3.0
• SCM 4330 - Business Modeling and Decision Analysis Credit Hours: 3
• SCM 4350 - Strategic Supply Management Credit Hours: 3.0
• SCM 4351 - Strategic Sourcing and Spend Analysis Credit Hours: 3.0
• SCM 4362 - Demand and Supply Integration Credit Hours: 3.0
• SCM 4367 - Process and Quality Management Credit Hours: 3.0
• SCM 4380 - Enterprise Resource Planning Credit Hours: 3.0
• SCM 4385 - Supply Chain Analytics Credit Hours: 3.0
• SCM 4390 - Supply Chain Strategy Credit Hours: 3.0
• SCM 4397 - Selected Topics in Supply Chain Management Credit Hours: 3.0

Note(s):

Students cannot count courses toward both the Supply Chain Management minor and toward the Supply Chain Management major requirements or another business minor. These courses can be used to meet advanced business elective requirements.

Nonbusiness majors seeking the Supply Chain Management minor must meet the same grade point average requirement as students changing their major to pre-business at the time of filing for a minor.

Department of Finance

Chair:

Praveen Kumar

Professors:

Thomas George, Kris Jacobs, Praveen Kumar, R. Richardson Pettit (Emeritus), Craig Pirrong, Paul Povel, Ramon Rabinovitch, Ronald Singer (Emeritus), Guojun Wu

Associate Professors:

Hitesh Doshi, Nisan Langberg, Raul Susmel, Vijay Yerramilli

Assistant Professors:

Zesong Liu, Paola Pederzoli, Kevin Roshak, Sang Seo, Rajkamal Vasu, Seung Min Yae

Senior Professors of Practice:
The Department of Finance (FINA)

offers a Bachelor of Business Administration degree with a major in finance. This major concentrates on an understanding of the financial decisions of corporations, individuals, and nonprofit organizations, offers the Global Energy Management - Professional Program and special tracks in Global Energy Management, Commercial Banking, Personal Financial Planning, Real Estate, and Risk Management and Insurance. The courses focus on analysis and management of risk, costs and benefits of capital budgeting decisions, portfolio management, security analysis, and energy management. The department offers courses dealing with corporate financial management, investment analysis, the operation of institutions, analysis of derivative securities, risk and insurance, real estate finance, and international securities markets.

Major

Finance, B.B.A.

Business majors pursuing the standard track in finance must meet the business, nonbusiness, and elective requirements for a baccalaureate degree as well as the following for a Bachelor of Business Administration degree with a major in finance:

Finance Major Coursework and Electives (42 Credit Hours)

- FINA 4320 - Investment Management Credit Hours: 3.0
- FINA 4330 - Corporate Finance Credit Hours: 3.0
- Finance Advanced Electives Credit Hours: 12.0

Additional Elective Hours Required:

- STAT 3331 - Statistical Analysis for Business Applications Credit Hours: 3.0
- Approved Advanced Business Electives Credit Hours: 6.0 (3000-4000 level business course)
- Advanced Electives Credit Hours: 6.0 (any 3000-4000 level course)
- General Electives Credit Hours: 9.0 (any 1000-4000 level course) *
  * The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

General B.B.A. Requirements
In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I  Credit Hours: 3.0
- ENGL 1304 - First Year Writing II  Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles  Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications  Credit Hours: 3.0 *
• MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
• ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
• ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
• ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
• ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
• BUSI 2305 - Business Statistics Credit Hours: 3.0

^ Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

• BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0

Additional UH Core Courses

24 Credit Hours

UH Core American History Requirement:
Choose one of the following:
• HIST 1376 - The United States To 1877 Credit Hours: 3.0
  or
• HIST 1377 - The U S To 1877 Credit Hours: 3.0

and
Choose one of the following:
• HIST 1378 - The U S Since 1877 Credit Hours: 3.0
  or
• HIST 1379 - The United States Since 1877 Credit Hours: 3.0

UH Core Government Requirement:
Complete both:
• POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
• Core Language, Philosophy & Culture Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Creative Arts Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Life and Physical Sciences Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

This section is required for all business majors.

• FINA 3332 - Principles of Financial Management Credit Hours: 3.0
• INTB 3355 - Global Environment of Business Credit Hours: 3.0
• MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
MARK 3336 - Introduction to Marketing  **Credit Hours: 3.0**  
MARK 3337 - Professional Selling  **Credit Hours: 3.0**  
SCM 3301 - Supply Chain Management Fundamentals  **Credit Hours: 3.0**

4000-level requirement (requires a degree plan on file):
- BUSI 4350 - Business Law and Ethics  **Credit Hours: 3.0**

**Finance, B.B.A. - Commercial Banking Track and Certificate**

Finance majors interested in course work related to careers in Commercial Banking may pursue a Commercial Banking Track in Finance and receive a Commercial Banking certificate of recognition by meeting the following requirements within the Finance Major. To earn the certificate, students must complete 30 credits of courses designated with an asterisk (*) below.

**Required Finance Courses 6 hours**
- FINA 4320 - Investment Management  **Credit Hours: 3.0** *
- FINA 4330 - Corporate Finance  **Credit Hours: 3.0** *

**Finance Advanced Electives 12 hours (for the certificate, must be the following)**
- FINA 4341 - Commercial Bank Management  **Credit Hours: 3.0** *
- FINA 4342 - Financial Evaluation of Corporate Reports  **Credit Hours: 3.0** *
- FINA 4343 - Credit Analysis  **Credit Hours: 3.0** *
- FINA 4380 - Real Estate Finance and Investment  **Credit Hours: 3.0** *

**Additional Elective Hours Required**

**Advanced Business Electives 12 hours (for the certificate, must be the following)**
- ACCT 3366 - Financial Reporting Frameworks  **Credit Hours: 3.0** *
- ACCT 3367 - Intermediate Accounting I  **Credit Hours: 3.0** *
- ACCT 3368 - Intermediate Accounting II  **Credit Hours: 3.0** *
- STAT 3331 - Statistical Analysis for Business Applications I  **Credit Hours: 3.0** *
  (STAT 3331 is a prerequisite for 4000-level Finance courses)

**Advanced Electives Credit Hours: 3.0 (any 3000-4000 level course)**

**General Electives Credit Hours: 9.0 (any 1000-4000 level course)** **

**Notes:**

**The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.**
Students completing the Commercial Banking Certificate must satisfy all the requirements of the Finance, B.B.A. major.

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours
Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

^ Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0

Additional UH Core Courses

24 Credit Hours

UH Core American History Requirement:
Choose one of the following:
- HIST 1376 - The United States To 1877 Credit Hours: 3.0
or
- HIST 1377 - The U.S To 1877 Credit Hours: 3.0
and
Choose one of the following:
- HIST 1378 - The U.S Since 1877 Credit Hours: 3.0
or
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0

UH Core Government Requirement:
Complete both:
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
- Core Language, Philosophy & Culture Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours
This section is required for all business majors.

- FINA 3332 - Principles of Financial Management **Credit Hours: 3.0**
- INTB 3355 - Global Environment of Business **Credit Hours: 3.0**
- MANA 3335 - Introduction to Organizational Behavior and Management **Credit Hours: 3.0**
- MARK 3336 - Introduction to Marketing **Credit Hours: 3.0**
- MARK 3337 - Professional Selling **Credit Hours: 3.0**
- SCM 3301 - Supply Chain Management Fundamentals **Credit Hours: 3.0**

4000-level requirement (requires a degree plan on file):
- BUSI 4350 - Business Law and Ethics **Credit Hours: 3.0**

**Finance, B.B.A. - Global Energy Management - Professional Program Track and Certificate**

The Global Energy Management - Professional Program (GEM-PP) is the most powerful and comprehensive blend of technical and business skills available at the undergraduate and graduate level. Students in this program obtain a BBA in Finance and receive a Global Energy Management - Professional Program certificate by meeting the specified course requirements, and having a 3.25 or higher cumulative grade point average to declare GEM-PP for the certificate. The certificate requires 30 hours of coursework unique to the B.B.A. requirements, identified by a carrot sign (^) below: 15 hours of math instead of 6 hours, a minimum of 9 hours of life and physical sciences instead of 6 hours, and 12 hours of energy courses in finance, and 6 hours of energy-related advanced electives in business or approved substitutions.

Meant to begin at the freshman year and carry through graduation, the GEM Professional Program requires a higher level math and science core than the traditional BBA in Finance. In addition to the required business core course work, GEM-PP students take all their advanced-elective courses in energy business.

**Finance GEM-PP Major Coursework (27 Credit Hours)**

- FINA 4320 - Investment Management **Credit Hours: 3.0**
- FINA 4330 - Corporate Finance **Credit Hours: 3.0**

Select twelve hours of advanced Finance electives from the following courses ^

- FINA 4350 - Derivatives I: Options **Credit Hours: 3.0**
- FINA 4351 - Derivatives II: Forwards, Futures and Swaps **Credit Hours: 3.0**
- FINA 4357 - Commercial Liability **Credit Hours: 3.0**
- FINA 4358 - Commercial Property **Credit Hours: 3.0**
- FINA 4359 - Energy Insurance and Risk Management **Credit Hours: 3.0**
- FINA 4360 - International Financial Management **Credit Hours: 3.0**
- FINA 4370 - Energy Trading **Credit Hours: 3.0**
- FINA 4371 - Energy Value Chain **Credit Hours: 3.0**
- FINA 4372 - Upstream Economics **Credit Hours: 3.0**
- FINA 4373 - Petrochemical and Refining Economics **Credit Hours: 3.0**
- FINA 4397 - Selected Topics in Finance **Credit Hours: 3**

(FINA 4397 courses are Special Topics courses that cover various subjects, and only those with "Energy" or "Oil" in the course title may be used for GEM-PP finance requirements.)
Additional Energy Business and Approved Energy Elective Hours Required:

- Approved Advanced Business Electives or approved substitutions (6 Credit Hours) ▲
  (consult Finance GEM-PP advisor for list of approved energy-related courses.)

Additional Business Elective Hours Required

- STAT 3331 - Statistical Analysis for Business Applications ▲ Credit Hours: 3.0
  (STAT 3331 is a prerequisite for 4000-level finance courses)

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I ▲ Credit Hours: 3.0
- ENGL 1304 - First Year Writing II ▲ Credit Hours: 3.0

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution. A grade of B- or higher in ECON 2304 and ECON 2305 is required for the GEM-PP (for students with AP credit for ECON 2304 and ECON 2305 or a grade lower than B-, ECON 3332 - Intermed Microeconomics and ECON 3334 - Intermed Macroeconomics are also required, and may count toward the Approved Energy Elective Hours).

- BUSI 1301 - Business Principles ▲ Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications ▲ Credit Hours: 3.0
- MATH 1313 - Finite Math with Applications ▲ Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles ▲ Credit Hours: 3.0
- ECON 2305 - Macroeconomic Principles ▲ Credit Hours: 3.0
- BUSI 2305 - Business Statistics ▲ Credit Hours: 3.0

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business ▲ Credit Hours: 3.0

Additional GEM-PP Courses

- MATH 1431 - Calculus I ▲ Credit Hours: 4.0
- MATH 1432 - Calculus II ▲ Credit Hours: 4.0
- MATH 2433 - Calculus III ▲ Credit Hours: 4.0
Additional UH Core Courses (27-29 Credit Hours)

- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- Language, Philosophy & Culture Credit Hours: 3.0
- Creative Arts Credit Hours: 3.0

Select one course from the following:

- HIST 1376 - The United States To 1877 Credit Hours: 3.0
  OR
- HIST 1377 - The U S To 1877 Credit Hours: 3.0

Select one course from the following:

- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
  OR
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0

Life and Physical Sciences

Credit Hours: 9.0 (minimum) from the courses below ^

- PHYS 1321 - University Physics I Credit Hours: 3.0

And Choose Option 1 or Option 2

Option 1:

- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0

Option 2:

Select two courses from the following:

- CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0
- GEOL 1330 - Physical Geology Credit Hours: 3.0
- GEOL 3378 - Principles of Atmospheric Science Credit Hours: 3.0

Advanced-Level Business Required Courses (21 Credit Hours)
3000-level requirements (for Pre-business majors, requires advisor approval for a Mixed Program)

- FINA 3332 - Principles of Financial Management  Credit Hours: 3.0
- INTB 3355 - Global Environment of Business  Credit Hours: 3.0
- MANA 3335 - Introduction to Organizational Behavior and Management  Credit Hours: 3.0
- MARK 3336 - Introduction to Marketing  Credit Hours: 3.0
- MARK 3337 - Professional Selling  Credit Hours: 3.0
- SCM 3301 - Supply Chain Management Fundamentals  Credit Hours: 3.0

4000-level requirement (requires a degree plan on file)

- BUSI 4350 - Business Law and Ethics  Credit Hours: 3.0

Finance, B.B.A. - Global Energy Management Track and Certificate

The Global Energy Management (GEM) Track in Finance

The GEM Track in Finance program is a complete undergraduate education in energy business culminating in a BBA in Finance. The GEM Track in Finance is a specialization of the traditional BBA in Finance which gives graduates the leading edge when entering the energy job market. Students of the GEM Track in Finance program are finance majors who take a series of pre-selected energy business electives in their junior and senior years. Students in this program obtain a BBA in Finance, and receive a Global Energy Management Track certificate by meeting the specified course requirements, and having a 3.25 or higher cumulative grade point average to declare GEM Track for the certificate.

Curriculum Advising Chart

Students enrolled in the GEM Track in Finance must meet the regular BBA requirements for finance majors. The GEM Track does not require any more classes than the standard track in finance, but requires that students choose their major classes from the following list:

Finance GEM Track Major Coursework and Electives (42 Credit Hours)

Required Finance Courses (6 Credit Hours)

- FINA 4320 - Investment Management  Credit Hours: 3.0
- FINA 4330 - Corporate Finance  Credit Hours: 3.0

Select 12 Credit Hours from the following:

- FINA 4350 - Derivatives I: Options  Credit Hours: 3.0
- FINA 4351 - Derivatives II: Forwards, Futures and Swaps  Credit Hours: 3.0
- FINA 4357 - Commercial Liability  Credit Hours: 3.0
- FINA 4358 - Commercial Property  Credit Hours: 3.0
- FINA 4359 - Energy Insurance and Risk Management  Credit Hours: 3.0
- FINA 4360 - International Financial Management  Credit Hours: 3.0
- FINA 4370 - Energy Trading  Credit Hours: 3.0
- FINA 4371 - Energy Value Chain  Credit Hours: 3.0
- FINA 4372 - Upstream Economics  Credit Hours: 3.0
• FINA 4373 - Petrochemical and Refining Economics **Credit Hours: 3.0**
• FINA 4397 - Selected Topics in Finance **Credit Hours: 3**

**Required Advanced Business Elective (3 Credit Hours)**
• STAT 3331 - Statistical Analysis for Business Applications **Credit Hours: 3.0**
  (STAT 3331 is a prerequisite for 4000-level Finance courses)

**Select 6 Credit Hours of approved advanced electives:**
• ENRG 3310 - Introduction to Energy and Sustainability **Credit Hours: 3.0**
• ENRG 4320 - Case Studies in Energy and Sustainability **Credit Hours: 3.0**
• ENRG 4397 - Selected Topics in Energy and Sustainability **Credit Hours: 3.0** on Energy and Sustainability (May be repeated if topic varies)
• ENRG 4398 - Independent Study in Energy and Sustainability **Credit Hours: 3.0** on topics related to Energy and Sustainability.
• a Sequence of

ACCT 3366 - Financial Reporting Frameworks

and

ACCT 3367 - Intermediate Accounting I

• SCM 4302 - Energy Supply Chain **Credit Hours: 3.0**
• TECH 4310 - Future of Energy and the Environment **Credit Hours: 3.0**
• ECON 3385 - Economics of Energy **Credit Hours: 3.0**
• HIST 3349 - War, Globalization, and Terrorism **Credit Hours: 3.0**
• Or other approved advanced business courses (see advisor)

**Additional Elective Hours Required**
• Advanced Electives **Credit Hours: 6.0** (any 3000-4000 level course)
• General Electives **Credit Hours: 9.0** (any 1000-4000 level course) *
  * The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

**General B.B.A. Requirements**

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

• UH Core Courses & College Requirements
• Business Administration and Management Field of Study Courses
• Advanced-Level Business Requirements (required for all business majors),
• Major Coursework Requirements
• Additional Elective Requirements

along with noncredit requirements:

• Assenting to the Bauer Code of Ethics and Professional Conduct, and
• A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
• A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.
Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

^ Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0
Additional UH Core Courses

24 Credit Hours

**UH Core American History Requirement:**
Choose one of the following:

- HIST 1376 - The United States To 1877 **Credit Hours: 3.0**
  
or
- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
  
and

Choose one of the following:

- HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**
  
or
- HIST 1379 - The United States Since 1877 **Credit Hours: 3.0**

**UH Core Government Requirement:**
Complete both:

- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:

- Core Language, Philosophy & Culture **Credit Hours: 3.0** - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts **Credit Hours: 3.0** - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences **Credit Hours: 6.0** - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

*This section is required for all business majors.*

- FINA 3332 - Principles of Financial Management **Credit Hours: 3.0**
- INTB 3355 - Global Environment of Business **Credit Hours: 3.0**
- MANA 3335 - Introduction to Organizational Behavior and Management **Credit Hours: 3.0**
- MARK 3336 - Introduction to Marketing **Credit Hours: 3.0**
- MARK 3337 - Professional Selling **Credit Hours: 3.0**
- SCM 3301 - Supply Chain Management Fundamentals **Credit Hours: 3.0**

4000-level requirement (requires a degree plan on file):

- BUSI 4350 - Business Law and Ethics **Credit Hours: 3.0**

Finance, B.B.A. - Personal Financial Planning Track and Certificate

A Personal Financial Planning Track in the finance major offers students structured options leading to careers in the financial services industry. According to the Occupational Outlook Handbook, "Personal financial advisors are projected to grow by 30 percent over the 2008-18 period, which is much faster than the average for all occupations. Growing numbers of advisors will be needed to assist the millions of workers expected to retire in the next 10 years."
Finance Personal Financial Planning Track Major Coursework and Certificate (24 Credit Hours)

Finance majors interested in coursework related to careers in personal financial planning may pursue a Personal Financial Planning Track in Finance and receive a Personal Financial Planning certificate by meeting the following requirements within the Finance Major, and having a 3.0 or higher cumulative grade point average to declare the track for the certificate. To earn the certificate, students must complete 24 credits of courses designated with an asterisk (*) and complete all requirements for the Bachelor of Business Administration (B.B.A.) degree with a major in Finance.

The Personal Financial Planning Track in Finance at UH Bauer College is a Certified Financial Planner Board of Standards, Inc. (CFP Board) Registered Program. Students completing the Personal Financial Planning Track in Finance will have met the Education requirement for CFP® Certification Examination administered by CFP Board.

Eighteen (18) credit hours of required finance courses must be:
- FINA 4320 - Investment Management Credit Hours: 3.0 *
- FINA 4325 - Retirement and Estate Planning Credit Hours: 3.0 *
- FINA 4330 - Corporate Finance Credit Hours: 3.0 *
- FINA 4352 - Financial Planning for Professionals Credit Hours: 3.0 *
- FINA 4353 - Practicum in Personal Financial Planning Credit Hours: 3.0 *
- FINA 4354 - Risk Management Credit Hours: 3.0 *

Six credit hours of required advanced electives in business must be:
- ACCT 4331 - Federal Income Tax-Individual Credit Hours: 3.0 *
- STAT 3331 - Statistical Analysis for Business Applications I Credit Hours: 3.0 *

Additional Elective Hours Required:
- Advanced Business Electives Credit Hours: 3.0 (3000-4000 level business course)
- Advanced Electives Credit Hours: 6.0 (any 3000-4000 level course)
- General Electives Credit Hours: 9.0 (any 1000-4000 level course) **
  ** The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:
- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:
- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements
Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

^ Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0

Additional UH Core Courses
24 Credit Hours

**UH Core American History Requirement:**
Choose one of the following:
- HIST 1376 - The United States To 1877 Credit Hours: 3.0
  or
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
  and
  Choose one of the following:
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
  or
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0

**UH Core Government Requirement:**
Complete both:
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
- Core Language, Philosophy & Culture Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

This section is required for all business majors.

- FINA 3332 - Principles of Financial Management Credit Hours: 3.0
- INTB 3355 - Global Environment of Business Credit Hours: 3.0
- MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
- MARK 3336 - Introduction to Marketing Credit Hours: 3.0
- MARK 3337 - Professional Selling Credit Hours: 3.0
- SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0

4000-level requirement (requires a degree plan on file):
- BUSI 4350 - Business Law and Ethics Credit Hours: 3.0

Finance, B.B.A. - Real Estate Track and Certificate

Finance majors interested in course work related to careers in real estate may pursue a Real Estate Track in Finance and receive a Real Estate Certificate by meeting the following requirements within the Finance Major. Admission to the track requires junior or senior standing, completion of FINA 4330 Corporate Finance with a grade of B or higher, completion of or current enrollment in FINA 4380 Real Estate Financial Analysis, a 3.0 or higher cumulative grade point average, participation in a Real Estate orientation, assent to a professional code of conduct, and approval by department chair or program director. To remain in the track, students must maintain a 3.0 or higher cumulative grade point average. Courses for the track are designated with an asterisk (*). To earn the certificate, students must complete 15 credits of courses designated with an asterisk (*) and complete all requirements for the Bachelor of Business Administration (B.B.A.) degree with a major in Finance.
Required Finance Courses (18 Credit Hours)

- FINA 4320 - Investment Management  
  Credit Hours: 3.0
- FINA 4330 - Corporate Finance  
  Credit Hours: 3.0 *
- FINA 4380 - Real Estate Finance and Investment  
  Credit Hours: 3.0 *
- FINA 4381 - Essentials of Real Estate Principles  
  Credit Hours: 3.0 *
- FINA 4382 - Developing a Real Estate Project  
  Credit Hours: 3.0 *
- FINA 4383 - Real Estate Market Research and Valuation  
  Credit Hours: 3.0 *

Required Advanced Business Elective (3 Credit Hours)

- STAT 3331 - Statistical Analysis for Business Applications I  
  Credit Hours: 3.0 *

(STAT 3331 is a prerequisite for 4000-level Finance courses)

Additional Elective Credit Hours

- Approved Advanced Business Electives  
  Credit Hours: 6.0 (3000-4000 level business course)
- Advanced Electives  
  Credit Hours: 6.0 (any 3000-4000 level course)
- General Electives  
  Credit Hours: 9.0 (any 1000-4000 level course) *

* The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

Elective Real Estate Courses

Consult Finance Advisor for recommended approved advanced business electives, including:

- FINA 4384 - Residential Real Estate  
  Credit Hours: 3.0
  and
- FINA 4385 - Mastery of Real Estate  
  Credit Hours: 3.0

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.
Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

^ Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0
Additional UH Core Courses

24 Credit Hours

UH Core American History Requirement:
Choose one of the following:

- HIST 1376 - The United States To 1877 Credit Hours: 3.0
  or
- HIST 1377 - The U.S. To 1877 Credit Hours: 3.0
  and
Choose one of the following:

- HIST 1378 - The U.S. Since 1877 Credit Hours: 3.0
  or
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0

UH Core Government Requirement:
Complete both:

- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:

- Core Language, Philosophy & Culture Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

This section is required for all business majors.

- FINA 3332 - Principles of Financial Management Credit Hours: 3.0
- INTB 3355 - Global Environment of Business Credit Hours: 3.0
- MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
- MARK 3336 - Introduction to Marketing Credit Hours: 3.0
- MARK 3337 - Professional Selling Credit Hours: 3.0
- SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0

4000-level requirement (requires a degree plan on file):

- BUSI 4350 - Business Law and Ethics Credit Hours: 3.0

Finance, B.B.A. - Risk Management & Insurance Track and Certificate

Finance students will be able to participate in the Risk Management and Insurance (RMI) track, and upon completion students will receive a certificate of the RMI Track.

Risk Management & Insurance Track Major Coursework and Electives (42 Credit Hours)
Finance Risk Management & Insurance Track Major Coursework (39 Credit Hours) and Certificate (21 Credit Hours)

Finance majors interested in course work related to careers in Risk Management and Insurance may pursue a Risk Management and Insurance Track in Finance and receive a Risk Management and Insurance certificate by meeting the following requirements within the Finance major, and having a 3.0 or higher cumulative grade point average to declare the track for the certificate. To earn the certificate, students must complete 21 credits of courses designated with an asterisk (*) and complete all requirements for the Bachelor of Business Administration (B.B.A.) degree with a major in Finance.

Twelve credit hours of required finance courses must be:
- FINA 4320 - Investment Management Credit Hours: 3.0 *
- FINA 4330 - Corporate Finance Credit Hours: 3.0 *
- FINA 4354 - Risk Management Credit Hours: 3.0 *
- FINA 4357 - Commercial Liability Credit Hours: 3.0 *

Select nine credit hours from the following:*
- FINA 4329 - Life Insurance and Annuities Credit Hours: 3.0
- FINA 4355 - International Risk Management Credit Hours: 3.0
- FINA 4356 - Insurance Operations Credit Hours: 3.0
- FINA 4358 - Commercial Property Credit Hours: 3.0
- FINA 4359 - Energy Insurance and Risk Management Credit Hours: 3.0
- FINA 4397 - Selected Topics in Finance Credit Hours: 3

Approved Selected Topics and other Finance courses related to Risk Management and Insurance. (Consult Finance Advisor for list of approved courses.)

Required Advanced Business Elective (3 Credit Hours)
- STAT 3331 - Statistical Analysis for Business Applications I Credit Hours: 3.0
  (STAT 3331 is a prerequisite for 4000-level Finance courses)

Additional Elective Hours Required:
- Approved Advanced Business Electives Credit Hours: 3.0 (3000-4000 level business course)
- Advanced Electives Credit Hours: 6.0 (any 3000-4000 level course)
- General Electives Credit Hours: 9.0 (any 1000-4000 level course) **

** The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:
- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
• A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

• ENGL 1303 - First Year Writing I Credit Hours: 3.0
• ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

• BUSI 1301 - Business Principles Credit Hours: 3.0
• BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
• MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
• ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
• ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
• ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
• ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
• BUSI 2305 - Business Statistics Credit Hours: 3.0

* Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours
• BUSI 3302 - Connecting Bauer to Business **Credit Hours: 3.0**

### Additional UH Core Courses

#### 24 Credit Hours

**UH Core American History Requirement:**
Choose one of the following:

• HIST 1376 - The United States To 1877 **Credit Hours: 3.0**
  or

• HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
  and

  Choose one of the following:

• HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**
  or

• HIST 1379 - The United States Since 1877 **Credit Hours: 3.0**

**UH Core Government Requirement:**
Complete both:

• POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:

• Core Language, Philosophy & Culture **Credit Hours: 3.0** - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Creative Arts **Credit Hours: 3.0** - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Life and Physical Sciences **Credit Hours: 6.0** - Must be Texas Common Core at Texas public transferring institution or UH core.

### Advanced-Level Business Required Courses

#### 21 Credit Hours

*This section is required for all business majors.*

• FINA 3332 - Principles of Financial Management **Credit Hours: 3.0**
• INTB 3355 - Global Environment of Business **Credit Hours: 3.0**
• MANA 3335 - Introduction to Organizational Behavior and Management **Credit Hours: 3.0**
• MARK 3336 - Introduction to Marketing **Credit Hours: 3.0**
• MARK 3337 - Professional Selling **Credit Hours: 3.0**
• SCM 3301 - Supply Chain Management Fundamentals **Credit Hours: 3.0**

4000-level requirement (requires a degree plan on file):

• BUSI 4350 - Business Law and Ethics **Credit Hours: 3.0**

### Minor

#### Finance Minor
Prerequisites:

- MATH 1313 - Finite Math with Applications **Credit Hours: 3.0**
- BCIS 1305 - Business Computer Applications **Credit Hours: 3.0**
- ECON 2304 - Microeconomic Principles **Credit Hours: 3.0**
- BUSI 2305 - Business Statistics **Credit Hours: 3.0**
- STAT 3331 - Statistical Analysis for Business Applications I **Credit Hours: 3.0**
- Or approved alternatives

Required Courses:

- FINA 3332 - Principles of Financial Management **Credit Hours: 3.0**
- Twelve hours of advanced finance electives
  Students cannot count courses toward both the Finance minor and toward the Finance major requirements or another business minor. These courses can be used to meet advanced business elective requirements.
  Nonbusiness majors seeking the Finance minor must meet the same grade point average requirement as students changing their major to pre-business at the time of filing for a minor.

**Risk Management and Insurance Minor**

Students interested in a minor with course work related to careers in risk management and insurance may pursue a Risk Management and Insurance minor by meeting the following requirements:

Prerequisites:

- MATH 1313 - Finite Math with Applications **Credit Hours: 3.0**
- ACCT 2301 - Principles of Financial Accounting **Credit Hours: 3.0**
- ECON 2304 - Microeconomic Principles **Credit Hours: 3.0**
- BCIS 1305 - Business Computer Applications **Credit Hours: 3.0**
- BUSI 2305 - Business Statistics **Credit Hours: 3.0** and
- STAT 3331 - Statistical Analysis for Business Applications I **Credit Hours: 3.0**
  OR
- MATH 3338 - Probability **Credit Hours: 3.0** and
- MATH 3339 - Statistics for the Sciences **Credit Hours: 3.0**
- Or other approved alternatives

Required courses: 12 hours

- FINA 3332 - Principles of Financial Management **Credit Hours: 3.0**
- FINA 4354 - Risk Management **Credit Hours: 3.0**
- FINA 4357 - Commercial Liability **Credit Hours: 3.0**
- FINA 4358 - Commercial Property **Credit Hours: 3.0**
Complete 3 credit hours from the following:

- FINA 4355 - International Risk Management  **Credit Hours: 3.0**
- FINA 4356 - Insurance Operations  **Credit Hours: 3.0**
- FINA 4359 - Energy Insurance and Risk Management  **Credit Hours: 3.0**
- FINA 4329 - Life Insurance and Annuities  **Credit Hours: 3.0**
- FINA 4397 - Select Topics in Finance (Title: Risk Assessment)  **Credit Hours: 3.0**
- FINA 4397 - Selected Topics in Finance (Title: Risk Financing)  **Credit Hours: 3.0**

**Note(s):**

Students cannot count courses toward both the Risk Management Minor and toward their business major requirements or another business minor. These courses can be used to meet advanced business elective requirements.

Nonbusiness majors seeking the Risk Management and Insurance minor must meet the same grade point average requirement as students changing their major to pre-business at the time of filing for a minor.

**Certificate**

**Global Energy Management - Professional Program Certificate (Upper Division Certificate)**

C.T. Bauer College of Business > Department of Finance > Global Energy Management - Professional Program Certificate (Upper Division Certificate)

The Global Energy Management - Professional Program (GEM-PP) is the most powerful and comprehensive blend of technical and business skills available at the undergraduate and graduate level. Students in this program obtain a BBA in Finance and receive a Global Energy Management - Professional Program certificate from Bauer College by meeting the specified course requirements, and having a 3.25 or higher cumulative grade point average to declare GEM-PP for the certificate.

For more details, students can refer to the Finance, B.B.A -- Global Energy Management - Professional Program Track requirements.

**Global Energy Management in Finance Certificate (Upper Division Certificate)**

C.T. Bauer College of Business > Department of Finance > Global Energy Management in Finance Certificate (Upper Division Certificate)

The GEM Track in Finance program is a complete undergraduate education in energy business culminating in a BBA in Finance. The GEM Track in Finance is a specialization of the traditional BBA in Finance which gives graduates the leading edge when entering the energy job market. Students of the GEM Track in Finance program are finance majors who take a series of pre-selected energy business electives in their junior and senior years. Students in this program obtain a BBA in Finance, and receive a Global Energy Management Track certificate from Bauer College by meeting the specified course requirements, and having a 3.25 or higher cumulative grade point average to declare GEM Track for the certificate.

For more details, students can refer to the Finance, B.B.A. - Global Energy Management Track requirements.

**Personal Financial Planning (Upper Division Certificate)**

C.T. Bauer College of Business > Department of Finance > Personal Financial Planning (Upper Division Certificate)
Finance majors interested in course work related to careers in personal financial planning may pursue a Personal Financial Planning Track in Finance and receive a Personal Financial Planning certificate of recognition from Bauer College by meeting the following requirements within the Finance Major, and having a 3.0 or higher cumulative grade point average to declare the track for the certificate.

For more details, students can refer to the Finance, B.B.A. - Personal Financial Planning Track requirements.

**Risk Management and Insurance (Upper Division Certificate)**

Finance majors interested in course work related to careers in risk management and insurance may pursue a Risk Management and Insurance Track in Finance and receive a Risk Management and Insurance certificate of recognition from Bauer College by meeting the following requirements within the Finance Major, and having a 3.0 or higher cumulative grade point average to declare the track for the certificate.

For more details, students can refer to the Finance, B.B.A. - Risk Management & Insurance Track and Certificate requirements.

**Department of Management and Leadership**

C.T. Bauer College of Business > Department of Management and Leadership

**Chair:**

Steve Werner

**Professors:**

Je’Anna Abbott, Leanne Atwater, Robert Eisenberger, Robert T. Keller, Carl C. Miller, James S. Phillips, Dusya Vera, Steve Werner, L. Alan Witt

**Associate Professors:**

Dennis Bozeman, Teri Longacre, Juan Madera, Dale E. Rude

**Assistant Professors:**

Shih-chi Chiu, Curtis Wesley

**Professor of Practice:**

Daniel Currie, William Walker

**Instructional Assistant Professor:**

Barbara Carlin, Nikhil Celly, Ksenia Krylova, Marina Sebastijanovic

**The Department of Management and Leadership**

The Department of Management and Leadership offers a Bachelor of Business Administration degree with a major in management. This major is excellent preparation for students who wish to pursue graduate studies in administrative sciences or are interested in general management and
management trainee positions. Elective courses in leadership, human resource management, strategic management, and global management are available to those interested in these specialized areas.

This major focuses on the behavior of individuals and groups within formal organizations, with particular emphasis upon the application of theory and research to management practice. Topics receiving primary emphasis include leadership and motivation, decision making, the adaptation of organizations to their environment, and the effective use of human resources.

Major

Management, B.B.A.

Management Major Coursework and Electives (42 Credit Hours)

Business majors must meet the business, nonbusiness, and elective requirements for a baccalaureate degree as well as the following for a Bachelor of Business Administration degree with a major in management:

1. Select 18 credit hours from any 4000-level management electives
2. Select six credit hours of approved advanced electives in business
3. Select nine credit hours of advanced electives (any 3000-4000 level course)
4. Select nine credit hours of general electives (any 1000-4000 level course)

* The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

Management majors may pursue a track in Applied Leadership or in Human Resource Management.

- Management, B.B.A. - Applied Leadership Track
- Management, B.B.A. - Human Resource Management Track

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements
Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

* Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0

Additional UH Core Courses
24 Credit Hours

**UH Core American History Requirement:**
Choose one of the following:

- HIST 1376 - The United States To 1877  
  **Credit Hours:** 3.0
- or
- HIST 1377 - The U.S. To 1877  
  **Credit Hours:** 3.0
  and
  Choose one of the following:
- HIST 1378 - The U.S. Since 1877  
  **Credit Hours:** 3.0
- or
- HIST 1379 - The United States Since 1877  
  **Credit Hours:** 3.0

**UH Core Government Requirement:**
Complete both:

- POLS 1336 - U.S. and Texas Constitution and Politics  
  **Credit Hours:** 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts  
  **Credit Hours:** 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:

- Core Language, Philosophy & Culture  
  **Credit Hours:** 3.0  
  - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts  
  **Credit Hours:** 3.0  
  - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences  
  **Credit Hours:** 6.0  
  - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

*This section is required for all business majors.*

- FINA 3332 - Principles of Financial Management  
  **Credit Hours:** 3.0
- INTB 3355 - Global Environment of Business  
  **Credit Hours:** 3.0
- MANA 3335 - Introduction to Organizational Behavior and Management  
  **Credit Hours:** 3.0
- MARK 3336 - Introduction to Marketing  
  **Credit Hours:** 3.0
- MARK 3337 - Professional Selling  
  **Credit Hours:** 3.0
- SCM 3301 - Supply Chain Management Fundamentals  
  **Credit Hours:** 3.0

4000-level requirement (requires a degree plan on file):

- BUSI 4350 - Business Law and Ethics  
  **Credit Hours:** 3.0

Majors List

See Departments and Programs in C.T. Bauer College of Business.

**Management, B.B.A. - Applied Leadership Track**

The Applied Leadership Track in Management reflects a defined and coherent set of courses that include knowledge and skill development for students who aspire to be leaders in today’s rapidly changing environment. This knowledge and skill will help students improve their sets of
competencies for a highly competitive job market in the real world of business. Organizations in all sectors have voiced concern regarding the apparent lack of leadership skills among their employees. A background in effectively managing human resources, ethics, change, organizational behavior, as well as an entire course devoted to developing individual leadership skills will address this need.

The Applied Leadership Track and the Management and Leadership Minor will also include numerous self-assessments and leadership activities that can be added to students’ portfolios to enhance their job prospects.

**Applied Leadership Track major coursework requirements (42 Credit Hours)**

Management majors interested in coursework related to leadership may pursue an Applied Leadership Track by meeting the following requirements within the management major:

**Required Courses**
- MANA 4346 - Leadership Development **Credit Hours: 3.0**
- MANA 4347 - Ethics and Corp Soc Respon. **Credit Hours: 3.0**

Select twelve credit hours from the following:
- MANA 4333 - Current Issues in Mgmt **Credit Hours: 3.0**
- MANA 4338 - Performance Management Systems **Credit Hours: 3.0**
- MANA 4341 - Leading Organizational Change **Credit Hours: 3.0**
- MANA 4348 - Global Leadership **Credit Hours: 3.0**
- MANA 4356 - Managing Diversity **Credit Hours: 3.0**
- MANA 4385 - Introduction to Strategic Management **Credit Hours: 3.0**
- Other approved 4000-level management courses related to leadership (consult with the Management advisor for an approved list).

**Additional Elective Hours Required:**

- Advanced Approved Business Electives **Credit Hours: 6.0** (any 3000-4000 level course)
- Advanced Electives **Credit Hours: 9.0** (any 3000-4000 level course)
- General Electives **Credit Hours: 9.0** (any 1000-4000 level course) *
  * The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

**General B.B.A. Requirements**

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.
Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

^ Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0
Additional UH Core Courses

24 Credit Hours

**UH Core American History Requirement:**
Choose one of the following:

- HIST 1376 - The United States To 1877 **Credit Hours: 3.0**
- or

- HIST 1377 - The U.S. To 1877 **Credit Hours: 3.0**
and
Choose one of the following:

- HIST 1378 - The U.S. Since 1877 **Credit Hours: 3.0**
- or

- HIST 1379 - The United States Since 1877 **Credit Hours: 3.0**

**UH Core Government Requirement:**
Complete both:

- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:

- Core Language, Philosophy & Culture **Credit Hours: 3.0** - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts **Credit Hours: 3.0** - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences **Credit Hours: 6.0** - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

*This section is required for all business majors.*

- FINA 3332 - Principles of Financial Management **Credit Hours: 3.0**
- INTB 3355 - Global Environment of Business **Credit Hours: 3.0**
- MANA 3335 - Introduction to Organizational Behavior and Management **Credit Hours: 3.0**
- MARK 3336 - Introduction to Marketing **Credit Hours: 3.0**
- MARK 3337 - Professional Selling **Credit Hours: 3.0**
- SCM 3301 - Supply Chain Management Fundamentals **Credit Hours: 3.0**

4000-level requirement (requires a degree plan on file):

- BUSI 4350 - Business Law and Ethics **Credit Hours: 3.0**

Management, B.B.A.  - Human Resource Management Track

The Human Resource Management Track in Management reflects a defined and coherent set of courses that include knowledge and skill development for students who aspire to be managers or work in Human Resource Management departments in today’s rapidly changing environment. This knowledge and skill will help students improve their sets of competencies for a highly competitive job market in the real world of
business. Management majors interested in course work related to human resource management may pursue a Human Resource Management track by meeting the following requirements within the Management major.

Human Resource Management Track major coursework

39 Credit Hours

- MANA 4330 - Introduction to Strategic Human Resource Management Credit Hours: 3.0
- MANA 4336 - Legal and Ethical Environment of HR Management Credit Hours: 3.0
- MANA 4358 - Compensation and Benefits Credit Hours: 3.0
- MANA 4355 - Selection and Staffing Credit Hours: 3.0
- MANA 4353 - Mgmt Training and Career Devel Credit Hours: 3.0

Select 6 credit hours from the following:

- MANA 4331 - Current Issues Human Res Mgmt Credit Hours: 3.0
- MANA 4338 - Performance Management Systems Credit Hours: 3.0
- MANA 4341 - Leading Organizational Change Credit Hours: 3.0
- MANA 4356 - Managing Diversity Credit Hours: 3.0
- MANA 4355 - Introduction to Strategic Management Credit Hours: 3.0
- Other approved 4000-level management courses related to human resource management (consult the management advisor for an approved list).

Additional Elective Hours Required:

- Advanced Business Electives Credit Hours: 3.0 (any 3000-4000 level business course)
- Advanced Electives Credit Hours: 9.0 (any 3000-4000 level course)
- General Electives Credit Hours: 6.0 (any 1000-4000 level course)

*The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements
Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

* Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0

Additional UH Core Courses
24 Credit Hours

UH Core American History Requirement:
Choose one of the following:
- HIST 1376 - The United States To 1877 Credit Hours: 3.0
  or
- HIST 1377 - The U.S. To 1877 Credit Hours: 3.0
  and
Choose one of the following:
- HIST 1378 - The U.S. Since 1877 Credit Hours: 3.0
  or
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0

UH Core Government Requirement:
Complete both:
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
- Core Language, Philosophy & Culture Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Creative Arts Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
- Core Life and Physical Sciences Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

This section is required for all business majors.

- FINA 3332 - Principles of Financial Management Credit Hours: 3.0
- INTB 3355 - Global Environment of Business Credit Hours: 3.0
- MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
- MARK 3336 - Introduction to Marketing Credit Hours: 3.0
- MARK 3337 - Professional Selling Credit Hours: 3.0
- SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0

4000-level requirement (requires a degree plan on file):
- BUSI 4350 - Business Law and Ethics Credit Hours: 3.0

Minor

Human Resource Management Minor

C.T. Bauer College of Business > Department of Management and Leadership > Human Resources Management Minor

Prerequisite:
• Junior Standing

Required Courses: 15 semester credit hours

• MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
• MANA 4330 - Introduction to Strategic Human Resource Management Credit Hours: 3.0

9 hours of courses from the following:

• MANA 4336 - Legal and Ethical Environment of HR Management Credit Hours: 3.0
• MANA 4338 - Performance Management Systems Credit Hours: 3.0
• MANA 4347 - Ethics and Corp Soc Respon. Credit Hours: 3.0
• MANA 4353 - Mgmt Training and Career Devel Credit Hours: 3.0
• MANA 4354 - Equal Employment Opportunity Commission Internship Credit Hours: 3
• MANA 4355 - Selection and Staffing Credit Hours: 3.0
• Other approved 4000-level management courses related to human resource management (consult the management advisor for an approved list).

Note(s):

Students cannot count the 4000-level courses toward both the Human Resource Management minor and toward their business major requirements or another business minor. These courses can, however, be used to meet advanced business elective requirements.

Nonbusiness majors seeking the Human Resource Management minor must meet the same grade point average requirement as students changing their major to pre-business at the time of filing for a minor.

Management and Leadership Minor

Prerequisites:

• Junior standing

Required Courses: 15 semester credit hours

• MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
• MANA 4346 - Leadership Development Credit Hours: 3.0

Select 9 Credit Hours from the following:

• MANA 4333 - Current Issues in Mgmt Credit Hours: 3.0
• MANA 4338 - Performance Management Systems Credit Hours: 3.0
• MANA 4341 - Leading Organizational Change Credit Hours: 3.0
• MANA 4347 - Ethics and Corp Soc Respon. Credit Hours: 3.0
• MANA 4348 - Global Leadership Credit Hours: 3.0
• MANA 4356 - Managing Diversity **Credit Hours: 3.0**
• MANA 4385 - Introduction to Strategic Management **Credit Hours: 3.0**
• Other approved 4000-level MANA courses related to leadership and management (consult with an undergraduate advisor). Students cannot count the 4000-level courses toward both the Management and Leadership minor and toward another business minor. These courses can, however, be used to meet advanced business elective requirements.

**Other Requirements**

Nonbusiness majors seeking the Management and Leadership minor must meet the same grade point average requirements as students changing their major to pre-business at the time of filing for a minor.

**Department of Marketing and Entrepreneurship**

**Chair:**

Edward Blair

**Professors:**

Michael Ahearne, Edward Blair, Keith Cox (Emeritus), Rex Du, Betsy Gelb, James D. Hess, Partha Krishnamurthy, Herbert Lyon (Emeritus), Vanessa Patrick, Bette Ann Stead (Emeritus)

**Associate Professors:**

Ye Hu, Sam Hui, Melanie Rudd, Seshadri Tirunillai

**Assistant Professors:**

Shijie Lu, Kitty Wang

**Senior Professors of Practice:**

Carl Herman, Steven F. Koch, Carlos Ortega, Gary Randazzo, Amy Vandaveer, James R. Webb

**Professors of Practice:**

Dave Cook, John R. Karonika, Alan Lish, Craig McAndrews, Kelly McCormick, John Pingel, William Zahn

**Marketing and Entrepreneurship Requirements**

Business majors must meet the business, nonbusiness, and elective requirements for a baccalaureate degree as well as the following for a Bachelor of Business Administration degree:

**Major**
Entrepreneurship, B.B.A.

Courses in entrepreneurship (ENTR) provide students with information regarding all aspects of entrepreneurship. Specific topics include evaluating the feasibility of a business idea, developing a business plan, bringing products/services/technologies to market, managing the people side of business, managing the money side of business, and personal development.

The major career objectives are to have entrepreneur students capable of starting their own businesses, or going to work for an existing entrepreneur.

Of special importance to entrepreneur majors is the Wolff Center for Entrepreneurship (WCE). The mission of the WCE is to organize and expand the knowledge and practice of entrepreneurship. WCE combines academic rigor with practical experience to provide the foundation needed to develop, launch, and manage business enterprises in a rapidly changing business environment.

Entrepreneurship Major Coursework and Electives (42 Credit Hours)

Entrepreneurship major is selective. Students must be formally accepted into the program through application, interview, and approval. Only students who are formally accepted can enroll in 4000-level Entrepreneurship courses.

- ENTR 3310 - Entrepreneurship Credit Hours: 3.0
- ENTR 4320 - Entrepreneurial Revenue Credit Hours: 3.0
- ENTR 4330 - Entrepreneurial Costs and Budgets Credit Hours: 3.0
- ENTR 4340 - Entrepreneurial Capital Credit Hours: 3.0
- ENTR 4350 - Entrepreneurial Strategy Credit Hours: 3.0
- ENTR 4360 - Business Plan and Implementation Credit Hours: 3.0
- ENTR 4110 - Entrepreneurial Values and Leadership Credit Hours: 1.0 (1hr course repeated 3 times)

Additional Elective Hours Required:

- Approved Advanced Business Electives Credit Hours: 3.0 (any 3000-4000 level business course)
- Advanced Electives Credit Hours: 9.0 (any 3000-4000 level course)
- General Electives Credit Hours: 9.0 (any 1000-4000 level course) *
  * The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.
Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.

Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

^ Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0
Additional UH Core Courses

24 Credit Hours

UH Core American History Requirement:
Choose one of the following:
• HIST 1376 - The United States To 1877 Credit Hours: 3.0
or
• HIST 1377 - The U S To 1877 Credit Hours: 3.0
and
Choose one of the following:
• HIST 1378 - The U S Since 1877 Credit Hours: 3.0
or
• HIST 1379 - The United States Since 1877 Credit Hours: 3.0

UH Core Government Requirement:
Complete both:
• POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
• Core Language, Philosophy & Culture Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Creative Arts Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Life and Physical Sciences Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

This section is required for all business majors.

• FINA 3332 - Principles of Financial Management Credit Hours: 3.0
• INTB 3355 - Global Environment of Business Credit Hours: 3.0
• MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
• MARK 3336 - Introduction to Marketing Credit Hours: 3.0
• MARK 3337 - Professional Selling Credit Hours: 3.0
• SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0

4000-level requirement (requires a degree plan on file):
• BUSI 4350 - Business Law and Ethics Credit Hours: 3.0

Marketing, B.B.A.

Courses in marketing (MARK) focus on various topics in the marketing of goods and services. Topics include how to conduct market research, how to understand buyer behavior, how to formulate marketing strategies, how to sell, how to manage selling operations, how to use databases to manage customer relationships, how to manage marketing communications programs, and how to conduct and manage digital marketing programs.
A marketing major is appropriate for students who plan careers in selling, sales management, digital marketing, retailing, or marketing staff functions such as marketing communications, market research, and general marketing management.

Marketing Major Coursework (42 credit hours)

See also the Marketing B.B.A specialty track: Marketing with a Certificate in Professional Selling

- MARK 3339 - Marketing Strategy & Planning Credit Hours: 3.0
- Advanced Marketing Electives 15 hrs *
  * Consult the Marketing advisor for approved substitutions for MARK electives in other non-business departments.

Additional Elective Hours Required:

- Approved Advanced Electives Credit Hours: 6.0 (any 3000-4000 level business course)
- Advanced Electives Credit Hours: 9.0 (any 3000-4000 level course)
- General Electives Credit Hours: 9.0 (any 1000-4000 level course) *
  * The 9 hours of General Electives are designated for 6 hours of any unused Component Area Option (090) courses and 3 hours of an unused Social/Behavioral Science (040) course. Remaining hours can be met by any 1000-4000 level course.

General B.B.A. Requirements

In order to earn a Bachelor of Business Administration (B.B.A.) degree, students must complete credit hour requirements:

- UH Core Courses & College Requirements
- Business Administration and Management Field of Study Courses
- Advanced-Level Business Requirements (required for all business majors),
- Major Coursework Requirements
- Additional Elective Requirements

along with noncredit requirements:

- Assenting to the Bauer Code of Ethics and Professional Conduct, and
- A passing score on an Excel Competency Exam as a prerequisite to filing a degree plan, and
- A business writing evaluation (BWE), administered through BUSI 3302. Clearing the BWE is required to file a degree plan.

Credit Hour Requirements

Students seeking the Bachelor of Business Administration degree must complete freshman-sophomore core and Business Administration and Management Field of Study requirements, upper-level business core and required courses, major requirements, pass an Excel Competency Exam, and clear the business writing evaluation (BWE).

The total hours required for a Bachelor of Business Administration degree are summarized below. Students in the Bauer Business Honors Program have additional requirements as specified under the description of the Bauer Business Honors Program.

Students pursuing the Global Energy Management Professional Program (GEM-PP) track in Finance have specialized degree requirements listed under the GEM-PP track for a major in finance. Other specialty programs, such as the Professional Program in Accounting, the Entrepreneurship Program, and the Program for Excellence in Selling, may have additional admission and program requirements as specified by the program.

B.B.A. requirements also listed as approved UH core courses may fulfill both requirements, but students must have a minimum of 120 credit hours to earn the B.B.A.
Specific course requirements in each category are discussed in the following sections. ECON 2304 and ECON 2305 may count for Core Social and Behavioral Science requirement and Field of Study (students without either ECON 2304 or ECON 2305 and substituting Intermediate ECON would be required to take a Social and Behavioral Science course in place of a General Elective Requirement.

UH Core Courses & College Requirements

6 Credit Hours

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0 or Core Communication (code 010) alternative

Business Administration and Management Field of Study Courses

24 Credit Hours

Courses require completion with a grade of "C" or higher in all Business Administration and Management Field of Study courses unless a transfer student has completed the Business Administration and Management Field of Study at another Texas public institution.

- BUSI 1301 - Business Principles Credit Hours: 3.0
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 *
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BUSI 2305 - Business Statistics Credit Hours: 3.0

* Consult the catalog for additional requirements if pursuing the Global Energy Management Professional Program.

3 Credit Hours

- BUSI 3302 - Connecting Bauer to Business Credit Hours: 3.0

Additional UH Core Courses

24 Credit Hours

UH Core American History Requirement:
Choose one of the following:
- HIST 1376 - The United States To 1877 Credit Hours: 3.0
  or
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
  and
Choose one of the following:
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
  or
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0
UH Core Government Requirement:
Complete both:
• POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Plus completion of required number of hours from selection of courses in each of the following UH Core Requirement categories:
• Core Language, Philosophy & Culture Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Creative Arts Credit Hours: 3.0 - Must be Texas Common Core at Texas public transferring institution or UH core.
• Core Life and Physical Sciences Credit Hours: 6.0 - Must be Texas Common Core at Texas public transferring institution or UH core.

Advanced-Level Business Required Courses

21 Credit Hours

This section is required for all business majors.

• FINA 3332 - Principles of Financial Management Credit Hours: 3.0
• INTB 3355 - Global Environment of Business Credit Hours: 3.0
• MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
• MARK 3336 - Introduction to Marketing Credit Hours: 3.0
• MARK 3337 - Professional Selling Credit Hours: 3.0
• SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0

4000-level requirement (requires a degree plan on file):
• BUSI 4350 - Business Law and Ethics Credit Hours: 3.0

Minor

Marketing Minor

C.T. Bauer College of Business >Department of Marketing and Entrepreneurship >Marketing Minor

Prerequisites:

• Junior standing

Required Courses:

(Business majors who take MARK 3337 to meet the Business and Professional Communication requirement for the B.B.A. must take an additional three-hour Marketing course.)

• MARK 3336 - Introduction to Marketing Credit Hours: 3.0
• MARK 3337 - Professional Selling Credit Hours: 3.0
• Nine hours of advanced marketing electives
Students cannot count courses toward both the Marketing minor and toward the Marketing major requirements or another business minor. These courses can be used to meet advanced business elective requirements. Nonbusiness majors seeking the Marketing minor must meet the same grade point average requirement as students changing their major to pre-business at the time of filing for a minor.

Sales Minor

C.T. Bauer College of Business > Department of Marketing and Entrepreneurship > Sales Minor

Prerequisites:

- Junior standing

(4000-level courses require acceptance into the Program for Excellence in Selling)

Required Courses:

(Business majors who take MARK 3337 to meet the Business and Professional Communication requirement for the B.B.A. must take an additional three-hour Marketing course approved by the PES.)

- MARK 3336 - Introduction to Marketing Credit Hours: 3.0
- MARK 3337 - Professional Selling Credit Hours: 3.0
- MARK 4373 - Advanced Professional Selling Credit Hours: 3.0
- MARK 4374 - Sales Management Credit Hours: 3.0
- MARK 4376 - Sales CRM Credit Hours: 3.0

Students cannot count courses toward both the Sales minor and toward the Marketing major requirements or another business minor. These courses can be used to meet advanced business elective requirements. Nonbusiness majors seeking the Sales minor must be admitted into the Program for Excellence in Selling (PES).

Certificate

Marketing with a Certificate in Professional Selling

C.T. Bauer College of Business > Department of Marketing and Entrepreneurship > Marketing with a Certificate in Professional Selling

The Program for Excellence in Selling (PES) is the nation’s leading selling program. PES is a certificate program that accepts students of all majors, allowing students who are selected for the program to continue studying in their majors while also broadening their presentation and selling skills. PES teaches students how to effectively sell products, services, and, most importantly, themselves and their ideas.

Students are awarded Professional Selling certificates upon completion of a sequence of sales and sales management courses as specified on the PES website. These courses may count toward degree requirements for Marketing majors, as advanced business electives for other majors within business, or toward a minor in sales.

Benefits of the program include a bi-annual sales career fair, job placement, and an alumni association. The sales career fair is planned, sold, and run by students in the program. Some of Houston's most prestigious companies attend this function to hire the best-trained sales professionals in the industry. In addition, the alumni association for PES provides an ideal situation for sales students to network among themselves.
For further details on requirements, benefits, and admission to the program, consult the program Web site, http://www.bauer.uh.edu/sei/index.php, or call 713-743-4746.

Bauer Programs

Minor

Business Administration Minor (for non-business majors)

(for nonbusiness majors only)

Required Courses

- ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0

Three of the following six courses:

- ENTR 3310 - Entrepreneurship Credit Hours: 3.0 *
- ENTR 3312 - Corporate Entrepreneurship Credit Hours: 3.0 *
- FINA 3332 - Principles of Financial Management Credit Hours: 3.0
- MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
- MARK 3336 - Introduction to Marketing Credit Hours: 3.0
- SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0

Nonbusiness majors seeking the Business Administration minor must meet the same grade point average requirement as students changing their major to pre-business at the time of filing for a minor.

*Students who receive a C- or better in both ENTR 3310 and ENTR 3312 may request a Corporate Entrepreneurship Certificate issued by the Wolff Center for Entrepreneurship.

Certificate

Nonprofit Leadership Alliance Certificate

Undergraduate Opportunities

Baccalaureate and postbaccalaureate students interested in training for careers in human services and nonprofit management can pursue a certificate in nonprofit leadership and management with the Nonprofit Leadership Alliance (formerly American Humanics), described below and in the Special Programs and Opportunities section of this catalog.

The Nonprofit Leadership Alliance is a national alliance of colleges, universities and nonprofit organizations dedicated to educating, preparing and certifying professionals to strengthen and lead nonprofit organizations.
OVERVIEW OF CERTIFICATION REQUIREMENTS: Students enroll in courses that fit their individual degree plan for their major. The following courses and experiential activities are required to fulfill The Nonprofit Leadership Alliance nonprofit management competency areas and certification. (NOTE: Students with majors in Human Development and Family Studies and the Bauer College of Business should contact the program office at 713-743-8018 or room 405 SW for specific degree options. Also, see the Bauer College of Business section for more information.) Students will be assessed an annual fee of $100 each year they are enrolled in the program. National enrollment and credential fees may also be required. Scholarships are available for active students.

1. Overview of Human Services:

2. Management of Human Services:
   - SOCW 3354 - Nonprofit Management Credit Hours: 3.0

3. Nonprofit Budgeting and Fiscal Management:
   - SOCW 3330 - Nonprofit Financial Management Credit Hours: 3.0 or for Accounting Majors only

4. Marketing/Public Relations (choose one):
   - MARK 3336 - Introduction to Marketing Credit Hours: 3.0

5. Cultural Competency & Diversity (choose one or alternate course):
   - PSYC 1300 - Introduction to Psychology Credit Hours: 3.0
   - SOC 1300 - Introduction to Sociology Credit Hours: 3.0

6. Principles of Fund Raising Development:
   (Noncredit Workshop Series)

Experiential:

1. Participation in Student Association
2. Leadership Activities
3. Attendance at national Management Institute
4. Professional internship with community nonprofit

Please contact the Program Coordinator for further information: 713-743-8137 or arrangel2@uh.edu.

Internship and Practical Training

Bauer College of Business - Experience Track
The Bauer College of Business recognizes the value of developing students' professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship/Curricular Practical Training (CPT) experience by a transcript notation.

Eligibility for Internship:

- Students with a UH grade point average 2.5 or greater, or permission of a department chair, are eligible for internship courses.
- Students are eligible for internships after completing at least one semester of study in the Bauer College.
- The work must be related to the student’s major.
- Internships must be approved by an academic advisor and the Rockwell Career Center.
- Additional restrictions apply to CPT for F-1 students (see below).

Steps to declare Experience Track:

1. Students must declare, by submitting a General Petition to their academic advisor, their intention to pursue this track prior to processing the paperwork for approval of the internship/CPT.
2. The academic advisor will verify the student's academic eligibility for the internship/CPT. The student will be notified by email when the petition has either been approved or disapproved by the Bauer academic advisor.
3. The Rockwell Career Center (RCC) will review the internship, including the formal job offer on the hiring company's stationery, a description of the work to be performed, a beginning and ending date, and the salary offered. The RCC will determine whether or not the internship/CPT will provide the student with appropriate experience relating to their major field of study. If a positive determination is made, then:
   a. If the student wants to enroll for credit (such as BUSI 4396), then RCC will enroll the student in the course, otherwise
   b. If the student wants to enroll for a zero-credit co-op internship/CPT, the student takes the approved petition and the internship approval from the RCC to the Co-op Office in the career center of the Cullen College of Engineering to complete the process.

F-1 students seeking CPT should visit the International Student Scholar Services Office (ISSS) for special instructions prior to the steps above.

For more information about Co-op Education and CPT, please visit the Co-operative Education (Co-op) and Curricular Practical Training (CPT) page.

Eligible Coursework

To satisfy the requirements for the Experience Track, students must declare their intention to pursue the track and complete an approved internship/CPT. Three-credit academic courses exist for students who wish to receive academic credit for the internship experience. Zero-credit courses are also available for this purpose.

Credit Courses

- BUSI 4396 - Business Internship Credit Hours: 3
- ACCT 4396 - Accounting Internship Credit Hours: 3.0
- ENTR 4396 - Entrepreneurship Internship Credit Hours: 3.0
- FINA 4396 - Finance Internship Credit Hours: 3.0
- MANA 4396 - Management Internship Credit Hours: 3.0
- MARK 4396 - Marketing Internship Credit Hours: 3.0

Zero-Credit Courses
Sample Degree Plan

Sample B.B.A. Degree Plan

Order of courses depends on the major and course prerequisites. Consult an academic advisor for assistance. For more specific guidelines based on each major, see under General B.B.A. requirements within the C.T. Bauer College of Business Major and Minor Fields of Study by College & Department of interest in the catalog. For academic maps for each major, see: http://www.uh.edu/provost/students/new-coogs/uhin4/#overview.

SAMPLE B.B.A. DEGREE PLAN

(sequence and requirements for junior-senior courses depends on the major; this sample is for a generic major in business. See Academic Maps online for specific majors.)

Business Administration and Management Field of Study courses indicated with an asterisk (*).

SAMPLE B.B.A. DEGREE PLAN: FIRST YEAR

Fall Semester Suggested Program

Courses

- ENGL 1303 - First Year Writing I Credit Hours: 3.0 (ENGL 1370H for Honors students)
- MATH 1313 - Finite Math with Applications Credit Hours: 3.0 *
- BUSI 1301 - Business Principles Credit Hours: 3.0 *
- HIST 1377 - The U S To 1877 Credit Hours: 3.0

Total 15

Spring Semester Suggested Program

Courses

- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0 *
- BCIS 1305 - Business Computer Applications Credit Hours: 3.0 *
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
Total 15

SAMPLE B.B.A. DEGREE PLAN: SECOND YEAR

Fall Semester Suggested Program

Courses

- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
- ECON 2304 - Microeconomic Principles **Credit Hours: 3.0**
- BUSI 2305 - Business Statistics **Credit Hours: 3.0**
- BUSI 3302 - Connecting Bauer to Business **Credit Hours: 3.0** (formerly GENB 2301)
- MARK 3337 - Professional Selling **Credit Hours: 3.0**

Total 15

Spring Semester Suggested Program

Courses

- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
- MANA 3335 - Introduction to Organizational Behavior and Management **Credit Hours: 3.0**
- FINA 3332 - Principles of Financial Management **Credit Hours: 3.0**
- MARK 3336 - Introduction to Marketing **Credit Hours: 3.0**
- SCM 3301 - Supply Chain Management Fundamentals **Credit Hours: 3.0**

Total 15

SAMPLE B.B.A. DEGREE PLAN: THIRD YEAR

Fall Semester Suggested Program

Courses

- Life and Physical Sciences: Approved Core Courses **Credit Hours: 3.0**
- Creative Arts: Approved Core Courses **Credit Hours: 3.0**
- Major courses **Credit Hours: 9.0**

Total 15

Spring Semester Suggested Program
Courses

- Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
- Life and Physical Sciences: Approved Core Courses Credit Hours: 3.0
- Major courses Credit Hours: 9.0

Total 15

SAMPLE B.B.A. DEGREE PLAN: FOURTH YEAR

Fall Semester Suggested Program

Courses

- INTB 3355 - Global Environment of Business Credit Hours: 3.0
- Advanced Business Elective Requirement Credit Hours: 3.0
- Advanced Elective Requirement Credit Hours: 3.0
- Advanced Elective Requirement Credit Hours: 3.0
- General Elective Requirement Credit Hours: 3.0

Total 15

Spring Semester Suggested Program

Courses

- BUSI 4350 - Business Law and Ethics Credit Hours: 3.0
- Advanced Business Elective Requirement Credit Hours: 3.0
- Advanced Elective Requirement Credit Hours: 3.0
- General Elective Requirement Credit Hours: 3.0
- General Elective Requirement Credit Hours: 3.0

Total 15

Minimum total hours for the B.B.A. degree 120
## College of Education

### Contact Information / Who's Who

<table>
<thead>
<tr>
<th>Department</th>
<th>Address</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the Dean</td>
<td>214 Farish Hall</td>
<td>713-743-5001</td>
</tr>
<tr>
<td>Office of Undergraduate Studies</td>
<td>160 Farish Hall</td>
<td>713-743-5000</td>
</tr>
<tr>
<td>Office of Graduate Studies</td>
<td>256 Farish Hall</td>
<td>713-743-7676</td>
</tr>
<tr>
<td>Curriculum and Instruction</td>
<td>236 Farish Hall</td>
<td>713-743-0958</td>
</tr>
<tr>
<td>Psychological, Health, and Learning Sciences</td>
<td>491 Farish Hall</td>
<td>713-743-7619</td>
</tr>
<tr>
<td>Department of Educational Leadership and Policy Studies</td>
<td>112 Farish Hall</td>
<td>713-743-7846</td>
</tr>
</tbody>
</table>

### Dean:

Robert H. McPherson, Ph.D., University of Houston

### Associate Dean of Undergraduate Studies:

Teresa A. Edgar, Ed.D., University of Houston

### Associate Dean of Graduate Studies:

Jonathan P. Schwartz, Ph.D., New Mexico State University

### Associate Dean for Research:

Ezememari M. Obasi, Ph.D., Ohio State University
Mission / Objectives

The College of Education is committed to the preparation of teachers, counselors, school and higher education administrators, and professionals for a wide variety of educational settings, including social agencies, business, and government. Because of the university's urban setting, students will have opportunities to work with learners in a wide variety of educational settings.

Accreditation

The College of Education is accredited by the State Board for Educator Certification (SBEC) and by the Council for the Accreditation of Educator Preparation.

College of Education's Departmental Organization

Each of the three departments of the college focuses on a specific aspect of professional education. Two departments offer undergraduate degrees. The major entitled Teaching and Learning is housed within the Department of Curriculum and Instruction. Two majors, Health and Human Development and Family Studies, are housed in the Department of Psychological, Health, and Learning Sciences.

Undergraduate Degrees:

- Curriculum and Instruction
  - Teaching and Learning, B.S.
- Psychological, Health, and Learning Sciences
  - Human Development and Family Studies: B.S. and B.A.
  - Health, B.S.
Academic Information - College of Education

Advising

The goal of the College of Education’s undergraduate advising team is to ensure timely and efficient academic completion for all students through commitment, partnership, and provision of resources necessary for success. Our team:

- Assists with personal and academic goals
- Tailors to students’ individual needs
- Collaborates with faculty, staff and community partners
- Empowers students to take ownership of their academic success
- Provide mutual respect and appreciation for our diverse population

Orientation for the college is handled in conjunction with the Office of Admissions and is required for all new College of Education students. Once the student has been given an overview of the university and college, an undergraduate advisor helps the student with initial schedule planning and enrollment. Thereafter, advisors are available on an ongoing basis to answer questions and provide guidance.

Specific times when academic advising is suggested:

- upon entering as a freshman or transfer (required).
- for enrollment (registration) and add/drop questions.
- to declare or change a major.
- to declare or change a minor.
- to clarify any academic policy or procedure.
- anytime UH semester GPA falls below 2.0 to discuss UH resources for success
- anytime UH cumulative GPA falls below 2.0 (required) to discuss UH resources for success, enrollment limitations and requirements in order to avoid suspension
- at or before 60 hours to file a degree plan (filing a timely degree plan can and does minimize lost hours and delayed graduation).
- at or before 90 hours and each term thereafter until graduation to verify that all requirements will be met as expected (required).
- to file a degree plan;
- to file petitions; and
- at the beginning of the term before graduation, to verify all requirements for graduation.

Declaration of Major

Many entering students have a well-defined career objective and major course of study. These students should declare their majors upon entering the college and should seek academic counsel from their major departments.

Freshman students who are uncertain of their majors are encouraged to enroll first through Exploratory Studies and seek academic advising from the advisors for the major(s) they are considering.

Declaration of Minor

Students who wish to declare a minor to any of the college’s degree programs must have established at least a 2.00 minimum cumulative UH grade point average and meet the requirements of the individual department. Some minor programs may have additional requirements.
Change Of Major

Students who wish to change their majors to any of the college’s degree programs must have established at least a 2.00 minimum cumulative UH grade point average and meet the requirements of the individual major program. Some major programs have additional requirements. Consult individual major programs for details on requirements.

Students with less than a 2.00 grade point average are encouraged to obtain academic advising from the department to which they wish to change; however, they are not eligible to officially change their major until the required grade point average is attained.

To apply for a change of major, consult the advisor of the desired major and submit an undergraduate general petition requesting the change. The Office of Undergraduate Studies will review the petition and send notification of approval or disapproval to the student.

Degree Plan

After selecting a major field of study, and not later than the beginning of the junior year (60 semester hours), students should ensure that a degree plan is prepared through an advisor within the student’s major. Students declaring a minor must file a minor degree plan in the college of the minor. Students must meet all requirements of the catalog under which they are graduating. The official degree plan remains in effect unless a 13-month break in enrollment occurs.

Required Enrollment Toward Degree Plan

Students who are admitted to a major in the college must enroll in at least one course each semester in approved coursework for their declared major requirements.

Students who wish to change their major to any of the college’s degree programs must also enroll in at least one course each semester in approved coursework for their declared major requirements.

Transfer Credit

Questions concerning transfer credit are resolved by the petition process. This process originates in consultation with an undergraduate advisor, and the petitions are routed to the relevant department and dean’s offices.

Dean's List

The Dean’s List, a tabulation of the names of all undergraduate honor students, is compiled each term. To qualify for this recognition, students must earn a 3.50 minimum grade point average (the grade of S is not counted) on twelve or more term hours completed during the term. At least nine of the twelve term hours must be letter grades. Students who earn a grade of I (except in a senior honors thesis course), D, F, or U during the term are excluded from consideration for the Dean’s List.

For additional information regarding general degree requirements, please see the General Degree Information section.

Academic Warning
Academic Warning occurs when a FTIC (First Time in College) student earns less than a 2.00 grade point average in the first long term (i.e. Fall or Spring) of enrollment at the University of Houston. The College of Education maintains policies to support success among students placed on Academic Warning. Students placed on Academic Warning should consult the college website for current policies.

College of Education students on Academic Warning may enroll in no more than 13 credit hours in fall or spring terms. A student on Academic Warning may enroll in no more than 5 hours in Summer Session 2 or Summer Session 4, or 10 hours in Summer Session 1 or Summer Session 3.

**Academic Probation**

Second term FTIC students who have completed their first long term and all other students whose cumulative grade point average falls below 2.00 shall be placed on academic probation. The College of Education maintains policies to support student success among students placed on Academic Probation. Students placed on Academic Probation should consult the college website for current policies.

College of Education students on Academic Probation may enroll in no more than 13 credit hours in fall or spring terms. A student on Academic Probation may enroll in no more than 5 hours in Summer Session 2 or Summer Session 4, or 10 hours in Summer Session 1 or Summer Session 3.

**Academic Suspension and Readmission**

Students on academic probation whose term or summer session grade point average is below 2.00 are placed on academic suspension. The College of Education maintains procedures to support student success among students placed on academic suspension. Students placed on academic suspension, who wish to be readmitted to the College may be placed on a contract in which they are required to meet certain criteria, including grade point average requirements for various majors; students should consult the College website for current procedures.

**Academic Grievance Policy**

The College of Education maintains policies and procedures to resolve academic grievances. Learn more at the college's policies here.
Scholarships

The College of Education offers a robust selection of scholarships to support the educational pursuits of our students. Visit the College's scholarships webpage for more information.

For information on student loans, grants, and scholarships offered by the University of Houston, please visit the University of Houston Office of Scholarships and Financial Aid.
Honors in Education

A collaboration between the Honors College and the College of Education, this program offers top students in Education, Health, and Human Development opportunities to explore critical issues in society. Honors in Education students complete more challenging coursework and enjoy increased opportunities for meaningful research and impactful service. Small discussion-based classes allow deeper engagement with our experienced and innovative faculty. Students in academic majors outside the College of Education who are interested in teaching should contact the Honors in Education program director for information about minors in Education.

For more information on the Honors in Education Program, contact:

Director, Undergraduate Programs
Jeylan Yassin
jyassin@uh.edu
713-743-5019

Department of Educational Leadership and Policy Studies

Go to information for this department.

Programs

Minor

- Asian American Studies Minor
- Special Populations Minor

Department of Psychological, Health, and Learning Sciences

Go to information for this department.

Programs

Major

- Health, B.S.
- Human Development and Family Studies, B.A.
- Human Development and Family Studies, B.S.
- Human Development and Family Studies, B.S. - with EC-6 Generalist Certification
- Human Development and Family Studies, B.S. - with Nonprofit Leadership Alliance Certification

Double Major

- Human Development and Family Studies, B.S. - with Double Major

Minor
• Health Minor
• Human Development and Family Studies, Minor

Teacher Certification

Teacher Education Program

The University of Houston's Teacher Education Program, prepares undergraduate students to be certified as teachers in a variety of fields.

The university and the College of Education offer bachelor's degree programs that meet the State Board for Educator Certification and the Higher Education Coordinating Board requirements for the standard teaching certificate. Individuals are required to have a Texas teaching certificate to teach in Texas public schools.

Postbaccalaureate students may seek teacher certification as a non-degree objective student or as a graduate student. See the Education section of the Graduate and Professional Studies Catalog for further information or visit the COE certifications website.

Note: Rules and regulations are set forth by the State of Texas and are subject to change at any time. The College of Education reserves the right to make changes to accommodate the State Board for Educator Certification, the Texas Higher Education Coordinating Board, and university decisions.

Students who wish to become certified in the following areas should declare a major in Teaching and Learning.

• Early Childhood-6th grade generalist teacher certification
• Early Childhood-6th grade bilingual teacher certification
• Early Childhood-6th grade generalist/Special Education supplemental/ESL supplemental
• 4th-8th grade English Language Arts teacher certification
• 4th-8th grade Science teacher certification
• 4th-8th grade Social Studies teacher certification

Students who wish to complete certification at the secondary level or in select fields at all levels should select a major in the content area in which they wish to teach and complete the Education minor, with certification.

Certificates available through the Education Minor:

• English Language Arts (7th-12th grade)
• Social Studies (7th-12th grade)
• History (7th-12th grade)
• Speech (7th-12th grade)
• Journalism (7th-12th grade)
• Dance (Early Childhood-12th grade)
• Music (Early Childhood-12th grade)
• Art (Early Childhood-12th grade)
• Theater (Early Childhood-12th grade)
• French (Early Childhood-12th grade)
• Latin (Early Childhood-12th grade)
• Spanish (Early Childhood-12th grade)
• Italian (Early Childhood-12th grade)

Students may also seek certification in secondary mathematics, science, physical science, life science, and chemistry through the teachHOUSTON program. Visit teachHOUSTON to learn more.
Teacher Education Degree Plan Sequence

The Teacher Education program is organized into four phases: Pre-Teaching, Developing Teaching, Student Teaching 1, and Student Teaching 2.

- **Pre-Teaching** coursework and field experiences are specifically designed to give candidates experience interacting with children in public schools throughout the greater Houston area in order to confirm their decision to become a teacher and to prepare for the prospect of a career in education. Once required program benchmarks are satisfied, students may apply to change their majors to a degree seeking major in Teaching and Learning.

- The **Developing Teaching** phase includes coursework that builds on the basic professional skills and knowledge gained in Pre-Teaching and provides continued and focused interactions with children and teachers through required weekly field placements.

- **Student Teaching 1 and Student Teaching 2** is a full-year, full-time school placement integrated with accompanying coursework. Student Teaching 1 and Student Teaching 2, are content-focused, allowing candidates to learn the most current methodology for teaching all content areas for which they will be certified, as well as performance-focused, immersing candidates in the real work of teachers in school settings. Candidates are supported in the schools by master Cooperating Teachers and trained University Supervisors, supplemented by scheduled on-campus and online professional development and faculty and peer interactions.

Formal Admission to the Teacher Education Program

Students apply to the Teacher Education Program during their Developing semester (Junior year semester 2) and are formally admitted during the Developing Teaching semester (Junior year semester 2).

- 2.50 overall GPA at the time of Formal Admission (coursework through Pre-Teaching)

The overall GPA of each incoming class admitted between September 1st and August 31st of each year by an EPP may not be less than 3.0 on a four-point scale or the equivalent (See Rule 227.19)

- Coursework completion:
  - Taken a min. of 12 semester credit hours for EC-6 teacher candidates (Math, Science, History/Political Science); 15 semester credit hours in math or science required for 4-8 & 7-12 math or science certification teacher candidates.

- Basic skills in reading, written communication and mathematics (measured by Texas Success Initiative completion);
  - For more information on the TSI please visit [http://www.uh.edu/ussc/tsi/](http://www.uh.edu/ussc/tsi/)

- Demonstration of English language proficiency
- Admissions Interview
- Any additional admissions requirements published and applied consistently for all applicants by the Teacher Education Program:
  - 2.50 content GPA
  - Passed Writing Assessment (Total score of 11+) or Completed Consultations (Yes?No)
  - Completion of a certification (PPR) benchmark exam
  - Pre-Teaching Field Experience Observation Hours

For more information on Chapter 227 (Rule 227.10) please click here

Transfer Courses

Transfer of education and specialization courses requires approval by petition to the Associate Dean for Undergraduate Studies. The Student Teaching 1 and 2 coursework must be completed in residence at UH.

Certification
Students must apply for their teaching certificate online at Texas Education Agency when they have completed all course work for their degree and have taken and passed the Texas Examination of Educator Standards (TExES) required for certification.

Note: All potential teacher certification candidates will be subject to a formal FBI fingerprint check before being issued a Texas teaching certificate.

Time Limitation

Courses completed at the University of Houston and/or transfer credits may not apply toward a degree or teacher certification if more than five years have elapsed upon application for certification. Current standards will be enforced.

Department of Curriculum and Instruction

Who's Who

Chair:

Margaret Hale

Professors:

Sheng Kuan Chung, Shea Culpepper (Clinical), Teresa (Sesa) Edgar (Clinical), H. Jerome Freiberg, Margaret Hale (Clinical) Mimi Miyoung Lee, Mignonette H. Mountain, Eleanore Tyson (Clinical), Cameron S. White, Jahnnette Wilson (Clinical)

Associate Professors:

Jeanette Alarcon, Nicole Andrews, Samuel Brower (Clinical), Jennifer B. Chauvot, Suzanne Davanon (Clinical), Heather Domjan (Clinical), Conra Gist, Susie Gronseth (Clinical), Robert Hausmann (Clinical), Laveria Hutchison, Sara McNeil, Melissa Pierson, John M. Ramsey, Bernard Robin, Amber Thompson (Clinical), Sissy Wong, Jie Zhang

Assistant Professors:

Celeste Alba (Clinical), Eulises Avellaneda (Clinical), Justin Burris (Clinical), Jane M. Cooper (Clinical), Carrie Cutler (Clinical), Bulent Dogan (Clinical), Miao Li, Dustine Thomas (Clinical), Laura B. Turchi, Edna Velasquez (Clinical)

Lecturers:

Haley Ford, Yunes Golabbakhsh, Tzuying (Tina) Ho, Nancy Reis, Lauren Snead, Neelofer Tajani, Felicia Taylor

Emeritus Professors:


Teaching and Learning
The Department of Curriculum and Instruction offers the undergraduate major in Teaching and Learning. The Teaching and Learning major is composed of five components: academic core foundations, pre-professional development courses, specific BS and Coordinating Board requirements for mathematics and science, and the professional development sequence. Additional information about the program can be found on the Teaching and Learning webpage.

Course Categories

The Department of Curriculum and Instruction offers courses under four headings: art education (ARED), curriculum and instruction (CUIN), education (EDUC), elementary education (ELED) and secondary education (SEDE).

See the Graduate and Professional Studies catalog for graduate course listings, or consult the department for additional information.

Major

Teaching and Learning Degree Plan, EC-6 with English as a Second Language and Special Education Supplemental

First Year

Fall Semester

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1311 - Elementary Mathematical Modeling Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0 (Sciences A)
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- CUIN 1103 - Development of Educator Dispositions Credit Hours: 1.0

Total hours for Year 1, Fall: 16

Spring Semester

- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- BIOL 1310 - General Biology 1 Credit Hours: 3.0 (Sciences B)
- HDFS 1300 - Development of Contemporary Families Credit Hours: 3.0 (WID)

Total hours for Year 1, Spring: 15

Second Year
Fall Semester

- MATH 2311 - Introduction to Probability and Statistics **Credit Hours: 3.0** (Component Area Option/Math 3)
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
- GEOL 1330 - Physical Geology **Credit Hours: 3.0** (Sciences C)
- CORE - Language, Philosophy & Culture: Approved Core Courses **Credit Hours: 3.0**
  - PSYC 2350 - Child Development **Credit Hours: 3.0** (Social Sciences) OR
  - PSYC 1300 - Introduction to Psychology **Credit Hours: 3.0** OR
  - HDFS 2317 - Introduction to Human Development and Interventions **Credit Hours: 3.0**

Total hours for Year 2, Fall: 15

Spring Semester

- CUIN 2320 - Mathematics for Elementary and Middle School Teachers **Credit Hours: 3.0** (Math 4)
- CUIN 3302 - Social Education **Credit Hours: 3.0**
- CORE - Life and Physical Sciences: Approved Core Courses **Credit Hours: 3.0** (Science D)
- CORE - Creative Arts: Approved Core Courses **Credit Hours: 3.0**
- HDFS 3300 - Introduction to Educational Psychology **Credit Hours: 3.0**

  **Approved Education Related Elective:**
  Must be from the following list or approved by advisor.

- HDFS 1311 - Personal Development and College Success **Credit Hours: 3.0**
- ARED 3305 - Art in Elementary Schools **Credit Hours: 3.0**
- HLT 3303 - Health of Elementary School Child **Credit Hours: 3.0**
- MUED 2342 - Music for Children **Credit Hours: 3.0**
- CUIN 4303 - Second Language Acquisition **Credit Hours: 3.0**
- CUIN 3333 - Differentiating Curriculum, Instruction, & Assessment for Diverse Learners **Credit Hours: 3.0**
- SPEC 4364 - Gifted and Talented Instruction **Credit Hours: 3.0**

Total hours for Year 2, Spring: 18

Summer Semester

- SPEC 4367 - Consultation Strategies and Coaching **Credit Hours: 3**
- CUIN 4375 - Classroom Management **Credit Hours: 3.0**

Total hours for Year 2, Summer: 6

Third Year

Fall Semester - Pre-Teaching
• CUIN 3316 - Prekindergarten Curriculum and Instruction  Credit Hours: 3.0
• CUIN 3111 - Educational Technology for Elementary Teachers  Credit Hours: 1.0
• ELED 4310 - Reading and Language Arts in the Elementary School  Credit Hours: 3.0
• CUIN 3317 - Kindergarten and Elementary School Curriculum and Instruction  Credit Hours: 3.0
• SPEC 4363 - Instructional Interventions  Credit Hours: 3.0
• CUIN 4303 - Second Language Acquisition  Credit Hours: 3.0

Total hours for Year 3, Fall: Pre-Teaching: 16

Spring Semester - Developing Teaching*

• SPEC 4365 - Data-Based Individualization of Instruction  Credit Hours: 3.0
• CUIN 4315 - Assessment of Children  Credit Hours: 3.0
• ELED 4311 - Science in the Elementary School I  Credit Hours: 3.0
• EDUC 3101 - Practicum for Preservice Teachers  Credit Hours: 1.0
• SPEC 4362 - Behavior: Evidence-Based Decisions  Credit Hours: 3.0
• ELED 4320 - Social Studies in the Elementary School  Credit Hours: 3.0

Total hours for Year 3, Spring: Developing Teaching: 16

Fourth Year

Fall Semester - Student Teaching 1

• CUIN 4332 - Literacy Assessment for Reading and Writing  Credit Hours: 3.0 *
• SPEC 3360 - Individuals with Disabilities  Credit Hours: 3.0
• ELED 4314 - Mathematics in the Elementary School I  Credit Hours: 3.0
• EDUC 4511 - Student Teaching and Integrated Technology-Elementary  Credit Hours: 5.0

Total hours for Year 4, Fall: Student Teaching 1: 14

Spring Semester - Student Teaching 2

• CUIN 4361 - Second Language Methodology  Credit Hours: 3.0
• ELED 4312 - Science in the Elementary School II  Credit Hours: 3.0
• ELED 4315 - Mathematics in the Elementary School II  Credit Hours: 3.0
• EDUC 4512 - Student Teaching and Integrated Technology-Elementary  Credit Hours: 5.0

Total hours for Year 4, Spring: Student Teaching 2: 14

Note(s):

*Spring starters would take one course in previous Winter mini.
Total Hours for Degree: 130

Teaching and Learning, B.S.

Teaching and Learning Major

Students seeking early childhood-6th grade and 4th-8th grade certification must complete the requirements for the Teaching and Learning major.

This degree requires 120-133 semester hours. Degree outlines are available online at the Teaching and Learning webpage.

The Teaching and Learning major is composed of five components:

- academic foundations,
- pre-professional development courses,
- specific B.S. Coordinating Board requirements for mathematics and science, and
- the Student Teaching Sequence.

Students with a 2.5 cumulative UH GPA may declare a major in Teaching and Learning.

Students being re-admitted to the Teaching and Learning major must:

1. be placed on a contract in which they are required to obtain the cumulative GPA required for admission to the major (2.5) within 2 long terms of entry into the College, and
2. complete at least two courses in major each of these first two semesters and have their course enrollments approved by academic advisors.

Certificates Available Through Teaching and Learning:

- Early Childhood - 6th grade generalist teacher certification
- Early Childhood - 6th grade bilingual teacher certification
- Early Childhood - 6th grade/Special Education supplemental/ESL supplemental
- 4th - 8th grade English Language Arts teacher certification
- 4th - 8th grade Science teacher certification
- 4th - 8th grade Mathematics teacher certification
- 4th - 8th grade Social Studies teacher certification

Degree Plan Options

- Teaching and Learning Degree Plan, Early Childhood - 6th Grade
- Teaching and Learning Degree Plan, Bilingual Early Childhood - 6th Grade
- Teaching and Learning 4th-8th Grade Degree Plan, Mathematics
- Teaching and Learning 4th-8th Grade Degree Plan, Science
- Teaching and Learning 4th-8th Grade Degree Plan, English Language Arts
- Teaching and Learning 4th-8th Grade Degree Plan, Social Studies
- Teaching and Learning Degree Plan, EC-6 with English as a Second Language and Special Education Supplemental
- Teaching and Learning Degree Plan, EC-6 Generalist/Special Education EC-12
Minor

Education Minor, Certification Track

This minor is intended for teacher education students who wish to be prepared to teach secondary education. However, the minor alone does not include all coursework and experiences required to be recommended for Texas State Certification. Students who plan to complete certification at the secondary level or in select fields at all levels should select a major in the content area in which they wish to teach and complete the Education minor, with certification.

Certificates available through the Education Minor:

- English Language Arts (7th-12th grade)
- Social Studies (7th-12th grade)
- History (7th-12th grade)
- Speech (7th-12th grade)
- Journalism (7th-12th grade)
- Dance (Early Childhood-12th grade)
- Music (Early Childhood-12th grade)
- Art (Early Childhood-12th grade)
- Theatre (Early Childhood-12th grade)
- French (Early Childhood-12th grade)
- Latin (Early Childhood-12th grade)
- Spanish (Early Childhood-12th grade)
- Italian (Early Childhood-12th grade)

Students may also seek certification in secondary mathematics, science, physical science, life science and chemistry through the teachHOUSTON program. Visit teachHOUSTON to learn more.

GPA Requirements

- Students must have a 2.0 minimum cumulative UH grade point average.
- Students must earn a 2.5 minimum cumulative grade point average and no lower than a C on all courses attempted in the minor.

Students who wish to be certified must also:

- Apply to the Teacher Education program, and meet all associated benchmark requirements, including passing a required writing assessment, completing an admissions interview, and demonstrating the ability to pass a criminal history background check, performed by participating school districts, to ensure that required school field placements can be completed.
- Meet all benchmarks outlined on the Education - Certification Track Minor Degree Plan;
- Successfully complete Student Teaching requirements; and
- Major in the area of certification.

Required courses:

- EDUC 3301 - Introduction to Teaching Credit Hours: 3.0
- CUIN 3312 - Educational Technology Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
• Education methods courses Cr. 6.
• CUIN 3347 - Reading in the Content Area Credit Hours: 3.0
• CUIN 4332 - Literacy Assessment for Reading and Writing Credit Hours: 3.0 (English Certification only)
• EDUC 4314 - Student Teaching: Secondary Credit Hours: 3.0
• EDUC 4315 - Student Teaching: Secondary Credit Hours: 3.0

Education Minor, Non-Certification Track

This minor is intended for students who do not wish to be certified to teach, but rather desire some experience in school contexts in order to develop an awareness of and be an advocate for education. Students who later decide to pursue teaching as a career should see their academic advisors to file a change of minor form and to seek information on field and benchmark requirements.

A total of 15 semester hours are required, 9 of which must be advanced, and at least six of the nine advanced semester hours must be taken in residence. Students must earn a 2.5 minimum cumulative grade point average on courses attempted in the minor.

Required courses:

• EDUC 3301 - Introduction to Teaching Credit Hours: 3.0 or
• CUIN 3316 - Prekindergarten Curriculum and Instruction Credit Hours: 3.0 or
• CUIN 3321 - Introduction to Teaching Middle Grades Credit Hours: 3.0
• HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0

Nine semester hours to be selected from the following:

• CUIN 3111 - Educational Technology for Elementary Teachers Credit Hours: 1.0
• CUIN 3121 - Educational Technology for Secondary Teachers Credit Hours: 1.0
• CUIN 3302 - Social Education Credit Hours: 3.0
• CUIN 3317 - Kindergarten and Elementary School Curriculum and Instruction Credit Hours: 3.0
• CUIN 3347 - Reading in the Content Area Credit Hours: 3.0
• CUIN 4303 - Second Language Acquisition Credit Hours: 3.0
• CUIN 4315 - Assessment of Children Credit Hours: 3.0
• CUIN 4332 - Literacy Assessment for Reading and Writing Credit Hours: 3.0
• CUIN 4375 - Classroom Management Credit Hours: 3.0
• ELED 3320 - Survey of Literature for Children and Adolescents Credit Hours: 3.0
• ELED 3322 - Elementary Reading and Phonics Instruction Credit Hours: 3.0
• SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
• MUED 2342 - Music for Children Credit Hours: 3.0

Certificate

Early Childhood - Sixth Grade Certification
This certification from the State Board for Educator Certification and the National Council for the Accreditation of Teacher Education qualifies students to teach in the public schools as well as in preschool and daycare settings. Additionally, it provides a basis for graduate training and research.

The Teaching and Learning and Human Development and Family Studies majors offer tracks that lead to certification for Early Childhood Education (early childhood through grade six). The Bilingual option is available only through the Teaching and Learning Major.

Students pursue certification in coordination with the teacher preparation program, Teacher Education, which readies undergraduate students to be certified as teachers in a variety of fields.

For more information regarding Teacher Education, go to http://www.coe.uh.edu/about/teacher-ed/index.php or contact an advisor in room 236 of Farish Hall.

**Academic Teaching Fields: EC-6**

- Early Childhood-Sixth Grade Generalist
- Early Childhood-Sixth Grade Bilingual Generalist

**Early Childhood through Twelfth Grade Teacher Certification**

**All Level (Early Childhood through Twelfth Grade) Teacher Certification**

Students who wish to pursue certification which allows them to teach children at all levels in public schools may do so in several ways.

In order to pursue certification in Music or Art at all levels, students must major in Music or Art in the College of Liberal Arts and Social Sciences and should seek advising from advisors for one of these majors. Professional Development Sequences (Teacher Education) in the College of Education are offered in conjunction with degree programs in the Colleges of Liberal Arts and Social Sciences. Courses are jointly approved by these colleges and the College of Education. For certification within a degree program in either of these fields, see the specific college section of this catalog. Students must carefully follow the degree plan prepared by their college.

Preparation for certification for Special Education at all levels is available through the Teaching and Learning major or the Human Development and Family Studies major in the College of Education.

All-level certification prepares prospective educators to provide services to students with disabilities in a variety of settings from ages 3 to 22 years.

Coursework for this certificate targets the legal mandates and decisions that pertain to special education, exceptionalities, classroom-based assessment, effective instructional and social interventions for students with disabilities, instructional technology, and student/program evaluation.

Specific information about this certificate can be obtained by meeting with an advisor from either Human Development and Family Studies or Teaching and Learning.

Students pursue certification in coordination with the teacher preparation program, Teacher Education, which readies undergraduate students to be certified as teachers in a variety of fields.

For more information regarding Teacher Education, go to http://www.coe.uh.edu/about/teacher-ed/index.php or contact an advisor in room 256 of Farish Hall.

**Academic Teaching Fields: EC-12**
Eighth-Twelfth Grade Teacher Certification

Certification as an 8-12 grade teacher is provided through Professional Development Sequences (Teacher Education) in the College of Education in conjunction with degree programs in the Colleges of Liberal Arts and Social Sciences. teachHOUSTON prepares students pursuing certifications through the College of Natural Sciences and Mathematics. Courses are jointly approved by these colleges and the College of Education. For certification within a degree program in any of these three colleges, see the specific college section of this catalog. Advisors for students seeking teaching certificates in addition to their degrees are located in these colleges. Students must carefully follow the degree plan prepared by their college.

Students pursuing 8-12 grade certification should apply for an Education minor in order to be advised regarding teacher certification. See the advisors in room 236 of Farish Hall.

To confer a bachelor’s degree and teacher certification in any college the university requires a minimum of 120 semester hours of course work.

For more information regarding Teacher Education, go to http://www.coe.uh.edu/about/teacher-ed/index.php or contact an advisor in room 236 of Farish Hall. For more information about teachHOUSTON, go to http://teachhouston.uh.edu/.

Academic Teaching Fields: Grades 8-12

<table>
<thead>
<tr>
<th>Chemistry</th>
<th>Italian</th>
<th>Physical Sciences</th>
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</thead>
<tbody>
<tr>
<td>English, Language Arts and Reading</td>
<td>Journalism</td>
<td>Science</td>
</tr>
<tr>
<td>Dance</td>
<td>Latin</td>
<td>Social Studies</td>
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<td>History</td>
<td>Life Sciences</td>
<td>Spanish</td>
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<tr>
<td>French</td>
<td>Mathematics</td>
<td>Speech</td>
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<tr>
<td>German</td>
<td>Math/Physics</td>
<td>Theatre</td>
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Fourth-Eighth Grade Teacher Certification

Undergraduate students who wish to be certified at the Fourth through Eighth grade (4-8) level in one of the subject areas (Math, English, Social Studies, or Science) should choose to major in Teaching and Learning.

These certifications from the State Board for Educator Certification and the National Council for the Accreditation of Teacher Education qualify students to teach in the public schools. Additionally, it provides a basis for graduate training and research.

Students pursue certification in coordination with the teacher preparation program, Teacher Education which readies undergraduate students to be certified as teachers in a variety of fields.

For more information regarding Teacher Education, go to http://www.coe.uh.edu/about/teacher-ed/index.php or contact an advisor in room 236 of Farish Hall.

Academic Teaching Fields: 4-8

- 4-8 English & Language Arts
Other Programs

Special Education Supplemental/ESL Supplemental Degree Plan

Semester 1: (15 hrs)
- ENGL 1303 - First Year Writing I \text{Credit Hours: 3.0}
- MATH 1311 - Elementary Mathematical Modeling \text{Credit Hours: 3.0}
- HIST 1377 - The U S To 1877 \text{Credit Hours: 3.0}
- CHEM 1301 - Foundations of Chemistry \text{Credit Hours: 3.0}
- HDFS 1311 - Personal Development and College Success \text{Credit Hours: 3.0}

Semester 2: (15 hrs)
- ENGL 1304 - First Year Writing II \text{Credit Hours: 3.0}
- MATH 1312 - Introduction to Mathematical Reasoning \text{Credit Hours: 3.0}
- HIST 1378 - The U S Since 1877 \text{Credit Hours: 3.0}
- BIOL 1310 - General Biology 1 \text{Credit Hours: 3.0 or}
- BIOL 1320 - General Biology 2 \text{Credit Hours: 3.0}
- HDFS 1300 - Development of Contemporary Families \text{Credit Hours: 3.0}

Semester 3: (15 hrs)
- Humanities core course \text{Credit Hours: 3.0}
- MATH 2311 - Introduction to Probability and Statistics \text{Credit Hours: 3.0}
- POLS 1336 - U.S. and Texas Constitution and Politics \text{Credit Hours: 3.0}
- GEOL 1330 - Physical Geology \text{Credit Hours: 3.0}
- PSYC 2350 - Child Development \text{Credit Hours: 3.0} \#
  \#Note: Fulfills core and state education requirement

Semester 4: (15 hrs)
- MATH 2303 - Concepts in Algebra \text{Credit Hours: 3.0}
- POLS 1337 - U.S. Government: Congress, President, and Courts \text{Credit Hours: 3.0}
- Science D Core Course \text{Credit Hours: 3.0}
- MUED 2342 - Music for Children \text{Credit Hours: 3.0} \text{Creative Arts Core Course}
- HDFS 3300 - Introduction to Educational Psychology \text{Credit Hours: 3.0}
Semester 5: Pre-Teaching (16 hrs)

- CUIN 3316 - Prekindergarten Curriculum and Instruction Credit Hours: 3.0
- CUIN 3111 - Educational Technology for Elementary Teachers Credit Hours: 1.0
- ELED 3320 - Survey of Literature for Children and Adolescents Credit Hours: 3.0
- SPEC 4362 - Behavior: Evidence-Based Decisions Credit Hours: 3.0 (Fall only)
- SPEC 4363 - Instructional Interventions Credit Hours: 3.0 (Fall only)
- CUIN 3302 - Social Education Credit Hours: 3.0

Semester 6: Develop Teaching (18 hrs)

- CUIN 4315 - Assessment of Children Credit Hours: 3.0
- CUIN 4375 - Classroom Management Credit Hours: 3.0
- HLT 3303 - Health of Elementary School Child Credit Hours: 3.0
- CUIN 4361 - Second Language Methodology Credit Hours: 3.0
- SPEC 4365 - Data-Based Individualization of Instruction Credit Hours: 3.0 (Spring only)
- SPEC 4367 - Consultation Strategies and Coaching Credit Hours: 3 (Spring only)

Semester 7: Student Teaching 1 (15 hrs)

- ELED 4310 - Reading and Language Arts in the Elementary School Credit Hours: 3.0
- ELED 4311 - Science in the Elementary School I Credit Hours: 3.0
- ELED 4314 - Mathematics in the Elementary School I Credit Hours: 3.0
- ARED 3305 - Art in Elementary Schools Credit Hours: 3.0
- EDUC 4311 - Student Teaching and Integrated Technology: Elementary Credit Hours: 3.0

Semester 8: Student Teaching 2 (15 hrs)

- CUIU 4332 - Literacy Assessment for Reading and Writing Credit Hours: 3.0
- ELED 4312 - Science in the Elementary School II Credit Hours: 3.0
- ELED 4315 - Mathematics in the Elementary School II Credit Hours: 3.0
- ELED 4320 - Social Studies in the Elementary School Credit Hours: 3.0
- EDUC 4313 - Student Teaching: Early Childhood Education Credit Hours: 3.0

Summer: (6 hrs)

- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
- CUIU 4303 - Second Language Acquisition Credit Hours: 3.0

Total Degree Requirements: 130 Hours Minimum

Teaching and Learning 4th-8th Grade Degree Plan, English Language Arts
First Year

Fall Semester

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1311 - Elementary Mathematical Modeling Credit Hours: 3.0 OR
  MATH 1310 - College Algebra Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- CORE - Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
- CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0
- CUIN 1103 - Development of Educator Dispositions Credit Hours: 1.0

Total hours for Year 1, Fall: 16

Spring Semester

- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- BIOL 1310 - General Biology 1 Credit Hours: 3.0 OR
  BIOL 1320 - General Biology 2 Credit Hours: 3.0
- CORE - Creative Arts: Approved Core Courses Credit Hours: 3.0

Total hours for Year 1, Spring: 15

Second Year

Fall Semester

- CORE - Writing in the Disciplines: Approved Core Courses Credit Hours: 3.0
- MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0
- ENGL 4300 - Introduction to the Study of Language Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- GEOL 1330 - Physical Geology Credit Hours: 3.0

Total hours for Year 2, Fall: 15

Spring Semester

- CUIN 2320 - Mathematics for Elementary and Middle School Teachers Credit Hours: 3.0 OR
• MATH 2303 - Concepts in Algebra **Credit Hours: 3.0**

• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

• CORE - Life and Physical Sciences: Approved Core Courses **Credit Hours: 3.0**

• CORE - Social and Behavioral Sciences: Approved Core Courses **Credit Hours: 3.0**

• HDFS 3300 - Introduction to Educational Psychology **Credit Hours: 3.0**

**Total hours for Year 2, Spring: 15**

**Benchmark Checkpoint**

**Third Year**

**Fall Semester - Pre-Teaching**

• CUIN 3321 - Introduction to Teaching Middle Grades **Credit Hours: 3.0**

• CUIN 3312 - Educational Technology **Credit Hours: 3.0**

• ENGL 3350 - American Literature to 1865 **Credit Hours: 3.0** OR

• ENGL 3351 - American Literature Since 1865 **Credit Hours: 3.0**

• CUIN 4331 - Adolescent Literature **Credit Hours: 3.0**

• CUIN 3345 - Writing and Grammar for Teaching English **Credit Hours: 3.0**

• CUIN 4101 - Content for Teaching **Credit Hours: 1.0**

**Total hours for Year 3, Fall: Pre-Teaching: 16**

**Benchmark Checkpoint**

**Spring Semester - Developing Teaching**

• CUIN 3346 - Teaching the Writing Process **Credit Hours: 3.0**

• CUIN 4315 - Assessment of Children **Credit Hours: 3.0**

• CUIN 4332 - Literacy Assessment for Reading and Writing **Credit Hours: 3.0**

• CUIN 3347 - Reading in the Content Area **Credit Hours: 3.0**

• EDUC 3101 - Practicum for Preservice Teachers **Credit Hours: 1.0**

• ENGL X3XX - Literature Elective **Credit Hours: 3.0**

**Total hours for Year 3, Spring: Developing Teaching: 16**

**Benchmark Checkpoint**

**Fourth Year**
Fall Semester - Student Teaching Residency 1

- CUIN 4375 - Classroom Management Credit Hours: 3.0
- SEDE 4312 - Teaching English in the Secondary School Credit Hours: 3.0
- ENGL 4319 - English in the Secondary Schools Credit Hours: 3.0
- EDUC 4324 - Student Teaching and Integrated Technology: Middle School Credit Hours: 3.0
- CUIN 3302 - Social Education Credit Hours: 3.0

Total hours for Year 4, Fall Student Teaching Res. 1: 15

Benchmark Checkpoint

Spring Semester - Student Teaching Residency 2

- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
- CUIN 3333 - Differentiating Curriculum, Instruction, & Assessment for Diverse Learners Credit Hours: 3.0
- CUIN 4361 - Second Language Methodology Credit Hours: 3.0
- EDUC 4325 - Student Teaching and Integrated Technology: Middle School Credit Hours: 3.0

Total hours for Year 4, Spring Student Teaching Res. 2: 12

Benchmark Checkpoint

Total Hours for Degree: 120

Approved Literature Electives

- ENGL 3304
- ENGL 3306
- ENGL 3312
- ENGL 3315
- ENGL 3316
- ENGL 3325
- ENGL 3328
- ENGL 3365
- ENGL 3347
- ENGL 4322

Teaching and Learning 4th-8th Grade Degree Plan, Mathematics

First Year

Fall Semester

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1311 - Elementary Mathematical Modeling Credit Hours: 3.0 OR
- MATH 1310 - College Algebra Credit Hours: 3.0
• HIST 1377 - The U S To 1877 Credit Hours: 3.0
• CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0
• CORE - Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
• CUIN 1103 - Development of Educator Dispositions Credit Hours: 1.0

Total hours for Year 1, Fall: 16

Spring Semester

• ENGL 1304 - First Year Writing II Credit Hours: 3.0
• MATH 1312 - Introduction to Mathematical Reasoning Credit Hours: 3.0
• HIST 1378 - The U S Since 1877 Credit Hours: 3.0

• BIOL 1310 - General Biology 1 Credit Hours: 3.0 OR
• BIOL 1320 - General Biology 2 Credit Hours: 3.0

• CORE - Creative & Visual Arts: Approved Core Courses Credit Hours: 3.0

Total hours for Year 1, Spring: 15

Second Year

Fall Semester

• CORE: Writing in the Disciplines: Approved Core Courses Credit Hours: 3.0
• MATH 1330 - Precalculus Credit Hours: 3.0
• POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
• GEOL 1330 - Physical Geology Credit Hours: 3.0
• MATH 330X - Upper Level Math Choice Credit Hours: 3.0

Total hours for Year 2, Fall: 15

Spring Semester

• CUIN 2320 - Mathematics for Elementary and Middle School Teachers Credit Hours: 3
• POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
• CORE - Life and Physical Sciences: Approved Core Courses Credit Hours: 3.0
• CORE - Social and Behavioral Sciences: Approved Core Courses Credit Hours: 3.0
• HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0

Total hours for Year 2, Spring: 15

Benchmark Checkpoint
Third Year

Fall Semester - Pre-Teaching

- CUIN 3321 - Introduction to Teaching Middle Grades **Credit Hours: 3.0**
- CUIN 3312 - Educational Technology **Credit Hours: 3.0**
- CUIN 4331 - Adolescent Literature **Credit Hours: 3.0**
- CUIN 4351 - Developing Proportional Reasoning **Credit Hours: 3.0**
- CUIN 4101 - Content for Teaching **Credit Hours: 1.0**
- CUIN 4341 - Teaching Mathematics Problem Solving **Credit Hours: 3.0**

Total hours for Year 3, Fall Pre-Teaching: 16

Benchmark Checkpoint

Spring Semester - Developing Teaching

- MATH 330X - Upper Division Course **Credit Hours: 3.0**
- MATH 330X - Upper Division Course **Credit Hours: 3.0**
- CUIN 4349 - Teaching Geometry and Algebra Concepts **Credit Hours: 3.0**
- CUIN 4315 - Assessment of Children **Credit Hours: 3.0**
- CUIN 3347 - Reading in the Content Area **Credit Hours: 3.0**
- EDUC 3101 - Practicum for Preservice Teachers **Credit Hours: 1.0**

Total hours for Year 3, Spring Developing Teaching: 16

Benchmark Checkpoint

Fourth Year

Fall Semester - Student Teaching 1

- MATH 330X - Upper Division Course **Credit Hours: 3.0**
- CUIN 4375 - Classroom Management **Credit Hours: 3.0**
- CUIN 4344 - Teaching Mathematics in Grades 4-8 **Credit Hours: 3.0**
- CUIN 3302 - Social Education **Credit Hours: 3.0**
- EDUC 4324 - Student Teaching and Integrated Technology: Middle School **Credit Hours: 3.0**

Total hours for Year 4, Fall Student Teaching 1: 15

Benchmark Checkpoint
Spring Semester - Student Teaching 2

- CUIN 4361 - Second Language Methodology Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
- CUIN 3333 - Differentiating Curriculum, Instruction, & Assessment for Diverse Learners Credit Hours: 3.0
- EDUC 4325 - Student Teaching and Integrated Technology: Middle School Credit Hours: 3.0

Total hours for Year 4, Spring Student Teaching 2: 12

Benchmark Checkpoint

Total Hours for Degree: 120

Teaching and Learning 4th-8th Grade Degree Plan, Science

First Year

Fall Semester

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1310 - College Algebra Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0
- CORE - Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
- CUIN 1103 - Development of Educator Dispositions Credit Hours: 1.0

Total hours for Year 1, Fall: 16

Spring Semester

- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- BIOL 1310 - General Biology 1 Credit Hours: 3.0 OR
- BIOL 1320 - General Biology 2 Credit Hours: 3.0
- CORE - Creative & Visual Arts: Approved Core Courses Credit Hours: 3.0

Total hours for Year 1, Spring: 15
Second Year

Fall Semester

- CORE - Writing in the Disciplines: Approved Core Courses Credit Hours: 3.0
- MATH 1330 - Precalculus Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- GEOL 1330 - Physical Geology Credit Hours: 3.0
- BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0

Total hours for Year 2, Fall: 15

Spring Semester

- CUIN 2320 - Mathematics for Elementary and Middle School Teachers Credit Hours: 3 OR
- MATH 2303 - Concepts in Algebra Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- CORE - Social and Behavioral Sciences: Approved Core Courses Credit Hours: 3.0
- PHYS 1301 - Introductory General Physics I Credit Hours: 3.0
- HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0

Total hours for Year 2, Spring: 15

Benchmark Checkpoint

Third Year

Fall Semester - Pre-Teaching

- CUIN 3321 - Introduction to Teaching Middle Grades Credit Hours: 3.0
- CUIN 3312 - Educational Technology Credit Hours: 3.0
- CUIN 4331 - Adolescent Literature Credit Hours: 3.0
- PHYS 1305 - Introductory Astronomy - The Solar System Credit Hours: 3.0 OR
- PHYS 1306 - Introductory Astronomy - Stellar and Galactic Systems Credit Hours: 3.0
- CUIN 4101 - Content for Teaching Credit Hours: 1.0
- CUIN 3352 - Perspectives Math and Science Credit Hours: 3.0

Total hours for Year 3, Fall: Pre-Teaching: 16

Benchmark Checkpoint
Spring Semester - Developing Teaching

- CUIN 4325 - Teaching Science in Grades 4-8 I  Credit Hours: 3.0
- CUIN 4315 - Assessment of Children  Credit Hours: 3.0
- PHYS 4345 - Physics for Pre-Service Teachers  Credit Hours: 3.0
- CUIN 3347 - Reading in the Content Area  Credit Hours: 3.0
- EDUC 3101 - Practicum for Preservice Teachers  Credit Hours: 1.0
- GEOL 1376 - Historical Geology  Credit Hours: 3.0

Total hours for Year 3, Spring: Developing Teaching: 16

Benchmark Checkpoint

Fourth Year

Fall Semester - Student Teaching 1

- CUIN 4375 - Classroom Management  Credit Hours: 3.0
- CUIN 3302 - Social Education  Credit Hours: 3.0
- Science Elective  Credit Hours: 3.0
- CUIN 4326 - Teaching Science in Grades 4-8 II  Credit Hours: 3.0
- EDUC 4324 - Student Teaching and Integrated Technology: Middle School  Credit Hours: 3.0

Total hours for Year 4, Fall Student Teaching 1: 15

Benchmark Checkpoint

Spring Semester - Student Teaching 2

- CUIN 4361 - Second Language Methodology  Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities  Credit Hours: 3.0
- CUIN 3333 - Differentiating Curriculum, Instruction, & Assessment for Diverse Learners  Credit Hours: 3.0
- EDUC 4325 - Student Teaching and Integrated Technology: Middle School  Credit Hours: 3.0

Total hours for Year 4, Spring Student Teaching 2: 12

Benchmark Checkpoint

Total Hours for Degree: 120

Teaching and Learning 4th-8th Grade Degree Plan, Social Studies
First Year

Fall Term

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1311 - Elementary Mathematical Modeling Credit Hours: 3.0 OR MATH 1310 - College Algebra Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0
- CORE - Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
- CUIN 1103 - Development of Educator Dispositions Credit Hours: 1.0

Total hours for Year 1, Fall: 16

Spring Term

- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- BIOL 1310 - General Biology 1 Credit Hours: 3.0 OR BIOL 1320 - General Biology 2 Credit Hours: 3.0
- ECON 2301 - Global Economic Concepts Credit Hours: 3.0

Total hours for Year 1, Spring: 15

Second Year

Fall Term

- CORE - Creative Arts: Approved Core Courses Credit Hours: 3.0
- MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- GEOL 1330 - Physical Geology Credit Hours: 3.0
- GEOG 2340 - World Realms Credit Hours: 3.0 OR World History from list Credit Hours: 3.0
- CORE - Writing in the Disciplines: Approved Core Courses Credit Hours: 3.0

Total hours for Year 2, Fall: 18
Spring Term

- CUIN 2320 - Mathematics for Elementary and Middle School Teachers Credit Hours: 3 OR
- MATH 2303 - Concepts in Algebra Credit Hours: 3.0

- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- CORE - Life and Physical Sciences: Approved Core Courses Credit Hours: 3.0
- HIST 2343 - Texas Since 1865 Credit Hours: 3.0
- HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0

Total hours for Year 2, Spring: 15

Benchmark Checkpoint

Third Year

Fall Term - Pre-Teaching

- CUIN 3321 - Introduction to Teaching Middle Grades Credit Hours: 3.0
- CUIN 3312 - Educational Technology Credit Hours: 3.0
- CUIN 4331 - Adolescent Literature Credit Hours: 3.0
- HIST 3379 - World Civilizations to 1500 Credit Hours: 3.0
- SEDE 4311 - Teaching Social Studies in the Secondary School Credit Hours: 3.0
- CUIN 4101 - Content for Teaching Credit Hours: 1.0

Total hours for Year 3, Fall Pre-Teaching: 16

Benchmark Checkpoint

Spring Term - Developing Teaching

- EDUC 3101 - Practicum for Preservice Teachers Credit Hours: 1.0
- HIST X3XX - Upper Division Course Credit Hours: 3.0
- HIST 3380 - World Civilization Since 1500 Credit Hours: 3.0

- CUIN 4336 - Popular Culture in Education Credit Hours: 3.0 OR
- CUIN 4337 - Teaching Social Studies in Middle Grades for Generalists Credit Hours: 3.0

- CUIN 4315 - Assessment of Children Credit Hours: 3.0
- CUIN 3347 - Reading in the Content Area Credit Hours: 3.0

Total hours for Year 3, Spring Developing Teaching: 16
Benchmark Checkpoint

Fourth Year

Fall Term - Student Teaching 1

- CUIN 4336 - Popular Culture in Education **Credit Hours: 3.0** OR
- CUIN 4337 - Teaching Social Studies in Middle Grades for Generalists **Credit Hours: 3.0**
- CUIN 4375 - Classroom Management **Credit Hours: 3.0**
- CUIN 3302 - Social Education **Credit Hours: 3.0**
- EDUC 4324 - Student Teaching and Integrated Technology: Middle School **Credit Hours: 3.0**

Total hours for Year 4, Fall Student Teaching 1: 12

Benchmark Checkpoint

Spring Term - Student Teaching 2

- CUIN 4361 - Second Language Methodology **Credit Hours: 3.0**
- SPEC 3360 - Individuals with Disabilities **Credit Hours: 3.0**
- CUIN 3333 - Differentiating Curriculum, Instruction, & Assessment for Diverse Learners **Credit Hours: 3.0**
- EDUC 4325 - Student Teaching and Integrated Technology: Middle School **Credit Hours: 3.0**

Total hours for Year 4, Spring Student Teaching 2: 12

Benchmark Checkpoint

Total Hours for Degree: 120

Teaching and Learning Degree Plan, Bilingual Early Childhood - 6th Grade

First Year

Fall Semester

- ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- MATH 1311 - Elementary Mathematical Modeling **Credit Hours: 3.0**
- HIST 1377 - The U.S. To 1877 **Credit Hours: 3.0**
- CHEM 1301 - Foundations of Chemistry **Credit Hours: 3.0**
- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
- CUIN 1103 - Development of Educator Dispositions **Credit Hours: 1.0**
Total hours for Year 1, Fall: 16

Spring Semester

- ENGL 1304 - First Year Writing II  Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning  Credit Hours: 3.0
- HIST 1378 - The U.S. Since 1877  Credit Hours: 3.0
- BIOL 1310 - General Biology 1  Credit Hours: 3.0 OR
- BIOL 1320 - General Biology 2  Credit Hours: 3.0 (Science B)
- HDFS 1300 - Development of Contemporary Families  Credit Hours: 3.0 (WID)

Total hours for Year 1, Spring: 15

Second Year

Fall Semester

- CORE - Language, Philosophy & Culture: Approved Core Courses  Credit Hours: 3.0
- MATH 2311 - Introduction to Probability and Statistics  Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0
- GEOL 1330 - Physical Geology  Credit Hours: 3.0
- PSYC 2350 - Child Development  Credit Hours: 3.0 OR
- PSYC 1300 - Introduction to Psychology  Credit Hours: 3.0 OR
- HDFS 2317 - Introduction to Human Development and Interventions  Credit Hours: 3.0
- CORE - Creative Arts: Approved Core Courses  Credit Hours: 3.0

Total hours for Year 2, Fall: 18

Spring Semester

- CUII 2320 - Mathematics for Elementary and Middle School Teachers  Credit Hours: 3
- CUII 3302 - Social Education  Credit Hours: 3.0
- CORE - Life and Physical Sciences: Approved Core Courses  Credit Hours: 3.0
- SPAN 3307 - Public Speaking in Spanish  Credit Hours: 3.0
- SPAN 3301 - Spanish Oral Communication for Critical Thinking  Credit Hours: 3.0 OR
- HDFS 3300 - Introduction to Educational Psychology  Credit Hours: 3.0

Approved Education Related Elective:
Must be from the following list or approved by advisor.
- HDFS 1311 - Personal Development and College Success  Credit Hours: 3.0
- ARED 3305 - Art in Elementary Schools **Credit Hours: 3.0**
- HLT 3303 - Health of Elementary School Child **Credit Hours: 3.0**
- MUED 2342 - Music for Children **Credit Hours: 3.0**
- CUIN 4303 - Second Language Acquisition **Credit Hours: 3.0**
- CUIN 3333 - Differentiating Curriculum, Instruction, & Assessment for Diverse Learners **Credit Hours: 3.0**
- SPEC 4364 - Gifted and Talented Instruction **Credit Hours: 3.0**

Total hours for Year 2, Spring: 18

**Benchmark Checkpoint**

**Summer Semester 1**

- ELED 3320 - Survey of Literature for Children and Adolescents **Credit Hours: 3.0**

Total hours for Year 2, Summer: 3

**Third Year**

**Fall Semester - Pre-Teaching**

- CUIN 3316 - Prekindergarten Curriculum and Instruction **Credit Hours: 3.0**
- CUIN 3310 - Foundations of Bilingual Education **Credit Hours: 3.0**
- SPAN 3302 - Advanced Spanish for Non-Heritage Learners **Credit Hours: 3.0** OR
- SPAN 3308 - Written Communication for Hispanic Heritage Learners **Credit Hours: 3.0**
- CUIN 4375 - Classroom Management **Credit Hours: 3.0**
- ELED 3322 - Elementary Reading and Phonics Instruction **Credit Hours: 3.0**

Total hours for Year 3, Fall: Pre-Teaching: 15

**Benchmark Checkpoint**

**Spring Semester - Developing Teaching**

Spring starters would take one course in previous Winter mini.

- CUIN 3317 - Kindergarten and Elementary School Curriculum and Instruction **Credit Hours: 3.0**
- CUIN 4315 - Assessment of Children **Credit Hours: 3.0**
- ELED 4310 - Reading and Language Arts in the Elementary School **Credit Hours: 3.0**
- ELED 4311 - Science in the Elementary School **Credit Hours: 3.0**
- ELED 4320 - Social Studies in the Elementary School **Credit Hours: 3.0**
- EDUC 3101 - Practicum for Preservice Teachers **Credit Hours: 1.0**
Total hours for Year 3, Spring: Developing Teaching: 16

Benchmark Checkpoint

Summer Semester Program

- CUIN 3311 - Methods and Techniques in Bilingual Education Credit Hours: 3.0
- CUIN 4304 - Language Arts/Reading Methods in Spanish Credit Hours: 3.0

Total hours for Year 3, Summer: 6

Fourth Year

Fall Semester - Student Teaching 1

- CUIN 4332 - Literacy Assessment for Reading and Writing Credit Hours: 3.0 *
- EDUC 4511 - Student Teaching and Integrated Technology-Elementary Credit Hours: 5.0
- ELED 4314 - Mathematics in the Elementary School I Credit Hours: 3.0
- CUIN 3111 - Educational Technology for Elementary Teachers Credit Hours: 1.0

Total hours for Year 4, Fall: Student Teaching 1: 12

Benchmark Checkpoint

Spring Semester - Student Teaching 2

- EDUC 4512 - Student Teaching and Integrated Technology-Elementary Credit Hours: 5.0
- ELED 4312 - Science in the Elementary School II Credit Hours: 3.0
- ELED 4315 - Mathematics in the Elementary School II Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0

Total hours for Year 4, Spring: Student Teaching 2: 14

Benchmark Checkpoint

Note(s):

*Spring starters would take one course in previous Winter mini.

Total Hours for Degree: 133

Teaching and Learning Degree Plan, Early Childhood - 6th Grade
First Year

Fall Semester

- ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- MATH 1311 - Elementary Mathematical Modeling **Credit Hours: 3.0**
- HIST 1377 - The U.S. To 1877 **Credit Hours: 3.0**
- CHEM 1301 - Foundations of Chemistry **Credit Hours: 3.0**
- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
- CUIN 1103 - Development of Educator Dispositions **Credit Hours: 1.0**

Total hours for Year 1, Fall: 16

Spring Semester

- ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
- MATH 1312 - Introduction to Mathematical Reasoning **Credit Hours: 3.0**
- HIST 1378 - The U.S. Since 1877 **Credit Hours: 3.0**
- BIOL 1310 - General Biology 1 **Credit Hours: 3.0** OR
- BIOL 1320 - General Biology 2 **Credit Hours: 3.0**
- HDFS 1300 - Development of Contemporary Families **Credit Hours: 3.0**

Total hours for Year 1, Spring: 15

Second Year

Fall Semester

- CORE - Language, Philosophy & Culture: Approved Core Courses **Credit Hours: 3.0**
- MATH 2311 - Introduction to Probability and Statistics **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
- GEOL 1330 - Physical Geology **Credit Hours: 3.0**
- PSYC 1300 - Introduction to Psychology **Credit Hours: 3.0** OR
- PSYC 2350 - Child Development **Credit Hours: 3.0** OR
- HDFS 2317 - Introduction to Human Development and Interventions **Credit Hours: 3.0**

Total hours for Year 2, Fall: 15

Spring Semester
• CUIN 2320 - Mathematics for Elementary and Middle School Teachers Credit Hours: 3
• HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0
• Core - Visual & Creative Arts: Approved Core Courses Credit Hours: 3.0
• Core - Life and Physical Sciences: Approved Core Courses Credit Hours: 3.0

Approved Education Related Elective:
Must be from the following list or approved by advisor.
• HDFS 1311 - Personal Development and College Success Credit Hours: 3.0
• ARED 3305 - Art in Elementary Schools Credit Hours: 3.0
• HLT 3303 - Health of Elementary School Child Credit Hours: 3.0
• MUED 2342 - Music for Children Credit Hours: 3.0
• CUIN 4303 - Second Language Acquisition Credit Hours: 3.0
• CUIN 3333 - Differentiating Curriculum, Instruction, & Assessment for Diverse Learners Credit Hours: 3.0
• SPEC 4364 - Gifted and Talented Instruction Credit Hours: 3.0

Total hours for Year 2, Spring: 15

Benchmark Checkpoint

Third Year

Fall Semester - Pre-Teaching

• CUIN 3316 - Prekindergarten Curriculum and Instruction Credit Hours: 3.0
• CUIN 3111 - Educational Technology for Elementary Teachers Credit Hours: 1.0
• ELED 3320 - Survey of Literature for Children and Adolescents Credit Hours: 3.0
• CUIN 4375 - Classroom Management Credit Hours: 3.0
• CUIN 3302 - Social Education Credit Hours: 3.0
• ELED 3322 - Elementary Reading and Phonics Instruction Credit Hours: 3.0

Total hours for Year 3, Fall: Pre-Teaching: 16

Benchmark Checkpoint

Spring Semester - Developing Teaching*

• CUIN 3317 - Kindergarten and Elementary School Curriculum and Instruction Credit Hours: 3.0
• CUIN 4315 - Assessment of Children Credit Hours: 3.0
• ELED 4311 - Science in the Elementary School Credit Hours: 3.0
• ELED 4320 - Social Studies in the Elementary School Credit Hours: 3.0
• ELED 4310 - Reading and Language Arts in the Elementary School Credit Hours: 3.0
• EDUC 3101 - Practicum for Preservice Teachers Credit Hours: 1.0

Total hours for Year 3, Spring: Developing Teaching: 16
Benchmark Checkpoint

Fourth Year

Fall Semester - Student Teaching 1

- CUIN 4332 - Literacy Assessment for Reading and Writing Credit Hours: 3.0
- ELED 4314 - Mathematics in the Elementary School I Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
- EDUC 4511 - Student Teaching and Integrated Technology-Elementary Credit Hours: 5.0

Total hours for Year 4, Fall Student Teaching Res. 1: 14

Benchmark Checkpoint

Spring Semester - Student Teaching 2

- CUIN 4361 - Second Language Methodology Credit Hours: 3.0
- ELED 4312 - Science in the Elementary School II Credit Hours: 3.0
- ELED 4315 - Mathematics in the Elementary School II Credit Hours: 3.0
- EDUC 4512 - Student Teaching and Integrated Technology-Elementary Credit Hours: 5.0

Total hours for Year 4, Spring Student Teaching 2: 14

Benchmark Checkpoint

Note(s):

Total Hours for Degree: 121

Teaching and Learning Degree Plan, EC-6 Generalist/Special Education EC-12

First Year

Fall Semester

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1311 - Elementary Mathematical Modeling Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0
Total hours for Year 1, Fall: 12

Spring Semester

- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- BIOL 1310 - General Biology 1 Credit Hours: 3.0 OR
  BIOL 1320 - General Biology 2 Credit Hours: 3.0
- HDFS 1300 - Development of Contemporary Families Credit Hours: 3.0

Total hours for Year 1, Spring: 15

Second Year

Fall Semester

- Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
- MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- GEOL 1330 - Physical Geology Credit Hours: 3.0
- PSYC 1300 - Introduction to Psychology Credit Hours: 3.0 OR
  PSYC 2350 - Child Development Credit Hours: 3.0 OR
  HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0

Total hours for Year 2, Fall: 15

Spring Semester

- CUIN 2320 - Mathematics for Elementary and Middle School Teachers Credit Hours: 3
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- Life and Physical Sciences: Approved Core Courses Credit Hours: 3.0
- Creative Arts: Approved Core Courses Credit Hours: 3.0
- HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0

Total hours for Year 2, Spring: 15

Summer Semester

- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
- CUIN 3302 - Social Education Credit Hours: 3.0
Total hours for Year 2, Summer: 6

Benchmark Checkpoint

Third Year

Fall Semester - Pre-Teaching

- CUIN 3316 - Prekindergarten Curriculum and Instruction Credit Hours: 3.0
- CUIN 3111 - Educational Technology for Elementary Teachers Credit Hours: 1.0
- ELED 4310 - Reading and Language Arts in the Elementary School Credit Hours: 3.0
- CUIN 1103 - Development of Educator Dispositions Credit Hours: 1.0
- SPEC 3361 - Behavior: Interventions Credit Hours: 3.0
- SPEC 4363 - Instructional Interventions Credit Hours: 3.0

Total hours for Year 3, Fall: Pre-Teaching: 14

Benchmark Checkpoint

Spring Semester - Developing Teaching*

- CUIN 4315 - Assessment of Children Credit Hours: 3.0
- CUIN 3317 - Kindergarten and Elementary School Curriculum and Instruction Credit Hours: 3.0
- ELED 4311 - Science in the Elementary School I Credit Hours: 3.0
- ELED 4320 - Social Studies in the Elementary School Credit Hours: 3.0
- SPEC 4362 - Behavior: Evidence-Based Decisions Credit Hours: 3.0
- SPEC 4365 - Data-Based Individualization of Instruction Credit Hours: 3.0

Total hours for Year 3, Spring: Developing Teaching 18

Summer Semester

- SPEC 4353 - Technology in Special Populations Credit Hours: 3
- SPEC 4367 - Consultation Strategies and Coaching Credit Hours: 3
- EDUC 3101 - Practicum for Preservice Teachers Credit Hours: 1.0

Total hours for Year 3, Summer: 7

Benchmark Checkpoint

Fourth Year
Fall Semester - Student Teaching 1

- ELED 4314 - Mathematics in the Elementary School I  **Credit Hours: 3.0**
- CUIN 4332 - Literacy Assessment for Reading and Writing  **Credit Hours: 3.0**
- CUIN 4375 - Classroom Management  **Credit Hours: 3.0**
- EDUC 4511 - Student Teaching and Integrated Technology-Elementary  **Credit Hours: 5.0**

Total hours for Year 4, Fall: Student Teaching Res. 1: 14

Benchmark Checkpoint

Spring Semester - Student Teaching 2

- CUIN 4361 - Second Language Methodology  **Credit Hours: 3.0**
- ELED 4312 - Science in the Elementary School II  **Credit Hours: 3.0**
- ELED 4315 - Mathematics in the Elementary School II  **Credit Hours: 3.0**
- EDUC 4512 - Student Teaching and Integrated Technology-Elementary  **Credit Hours: 5.0**

Total hours for Year 4, Spring: Student Teaching 2: 14

Benchmark Checkpoint

Note(s):

Total Hours for Degree: 130

**Department of Educational Leadership and Policy Studies**

**Who's Who**

**Chair:**

Catherine Horn

**Professor:**

Catherine Horn, Augustina Reyes, Alexander Schilt, Paula Short, Yali Zou

**Associate Professor:**

Assistant Professor:


Emeritus Professor:

Robert Wimpelberg

Course Categories

The Department of Educational Leadership offers courses under the following headings: Cultural and Urban Studies Courses (CUST) and Special Populations (SPEC).

See the Graduate and Professional Studies catalog for graduate course listings, or consult the department for additional information.

Overview

The Department of Educational Leadership & Policy Studies (DELPS) in the College of Education at the University of Houston strives to be among the nation's premier departments of undergraduate and graduate study for the development, management, and evaluation of K-20 educational organizations. And as such, faculty and staff prepare aspiring educational leaders who will develop innovative, efficient, and socially just educational policy solutions through collaborative research, praxis, and practice activities. In addition, DELPS faculty and staff continuously maintain - and pursue - mutually beneficial school, district, college, university, legislative, and corporate partnerships to improve educational environments, organizations, and learning outcomes for all students.

DELPS is distinctive in many ways. We are located in the heart of Houston, Texas - one of the most dynamic cities in the United States and uniquely located near Austin, New Orleans, San Antonio, and the Texas Gulf Coast. Accordingly, this metropolitan area offers students rich urban and suburban environments in which to learn - as well as opportunities for international research and study. Accordingly, DELPS prides itself on the multiple forms of diversity embraced - and respected by our students, staff, faculty, and community - including multiple perspectives on age, culture, ethnicity, exceptionality, geographic origin, and professional experience.

Minor

Asian American Studies Minor

Asian American Studies (AAMS) offers an interdisciplinary minor which examines the diverse Asian American/Pacific Islander American experiences from historical, cultural, and political perspectives, including community development and contemporary issues. A minor in this field is becoming more important in building the cross-cultural and transnational understandings needed to be successful in 21st Century career pursuits involving the growing business, service industry, and education opportunities in Asian countries around the world. This prepares students for a variety of careers in counseling, human services, nursing, public administration, journalism, business, law and health professions, and for teaching careers in history, English political sciences, psychology, sociology and elementary education.

A minor in Asian American Studies provides students with concrete opportunities to interact with ethnically diverse members of the Asian and Asian American communities through local collaborations and the China Travel Study Abroad Program. Integrated topics include international communication skills, global leadership in education, Asian and Asian American health, issues, immigration, diaspora, and Chinese culture through literature, film, and media.
A minor in Asian American Studies requires a minimum of 15 credit hours: six hours Cultural Studies required courses plus a minimum of nine hours Cultural Studies elective and/or Social Studies elective courses. Nine of the 15 hours must be in residence, six (6) of which must be advanced. Students must have a 2.00 minimum cumulative grade point average in order to declare this minor. Students must earn a 2.00 minimum cumulative grade point average on courses attempted in the AAMS minor at the University of Houston.

Cultural Studies (Required)

All students are required to take the following two courses in this minor:

- AAMS 2300 - Introduction to Asian American Studies Credit Hours: 3.0
- AAMS 4300 - Asian American Cultures and Communities Credit Hours: 3.0

Cultural Studies (Electives)

In addition, students must successfully complete nine (9) semester hours to be taken from the Cultural Studies and/or Human and Social Sciences, from which at least 6 semester hours must be taken at the upper level 3000-4000. Students may choose from the following:

- AAMS 3310 - Asian American in Popular Culture Credit Hours: 3.0
- AAMS 3315 - Asian American Migration and Transnationalism Credit Hours: 3.0
- AAMS 3390 - Vietnamese American Experience Credit Hours: 3.0
- AAMS 4320 - Asian American Literature Credit Hours: 3.0
- AAMS 4321 - Vietnamese American Community and Ethnography Credit Hours: 3.0
- CUST 4397 - Sel Tops- Cultural Studies II Credit Hours: 3.0

Human and Social Sciences (Electives)

- ANTH 2302 - Introduction to Cultural Anthropology Credit Hours: 3.0
- ANTH 2304 - Introduction to Language and Culture Credit Hours: 3.0
- ANTH 3316 - Society and Culture of India Credit Hours: 3.0
- ANTH 4363 - Race, Racialization and the Politics of Culture Credit Hours: 3
- ARCH 3358 - History of Asian Arch and Art Credit Hours: 3.0
- CHNS 2301 - Intermediate Chinese I Credit Hours: 3.0
- CHNS 2302 - Intermediate Chinese II Credit Hours: 3.0
- CHNS 3350 - Chinese Culture Through Films Credit Hours: 3.0
- CHNS 3352 - Chinese Culture and Society Through Modern Literature Credit Hours: 3.0
- ENGL 2323 - Literature and Identity Credit Hours: 3.0
- ENGL 2325 - Literary Traditions of the Nonwestern World Credit Hours: 3.0
- ENGL 3358 - Hong Kong Cinema Credit Hours: 3.0
- ENGL 3380 - Modern Indian Literature Credit Hours: 3.0
- HIST 3395 - Sel Top-European Hist Credit Hours: 3.0
- HLT 3380 - Culture and Health Credit Hours: 3.0
- JPNS 2502 - Intermediate Japanese II Credit Hours: 5.0
- POLS 3323 - Introduction to the Government and Politics of India Credit Hours: 3.0
- PSYC 2380 - Introduction to Social Psychology Credit Hours: 3.0
- RELS 2340 - Introduction to Hinduism Credit Hours: 3.0
- RELS 2360 - Introduction to Buddhism Credit Hours: 3.0
• RELS 3380 - Introduction to Asian Religions **Credit Hours: 3.0**
• RELS 3381 - Global Hinduism **Credit Hours: 3.0**
• RELS 3382 - Politics and Religion in South Asia **Credit Hours: 3.0**
• SOC 3327 - Race and Ethnic Relations in the United States **Credit Hours: 3.0**
• SOC 3355 - Sociology of India **Credit Hours: 3.0**
• SOC 3362 - Sociology of Religion of India **Credit Hours: 3.0**
• SOC 3397 - Sel-Topics in Sociology **Credit Hours: 3**
• VIET 2301 - Intermediate Vietnamese I **Credit Hours: 3.0**
• VIET 2302 - Intermediate Vietnamese II **Credit Hours: 3.0**
• VIET 3300 - The Global Vietnamese Diaspora **Credit Hours: 3.0**
• VIET 3331 - Introduction to Vietnamese Culture: Modernity and Media of Imagining **Credit Hours: 3.0**
• WCL 3372 - Indian Film: Bollywood and Beyond **Credit Hours: 3.0**
• WCL 3397 - Selected Topics in World Cultures & Literature **Credit Hours: 3**

**Note(s):**

On occasion, new courses including selected topics will be added to the list as they are developed. Other appropriate courses may be approved for this minor by petition. These courses or special topics must contain or deal with issues relevant to Asian American Studies in order to be approved for the Minor.

**Special Populations Minor**

College of Education > Department of Educational Leadership and Policy Studies > Special Populations Minor

Students interested in a minor with coursework related to careers that support: individuals with disabilities (or those perceived to have disabilities); individuals who require greater levels of support as they age; or individuals who experience challenges with language, learning, social skills, or the effects of aging may pursue a Special Populations minor by meeting the following requirements:

**Degree Requirements**

**Credit hours required for this plan: 15.0**

15 semester credit hours, of which nine must be advanced (3000 or 4000 level), including six hours that must be completed in residence. Non-education majors seeking the Special Populations Minor must meet the same grade point average requirement as students changing their major to Teaching and Learning at the time of filing for the minor. Students must earn a 2.00 minimum cumulative grade point average on courses attempted in the Special Populations minor at the University of Houston.

- SPEC 3360 - Individuals with Disabilities **Credit Hours: 3.0**
- SPEC 4353 - Technology in Special Populations **Credit Hours: 3**
- SPEC 4362 - Behavior: Evidence-Based Decisions **Credit Hours: 3.0**
- SPEC 4363 - Instructional Interventions **Credit Hours: 3.0**
- SPEC 4367 - Consultation Strategies and Coaching **Credit Hours: 3**

**Department of Psychological, Health, and Learning Sciences**

*Formerly known as the Department of Educational Psychology*
Who's Who

Chair:
Lorraine R. Reitzel

Professors:
Consuelo Arbona, Jorge E. Gonzalez, Zenaida Aguire-Munoz, Roberta L. Nutt (Clinical), Ezemenari M. Obasi, Norma E. Olvera, Jonathan Schwartz, and Bradley H. Smith

Associate Professors:
Madelyn N. Coleman, Weihua Fan, Milena Keller-Margulis, Lorraine R. Reitzel, Nathan G. Smith, and Margit Wiesner

Assistant Professors:
Chakema Carmack, Toya Conston (Clinical), Virmarie Correa-Fernandez, Kelli Drenner (Clinical), Leslie A. Frankel, Sara Jolly-Jones, Erica Jordan (Clinical), Han Joe Kim, Yu Liu, Sarah S. Mire, Rosenda Murillo, Marcel de Dios, Saira Rab (Clinical), Ken Ripperger-Suhler (Clinical), Rachael Whitaker (Clinical), and Kayce Solari-Williams

Psychological, Health, and Learning Sciences Overview

The Department of Psychological, Health, and Learning Sciences offers undergraduate programs in Human Development and Family Studies and in Health.

A degree in Human Development and Family Studies (HDFS) provides an interdisciplinary approach to the study of family relationships and applied human development across the lifespan focusing on contexts in which individuals and families operate. Coursework in the Human Development and Family Studies program trains students both to understand the conceptual base of theories, applied research, and methods of psychology and to apply those fields of study to the processes of education and human development in practice and internships. The Human Development and Family Studies Program offers options for both a Bachelor of Science and a Bachelor of Arts. Students may also choose coursework leading to the Nonprofit Leadership Alliance Certificate, which prepares students for leadership in nonprofit enterprises or choose coursework that incorporates preparation for teacher certification.

The coursework for the BS in Health is designed for those students who wish to prepare as health educators in government, schools, agencies, patient-care, community or worksite settings. The major can also prepare students for application to health-related graduate programs such as medicine, pharmacy, optometry, physical therapy, occupational therapy, dentistry or public health. The program offers an undergraduate degree with three track options:

- Public Health
- Health Promotion or
- Health Promotion for Allied Health Professionals

Students with an assistant or associate degree in allied health (e.g., dental hygiene, respiratory therapy) are eligible to follow the BS in Health (Health Promotion for Allied Health Professionals). All three degree plans tracks address the competencies necessary for students to qualify for (CHES)
Certified Health Education Specialist. CHES competencies are generic to the practice of health promotion and health education, whether it takes place in schools, colleges, workplaces, health care settings, or other settings within a community.

In addition, the Health program offers the following Dual Degree Option:

BS in Health/MPH 4+1 Degree Program

- The University of Houston
- The University of Texas School of Public Health - Houston Campus

Public Health is the art and science of preventing disease, prolonging life and promoting health through organized community efforts. The overarching goal is to improve the health of the individual and population at large. 4+1 graduates will be prepared to enter many public health careers, such as: health educator, safety and health inspector, environmental health expert, risk assessor, and policy analyst just to name a few. MPH graduates work in both the public and private sectors and some continue onto doctoral-level programs in public health or other professional areas, such as medicine, dentistry or pharmacy. Through a program design allowing students to complete a defined program of graduate-level coursework during the last year of undergraduate studies, students in the 4+1 Program will be able to earn a Bachelor's degree with emphasis on Public Health and earn a Master's in Public Health within five total years, rather than the six years it would take separately.

The department emphasizes a prevention, intervention, and consultation approach that encourages students to develop skills that respond to the unique assessment, academic, and social needs of individuals in a variety of settings.

Major

Health, B.S.

Health Overview

Communities need increasing numbers of public health educators, health promotion specialists, and allied health professionals with a B.S. degree. Not only will recent healthcare reforms demand greater number of healthcare providers and educators, this need is exacerbated as a generation of health professionals are retiring. This program prepares students to meet the opportunity, with passionate and accomplished health faculty, who have extensive experience in health education and research in the areas of obesity, smoking prevention and treatment, HIV, and cardiovascular disease.

Students with a 2.3 cumulative UH GPA may declare a major in Health. The Bachelor of Science in Health offers three degree tracks: public health; health promotion; and health promotion for allied health professionals.

Public Health Track

This degree option provides courses required for entry-level public health jobs found in government agencies, health corporations, community non-profit organizations and health care facilities. The 15 hour Public Health Core, combined with a 15 hour Health Promotion Specialization and 9-15 hours of Health Electives offers numerous strong opportunities to public health majors for employment. It also provides a feeder-program for graduate study in our College of Education programs, local Schools of Public Health, and health professional schools in the Texas Medical Center and statewide.

Health Promotion Track

The Health Promotion Track consists of 18 hours of Core Health Promotion courses and 21 hours of Advanced Health Electives designed to provide the student with the flexibility to develop areas of individual competencies desirable for future employment. Socio-cultural, behavioral, psychological, and biological factors contributing to wellness and disease are emphasized. It is an ideal major for students interested in
public/community health practice, health behavior research, program planning and delivery, and pre-professional preparation for medicine, pharmacy, optometry, and dentistry.

Health Promotion Track For Allied Health Professionals

This Track consists of 21 hours of Health Promotion Core, 21 hours of health electives, and 15-18 hours of approved electives. Students who have completed a two-year Associate degree program in an allied health field (e.g., dental hygiene, respiratory therapy, health information technology, speech-language pathology assistant, nursing, occupational therapy assistant, pharmacy technician, radiologic technology, physical therapy) may transfer in University core course requirements and advisor-approved courses from their Allied Health Field. This curriculum provides a program that coordinates well with previous backgrounds and training and allows students to progress to a Bachelor's Degree.

All three tracks are designed to meet the coursework criteria for eligibility to become a CHES (Certified Health Education Specialist). The degree plans are based on the CHES national competencies which are generic to the practice of health promotion and health education, whether it takes place in schools, colleges, workplaces, health care settings, or other settings within a community.

Please see department advisor for more information.

The Bachelors of Science degree in Health offers three tracks from which students may choose:

Public Health Track Degree Plan

Academic Foundations (48 semester credit hours)

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- HIST 1377 - The U. S. To 1877 Credit Hours: 3.0
- HIST 1378 - The U. S. Since 1877 Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- Life & Physical Sciences Credit Hours: 3.0 *
- Life & Physical Sciences Credit Hours: 3.0 *
- MATH 1310 - College Algebra Credit Hours: 3.0
- Math Reasoning Credit Hours: 3.0 *
- Math Reasoning Credit Hours: 3.0 *
- Math Reasoning Credit Hours: 3.0 *
- WID (HDPS 1300 suggested) Credit Hours: 3.0 *
- Language, Philosophy & Culture Credit Hours: 3.0 *
- Creative Arts Credit Hours: 3.0 *

Note(s):

* Choose courses from the Core Curriculum List.

Public Health Core (24 semester credit hours)
• HLT 2320 - Introduction to Public Health Credit Hours: 3.0
• HLT 3301 - Health Behavior Theories: Concepts and Applications Credit Hours: 3.0
• HLT 3306 - Environmental Health Credit Hours: 3.0
• HLT 3380 - Culture and Health Credit Hours: 3.0
• HLT 3381 - Health Promotion and Disease Prevention Credit Hours: 3.0
• HLT 4307 - Research and Evaluation in Health Credit Hours: 3.0
• HLT 4317 - Foundations of Epidemiology in Public Health Credit Hours: 3.0
• HLT 4320 - Administration of Health Services Credit Hours: 3.0

Health Electives (18 semester credit hours, including a required Internship. 15 of these hours must be advanced.)

• HLT 1353 - Personal Health Credit Hours: 3.0
• HLT 2310 - Emergency Care & First Aid Credit Hours: 3.0
• HLT 3300 - Social Health and Wellness Credit Hours: 3.0
• HLT 3303 - Health of Elementary School Child Credit Hours: 3.0
• HLT 3304 - Adolescent Health Issues Credit Hours: 3.0
• HLT 4302 - Health Aspects of Human Sexuality Credit Hours: 3.0
• HLT 4303 - The Obesity Epidemic Credit Hours: 3.0
• HLT 4306 - Women's Health Issues Credit Hours: 3.0
• HLT 4308 - Understanding Cancer Credit Hours: 3.0
• HLT 4309 - Health Disparities Credit Hours: 3.0
• HLT 4310 - Program Planning for the Health Professions Credit Hours: 3.0
• HLT 4393 - Field Work in Community Health Credit Hours: 3.0
• HLT 4397 - Selected Topics in Health Credit Hours: 3.0

Note(s):

*Students completing the Public Health Core and Electives are eligible to become Certified Health Education Specialists.

Approved Electives

Approved Electives from related area (15-18 semester credit hours of which 9 must be advanced)

Minor

Minimum of 15 semester credit hours of which 9 must be advanced. See minor department for requirements.

Recommended minors: Biology, Nutrition, HDFS, Psychology, Asian American Studies

Total Hours for Degree: 121-123

Health Promotion Track Degree Plan
Academic Foundations (48 semester credit hours)

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- HIST 1377 - The U.S. To 1877 Credit Hours: 3.0
- HIST 1378 - The U.S. Since 1877 Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- Life & Physical Sciences Credit Hours: 3.0 *
- Life & Physical Sciences Credit Hours: 3.0 *
- MATH 1310 - College Algebra Credit Hours: 3.0
- Math Reasoning Credit Hours: 3.0 *
- Math Reasoning Credit Hours: 3.0 *
- Math Reasoning Credit Hours: 3.0 *
- WID (HDFS 1300 suggested) Credit Hours: 3.0 *
- Language, Philosophy & Culture Credit Hours: 3.0 *
- Creative Arts Credit Hours: 3.0 *

Note(s):

* Choose courses from the Core Curriculum List.

Health Promotion Core (21 semester credit hours)

- HLT 1353 - Personal Health Credit Hours: 3.0
- HLT 2320 - Introduction to Public Health Credit Hours: 3.0
- HLT 3301 - Health Behavior Theories: Concepts and Applications Credit Hours: 3.0
- HLT 3381 - Health Promotion and Disease Prevention Credit Hours: 3.0
- HLT 4307 - Research and Evaluation in Health Credit Hours: 3.0
- HLT 4310 - Program Planning for the Health Professions Credit Hours: 3.0
- HLT 4392 - Field Work in Community Health Credit Hours: 3.0

Health Electives (Select 21 semester credit hours.)

- HLT 2310 - Emergency Care & First Aid Credit Hours: 3.0
- HLT 3300 - Social Health and Wellness Credit Hours: 3.0
- HLT 3303 - Health of Elementary School Child Credit Hours: 3.0
- HLT 3304 - Adolescent Health Issues Credit Hours: 3.0
- HLT 3306 - Environmental Health Credit Hours: 3.0
- HLT 3380 - Culture and Health Credit Hours: 3.0
- HLT 4197 - Social Health Training Credit Hours: 3.0
- HLT 4302 - Health Aspects of Human Sexuality Credit Hours: 3.0
- HLT 4303 - The Obesity Epidemic Credit Hours: 3.0
- HLT 4306 - Women's Health Issues Credit Hours: 3.0
- HLT 4308 - Understanding Cancer Credit Hours: 3.0
• HLT 4309 - Health Disparities Credit Hours: 3.0
• HLT 4317 - Foundations of Epidemiology in Public Health Credit Hours: 3.0
• HLT 4320 - Administration of Health Services Credit Hours: 3.0
• HLT 4393 - Field Work in Community Health Credit Hours: 3.0
• HLT 4397 - Selected Topics in Health Credit Hours: 3.0

Approved Electives

Approved Electives (12-15 semester credit hours of which 9 must be advanced)

• COMM 2310 - Writing for Print and Digital Media Credit Hours: 3.0
• 9 advanced semester credit hours

Minor

Minimum of 15 semester credit hours of which 9 must be advanced. See minor department for requirements.

Recommended minors: Biology, Nutrition, HDFS, Psychology, Asian American Studies

Note(s):

Students completing the Health Promotion Track are eligible to become Certified Health Education Specialists.

Students with an associate's degree or certification in an Allied field should notify their Health advisor for degree options.

Total Hours for Degree: 120

Health Promotion Track for Allied Health Professionals Degree Plan

Academic Foundations (48 semester credit hours)

• ENGL 1303 - First Year Writing I Credit Hours: 3.0
• ENGL 1304 - First Year Writing II Credit Hours: 3.0
• HIST 1377 - The U S To 1877 Credit Hours: 3.0
• HIST 1378 - The U S Since 1877 Credit Hours: 3.0
• POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
• Life & Physical Sciences Credit Hours: 3.0 *
• Life & Physical Sciences Credit Hours: 3.0 *
• MATH 1310 - College Algebra Credit Hours: 3.0
• Math Reasoning Credit Hours: 3.0 *
• Math Reasoning Cr. 3. *
• Math Reasoning Credit Hours: 3.0 *
• WID (HDFS 1300 suggested) Credit Hours: 3.0 *
• Language, Philosophy & Culture Credit Hours: 3.0 *
• Creative Arts Credit Hours: 3.0 *

Note(s):

* Choose courses from the Core Curriculum List.

Health Promotion Core (21 semester credit hours)

- HLT 1353 - Personal Health Credit Hours: 3.0
- HLT 2320 - Introduction to Public Health Credit Hours: 3.0
- HLT 3301 - Health Behavior Theories: Concepts and Applications Credit Hours: 3.0
- HLT 3381 - Health Promotion and Disease Prevention Credit Hours: 3.0
- HLT 4307 - Research and Evaluation in Health Credit Hours: 3.0
- HLT 4310 - Program Planning for the Health Professions Credit Hours: 3.0
- HLT 4392 - Field Work in Community Health Credit Hours: 3.0

Health Electives (Select 21 semester credit hours.)

- HLT 2310 - Emergency Care & First Aid Credit Hours: 3.0
- HLT 3300 - Social Health and Wellness Credit Hours: 3.0
- HLT 3303 - Health of Elementary School Child Credit Hours: 3.0
- HLT 3304 - Adolescent Health Issues Credit Hours: 3.0
- HLT 3306 - Environmental Health Credit Hours: 3.0
- HLT 3380 - Culture and Health Credit Hours: 3.0
- HLT 4197 - Social Health Training Credit Hours: 3.0
- HLT 4302 - Health Aspects of Human Sexuality Credit Hours: 3.0
- HLT 4303 - The Obesity Epidemic Credit Hours: 3.0
- HLT 4306 - Women's Health Issues Credit Hours: 3.0
- HLT 4308 - Understanding Cancer Credit Hours: 3.0
- HLT 4309 - Health Disparities Credit Hours: 3.0
- HLT 4317 - Foundations of Epidemiology in Public Health Credit Hours: 3.0
- HLT 4320 - Administration of Health Services Credit Hours: 3.0
- HLT 4393 - Field Work in Community Health Credit Hours: 3.0
- HLT 4397 - Selected Topics in Health Credit Hours: 3.0

Allied Health Transfer Credits (12-30 Semester Credit Hours)

Transfer credits must be an Assistant or Associate degree in allied health from an accredited community college of university.

Optional Minor

15-18 semester credit hours of which 9 must be advanced *

Recommended minors: Biology, Nutrition, HDFS, Psychology, Asian American Studies
*May be advisor waived if sufficient allied health electives are transferred.

Note(s):

Students completing the Health Promotion Track for Allied Health Professionals are eligible to become Certified Health Education Specialists. Students with an associate’s degree or certification in an Allied field should notify their Health advisor for degree options.

Total Hours For Degree: 120

Human Development and Family Studies, B.A.

Overview

A Bachelor of Arts degree in Human Development and Family Studies (HDFS) provides a broadly based study of the intellectual, emotional, social, and moral development of individuals and families. HDFS graduates have a variety of opportunities available to them. Many students go on to graduate school in the fields of Social Work, Psychology, Education, Medicine, and Law.

Students with a 2.0 cumulative UH GPA may declare a major in Human Development and Family Studies.

UH Core Requirements

Communication

6.0 credit hours required

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0

Math/Reasoning

6.0 credit hours required

- MATH 1310 - College Algebra Credit Hours: 3.0
- Math Reasoning

Life & Physical Sciences

6.0 credit hours required

- Life and Physical Sciences: Approved Core Courses

Language, Philosophy & Culture

3.0 credit hours required
• Language, Philosophy & Culture: Approved Core Courses

Creative Arts

3.0 credit hours required

• Creative Arts: Approved Core Courses

American History/Government/Political Science

12.0 credit hours required

• HIST 1376 - The United States To 1877 Credit Hours: 3.0 or
• HIST 1377 - The U.S. To 1877 Credit Hours: 3.0

• HIST 1378 - The U.S. Since 1877 Credit Hours: 3.0 or
• HIST 1379 - The United States Since 1877 Credit Hours: 3.0

• POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Social and Behavioral Sciences

3.0 credit hours required

Suggested:

• HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0

Writing in the Disciplines

3.0 credit hours required

• HDFS 1300 - Development of Contemporary Families Credit Hours: 3.0

Foreign Language

6.0 credit hours required at 2000 Level

Diversity in Special Populations

6.0 credit hours required

• HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0
• SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
Major Core Requirements

39.0 credit hours required

- HDFS 1311 - Personal Development and College Success Credit Hours: 3.0
- HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0
- HDFS 2320 - Research Methods in Human Development & Family Studies Credit Hours: 3.0
- HDFS 3350 - Observation and Assessment of Children and Adolescents Credit Hours: 3.0
- HDFS 4315 - Culture and Diversity in Human Development Credit Hours: 3.0
- HDFS 4318 - Parent-Child Relationships Credit Hours: 3.0
- HDFS 4325 - Theory to Practice in Human Development and Family Studies Credit Hours: 3.0
- HDFS 4393 - Internship in Human Development & Family Studies Credit Hours: 3.0
- HDFS 4394 - Internship in Human Development & Family Studies Credit Hours: 3.0 (300 hours)
- HDFS Elective (any level course with HDFS prefix)
- HDFS Elective (any level course with HDFS prefix)
- HDFS Elective (any level course with HDFS prefix)

Area Electives

12.0 credit hours required

Students must choose 12 hours from the approved list of area electives or receive approval for classes through petition. The approved list of electives is maintained on the College of Education website at: http://www.uh.edu/education/degree-programs/hdfs-major/degree-plans/

Minor/Specialization

Minimum 15.0 credit hours required

Total Hours for Degree: 120+

Human Development and Family Studies, B.S.

Overview

A Bachelor of Science degree in Human Development and Family Studies (HDFS) provides a broadly based study of the intellectual, emotional, social, and moral development of individuals and families. HDFS graduates have a variety of opportunities available to them. Many students go on to graduate school in the fields of Social Work, Psychology, Education, Medicine, and Law.

Students with a 2.0 cumulative UH GPA may declare a major in Human Development and Family Studies.

UH Core Requirements

Communication
6.0 credit hours required

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0

Math/Reasoning

12.0 credit hours required

- MATH 1310 - College Algebra Credit Hours: 3.0 or
- MATH 1311 - Elementary Mathematical Modeling Credit Hours: 3.0

Life & Physical Sciences

6.0 credit hours required

- Life and Physical Sciences: Approved Core Courses

Language, Philosophy & Culture

3.0 credit hours required

- Language, Philosophy & Culture: Approved Core Courses

Creative Arts

3.0 credit hours required

- Creative Arts: Approved Core Courses

American History/Government/Political Science

12.0 credit hours required

- HIST 1376 - The United States To 1877 Credit Hours: 3.0 or
- HIST 1377 - The U S To 1877 Credit Hours: 3.0

- HIST 1378 - The U S Since 1877 Credit Hours: 3.0 or
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0

- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
Social and Behavioral Sciences

3.0 credit hours required

Suggested:

- HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0

Writing in the Disciplines

3.0 credit hours required

- HDFS 1300 - Development of Contemporary Families Credit Hours: 3.0

Diversity in Special Populations

6.0 credit hours required

- HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0

Major Core Requirements

39.0 credit hours required

- HDFS 1311 - Personal Development and College Success Credit Hours: 3.0
- HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0
- HDFS 2320 - Research Methods in Human Development & Family Studies Credit Hours: 3.0
- HDFS 3350 - Observation and Assessment of Children and Adolescents Credit Hours: 3.0
- HDFS 4315 - Culture and Diversity in Human Development Credit Hours: 3.0
- HDFS 4318 - Parent-Child Relationships Credit Hours: 3.0
- HDFS 4325 - Theory to Practice in Human Development and Family Studies Credit Hours: 3.0
- HDFS 4393 - Internship in Human Development & Family Studies Credit Hours: 3.0 (300 hours)
- HDFS Elective (any level course with HDFS prefix)
- HDFS Elective (any level course with HDFS prefix)
- HDFS Elective (any level course with HDFS prefix)
- HDFS Elective (any level course with HDFS prefix)

Area Electives

15.0 credit hours required

Students must choose 15 hours from the approved list of area electives or receive approval for classes through petition. The approved list of electives is maintained on the College of Education website: at http://www.uh.edu/education/degree-programs/hdfs-major/degree-plans/
Minor/Specialization

*Minimum of 15.0 credit hours required*

**Recommendations:** Modern Language, Psychology, Health, Interpersonal Communication, Asian-American Studies

Total Hours for Degree: 120+

**Human Development and Family Studies, B.S. - with EC-6 Generalist Certification**

**Overview**

A Bachelor of Science degree in Human Development and Family Studies (HDFS) provides a broadly based study of the intellectual, emotional, social, and moral development of individuals and families. HDFS graduates have a variety of opportunities available to them. Many students go on to graduate school in the fields of Social Work, Psychology, Education, Medicine, and Law.

Undergraduates in Human Development and Family Studies prepare for the following teacher certifications in the State of Texas through the UH Teacher Education Program.

Students with 2.0 cumulative UH GPA may declare a major in Human Development and Family Studies.

**Degree Requirements**

Degree Total: 121.0 Credit Hours

**First Year**

**Fall Semester**

*15.0 credit hours required*

- ENGL 1303 - First Year Writing I  Credit Hours: 3.0
- MATH 1311 - Elementary Mathematical Modeling  Credit Hours: 3.0
- HIST 1377 - The U S To 1877  Credit Hours: 3.0
- CHEM 1301 - Foundations of Chemistry  Credit Hours: 3.0 (Sciences A)
- HDFS 2317 - Introduction to Human Development and Interventions  Credit Hours: 3.0

**Spring Semester**

*15.0 credit hours required*

- ENGL 1304 - First Year Writing II  Credit Hours: 3.0
- MATH 1312 - Introduction to Mathematical Reasoning  Credit Hours: 3.0
- HIST 1378 - The U S Since 1877  Credit Hours: 3.0
- BIOL 1310 - General Biology 1  Credit Hours: 3.0 (Science B)
• HDFS 1300 - Development of Contemporary Families  
  **Credit Hours: 3.0** (WID)

Second Year

Fall Semester

18.0 credit hours required

- MATH 2311 - Introduction to Probability and Statistics  
  **Credit Hours: 3.0** (Component Area Option/Math 3)
- POLS 1336 - U.S. and Texas Constitution and Politics  
  **Credit Hours: 3.0**
- Core Language, Philosophy & Culture  
  **Credit Hours: 3.0**
- GEOL 1330 - Physical Geology  
  **Credit Hours: 3.0**
- HDFS 3318 - Human Ecol of Adult Developmt  
  **Credit Hours: 3.0**
- ELED 3322 - Elementary Reading and Phonics Instruction  
  **Credit Hours: 3.0**

Spring Semester

15.0 credit hours required

- CUIIN 2320 - Mathematics for Elementary and Middle School Teachers  
  **Credit Hours: 3**
- POLS 1337 - U.S. Government: Congress, President, and Courts  
  **Credit Hours: 3.0**
- Core Life and Physical Sciences  
  **Credit Hours: 3.0**
- Core Creative Arts  
  **Credit Hours: 3.0**
- CUIIN 3302 - Social Education  
  **Credit Hours: 3.0**

Third Year

Fall Semester - Pre-Teaching

13.0 credit hours required

- CUIIN 1103 - Development of Educator Dispositions  
  **Credit Hours: 1.0**
- CUIIN 3316 - Prekindergarten Curriculum and Instruction  
  **Credit Hours: 3.0**
- HDFS 3300 - Introduction to Educational Psychology  
  **Credit Hours: 3.0**
- HDFS 4318 - Parent-Child Relationships  
  **Credit Hours: 3.0**
- CUIIN 4375 - Classroom Management  
  **Credit Hours: 3.0**

Benchmark Checkpoint

Spring Semester - Developing Teaching *

16.0 credit hours required

- CUIIN 3317 - Kindergarten and Elementary School Curriculum and Instruction  
  **Credit Hours: 3.0**
- CUIIN 4315 - Assessment of Children  
  **Credit Hours: 3.0**
- ELED 4311 - Science in the Elementary School  
  **Credit Hours: 3.0**
Benchmark Checkpoint

Fourth Year

Fall Semester - Teaching Residency 1

15.0 credit hours required

- CUIN 4332 - Literacy Assessment for Reading and Writing Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0
- ELED 4314 - Mathematics in the Elementary School I Credit Hours: 3.0
- HDFS 4316 - Dynamics of Family Relationships Credit Hours: 3.0
- EDUC 4311 - Student Teaching and Integrated Technology: Elementary Credit Hours: 3.0

Benchmark Checkpoint

Spring Semester - Student Teaching Residency 2

14.0 credit hours required

- CUIN 4361 - Second Language Methodology Credit Hours: 3.0
- ELED 4312 - Science in the Elementary School II Credit Hours: 3.0
- ELED 4315 - Mathematics in the Elementary School II Credit Hours: 3.0
- EDUC 4512 - Student Teaching and Integrated Technology-Elementary Credit Hours: 5.0

Benchmark Checkpoint

Note(s):

*Spring starters would take one course in previous Winter mini.

Human Development and Family Studies, B.S. - with Nonprofit Leadership Alliance Certification

Overview

A Bachelor of Science degree in Human Development and Family Studies (HDFS) provides a broadly based study of the intellectual, emotional, social, and moral development of individuals and families. HDFS graduates have a variety of opportunities available to them. Many students go on to graduate school in the fields of Social Work, Psychology, Education, Medicine, and Law.
Students may also choose to take courses to prepare them for the Nonprofit Leadership Alliance Certificate which prepares students to manage nonprofit organizations.

Students with a 2.0 cumulative UH GPA may declare a major in Human Development and Family Studies.

**Degree Requirements**

**Degree Total: 120.0 Credit Hours**

**UH Core Requirements**

**Communication**

*6.0 credit hours required*

- ENGL 1303 - First Year Writing | **Credit Hours: 3.0**
- ENGL 1304 - First Year Writing II | **Credit Hours: 3.0**

**Math/Reasoning**

*12.0 credit hours required*

- MATH 1310 - College Algebra | **Credit Hours: 3.0** or
- MATH 1311 - Elementary Mathematical Modeling | **Credit Hours: 3.0**

- Math Reasoning
- Math Reasoning
- Math Reasoning

**Life & Physical Sciences**

*6.0 credit hours required*

**Language, Philosophy & Culture**

*3.0 credit hours required*

**Creative Arts**

*3.0 credit hours required*

**American History/Government/Political Science**

*12.0 credit hours required*

- HIST 1376 - The United States To 1877 | **Credit Hours: 3.0** or
• HIST 1377 - The U S To 1877  Credit Hours: 3.0

• HIST 1378 - The U S Since 1877  Credit Hours: 3.0 or
• HIST 1379 - The United States Since 1877  Credit Hours: 3.0

• POLS 1336 - U.S. and Texas Constitution and Politics  Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0

Social and Behavioral Sciences

3.0 credit hours required

suggested:

• HDFS 2317 - Introduction to Human Development and Interventions  Credit Hours: 3.0

Writing in the Disciplines

3.0 credit hours required

• HDFS 1300 - Development of Contemporary Families  Credit Hours: 3.0

Diversity in Special Populations

6.0 credit hours required

• HDFS 3300 - Introduction to Educational Psychology  Credit Hours: 3.0
• SPEC 3360 - Individuals with Disabilities  Credit Hours: 3.0

Major Core Requirements

36.0 credit hours required

• HDFS 1311 - Personal Development and College Success  Credit Hours: 3.0
• HDFS 2317 - Introduction to Human Development and Interventions  Credit Hours: 3.0
• HDFS 2320 - Research Methods in Human Development & Family Studies  Credit Hours: 3.0
• HDFS 3350 - Observation and Assessment of Children and Adolescents  Credit Hours: 3.0
• HDFS 4315 - Culture and Diversity in Human Development  Credit Hours: 3.0
• HDFS 4318 - Parent-Child Relationships  Credit Hours: 3.0
• HDFS 4393 - Internship in Human Development & Family Studies  Credit Hours: 3.0
• HDFS 4394 - Internship in Human Development & Family Studies  Credit Hours: 3.0 (480 hours)
• HDFS Elective
• HDFS Elective
• HDFS Elective
• Health Elective

Area Electives
15.0 credit hours required

Students must choose 15 hours from the approved list of area electives or receive approval for classes through petition.

Nonprofit Leadership Alliance

12.0 credit hours required

- SOCW 3330 - Nonprofit Financial Management Credit Hours: 3.0
- SOCW 3354 - Nonprofit Management Credit Hours: 3.0
- MARK 3336 - Introduction to Marketing Credit Hours: 3.0 or
- COMM 3368 - Principles of Public Relations Credit Hours: 3.0

Note(s):

Additional workshops, non-credit classes, and experiential skill building sessions required; contact the NLA program: www.sw.uh.edu/academics/nonprofit-leaders/certified/index.php

Free Electives

6.0 credit hours required

Double Major

Human Development and Family Studies, B.S. - with Double Major

Overview

A Bachelor of Science degree in Human Development and Family Studies (HDFS) provides a broadly based study of the intellectual, emotional, social, and moral development of individuals and families. HDFS graduates have a variety of opportunities available to them. Many students go on to graduate school in the fields of Social Work, Psychology, Education, Medicine, and Law.

Students with a 2.0 UH GPA may declare a major in Human Development and Family Studies.

Degree Requirements

Degree Total: 120.0 Credit Hours

UH Core Requirements

Communication

6.0 credit hours required

- ENGL 1303 - First Year Writing Credit Hours: 3.0
• ENGL 1304 - First Year Writing II **Credit Hours: 3.0**

Math/Reasoning

12.0 credit hours required

• MATH 1310 - College Algebra **Credit Hours: 3.0** or
• MATH 1311 - Elementary Mathematical Modeling **Credit Hours: 3.0**

Math Reasoning
- Math Reasoning
- Math Reasoning
- Math Reasoning

Life & Physical Sciences

6.0 credit hours required

• Life and Physical Sciences: Approved Core Courses

Language, Philosophy & Culture

3.0 credit hours required

• Language, Philosophy & Culture: Approved Core Courses

Creative Arts

3.0 credit hours required

• Creative Arts: Approved Core Courses

American History/Government/Political Science

12.0 credit hours required

• HIST 1376 - The United States To 1877 **Credit Hours: 3.0** or
• HIST 1377 - The U S To 1877 **Credit Hours: 3.0**

• HIST 1378 - The U S Since 1877 **Credit Hours: 3.0** or
• HIST 1379 - The United States Since 1877 **Credit Hours: 3.0**

• POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Social and Behavioral Sciences

3.0 credit hours required
Suggested:

- HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0

Writing in the Disciplines

3.0 credit hours required

- HDFS 1300 - Development of Contemporary Families Credit Hours: 3.0

Diversity in Special Populations

6.0 credit hours required

- HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0
- SPEC 3360 - Individuals with Disabilities Credit Hours: 3.0

Major Core Requirements

36.0 credit hours required

- HDFS 1311 - Personal Development and College Success Credit Hours: 3.0
- HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0
- HDFS 2320 - Research Methods in Human Development & Family Studies Credit Hours: 3.0
- HDFS 3350 - Observation and Assessment of Children and Adolescents Credit Hours: 3.0
- HDFS 4315 - Culture and Diversity in Human Development Credit Hours: 3.0
- HDFS 4318 - Parent-Child Relationships Credit Hours: 3.0
- HDFS 4325 - Theory to Practice in Human Development and Family Studies Credit Hours: 3.0
- HDFS 4393 - Internship in Human Development & Family Studies Credit Hours: 3.0
- HDFS 4394 - Internship in Human Development & Family Studies Credit Hours: 3.0 (300 hours)
- HDFS Elective (any level course with HDFS prefix)
- HDFS Elective (any level course with HDFS prefix)
- HDFS Elective (any level course with HDFS prefix)

Area Electives

15.0 credit hours required

Students must choose 15 hours from the approved list of area electives or receive approval for classes through petition. The approved list of electives is maintained on the College of Education website at: http://www.uh.edu/education/degree-programs/hdfs-major/degree-plans/.

Secondary Major Requirements

Minimum 30.0 credit hours required

See secondary major department for major requirements. Students with a double major cannot receive a certificate to teach.
Minor

Health Minor

The 15 hour minor in Health, reflecting renewed interest in wellness, health promotion and allied health careers, blends with majors in the natural and social sciences. The minor, open to all students, would be especially appropriate for the following majors: Allied Health, Biology, Biochemical and Biophysical Sciences, Chemistry, Education, Human Development and Consumer Sciences, Kinesiology, Political Science, Psychology, and Sociology.

A total of 15.0 credit hours are required,

- 9.0 must be advanced,
- at least 6.0 of the 9.0 advanced credit hours must be taken in residence.

GPA Requirements

- must have a 2.00 minimum cumulative GPA in order to declare this minor
- must earn a 2.00 minimum cumulative GPA on courses attempted in the minor.

Required Courses:

- HLT 1353 - Personal Health Credit Hours: 3.0
- HLT 2320 - Introduction to Public Health Credit Hours: 3.0
- HLT 3301 - Health Behavior Theories: Concepts and Applications Credit Hours: 3.0
- HLT 3381 - Health Promotion and Disease Prevention Credit Hours: 3.0
- And three hours selected from junior or senior level Health courses.

Human Development and Family Studies, Minor

A total of 15.0 credit hours are required

- 9.0 of which must be advanced
- at least 6.0 of the 9.0 advanced credit hours must be taken in residence.

GPA Requirements

- Students must have a minimum cumulative UH grade point average of 2.0 to declare this minor.
- Students must earn a 2.00 minimum cumulative grade point average on courses attempted in the minor.

Human Development and Family Studies

- HDFS 1300 - Development of Contemporary Families Credit Hours: 3.0
- HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0

Nine semester hours to be selected from the following:

- HDFS 3317 - Prenatal and Infant Development Credit Hours: 3.0
- HDFS 3318 - Human Ecology of Adult Development Credit Hours: 3.0
- HDFS 3350 - Observation and Assessment of Children and Adolescents **Credit Hours: 3.0**
- HDFS 4316 - Dynamics of Family Relationships **Credit Hours: 3.0**
- HDFS 4317 - Introduction to Early Childhood Development **Credit Hours: 3.0**
- HDFS 4318 - Parent-Child Relationships **Credit Hours: 3.0**
- HDFS 4320 - Evaluation of Programs for Children and Families **Credit Hours: 3.0**
- HDFS 4397 - Selected Topics in Hdfs **Credit Hours: 3.0** (Topics in Family Studies only)
- HDFS 3300 - Introduction to Educational Psychology **Credit Hours: 3.0**
- SPEC 3360 - Individuals with Disabilities **Credit Hours: 3.0**
Cullen College of Engineering

Contact Information

<table>
<thead>
<tr>
<th>Department</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Engineering Undergraduate Programs</td>
<td>713-743-4200</td>
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<tr>
<td>Department of Chemical and Biomolecular Engineering</td>
<td>713-743-4300</td>
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<tr>
<td>Department of Civil and Environmental Engineering</td>
<td>713-743-4250</td>
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<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>713-743-4400</td>
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<td>Department of Industrial Engineering</td>
<td>713-743-4180</td>
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<tr>
<td>Department of Mechanical Engineering</td>
<td>713-743-4500</td>
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<tr>
<td>Department of Petroleum Engineering</td>
<td>713-743-6103</td>
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<tr>
<td>Communications</td>
<td>713-743-4217</td>
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<tr>
<td>Composites Engineering Applications Center</td>
<td>713-743-5053</td>
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<td>Continuing Education</td>
<td>713-743-4233</td>
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<td>Cooperative Education</td>
<td>713-743-4230</td>
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<td>Corporate Outreach and Development</td>
<td>713-743-4216</td>
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<tr>
<td>Engineering Career Center</td>
<td>713-743-4230</td>
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<tr>
<td>Houston InfoComm Technology Center</td>
<td>713-743-1279</td>
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<tr>
<td>Information Systems and Services</td>
<td>713-743-4241</td>
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<tr>
<td>PROMES Office</td>
<td>713-743-4222</td>
</tr>
<tr>
<td>Web site</td>
<td><a href="https://www.egr.uh.edu/">https://www.egr.uh.edu/</a></td>
</tr>
</tbody>
</table>

Dean:
Joseph W. Tedesco, Ph.D., Lehigh University

Director of the Division of Undergraduate Programs and Student Success:
Frank J. "Fritz" Claydon, Ph.D., Duke University

Associate Dean:
Engineers devise creative applications of scientific principles for the betterment of society through technological development. They do this by discovering methods of transforming resources into useful products, systems, and services that are used in every facet of life: housing, transportation, space exploration, medicine, manufacturing and automation, and communications. The marvels of engineering are everywhere.

An engineer bridges the gap between basic scientific research and industrial applications, helping to bring innovative ideas into society to benefit everyone.

Objectives

The college faculty strives to prepare students for their role as productive members of society by providing a comprehensive education.

Students first master the scientific principles upon which engineering is based and then examine the industrial and social structure that regulates the application of science to community life. Most important, they experience engineering and its creative nature as part of the learning process.

Recipients of a Bachelor of Science in Engineering have many options: employment in industry or government; further education in fields such as engineering, law, medicine, business, sales, management, and more. Engineering is the only undergraduate program that introduces students to such diverse studies as mathematics, pure and applied sciences, engineering sciences, synthesis, systems design, social sciences, and humanities and fine arts.

A comprehensive education is required for engineers. Engineering challenges are more complex, require a greater sophistication of skills, and will affect people even more directly than in the past. Engineers must be able to marshal their skills to grapple with legal, environmental, humanistic, political, social, and economic concerns.

Major issues addressed by engineers include pollution and hazardous waste management, energy resources and enhanced oil recovery, transportation, housing, and product safety. High-tech areas such as superconductivity and space-related research will hold engineers’ attention for some time to come. In order to successfully solve the many challenges facing society, engineers must receive an education that informs, stimulates, and provides practical experience. The Cullen College of Engineering provides that education.

Honor Societies

The Cullen College of Engineering has six honor societies. They are described below:

Alpha Pi Mu

Industrial Engineering Honor Society. Initiates are required to be in the top one-fifth of their class as juniors and the top one-third as seniors.

Chi Epsilon

Civil Engineering Honor Society. Initiates are required to be at least of junior standing in civil engineering and to be in the upper one-third of their class.
Eta Kappa Nu

Electrical Engineering Honor Society. Initiates are required to have a 3.00 minimum grade point average and to be at least of junior standing in electrical engineering.

Omega Chi Epsilon

Chemical Engineering Honor Society. Initiates are required to have a 3.25 minimum grade point average as a junior and a 3.00 minimum grade point average as a senior.

Pi Tau Sigma

Mechanical Engineering Honor Society. Initiates are required to have a 3.25 minimum grade point average as a junior and a 3.00 minimum grade point average as a senior.

Tau Beta Pi

National Engineering Honor Society. Initiates must be in the top eighth of their class with junior ranking or the top fifth of their class with senior ranking. Initiates are required to have a 3.25 minimum grade point average as a junior and a 3.00 minimum grade point average as a senior. There are also certain class requirements that must be met depending upon the students specific major.

Student Organizations

Because student organizations play an important part in helping students to become responsible members of their profession and the university, all students are encouraged to become active members. The following organizations are open to engineering students in good standing:

- American Institute of Chemical Engineers - Student Chapter
- American Society of Civil Engineers - Student Chapter
- Institute of Electrical and Electronics Engineers - Student Branch
- Institute of Industrial Engineers - Student Chapter
- American Society of Mechanical Engineers - Student Section
- Society of Automotive Engineers - Student Chapter
- Society of Women Engineers - Student Chapter
- M.A.E.S. - Mexican American Engineering Society
- N.S.B.E. - National Society of Black Engineers
- S.H.P.E. - Society of Hispanic Professional Engineer
- SPE - Society of Petroleum Engineers
- AADE - American Association of Drilling Engineers

Scholarships

The college awards four-year scholarships based on academic performance in amounts ranging from $500 to $5,000 per year for beginning students. Currently enrolled and transfer students may also be eligible for college awards and for other scholarships through their major departments. Applications for engineering scholarships are available at https://www.egr.uh.edu/academics/scholarships or by calling 713-743-4200.

Accreditation
The undergraduate programs in biomedical, chemical, civil, computer, electrical, industrial, mechanical and petroleum engineering are accredited by the Engineering Accreditation Commission of ABET http://www.abet.org/.

For more detailed information on accreditation regarding the Cullen College of Engineering, please visit http://career.egr.uh.edu/.

Facilities

Engineering Educational Resource Center

The Engineering Educational Resource Center (EERC) is a technology support unit on campus for students, faculty, and staff. The EERC strives to anticipate and proactively meet the technology needs of the engineering community and provide superior customer service. The EERC:

- assists faculty in the application of educational technologies to curriculum development and both face-2-face and online course delivery
- researches and designs processes and applications to meet specific needs and objectives
- communicates and assists with IT and distance education grants and additional sources of funding
- administers the Mediasite Lecture Capture system for the College
- introduces new classroom technologies
- serves as liaison for lecture-capture classroom technology upgrades
- provides technology-related training to students, faculty and staff
- converts instructors' handwritten notes into electronic format for use in face-to-face and online course development
- serves as liaison for IT and Blackboard support issues.

Engineering students have access to a number of computer laboratories on campus, and each provides a different level of service.

The Engineering Computing Center (ECC) includes 124 computers, a scanner, and printers. It is open 7 days a week with extended hours during peak periods.

The M.D. Anderson Library's computer facilities include approximately 250 computers with free printing; it is open 7 days a week throughout the term and expands its hours to 24 hours a day during peak periods.

Central Site Computing, located in the Social Work Building has over 150 computers, scanners and printers and is open 24 hours a day, 7 days a week.

The Engineering Dedicated Teaching Lab, including the Engineering Educational Resource Center and Instructional Laboratory, has 28 computers. It is designed to be the primary lab for hands-on training for classroom instruction, provides special software applications for students and faculty, and can be used for just-in-time training for College staff. This lab is open to all Engineering students when not reserved for special training.

The Director of Education Technology, Instructional Designer, and graduate technology assistants have offices in the Educational Resource Center and are available to assist faculty and students with any technology needs, while they also conduct special software training classes, and serve as a resource to help students understand and utilize the various technologies available at the university.

Engineering Computing

The goal of the Engineering Computing operation is to provide an excellent educational computing environment for undergraduate and graduate students in the College of Engineering, and for students in other colleges who are taking courses offered by departments that require computer resources. Access for graduate students is primarily for those who are not engaged in M.S. and Ph.D. thesis and dissertation research. Faculty
advisors have the responsibility to obtain funding for research computing done by them and their students from research grant resources that are usually available for such support.

The Engineering Computing Center (ECC) is the College's largest open lab with 124 computer workstations, a scanner, and secure printers. A variety of software applications are available to provide a quality undergraduate education.

The ECC is open 7 days a week (M-Th 8:00 am-11:00 p.m., Fri 8:00 a.m.-10:00 p.m., and Sat-Sun 12:00 noon-7:00 p.m.).

The Engineering Educational Resource Center and Instructional Lab has 28 computers and is designed to be an open lab when not reserved for direct instruction of students and faculty/staff training. The lab is open 5 days a week (M-Th 9:30 a.m.-5:30 p.m. and Fri 9:30 a.m.-4:00 p.m.).

**Fields of Study**

**Biomedical Engineering**

Biomedical engineering is the application of engineering and technology to the life sciences.

It involves the development of tools for studying new areas in biology or physiology, research into new methods for diagnosing disease, and helping improve therapies for treatment of disease.

The field of biomedical engineering encompasses traditional areas such as bioinstrumentation and biomechanics as well as exciting new areas such as tissue engineering and biosensors.

Students with a bachelor's degree in biomedical engineering have a broad range of career paths. They can work for a biotechnology or medical device company or pursue graduate degrees in medicine, law, biomedical sciences, or biomedical engineering.

Only within the last several decades has biomedical engineering become recognized as a separate academic discipline and it continues to rapidly evolve and expand. Although based on fundamental principles in the natural sciences and mathematics, it integrates these with sound engineering precepts to tackle problems in biology and medicine. It seeks to employ the experimental and analytical methods of engineering to the study of living systems. This involves such issues as: development of biological materials and implants; study of processes for the prevention, diagnosis and treatment of disease; and development of new methods and techniques for patient rehabilitation and health monitoring.

The demand for biomedical engineers is expected to continue to grow rapidly over the next decade. This is due in part to the aging of the U.S. population and its increasing demand for better medical devices and systems for diagnosis and treatment of diseases. There is a strong need for more proactive health care. Increasingly sophisticated equipment and procedures will fuel an increased requirement for biomedical engineers.

**Mission Statement**

In addition to providing our students with a strong background in engineering, mathematics, and biological science, our Biomedical Engineering Program mission focuses on educating students to prepare them for opportunities in the areas of improved health care delivery and better home health care monitoring through noninvasive home health prognostics to anticipate and track major health pathologies.

The curriculum is designed to establish a fundamental understanding of the life and engineering sciences and enable the synthesis of these sciences though the introduction of new courses directed toward biosensing and bioanalytics, and thus to educate the next generation of engineers/scientists/physicians who could eventually help move health care monitoring to our homes and allow people to better manage their health.

The strong University of Houston academic departments in physics, chemistry, biology, mathematics, and computer sciences as well as in chemical, mechanical and electrical and computer engineering, and a faculty with significant biomedical engineering research activity provide an excellent supportive environment for our Biomedical Engineering Program.
This interdisciplinary curriculum will provide participating students with a basic understanding of the life sciences, a mastery of engineering logic, tools and approaches, the ability to make and interpret quantitative measurements in living systems, the ability to use modeling techniques, and the ability to help formulate and solve important biomedical problems, including the design of devices, systems and processes to improve human health and well-being. The curriculum includes a series of courses in biosensing which will educate students in health care monitoring and diagnostic methods emphasizing innovations at the engineering/life sciences interface, such as MicroElectroMechanical System (MEMS) devices. There will also be courses with a bioanalytical component to teach students the basics of detection and analysis of biomolecules.

The goals of the Biomedical Engineering undergraduate program are to educate students with the capabilities to:

1. Acquire a fundamental knowledge of engineering and biology as applied to medical science and technology.
2. Develop the ability to integrate the learning from this multi-disciplinary field into a coherent approach to solving problems in biomedical engineering.
3. Develop an intellectual curiosity, which can drive their professional work and lead to creativity and innovation.
4. Learn to appreciate the ethical, legal, professional and social responsibilities essential for work in medically related fields.
5. Perfect oral and written communication skills and the ability to perform effectively in group projects.

Chemical Engineering

Chemical engineers investigate and develop techniques to convert basic raw materials into useful products. The field extends into many areas of manufacturing and refining, as well as resource management and environmental concerns.

Chemical engineers investigate the processes used in the manufacture of products and materials and are interested in the concerns of manufacturing processes: pollution control and hazardous waste management.

Chemical engineers address large-scale problems. While the chemist investigates the interaction of chemicals in the formation of a new product in a laboratory environment, the chemical engineer develops the processes and procedures needed to produce marketable quantities of the new product. While the physicist analyzes the makeup and properties of a superconducting material, the chemical engineer plans the facility that will manufacture the material in the volume and configurations needed. Many career opportunities await chemical engineering graduates including those involving computer systems and process control, environmental control, biochemical agents, electronic materials, superconducting materials, pharmaceuticals, petroleum engineering, petrochemicals, and synthetics.

An individually structured curriculum will introduce students to interesting subjects such as materials, fluid mechanics, economics, and computer science. Students also investigate the design, construction, and operation of process units. Oral and written communications, teamwork, and management are also emphasized.

Aside from foundation courses—math, physics, and chemistry—and engineering sciences, students may select specialty study areas in process engineering, process control, biotechnology, electronic materials, environmental engineering, and petroleum engineering. Students’ backgrounds are developed with courses such as mathematics, reaction kinetics, thermodynamics, and transport phenomena.

Mission Statement

The mission of the Chemical and Biomolecular Engineering Department at the University of Houston is to educate students to become highly qualified chemical engineers, conduct innovative research in chemical engineering and related interdisciplinary areas, and provide service to the profession and to society.

The Department aspires to educate chemical engineering undergraduate students that:

1. Can apply the fundamentals of chemical engineering to the synthesis and analysis of processes in both traditional Chemical Engineering industries as well as emerging disciplines (such as biotechnology, environmental engineering, electronic materials and ceramics).
2. Have a firm grounding in chemistry, mathematics, and physics.
3. Can effectively use computers to solve problems in chemical engineering and related interdisciplinary areas.
4. Can design, perform, and analyze the results of experiments relevant to the analysis or synthesis of chemical processes.
5. Can communicate effectively, orally or in writing, with technical and non-technical audiences.
6. Understand the intertwining among chemical engineering, society, and the environment, and are aware of the ethical responsibilities of engineers.
7. Appreciate the importance of lifelong learning and teamwork.

Civil And Environmental Engineering

Civil and environmental engineering is a people-oriented field focused on providing the basic needs of humanity.

Civil engineers improve society’s quality of life by enhancing the surroundings in which people live and by designing public works, transportation systems, buildings, and other infrastructure components.

Environmental engineers address problems such as hazardous waste management, drinking water treatment, municipal waste disposal, and other issues that affect the environment.

The jobs available in the field of civil and environmental engineering are diverse, so a broad base is provided to prepare graduates for a variety of positions. Students receive a broad-based education in the freshman and sophomore years and a more focused education in the junior and senior years. Further specialization after the senior year is offered through graduate education, where students focus on specific aspects of civil or environmental engineering. Students can choose electives from several areas of concentration including structural, geotechnical, environmental, and hydrosystems engineering.

Our experienced undergraduate advisor counsels our diverse student body towards successful and timely completion of their undergraduate objectives. Students cannot enroll for classes until they have been advised each term.

The rapid advance of knowledge requires life-long learning and continued self-learning for all professionals. Thus, it is essential that a student learns not only the knowledge itself but also how knowledge is created, acquired, and put to use for the betterment of people’s lives. Students' skills are developed through various engineering analysis and computation courses, as well as through courses in behavior and design of structural engineering materials, fluid mechanics, water quality, soil behavior, and others. Students apply their new-found skills in a capstone design course, which challenges students to think, conceive, and create while working as a team to address an engineering problem.

Mission Statement

The mission of the Department of Civil and Environmental Engineering is to educate its students to be productive engineers and responsible citizens in the changing environment of the 21st century. This mission is achieved by:

- upholding traditions of high academic standards in the classroom and in non-classroom educational activities, and encouraging students with non-traditional and diverse ethnic backgrounds;
- creating, discovering and disseminating new knowledge through research and scholarly activity; and
- serving as a resource for the constituencies of the University of Houston and the profession of civil and environmental engineering.

The BSCE degree program is continually monitored and assessed to ensure that it meets the needs of our constituencies including our students, and the civil engineering profession as represented by the employers of our graduates and the Department’s Advisory Board Members.

Electrical And Computer Engineering

Electrical and computer engineering is the application of scientific principles to the solution of electrical problems. Electrical and computer engineers conceive, design, and develop electrical, electronic, and computer products and systems. They work in the fields of antennas and radio wave propagation, biomedical engineering, computer engineering, control and communications systems, electrical equipment design, integrated circuit
fabrication, lasers and fiber optics, power systems, robotics and semiconductor devices. All of these must have a firm foundation in basic electrical engineering principles as well as particular expertise in the specialty.

Students prepare for the diverse field of electrical and computer engineering by taking courses such as circuits and linear systems, electronics, digital design, microprocessor systems, and electromagnetic theory. Students pursuing the Bachelor of Science in Electrical Engineering degree choose between the EE option and the Computer option. The EE option provides breadth and depth in the concentration areas of electromagnetics and solid state devices, power and controls, signals and communications, and electronics. Students choosing the computer option take advanced courses in data structures and algorithms, digital and computer system design, operating systems, and computer architecture. Both options culminate in a capstone design course in which students propose and complete a major design project as part of a team. The Bachelor of Science degree in Computer Engineering is aimed at those students who want a more specialized focus in the computer area. The Bachelor of Science in Electrical Engineering and the Bachelor of Science in Computer Engineering degrees are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Mission Statement

At the undergraduate level, the mission of the Electrical and Computer Engineering Department is to insure that our students acquire the necessary knowledge, skills, and abilities to perform successfully in the modern world as engineers, and to instill in them an ability for life-long learning and a sense of professional responsibility that will enable them to continue their professional development throughout their careers.

To fulfill our mission, we have set the following specific goals for our Undergraduate Program.

- To insure that each student acquires a solid knowledge-base in the fundamentals of mathematics and basic science, as well as the basic skills of critical thinking and problem solving.
- To develop within each student in the Bachelor of Science in Electrical Engineering program a thorough knowledge of the electrical engineering discipline, including a broad knowledge of the main fields, and an in-depth knowledge in one or more of these fields, chosen by the student.
- To develop within each student in the Bachelor of Science in Computer Engineering program a thorough knowledge of the computer engineering discipline, including a broad knowledge of the electrical and computer engineering fields, and an in-depth knowledge in the computer engineering field.
- To maintain a state-of-the-art set of laboratories and insure that students receive a significant and positive laboratory experience as part of their curriculum.
- To develop in each student the communication and team-working skills necessary to perform effectively as an engineer, and to impart to each student a sense of ethical and professional responsibility.
- To have each student obtain the type of real-world design experience that is crucial to the education of an engineer, including an appreciation for technical as well as economic and contemporary social issues.
- To give each student the ability to achieve life-long learning and a desire for professional development.
- To improve retention rates, promote academic success, and allow students to get the most from their educational experience by giving all students access to beneficial mentoring and advising.
- To instill students with an enthusiasm for electrical and computer engineering by offering exciting and interesting freshman engineering courses.
- To allow all students the opportunity to participate in a beneficial cooperative educational experience with industry during their program, if they choose to do so.
- To keep a sufficient percentage of the required courses in the program scheduled during the evening, so that part-time students can attend and complete the program.

Industrial Engineering
Industrial engineering is about productivity. It deals with people, their tools, and their work environment, and how to maximize output in an effective and safe manner. It is computer intensive.

Industrial engineers draw upon knowledge in mathematics, and physical and social sciences as they explore methods of better integrating employees, materials, and equipment in the work environment. They explore production from various perspectives: organizational structures, human factors, management methods, facility layout, manufacturing systems, expert systems, and artificial intelligence.

To prepare for the diverse opportunities in industrial engineering, students are instructed in four major areas of the industrial engineering curriculum: manufacturing systems, management systems, knowledge-based methodologies, and ergonomics. In the curriculum, students experience manufacturing processes, planning and control of costs, quality control, human factors, facility layout, management functions, and operations research. Students are also trained in basic engineering sciences, statistics, computer operations, materials science, and modern analytical tools such as digital simulation.

Mission Statement

Our educational mission is to prepare students for successful Industrial Engineering careers in industry, academe, or government. The IE education emphasizes the analysis, design, and operation of those industrial systems which produce and distribute goods and services. Graduates develop the analytical and organizational leadership skills necessary to coordinate material, machinery, and manpower utilization while addressing human factors and safety issues.

Mechanical Engineering

Mechanical engineers create machines, materials, and systems that satisfy a particular function. They deal with problems in areas such as energy conversion, design of mechanical components and systems, man and machine environments, and instrumentation and control of processes.

Mechanical engineering has applications in all phases of industry, including such challenging fields as aerospace, materials, petroleum design, and product reliability and safety. Mechanical engineers consider acoustics, fluid mechanics, design, thermodynamics, mechanics, materials and heat transfer in addressing problems.

The department's curriculum provides students with the opportunity to learn how to think creatively and logically, and how to use new-found knowledge to address complex problems. A three-course design sequence challenges students with creative design problems. To solve these problems, students use skills learned from classes in mechanics of materials, experimental methods, engineering analysis, mechanical design, materials science, thermodynamics, fluid mechanics, heat transfer, and mechanics.

Mission Statement

The mission of the undergraduate program is to produce graduates with a balanced education in mechanical engineering who are able to pursue learning and practice effectively in their profession.

Objectives for the undergraduate program are for the student to accomplish the following:

1. A knowledge of basic mathematics and the natural-, engineering- and systems-sciences, as well as the basic skills of learning and critical thinking.
2. A desire for intellectual discovery and exploration of the unknown.
3. An awareness of and interest in the breadth of human intellectual achievement and cultural experience, including the accomplishments of the engineering profession.
4. An appreciation of the ethical, democratic, economic and other value systems, and the formation of such values.
5. The ability to perform the integration of knowledge in the practice of engineering.
Other Departmental Information and Degree Information Links

Engineering (ENGI) Coordinator:
Frank J. "Fritz" Claydon

Engineering PROMES (EGRP) Coordinator:
Diana De La Rosa-Pohl
Academic Information - Cullen College of Engineering

Advanced Placement

Students are strongly encouraged to take the advanced placement and/or achievement tests prior to admission. College level course work will be waived with appropriate scores. Please note that subject mastery is a critical success factor for future work. Regardless the outcome of AP testing, students should evaluate whether they believe they have mastered the subject material, and if not, they should take the required courses at the University of Houston. For more information, see the University Testing Services website.

Course Load

The recommended and maximum course loads for undergraduate students are specified on the University’s Course Load webpage.

Students should expect to devote a minimum of three hours of study time per week for each engineering course. For example, a student registered for 15 hours of engineering courses should expect 45 hours of studying per week, for a total time commitment of 60 hours per week. Students who work outside of school should reduce their course load by one course (3 semester hours) for every 12 hours of work.

Earned Grade Requirements for Engineering Majors

Engineering majors must earn a grade of C- or better in all engineering, mathematics, and science courses required in their degree plans.

Dean's List

Each fall and spring term the college compiles the names of all undergraduate students who qualify for the Dean's List. Students whose semester grade point average is 3.50 or better on a minimum of 12 semester hours are eligible. The grade of S is not counted.

Students who earn grades of I (except in senior honors thesis courses), D, F, or U during the term will not be considered for the Dean's List.

Two Attempts

Students in the College of Engineering may not attempt an engineering course more than two times. An "attempt" of a course has occurred when a grade (including W, I and F grades) is awarded.

Credit for Off Campus Courses

Students in the College of Engineering must receive written approval prior to enrolling in engineering courses at another college or university. Students who enroll in off-campus engineering courses without required approvals cannot use credits earned towards a University of Houston engineering degree. The deadline to request approval for off campus engineering courses is specified on the College of Engineering website.

Engineering Probation and Suspension
1. Students who have attempted at least six hours of engineering courses must maintain major GPAs and engineering course GPAs of 2.25 or better to remain in good standing with the College of Engineering. All engineering courses except for those with the EGRP prefix are included in calculation of the engineering GPA. Students whose cumulative major GPA or cumulative engineering GPA falls below 2.25 are placed on Engineering Probation.

2. Students on Engineering Probation whose term major GPA or term engineering GPA is below 2.25 are placed on Engineering Suspension. Students who are suspended from the College of Engineering cannot take any engineering courses.
   a. Engineering Suspension is for a period of at least one long term (fall or spring).
      i. Students placed on Engineering Suspension at the end of a fall term may apply for readmission to the College of Engineering for the following fall at the earliest.
      ii. Students placed on Engineering Suspension at the end of a spring term may apply for readmission to the College of Engineering for the following spring at the earliest.
      iii. Students placed on Engineering Suspension at the end of a summer term may apply for readmission to the College of Engineering for the following spring at the earliest.
   b. Students on Engineering Suspension must follow the readmission procedure outlined on the College of Engineering website to apply for readmission.
   c. Students who are placed on Engineering Suspension a second time will not be readmitted to the College.

3. Students on Engineering Probation whose cumulative major GPA or cumulative engineering GPA is below 2.25 but whose term major GPA and term engineering GPA are 2.25 or higher will remain on Engineering Probation.

4. Students on Engineering Probation will be removed from that status when their cumulative major GPA and cumulative engineering GPA are both at or above 2.25.

Students are prohibited from continuing in the College of Engineering if they (1) violate the University's three-attempt rule in math or science course; (2) violate the two-attempt rule for engineering courses; or, (3) violate course prerequisites.

**Special Programs**

**Engineering Career Center**

The Cullen College of Engineering Career Center provides students with access to co-op, internship, and full-time employment opportunities. These work experiences allow engineering students to take knowledge obtained in the classroom and apply it to real-world settings while gaining hands-on experience and industry-related skills. For more information refer to the Engineering Career Center website.

**Engineering Industrial Experience**

The Cullen College of Engineering recognizes the value of developing students' professional development as an integral part of their academic career. Students who select the Industrial Experience in their degree program and satisfy its requirements will receive recognition for internship and curricular practical training (CPT) experience by a transcript notation. For more information refer to the Cullen College of Engineering - Industrial Experience section of this catalog.

**Program for Mastery in Engineering Studies**

The Program for Mastery in Engineering Studies (PROMES - pronounced "promise") provides academic, social, and financial support to engineering students, with a strong emphasis on making students' first year in college a success. For more information see the Special Programs section of this catalog.
Scholarships and Financial Aid - Engineering

The college awards four-year scholarships based on academic performance in amounts ranging from $500 to $5,000 per year for beginning students. Currently enrolled and transfer students may also be eligible for college awards and for other scholarships through their major departments. Applications for engineering scholarships are available in the Engineering Dean's Office (room E421-D3) or by calling 713-743-4200.

General information about UH scholarships and financial aid.

Internship and Practical Training

Cullen College of Engineering - Industrial Experience

The Cullen College of Engineering recognizes the value of developing students' professional development as an integral part of their academic career. Students who select the Industrial Experience in their degree program and satisfy its requirements will receive recognition for internship and curricular practical training (CPT) experience by a transcript notation.

Eligibility for Internship:

- The work must be related to the student's major.
- Internships must be approved by the Division of Engineering Undergraduate Programs and Student Success.
- Additional restrictions apply to CPT for F-1 students (see below).

Steps to declare Industrial Experience:

1. Students will meet with an academic advisor in the Division of Engineering Undergraduate Programs and Student Success and will declare, by submitting a General Petition their intention to pursue the Industrial Experience sub plan prior to processing the paperwork for approval of the internship/CPT.
2. The Division of Engineering Undergraduate Programs and Student Success will verify the student’s academic eligibility for the internship/CPT.
3. The Division of Engineering Undergraduate Programs and Student Success will review the internship, including the formal job offer on the hiring company's stationary, a description of the work to be performed, a beginning and ending date, and the salary offered. The Division of Engineering Undergraduate Programs and Student Success will determine whether or not the internship/CPT will provide the student with appropriate experience relating to their major field of study.
   - If a positive determination is made, the student would enroll in a zero-credit co-op internship/CPT, the approved petition and the internship approval will be forwarded from the Division of Engineering Undergraduate Programs and Student Success to the Co-op Office in the career center of the Cullen College of Engineering to complete the process.

F-1 students seeking CPT should visit the International Student Scholar Services Office (ISSSO) for special instructions prior to the steps above.

Further Information about Co-op Experiences

Students are required to adhere to all deadlines and requirements set by the Cooperative Education Program, (713) 743-4230. (The information below is also available at this link: www.egr.uh.edu/coop)

Students should know the following about the course work, fees and reporting of the co-op experience.

- Co-op education/training appears on the official transcript, therefore, students in the program must register each semester of Co-op using their PeopleSoft account to register and pay for the Co-op course. Students will use their PeopleSoft account to pay before the specified
deadline each semester of Co-op. All Co-op students must submit a Co-op Data Form in person at the Co-op Office or via email to complete the process.

- There is a processing fee charged for each semester a student receives education/training as a Co-op intern. The fee is posted directly to the student PeopleSoft account. Some employers reimburse the student for the processing fee; it is up to the student to discuss with the employer regarding Co-op fee reimbursement. If the employer agrees to reimburse the student, the student should provide the employer with documentation that the fee has been paid through PeopleSoft and request the employer issue the reimbursement separate from the student paycheck to ensure the student receives the full reimbursement with no taxes removed.
- A Co-op Work Report is a pre-formatted document which must be completed to verify the work is educational training in a particular field of study.
  - A grade of S (Satisfactory) or U (Unsatisfactory) is assigned based upon completion of the Work Report submitted by the student each semester of Co-op.
  - Co-op interns must complete and submit a Work Report each semester to verify the Co-op internship experience is within their field of study. Review of the Work Report (which includes an employer evaluation) assists in determining the grade received on the official transcript.
  - Work Reports must be completed, submitted and signed by the appropriate employment supervisor and faculty advisor before each semester deadline.
  - Work Reports and evaluations should be scanned and uploaded through the UH Blackboard CO-OP course site, to confirm the date and time of the submission.
  - Submitting the Work Report after the deadline will result in the student receiving an U (Unsatisfactory) grade on the official transcript.
  - Reminders will be communicated through the UH Blackboard CO-OP course site, to ensure awareness of policies and deadlines.
  - If you are officially registered for Co-op and do not receive a reminder, please call (713) 743-4230.

Eligible Coursework:

To satisfy the requirements for the Industrial Experience, students must declare their intention to pursue the track and complete a minimum of one semester of an approved internship/CPT using zero-credit courses.

- COOP 0011 - COOP Education Work Period I Credit Hours: 0.0
- COOP 0012 - COOP Education Work Period II Credit Hours: 0.0
- COOP 0013 - COOP Education Work Period III Credit Hours: 0.0
- COOP 0014 - COOP Education Work Period IV Credit Hours: 0.0
- COOP 0015 - COOP Education Work Period V Credit Hours: 0.0
- COOP 0016 - COOP Education Work Period VI Credit Hours: 0.0
- COOP 0017 - COOP Education Work Period VII Credit Hours: 0.0

Other Programs

Engineering General Degree Requirements

Degree Programs and Required Curriculum

The College of Engineering offers the Bachelor of Science, Master of Science, and the Doctor of Philosophy degrees in Chemical, Civil, Electrical, Industrial, and Mechanical Engineering as well as Bachelor of Science in BioMedical, Computer, and Petroleum Engineering and minors in Mechanical, Petroleum, and Nano Engineering. The Master of (major field) Engineering is offered in Chemical, Civil, Electrical, Industrial, and
Mechanical Engineering. The college also offers the Master of Science degree in aerospace engineering, computer and systems engineering, environmental engineering, materials engineering, and petroleum engineering. The Doctor of Philosophy degree is available in aerospace engineering, computer and systems engineering, environmental engineering, and materials engineering.

For more information on graduate programs, consult the office of the dean or the appropriate department. Refer to the Graduate and Professional Studies catalog for a listing of courses.

**General Requirements for a Baccalaureate Degree**

Students are required to meet the general requirements for a baccalaureate degree. See the Academic Regulations and Degree Requirements section of this catalog for details.

As part of these requirements, candidates for the bachelor’s degree must complete the university core curriculum requirements:

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication: English rhetoric and composition ENGL 1303 and ENGL 1304. First Year Writing I and II</td>
<td>6</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Visual &amp; Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Writing in the Disciplines: ENGI 2304</td>
<td>3</td>
</tr>
<tr>
<td>U.S. History: HIST 1377 and HIST 1378</td>
<td>6</td>
</tr>
<tr>
<td>American Government: POLS 1336 and POLS 1337</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

**Bachelor of Science Requirements**

To receive the Bachelor of Science degree, students must complete the required curriculum shown in this catalog. They must also achieve an average GPA of 2.00 or higher in all courses taken at the University of Houston and in their major courses. Students may not attempt a required engineering course more than two times. Students may not attempt a required mathematics or science course more than three times. Attempt is defined as formal enrollment (registration) that results in a student receiving a letter grade, including grades of U, W, and I. Students who violate the number of attempts allowed will be required to change their major.
Students must also complete a minimum of 30 semester hours of engineering courses in residence at the University of Houston. Any student with a major in the College of Engineering must be pursuing an engineering degree. Failure to do so will result in an enrollment stop until a change of major is effected.

Students are responsible for knowing and meeting all prerequisites prior to enrollment. Nonmajors and unmet prerequisites are sufficient grounds for being dropped from a course without refund.

Eligibility for Professional Engineers License

Before or after completing the baccalaureate program, students are eligible to apply for certification as an engineer-in-training and, after appropriate experience and examinations, licensing as a professional engineer.

Engineering Major Grade Point Average Probation/Suspension Policy

The Cullen College of Engineering maintains a probation/suspension system to monitor students’ progress toward their undergraduate degrees. Students must maintain a 2.25 grade point average in their major coursework to continue in the major. After students have attempted six hours in major, specified by each department, they will be placed on engineering probation if their cumulative major average is below 2.25. A grade point average of 2.25 or higher in major courses must be maintained each semester that a student takes major courses while on probation. Once a student’s major grade point average rises to 2.25 or higher, the student is removed from probationary status. If a student’s semester grade point average falls below 2.25 in major coursework while on engineering probation, the student is placed on engineering suspension.

While on suspension, a student can take non-engineering courses, but is not allowed to take engineering courses for one semester following the imposition of the suspension. Readmission from engineering suspension requires the student to submit a petition for readmission, along with an accompanying Letter of Readiness that must contain a plan for improved performance and a College of Engineering General Contract with course plan approved by the student’s advisor. Readmission is not guaranteed, and must be approved by the Associate Dean for Undergraduate Programs.

Following a second engineering suspension, a student will not be readmitted to the Cullen College of Engineering.

Accelerated B.S./Graduate Degree Program in Engineering

The accelerated B.S./graduate degree program is open to qualified undergraduate engineering students desiring to continue their education at the graduate level immediately upon completion of the B.S. degree. Accepted students take up to six graduate credit hours that are applied to both the bachelor’s and graduate degrees. Students may pursue either thesis or nonthesis Master’s degree options or the Ph.D. degree. The B.S. degree will be conferred upon completion of the undergraduate curriculum requirements with appropriate undergraduate/graduate course substitutions. The graduate degree shall be awarded based upon existing requirements for the graduate degree.

Department of Biomedical Engineering

Chair: Metin Akay
Web: http://www.egr.uh.edu/bioe/

Major

Biomedical Engineering, B.S.B.E.
Biomedical engineering majors are required to follow all requirements and regulations outlined in the Engineering General Degree Information section of the Undergraduate Catalog.

The major grade point average is calculated using all BIOE courses as well as ENGI 1331, ECE 2201, and MECE 3400.

**First Year**

**Fall Term**

- ENGI 1100 - Introduction To Engineering **Credit Hours: 1.0**
- BIOL 1161 - Introduction to Biological Science Laboratory 1 **Credit Hours: 1.0**
- BIOL 1361 - Introduction to Biological Science 1 **Credit Hours: 3.0**
- CHEM 1111 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
- CHEM 1331 - Fundamentals of Chemistry **Credit Hours: 3.0**
- MATH 1431 - Calculus I **Credit Hours: 4.0**
- ENGL 1303 - First Year Writing I **Credit Hours: 3.0**

**Total 16**

**Spring Term**

- ENGI 1331 - Computing and Problem Solving for Engineers **Credit Hours: 3.0**
- BIOL 1162 - Introduction to Biological Science Laboratory 2 **Credit Hours: 1.0**
- BIOL 1362 - Introduction to Biological Science 2 **Credit Hours: 3.0**
- CHEM 1112 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
- CHEM 1332 - Fundamentals of Chemistry 2 **Credit Hours: 3.0**
- MATH 1431 - Calculus I **Credit Hours: 4.0**
- PHYS 1321 - University Physics I **Credit Hours: 3.0**

**Total 18**

**Second Year**

**Fall Term**

- BIOE 2100 - Introduction To Biomedical Engineering **Credit Hours: 1.0**
- CHEM 3221 - Fundamentals of Organic Chemistry Laboratory **Credit Hours: 2.0**
- CHEM 3331 - Fundamentals of Organic Chemistry **Credit Hours: 3.0**
- MATH 2433 - Calculus III **Credit Hours: 4.0**
- PHYS 1322 - University Physics II **Credit Hours: 3.0**
- ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
Total 16

Spring Term

- ECE 2201 - Circuit Analysis | Credit Hours: 2.0
- BIOE 2331 - Biomedical Processes | Credit Hours: 3.0
- BCHS 3304 - General Biochemistry | Credit Hours: 3.0
- MATH 3321 - Engineering Mathematics | Credit Hours: 3.0
- Social and Behavioral Sciences: Approved Core Courses | Credit Hours: 3.0
- Creative Arts: Approved Core Courses | Credit Hours: 3.0

Total 17

Students must choose one of the thrust areas:

- Biomedical Imaging Option
- Bionanoscience Option
- Neural, Cognitive, and Rehabilitation Engineering Option
- Pre-Medical

Biomedical Imaging Option

Third Year

Fall Term

- MECE 3400 - Introduction to Mechanics | Credit Hours: 4.0
- INDE 2333 - Engineering Statistics | Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers | Credit Hours: 3.0
- HIST 1377 - The U S To 1877 | Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics | Credit Hours: 3.0

Total 16

Spring Term

- BIOE 3341 - Biothermodynamics | Credit Hours: 3.0
- BIOE 3340 - Quantitative Physiology | Credit Hours: 3.0
- BIOE 3140 - Quantitative Physiology Laboratory | Credit Hours: 1.0
- HIST 1378 - The U S Since 1877 | Credit Hours: 3.0
- BIOE 4302 - Numerical Analysis for Biomedical Engineering | Credit Hours: 3.0
• BIOE Technical Elective **Credit Hours: 3.0**

**Total 16**

**Fourth Year**

**Fall Term**

- BIOE 4335 - Capstone Design I **Credit Hours: 3.0**
- BIOE 4315 - Bioinstrumentation **Credit Hours: 3.0**
- BIOE 4115 - Introduction to Bioinstrumentation Lab **Credit Hours: 1.0**
- BIOE Technical Elective **Credit Hours: 3.0**
- BIOE Technical Elective **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

**Total 16**

**Spring Term**

- BIOE 4336 - Capstone Design II **Credit Hours: 3.0**
- BIOE 4350 - Genomic and Proteomic Engineering **Credit Hours: 3.0**
- BIOE 4150 - Genomic and Proteomic Engineering Laboratory **Credit Hours: 1.0**
- BIOE Technical Elective **Credit Hours: 3.0**
- BIOE Technical Elective **Credit Hours: 3.0**
- Language, Philosophy & Culture: Approved Core Courses **Credit Hours: 3.0**

**Total 16**

**Degree Total: 131**

**Bionanoscience Option**

**Third Year**

**Fall Term**

- MECE 3400 - Introduction to Mechanics **Credit Hours: 4.0**
- INDE 2333 - Engineering Statistics I **Credit Hours: 3.0**
- ENGI 2304 - Technical Communications for Engineers **Credit Hours: 3.0**
- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**

**Total 16**
Spring Term

- BIOE 3341 - Biothermodynamics Credit Hours: 3.0
- BIOE 3340 - Quantitative Physiology Credit Hours: 3.0
- BIOE 3140 - Quantitative Physiology Laboratory Credit Hours: 1.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- BIOE 4302 - Numerical Analysis for Biomedical Engineering Credit Hours: 3.0
- BIOE Technical Elective Credit Hours: 3.0

Total 16

Fourth Year

Fall Term

- BIOE 4335 - Capstone Design I Credit Hours: 3.0
- BIOE 4315 - Bioinstrumentation Credit Hours: 3.0
- BIOE 4115 - Introduction to Bioinstrumentation Lab Credit Hours: 1.0
- BIOE Technical Elective Credit Hours: 3.0
- BIOE Technical Elective Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Total 16

Spring Term

- BIOE 4350 - Genomic and Proteomic Engineering Credit Hours: 3.0
- BIOE 4336 - Capstone Design II Credit Hours: 3.0
- BIOE 4150 - Genomic and Proteomic Engineering Laboratory Credit Hours: 1.0
- BIOE Technical Elective Credit Hours: 3.0
- BIOE Technical Elective Credit Hours: 3.0
- Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0

Total 16

Degree Total: 131

Neural, Cognative, and Rehabilitation Option

Third Year

Fall Term
- MECE 3400 - Introduction to Mechanics **Credit Hours: 4.0**
- INDE 2333 - Engineering Statistics I **Credit Hours: 3.0**
- ENGI 2304 - Technical Communications for Engineers **Credit Hours: 3.0**
- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**

Total 16

**Spring Term**

- BIOE 3341 - Biothermodynamics **Credit Hours: 3.0**
- BIOE 3340 - Quantitative Physiology **Credit Hours: 3.0**
- BIOE 3140 - Quantitative Physiology Laboratory **Credit Hours: 1.0**
- HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**
- BIOE 4302 - Numerical Analysis for Biomedical Engineering **Credit Hours: 3.0**
- BIOE Technical Elective **Credit Hours: 3.0**

Total 16

**Fourth Year**

**Fall Term**

- BIOE 4335 - Capstone Design I **Credit Hours: 3.0**
- BIOE 4315 - Bioinstrumentation **Credit Hours: 3.0**
- BIOE 4115 - Introduction to Bioinstrumentation Lab **Credit Hours: 1.0**
- BIOE Technical Elective **Credit Hours: 3.0**
- BIOE Technical Elective **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Total 16

**Spring Term**

- BIOE 4336 - Capstone Design II **Credit Hours: 3.0**
- BIOE 4350 - Genomic and Proteomic Engineering **Credit Hours: 3.0**
- BIOE 4150 - Genomic and Proteomic Engineering Laboratory **Credit Hours: 1.0**
- BIOE Technical Elective **Credit Hours: 3.0**
- BIOE Technical Elective **Credit Hours: 3.0**
- Language, Philosophy & Culture: Approved Core Courses **Credit Hours: 3.0**

Total 16

**Degree Total: 131**
Pre-Medical

Third Year

Fall Term

- MECE 3400 - Introduction to Mechanics Credit Hours: 4.0
- INDE 2333 - Engineering Statistics I Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0

Total 16

Spring Term

- BIOE 3341 - Biothermodynamics Credit Hours: 3.0
- BIOE 3340 - Quantitative Physiology Credit Hours: 3.0
- BIOE 3140 - Quantitative Physiology Laboratory Credit Hours: 1.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- BIOE 4302 - Numerical Analysis for Biomedical Engineering Credit Hours: 3.0
- BIOL Elective Credit Hours: 3.0

Total 16

Fourth Year

Fall Term

- BIOE 4335 - Capstone Design I Credit Hours: 3.0
- BIOE 4315 - Bioinstrumentation Credit Hours: 3.0
- BIOE 4115 - Introduction to Bioinstrumentation Lab Credit Hours: 1.0
- BIOE Technical Elective Credit Hours: 3.0
- BIOE Technical Elective Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Total 16

Spring Term

- BIOE 4336 - Capstone Design II Credit Hours: 3.0
- BIOE 4350 - Genomic and Proteomic Engineering Credit Hours: 3.0
- BIOE 4150 - Genomic and Proteomic Engineering Laboratory Credit Hours: 1.0
• BIOE Technical Elective Credit Hours: 3.0
• BIOE Technical Elective Credit Hours: 3.0
• Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0

Total 16

Degree Total: 131

Other Programs

Sample Program - Biomedical Engineering (BIOE)

First Year

Fall Term

• ENGI 1100 - Introduction To Engineering Credit Hours: 1.0
• BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
• BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
• CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
• CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
• MATH 1431 - Calculus I Credit Hours: 4.0
• ENGL 1303 - First Year Writing I Credit Hours: 3.0

Total 16

Spring Term

• ENGI 1331 - Computing and Problem Solving for Engineers Credit Hours: 3.0
• BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0
• BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
• CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
• CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
• MATH 1432 - Calculus II Credit Hours: 4.0
• PHYS 1321 - University Physics I Credit Hours: 3.0

Total 18

Second Year
Fall Term

- BIOE 2100 - Introduction To Biomedical Engineering Credit Hours: 1.0
- CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
- CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
- MATH 2433 - Calculus III Credit Hours: 4.0
- PHYS 1322 - University Physics II Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0

Total 16

Spring Term

- ECE 2201 - Circuit Analysis I Credit Hours: 2.0
- BIOE 2331 - Biomedical Processes Credit Hours: 3.0
- BCHS 3304 - General Biochemistry I Credit Hours: 3.0
- MATH 3321 - Engineering Mathematics Credit Hours: 3.0
- Social and Behavioral Sciences: Approved Core Courses Credit Hours: 3.0
- Creative Arts: Approved Core Courses Credit Hours: 3.0

Total 17

Students must choose one of the thrust areas:

- Biomedical Imaging Option
- Bionanoscience Option
- Neural, Cognitive, and Rehabilitation Engineering Option
- Pre-Medical

Biomedical Imaging Option

Third Year

Fall Term

- MECE 3400 - Introduction to Mechanics Credit Hours: 4.0
- INDE 2333 - Engineering Statistics I Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0

Total 16

Spring Term
• BIOE 3341 - Biothermodynamics Credit Hours: 3.0
• BIOE 3340 - Quantitative Physiology Credit Hours: 3.0
• BIOE 3140 - Quantitative Physiology Laboratory Credit Hours: 1.0
• HIST 1378 - The U.S. Since 1877 Credit Hours: 3.0
• BIOE 4302 - Numerical Analysis for Biomedical Engineering Credit Hours: 3.0
• BIOE Technical Elective Credit Hours: 3.0

Total 16

Fourth Year

Fall Term

• BIOE 4335 - Capstone Design I Credit Hours: 3.0
• BIOE 4315 - Bioinstrumentation Credit Hours: 3.0
• BIOE 4115 - Introduction to Bioinstrumentation Lab Credit Hours: 1.0
• BIOE Technical Elective Credit Hours: 3.0
• BIOE Technical Elective Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Total 16

Spring Term

• BIOE 4336 - Capstone Design II Credit Hours: 3.0
• BIOE 4350 - Genomic and Proteomic Engineering Credit Hours: 3.0
• BIOE 4150 - Genomic and Proteomic Engineering Laboratory Credit Hours: 1.0
• BIOE Technical Elective Credit Hours: 3.0
• BIOE Technical Elective Credit Hours: 3.0
• Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0

Total 16

Degree Total: 131

Bionanoscience Option

Third Year

Fall Term

• MECE 3400 - Introduction to Mechanics Credit Hours: 4.0
• INDE 2333 - Engineering Statistics I Credit Hours: 3.0
• ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
• HIST 1377 - The U.S. To 1877  
  Credit Hours: 3.0
• POLS 1336 - U.S. and Texas Constitution and Politics  
  Credit Hours: 3.0
Total 16

Spring Term

• BIOE 3341 - Biothermodynamics  
  Credit Hours: 3.0
• BIOE 3340 - Quantitative Physiology  
  Credit Hours: 3.0
• BIOE 3140 - Quantitative Physiology Laboratory  
  Credit Hours: 1.0
• HIST 1378 - The U.S. Since 1877  
  Credit Hours: 3.0
• BIOE 4302 - Numerical Analysis for Biomedical Engineering  
  Credit Hours: 3.0
• BIOE Technical Elective  
  Credit Hours: 3.0
Total 16

Fourth Year

Fall Term

• BIOE 4335 - Capstone Design I  
  Credit Hours: 3.0
• BIOE 4315 - Bioinstrumentation  
  Credit Hours: 3.0
• BIOE 4115 - Introduction to Bioinstrumentation Lab  
  Credit Hours: 1.0
• BIOE Technical Elective  
  Credit Hours: 3.0
• BIOE Technical Elective  
  Credit Hours: 3.0
• POLS 1337 - U.S. Government: Congress, President, and Courts  
  Credit Hours: 3.0
Total 16

Spring Term

• BIOE 4350 - Genomic and Proteomic Engineering  
  Credit Hours: 3.0
• BIOE 4336 - Capstone Design II  
  Credit Hours: 3.0
• BIOE 4150 - Genomic and Proteomic Engineering Laboratory  
  Credit Hours: 1.0
• BIOE Technical Elective  
  Credit Hours: 3.0
• BIOE Technical Elective  
  Credit Hours: 3.0
• Language, Philosophy & Culture: Approved Core Courses  
  Credit Hours: 3.0
Total 16

Degree Total: 131

Neural, Cognative, and Rehabilitation Option

Third Year
Fall Term

- MECE 3400 - Introduction to Mechanics  
  Credit Hours: 4.0
- INDE 2333 - Engineering Statistics I  
  Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers  
  Credit Hours: 3.0
- HIST 1377 - The U S To 1877  
  Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics  
  Credit Hours: 3.0

Total 16

Spring Term

- BIOE 3341 - Biothermodynamics  
  Credit Hours: 3.0
- BIOE 3340 - Quantitative Physiology  
  Credit Hours: 3.0
- BIOE 3140 - Quantitative Physiology Laboratory  
  Credit Hours: 1.0
- HIST 1378 - The U S Since 1877  
  Credit Hours: 3.0
- BIOE 4302 - Numerical Analysis for Biomedical Engineering  
  Credit Hours: 3.0
- BIOE Technical Elective  
  Credit Hours: 3.0

Total 16

Fourth Year

Fall Term

- BIOE 4335 - Capstone Design I  
  Credit Hours: 3.0
- BIOE 4315 - Bioinstrumentation  
  Credit Hours: 3.0
- BIOE 4115 - Introduction to Bioinstrumentation Lab  
  Credit Hours: 1.0
- BIOE Technical Elective  
  Credit Hours: 3.0
- BIOE Technical Elective  
  Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts  
  Credit Hours: 3.0

Total 16

Spring Term

- BIOE 4336 - Capstone Design II  
  Credit Hours: 3.0
- BIOE 4350 - Genomic and Proteomic Engineering  
  Credit Hours: 3.0
- BIOE 4150 - Genomic and Proteomic Engineering Laboratory  
  Credit Hours: 1.0
- BIOE Technical Elective  
  Credit Hours: 3.0
- BIOE Technical Elective  
  Credit Hours: 3.0
- Language, Philosophy & Culture: Approved Core Courses  
  Credit Hours: 3.0

Total 16
Degree Total: 131

Pre-Medical

Third Year

Fall Term

- MECE 3400 - Introduction to Mechanics Credit Hours: 4.0
- INDE 2333 - Engineering Statistics I Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0

Total 16

Spring Term

- BIOE 3341 - Biothermodynamics Credit Hours: 3.0
- BIOE 3340 - Quantitative Physiology Credit Hours: 3.0
- BIOE 3140 - Quantitative Physiology Laboratory Credit Hours: 1.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
- BIOE 4302 - Numerical Analysis for Biomedical Engineering Credit Hours: 3.0
- BIOL Elective Credit Hours: 3.0

Total 16

Fourth Year

Fall Term

- BIOE 4335 - Capstone Design I Credit Hours: 3.0
- BIOE 4315 - Bioinstrumentation Credit Hours: 3.0
- BIOE 4115 - Introduction to Bioinstrumentation Lab Credit Hours: 1.0
- BIOE Technical Elective Credit Hours: 3.0
- BIOE Technical Elective Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Total 16

Spring Term

- BIOE 4336 - Capstone Design II Credit Hours: 3.0
- BIOE 4350 - Genomic and Proteomic Engineering Credit Hours: 3.0
• BIOE 4150 - Genomic and Proteomic Engineering Laboratory Credit Hours: 1.0
• BIOE Technical Elective Credit Hours: 3.0
• BIOE Technical Elective Credit Hours: 3.0
• Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0

Total 16

Degree Total: 131

Department of Chemical and Biomolecular Engineering

Chair:
Michael P. Harold

Professors:
Vemuri Balakotaiah, Shankar Chellam, Ali Daneshy (Adjunct), Vince M. Donnelly, Demetre J. Economou, Christine Ehlig-Economides, Micky T. Fleischer (Adjunct), Raymond W. Flumerfelt, George E. Fox, Michael P. Harold, Ernest J. Henley (Emeritus), Thomas Holley, Allan J. Jacobson, Katerina Kourentzi (Research), Ramanan Krishnamoorti, T. Randal Lee, W. John Lee, Dmitri Litvinov, Dan Luss, Michael Myers, Michael Nikolaou, Guan Qin, James T. Richardson (Emeritus), Charles Rooks (Emeritus), Vincent H. Tam, Peter G. Vekilov, Richard C. Willson, Jonathan Worstell

Associate Professors:
Patrick Cirino, William Epling

Assistant Professors:
Jacintha Conrad, Lars Grabow, Jeremy Palmer, Jeffrey Rimer, Megan Robertson, Gila Stein, Navin Varadarajan

Lecturers:
Ravi Singhania, Fouad Khoury, Mark Darby

Web: www.chee.uh.edu/

Major

Chemical Engineering, B.S.Ch.E.

Transfer credit for chemical engineering courses may be accepted only from chemical engineering programs which are accredited by the Accreditation Board for Engineering and Technology (ABET).

Once a student has attempted their first 6 hours in the major (all engineering XXXX 1331 courses, CHEE 2331 or CHEE 2332), they are required to maintain a (cumulative) GPA of 2.25 or higher to continue in the major. The major GPA of 2.25 must be maintained at all times until the last semester before graduation.

Completion of all the chemistry courses at the University of Houston in this degree plan qualifies for a minor in chemistry. An official minor degree plan must be filed in the major department in the spring semester of the junior year. Prerequisites and/or corequisites must be met.

The Chemical Engineering Major GPA is calculated using all CHEE courses, plus all Engineering Computing XXXX 1331 courses.
First Year

Fall Semester

- ENGI 1100 - Introduction To Engineering Credit Hours: 1.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1431 - Calculus I Credit Hours: 4.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0

Total 15

Spring Semester

- CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- ENGI 1331 - Computing and Problem Solving for Engineers Credit Hours: 3.0
- CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- MATH 1432 - Calculus II Credit Hours: 4.0
- PHYS 1321 - University Physics I Credit Hours: 3.0

Total 17

Second Year

Fall Semester

- CHEE 2331 - Chemical Processes Credit Hours: 3.0
- CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
- MATH 2433 - Calculus III Credit Hours: 4.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- HIST 1377 - The U.S. To 1877 Credit Hours: 3.0

Total 16

Spring Semester

- CHEE 2332 - Chemical Engineering Thermodynamics I Credit Hours: 3.0
- CHEE 3300 - Materials Science & Engineering I Credit Hours: 3.0
- CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
- CHEM 3332 - Fundamentals of Organic Chemistry Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
• CHEE 3321 - Analytical Methods for Chemical Engineers Credit Hours: 3.0

Total 17

Third Year

Fall Semester

• CHEE 3333 - Chemical Engineering Thermodynamics II Credit Hours: 3.0
• CHEE 3334 - Statistics/Numerical Techniques for Chemical Engineers Credit Hours: 3.0
• CHEE 3363 - Fluid Mechanics for Chemical Engineers Credit Hours: 3.0
• PHYS 1322 - University Physics II Credit Hours: 3.0
• ECON 2304 - Microeconomic Principles Credit Hours: 3.0
• Chemistry Elective Credit Hours: 3.0

Total 18

Spring Semester

• CHEE 3367 - Process Modeling and Control Credit Hours: 3.0
• CHEE 3369 - Chemical Engineering Transport Processes Credit Hours: 3.0
• CHEE 3462 - Unit Operations Credit Hours: 4.0
• CHEE 3466 - Biological and Physical Chemistry Credit Hours: 4.0

Total 14

Fourth Year

Fall Semester

• CHEE 4321 - Chemical Engineering Design I Credit Hours: 3.0
• CHEE 4361 - Chm Engr Practices Credit Hours: 3.0
• CHEE 4367 - Chemical Reaction Engineering Credit Hours: 3.0
• HIST 1378 - The U S Since 1877 Credit Hours: 3.0
• CHEE 4366 - Biomolecular Engr Fundamentals Credit Hours: 3.0
• Creative Arts Core Course Credit Hours: 3.0

Total 18

Spring Semester

• Advanced Science Elective Credit Hours: 3.0
• CHEE 4322 - Chemical Engineering Design II Credit Hours: 3.0
• Language, Philosophy & Culture Core Credit Hours: 3.0
• Technical Elective Credit Hours: 3.0
• Technical Elective Credit Hours: 3.0

Total 15

Degree Total Hours: 130

Department of Civil and Environmental Engineering

Chair:
Roberto Ballarini

Associate Chair:
William G. Rixey

Professors:
Roberto Ballarini, Abdeldjelil Belarbi, Thomas T. C. Hsu, Y. L. Mo, Hanadi S. Rifai, Ramesh L. Shrestha, Joseph W. Tedesco, Cumarswamy Vipulanandan, Keh-Han Wang, Kaspar J. Willam

Associate Professors:
Mina Dawood, Craig L. Glennie, Reagan S. Herman (Instructional), Hyongki Lee, Kalyana B. Nakshatrala, William G. Rixey, Debora F. Rodrigues

Assistant Professors:
Yandi Hu, Stacey Louie, Konrad Krakowiak, Devin L. Shaffer

Adjunct Faculty:
Mohamad Mansour, Anestis S. Veletsos

Emeritus Faculty:
Dennis Clifford, Osman Ghazzaly, Kye Han, Jerry R. Rogers, James M. Symons

Web: www.egr.uh.edu/CIVE

Major

Civil Engineering, B.S.C.E.
Civil Engineering majors are required to follow all requirements and regulations outlined in the Academic Information - Cullen College of Engineering section of the Undergraduate Catalog.

When seeking transfer credit for engineering courses, students are expected to include detailed syllabi, as well as graded assignments and exams, with their petitions requesting course credit.

The major grade point average for civil engineering majors is calculated using all attempts in the following courses taken in residence at the University of Houston: all CIVE courses, MECE 2336 - Mechanics I, MECE 3336 - Mechanics II (Dynamics), and all engineering computing XXX 1331 courses.

Web: http://www.cive.uh.edu/programs/undergraduate.

First Year

Fall Term

- ENGI 1100 - Introduction To Engineering Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1431 - Calculus I Credit Hours: 4.0
- Social/Behavioral Sciences Core Course Credit Hours: 3.0

Total 15

Spring Term

- CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
- CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- MATH 1432 - Calculus II Credit Hours: 4.0
- PHYS 1321 - University Physics I Credit Hours: 3.0

Total 17

Second Year

Fall Term

- GEOL 1330 - Physical Geology or BIOL 1361 - Introduction to Biological Science I Credit Hours: 3.0
- CIVE 2330 - Mechanics I (Statics) Credit Hours: 3.0
- MATH 2433 - Calculus III Credit Hours: 4.0
- PHYS 1322 - University Physics II Credit Hours: 3.0
- MECT 3341 - Computer-Aided Drafting Credit Hours: 3.0
Total 16

Spring Term

- MECE 3336 - Mechanics II (Dynamics) Credit Hours: 3.0
- CIVE 2332 - Mechanics of Solids Credit Hours: 3.0
- INDE 2333 - Engineering Statistics I Credit Hours: 3.0
- MATH 3321 - Engineering Mathematics Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0

Total 18

Third Year

Fall Term

- CIVE 3331 - Environmental Engineering Credit Hours: 3.0
- CIVE 3332 - Engineering Materials Credit Hours: 3.0
- CIVE 3337 - Structural Analysis Credit Hours: 3.0
- CIVE 3339 - Geotechnical Engineering Credit Hours: 3.0
- ENGI 2334 - Introduction to Thermodynamics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Total 18

Spring Term

- CIVE 3434 - Fluid Mechanics and Hydraulic Engineering Credit Hours: 4.0
- CIVE 4363 - Concrete Design Credit Hours: 3.0
- CIVE 4369 - Foundation Engineering Credit Hours: 3.0
- CIVE ELEC - Civil Engineering Elective Credit Hours 3.0
- CIVE ELEC - Civil Engineering Elective Credit Hours 3.0

Total 16

Fourth Year

Fall Term

- CIVE 4311 - Professional Practice in Civil Engineering Credit Hours: 3.0
- CIVE 4332 - Hydrology Credit Hours: 3.0
- CIVE 4333 - Water and Wastewater Treatment Credit Hours: 3.0
• Language, Philosophy & Culture Core Course  **Credit Hours: 3.0**

• HIST 1377 - The U S To 1877  **Credit Hours: 3.0**

**Total 15**

**Spring Term**

• CIVE 4312 - Civil Engineering Design Project  **Credit Hours: 3.0**

• CIVE ELEC  **Credit Hours: 3.0**

• CIVE ELEC  **Credit Hours: 3.0**

• Creative Arts Core Course  **Credit Hours: 3.0**

• HIST 1378 - The U S Since 1877  **Credit Hours: 3.0**

**Total 15**

**Degree Total: 130 Credit Hours**

**Construction Engineering, B.S.Con.E.**

The BS in Construction Engineering program combines civil engineering and business principles to produce graduates who can design and manage the construction processes that create and rehabilitate the public infrastructure. This includes design and construction of commercial buildings, airports, dams, roads, utilities, bridges, residential communities, and schools. The curriculum includes the math, science, and engineering courses required for engineering licensure, as well as the practical business and management concepts construction professionals need.

Construction Engineering majors are required to follow all requirements and regulations outlined in the Academic Information - Cullen College of Engineering section of the Undergraduate Catalog.

When seeking transfer credit for engineering courses, students are expected to include detailed syllabi, as well as graded assignments and exams, with their petitions requesting course credit.

The Construction Engineering Major GPA is calculated using all attempts of the following courses taken in residence at the University of Houston: all CNE courses, all CIVE courses, ENGI 1331 - Computing and Problem Solving for Engineers and MECE 2336 - Mechanics I.

Web: [http://www.cive.uh.edu/programs/undergraduate](http://www.cive.uh.edu/programs/undergraduate)

This program is offered in face-to-face format at University of Houston at Katy.

**Requirements**

**Admission Requirements**

**Freshmen**

• Freshman Admission Requirements
Transfer

• Cullen College of Engineering Transfer Admission Requirements

Major Change for Current UH Students

See "Requirements for current UH Students Seeking a Major Change to Engineering" section at link below.

• Cullen College of Engineering Requirements

Course Requirements

First Year

Fall Term

• CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
• CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
• ENGI 1100 - Introduction To Engineering Credit Hours: 1.0
• ENGL 1303 - First Year Writing I Credit Hours: 3.0
• MATH 1431 - Calculus I Credit Hours: 4.0
• POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0

Total 15

Spring Term

• CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
• CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
• ENGI 1300 - Introduction to Engineering Credit Hours: 1.0
• ENGL 1304 - First Year Writing II Credit Hours: 3.0
• MATH 1432 - Calculus II Credit Hours: 4.0
• PHYS 1321 - University Physics I Credit Hours: 3.0

Total 17

Second Year

Fall Term

• CIVE 2330 - Mechanics I (Statics) Credit Hours: 3.0
• INDE 2333 - Engineering Statistics I Credit Hours: 3.0
• MATH 2433 - Calculus III Credit Hours: 4.0
• PHYS 1322 - University Physics II **Credit Hours: 3.0**
• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Total 16

Spring Term

• CIVE 2332 - Mechanics of Solids **Credit Hours: 3.0**
• CNE 2211 - Construction Engineering Fundamentals **Credit Hours: 2**
• ENGI 2304 - Technical Communications for Engineers **Credit Hours: 3.0**
• INDE 3333 - Engineering Economy I **Credit Hours: 3.0**
• MATH 3321 - Engineering Mathematics **Credit Hours: 3.0**
• Social and Behavioral Sciences: Approved Core Courses **Credit Hours: 3.0**

Total 17

Third Year

Fall Term

• CIVE 3332 - Engineering Materials **Credit Hours: 3.0**
• CIVE 3337 - Structural Analysis **Credit Hours: 3.0**
• CIVE 3380 - Fundamentals of Plane Surveying **Credit Hours: 3.0**
• CNE 3310 - Construction Scheduling, Planning and Control **Credit Hours: 3**
• CNE 3311 - Construction Engineering Equipment and Methods **Credit Hours: 3**
• INDE 3330 - Financial and Cost Management **Credit Hours: 3.0**

Total 18

Spring Term

• CNE 3301 - Construction Safety Engineering **Credit Hours: 3**
• CNE 3321 - Construction Engineering Management **Credit Hours: 3**
• CNE 3322 - Legal Aspects of Construction Engineering **Credit Hours: 3**
• CNE 3333 - Building Information Modeling **Credit Hours: 3**
• CNE Elective - Construction Engineering Elective **Credit Hours: 3.0**

Total 15

Fourth Year

Fall Term

• CIVE 4311 - Professional Practice in Civil Engineering **Credit Hours: 3.0**
• CNE 4321 - Construction Engineering Estimating  **Credit Hours: 3**
• CNE ELEC - Construction Engineering Elective  **Credit Hours: 3.0**
• HIST 1377 - The U S To 1877  **Credit Hours: 3.0**
• Language, Philosophy & Culture: Approved Core Courses  **Credit Hours: 3.0**

Total 15

**Spring Term**

• CNE 4312 - Construction Engineering Design Project  **Credit Hours: 3**
• CNE Elective - Construction Engineering Elective  **Credit Hours: 3.0**
• CNE Elective - Construction Engineering Elective  **Credit Hours: 3.0**
• HIST 1378 - The U S Since 1877  **Credit Hours: 3.0**
• Creative Arts: Approved Core Courses  **Credit Hours: 3.0**

Total 15

**Degree Total: 128 Credit Hours**

**Minor**

**Geomatics Minor**

**Admission Requirements**

Students must meet the overall and math GPAs required for and consistent with admission into the College of Engineering to pursue the Minor in Geomatics. No course may count toward the minor in which a grade of less than C- is earned.

**Minor Requirements**

**Required Courses**

• CIVE 3380 - Fundamentals of Plane Surveying  **Credit Hours: 3.0**
• CIVE 4381 - Advanced Geomatics and Geosensing  **Credit Hours: 3.0**
• CIVE 4382 - Legal Principles and Boundary Surveying  **Credit Hours: 3.0**
• CIVE 5375 - Digital Photogrammetry  **Credit Hours: 3.0**
• CIVE 5386 - Survey Measurements & Analysis  **Credit Hours: 3.0**

**Suggested Program**

**Year 1 of Minor**

  **Fall Semester**
- CIVE 3380 - Fundamentals of Plane Surveying
  **Spring Semester**
- CIVE 4381 - Advanced Geomatics and Geosensing

**Year 2 of Minor**

**Fall Semester**
- CIVE 5386 - Survey Measurements & Analysis
  **Spring Semester**
- CIVE 4382 - Legal Principles and Boundary Surveying
- CIVE 5375 - Digital Photogrammetry

**Academic Policies**

University of Houston Academic Policies

**Department of Electrical and Computer Engineering**

**Chair:**
Badri Roysam

**Professors:**
Ponnade Narayana (Adjunct), Edgar Bering, Mounir Boukadoum (Adjunct), Ji Chen, Frank J. Claydon, Jose L. Contreras-Vidal, John R. Glover, Alex Ignatiev, David R. Jackson, Ben H. Jansen, S. Lennart Johnsson, Ioannis Kakadiaris, Heidar A. Malki, Han Quang Le, Dmitri Litvinov, Stuart A. Long, Haluk Ogmen, Jonathan Ophir (Adjunct), Zhifeng Ren, Badri Roysam, Steven Shin-Shem Pei, Wajiha Shireen, Jaspal Subhlok, Jeffrey Williams (Adjunct), John C. Wolfe, George Zouridakis

**Associate Professors:**
Jiming Bao, Filippo Capolino (Adjunct), Jinghong Chen, Yuhua Chen, Craig Hartley (Adjunct), Zhu Han, Thomas J. Hebert, Kirill Larin, Pauline Markenscoff, Fatima Merchant, Paul Ruchhoeft, David P. Shattuck, Bhavin Sheth, Shishir Shah, Srimant Tripathy (Adjunct), Leonard P. Trombetta, Wanda E. Zagozdzon-Wosik

**Assistant Professors:**
Mehdi Abolhassani, Aaron Becker, Michael E. Brandt (Adjunct), Ryan Canolty, Xin Fu, Craig Glennie, David Mayerich, James Ortiz (Adjunct), Wei-Chuan Shih, Yan Yao, Cunjian Yu

Web: http://www.ee.uh.edu

**Electrical and Computer Engineering Programs**

Requisites must be satisfied for a student to enroll in a course. Engineering majors must earn a grade of C- or better in all engineering, mathematics, and science courses.

When seeking transfer credit for engineering courses, students are expected to include detailed syllabi, as well as graded assignments and exams, with their petitions requesting course credit. No grade lower than C- will be accepted on any courses transferred to the University of Houston.
Once a student has attempted 6 semester hours of ECE courses, a cumulative major GPA of 2.25 or better must be maintained to continue in good standing in the major. The major grade point average is calculated using all ECE courses as well as all Engineering Computing XXXX 1331 courses. For computer engineering majors, the major grade point average will also include all COSC courses that could be applied to the Bachelor of Science in Computer Engineering degree. For electrical engineering majors, the major grade point average will also include all COSC courses that could be applied to the Bachelor of Science in Electrical Engineering degree.

A minimum cumulative GPA of 2.000 in all courses attempted at the University of Houston is required for graduation. A minimum cumulative GPA of 2.000 in all courses of the major attempted at the University of Houston is also required for graduation.

The number of attempts at an ECE course is limited to two. Attempt is defined as formal enrollment (registration) that results in a student’s name being listed on an official grade report, which includes grades of W and I.

A minimum grade point average of 3.00 and consent of graduate director is required for an undergraduate or post-baccalaureate student to enroll in electrical and computer engineering graduate courses (6000 and above).

(1) Students with a bachelor’s degree in electrical engineering who want to pursue a second bachelor’s degree in computer engineering, (2) students with a bachelor’s degree in computer engineering who want to pursue a second bachelor's degree in electrical engineering, and (3) students who want to pursue the two degrees simultaneously must meet all requirements for each degree including residency requirements. In addition, University policy requires that a student must earn a minimum of 30 semester hours in addition to the minimum hours needed for the first degree, regardless of whether the two degrees are awarded simultaneously or successively.

A student falling into any one of the three categories above must file a petition with the ECE Department, indicating precisely which courses will comprise the additional 30 hours. Such petitions must be approved by the department at least one term prior to completion of the second degree. It is not possible to earn both a B.S.C.P.E. and a B.S.E.E. degree without following these regulations.

### Major

**Computer Engineering and Analytics, B.S.C.E.A.**

The program will prepare students to enter the modern workplace in which knowledge of computer engineering, controls, automation, and robotics, and data analytics, and their combined application to diverse industry sectors is a widespread need as recognized by a large number of organizations and companies.

This program is offered in face-to-face format at University of Houston at Katy.

### Requirements

#### Admission Requirements

#### Freshman

- Freshman Admission Requirements

#### Transfer

- Cullen College of Engineering Transfer Admission Requirements
Major Change for Current UH Students

See "Requirements for current UH Students Seeking a Major Change to Engineering" section at the link below.

- Cullen College of Engineering Requirements
  See "Major Changes for Current Students" section at the link below.
  - https://www.egr.uh.edu/academics/admissions/requirements#majorchange

Course Requirements

The first two years of the CEA program provide fundamental skills and knowledge in math, science, and electrical engineering. The second two years provide a carefully chosen blend of topics from computer engineering, control systems and robotics, and data analytics, which build upon the core engineering foundation.

The major CEA GPA is calculated from all CEA courses, and from ENGI 1331.

First Year

Fall Term

- HIST 1377 - The U S To 1877 \textbf{Credit Hours: 3.0}
- ENGL 1303 - First Year Writing I \textbf{Credit Hours: 3.0}
- ENGI 1100 - Introduction To Engineering \textbf{Credit Hours: 1.0}
- MATH 1431 - Calculus I \textbf{Credit Hours: 4.0}
- CHEM 1331 - Fundamentals of Chemistry \textbf{Credit Hours: 3.0}
- CHEM 1111 - Fundamentals of Chemistry Laboratory \textbf{Credit Hours: 1.0}

Total Semester Credit Hours: 15.0

Spring Term

- POLS 1336 - U.S. and Texas Constitution and Politics \textbf{Credit Hours: 3.0}
- ENGL 1304 - First Year Writing II \textbf{Credit Hours: 3.0}
- ENGI 1331 - Computing and Problem Solving for Engineers \textbf{Credit Hours: 3.0}
- MATH 1432 - Calculus II \textbf{Credit Hours: 4.0}
- PHYS 1321 - University Physics I \textbf{Credit Hours: 3.0}
- PHYS 1121 - University Physics Laboratory I \textbf{Credit Hours: 1.0}

Total Semester Credit Hours: 17.0

Second Year

Fall Term
• HIST 1378 - The U S Since 1877  Credit Hours: 3.0
• ECON 2304 - Microeconomic Principles  Credit Hours: 3.0
• MATH 2433 - Calculus III  Credit Hours: 4.0
• PHYS 1322 - University Physics II  Credit Hours: 3.0
• PHYS 1122 - University Physics Laboratory II  Credit Hours: 1.0
• ENGR 2406 - Fundamentals of Digital Logic  Credit Hours: 4.0

Total Semester Credit Hours: 18.0

Spring Term

• POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0
• MATH 3321 - Engineering Mathematics  Credit Hours: 3.0
• ENGI 2304 - Technical Communications for Engineers  Credit Hours: 3.0
• Creative Arts: Approved Core Courses  Credit Hours: 3.0
• ENGR 2405 - Circuit Analysis  Credit Hours: 4.0

Total Semester Credit Hours: 16.0

Third Year

Fall Term

• Language, Philosophy & Culture: Approved Core Courses  Credit Hours: 3.0
• CEA 3338 - Microprocessor Systems  Credit Hours: 3.0
• CEA 3201 - Computer Programming for Engineers  Credit Hours: 2.0
• CEA 3302 - Fundamentals of Software Engineering  Credit Hours: 3.0
• CEA 3337 - Digital Signals and Systems  Credit Hours: 3.0

Total Semester Credit Hours: 14.0

Spring Term

• CEA 3311 - Operating Systems for Engineers  Credit Hours: 3.0
• CEA 3312 - Fundamentals of Computer Architecture  Credit Hours: 3.0
• CEA 3323 - Data Structures and Algorithms  Credit Hours: 3.0
• INDE 2333 - Engineering Statistics I  Credit Hours: 3.0
• CEA 3421 - Introduction to Control Systems  Credit Hours: 4.0

Total Semester Credit Hours: 16.0

Fourth Year

Fall Term
• CEA 4321 - Database Principles and Applications  Credit Hours: 3.0
• CEA 4339 - Engineering Applications of Graph Theory  Credit Hours: 3.0
• CEA 4335 - Capstone Design I  Credit Hours: 3.0
• CEA 4422 - Communications and Networking  Credit Hours: 4.0
• CEA 4424 - Embedded Computing and Internet of Things  Credit Hours: 4.0

Total Semester Credit Hours: 17.0

Spring Term

• CEA 4355 - Engineering Data Analytics  Credit Hours: 3.0
• CEA 4341 - Pattern Recognition and Machine Learning  Credit Hours: 3.0
• CEA 4336 - Capstone Design II  Credit Hours: 3.0
• CEA 4442 - Robotics and Automation  Credit Hours: 4.0
• CEA 4444 - Introduction to Cybersecurity  Credit Hours: 4.0

Total Semester Credit Hours: 17.0

Total: 130.0 Credit Hours

Computer Engineering, B.S.Cp.E.

ECE Base

In the ECE Department, taking courses in either degree plan is organized into two phases. The first two years are the ECE Base. The ECE Base provides fundamental skills in math, science, and electrical engineering, and is identical for BSEE and BSCpE majors.

BSCpE Degree Plan

In the last two years of the BSCpE degree plan, students specialize in Computer Engineering, including a mix of Electrical Engineering and Computer Science courses.

All students in the BSCpE program are assigned a Faculty Advisor in the Computer Engineering area and must meet with that advisor before taking courses in the last two years of the degree plan.

The Computer Engineering Major GPA is calculated using all ECE courses as well as all Engineering Computing XXXX 1331 courses. In addition, for computer engineering majors, the major grade point average will also include all COSC courses that could be applied to the Bachelor of Science in Computer Engineering degree.

First Year

Fall Semester

• CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
• CHEM 1331 - Fundamentals of Chemistry **Credit Hours: 3.0**
• ENGI 1100 - Introduction To Engineering **Credit Hours: 1.0**
• ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
• HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
• MATH 1431 - Calculus I **Credit Hours: 4.0**

**Total 15**

**Spring Semester**

• ENGI 1331 - Computing and Problem Solving for Engineers **Credit Hours: 3.0**
• ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
• HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**
• MATH 1432 - Calculus II **Credit Hours: 4.0**
• PHYS 1321 - University Physics I **Credit Hours: 3.0**
• PHYS 1121 - University Physics Laboratory I **Credit Hours: 1.0**

**Total 17**

**Second Year**

**Fall Semester**

• ECE 2201 - Circuit Analysis I **Credit Hours: 2.0**
• MATH 2433 - Calculus III **Credit Hours: 4.0**
• MATH 3321 - Engineering Mathematics **Credit Hours: 3.0**
• PHYS 1322 - University Physics II **Credit Hours: 3.0**
• PHYS 1122 - University Physics Laboratory II **Credit Hours: 1.0**
• POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**

**Total 16**

**Spring Semester**

• ECE 2202 - Circuit Analysis II **Credit Hours: 2.0**
• ECE 2100 - Circuit Analysis Laboratory **Credit Hours: 1.0**
• ECE 3331 - Programming Applications in Electrical and Computer Engineering **Credit Hours: 3.0**
• ENGI 2304 - Technical Communications for Engineers **Credit Hours: 3.0**
• ECE 3441 - Digital Logic Design **Credit Hours: 4.0**
• ECE 3317 - Applied Electromagnetic Waves **Credit Hours: 3.0**

**Total 16**
Third Year

Fall Semester

- COSC 1430 - Introduction to Programming Credit Hours: 4.0
- ECE 3155 - Electronics Laboratory Credit Hours: 1.0
- ECE 3355 - Electronics Credit Hours: 3.0
- ECE 3337 - Signals and Systems Analysis Credit Hours: 3.0
- ECE 3436 - Microprocessor Systems Credit Hours: 4.0
- Creative Arts: Approved Core Courses Credit Hours: 3.0

Total 18

Spring Semester

- COSC 2430 - Programming and Data Structures Credit Hours: 4.0
- ECE 3457 - Digital Electronics Credit Hours: 4.0
- Approved CpE Elective and Lab Credit Hours: 4.0
- INDE 2333 - Engineering Statistics I Credit Hours: 3.0

Total 15

Fourth Year

Fall Semester

- ECE 4335 - Electrical and Computer Engineering Design I Credit Hours: 3.0
- MATH 3336 - Discrete Mathematics Credit Hours: 3.0
- ECE 5367 - Introduction to Computer Architecture and Design Credit Hours: 3.0
- Approved CpE elective and Lab Credit Hours: 4.0
- ECON 2304 - Microeconomic Principles Credit Hours: 3.0

Total 16

Spring Semester

- ECE 4336 - Electrical and Computer Engineering Design II Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- ECE Elective Credit Hours: 3.0
- Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
- COSC 4351 - Fundamentals of Software Engineering Credit Hours: 3.0

Total 15
Degree Total: 128

Electrical Engineering, B.S.E.E.

ECE Base

In the ECE Department, taking courses in either degree plan is organized into two phases. The first two years are the ECE Base. The ECE Base provides fundamental skills math, science, and electrical engineering, and is identical for BSEE and BSCpE majors.

BSEE Degree Plan

In the last two years of the BSEE degree plan, students must choose one of six Concentration Areas. The Concentration Area allows the student to choose a subset of Electrical Engineering that is of particular interest to the student, while still encouraging the student to take courses in related areas.

All students in the BSEE program must submit an Application for Concentration Area (available in the ECE Department) prior to enrolling in their first Concentration Elective. The student will then be assigned a Faculty Advisor in the chosen Concentration Area. Following the initial advising session with the Faculty Advisor, the student may enroll in the Concentration Area.

The Electrical Engineering Major GPA is calculated using all ECE courses as well as all Engineering Computing XXXX 1331 courses. In addition, for electrical engineering majors, the major grade point average will also include all COSC courses that could be applied to the Bachelor of Science in Electrical Engineering degree.

First Year

Fall Semester

- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- ENGI 1100 - Introduction To Engineering Credit Hours: 1.0
- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- MATH 1431 - Calculus I Credit Hours: 4.0

Total 15

Spring Semester

- ENGI 1331 - Computing and Problem Solving for Engineers Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- HIST 1377 - The U S Since 1877 Credit Hours: 3.0
- MATH 1432 - Calculus II Credit Hours: 4.0
- PHYS 1321 - University Physics I Credit Hours: 3.0
- PHYS 1121 - University Physics Laboratory I Credit Hours: 1.0
Total 17

Second Year

Fall Semester

- ECE 2201 - Circuit Analysis I **Credit Hours: 2.0**
- MATH 2433 - Calculus III **Credit Hours: 4.0**
- MATH 3321 - Engineering Mathematics **Credit Hours: 3.0**
- PHYS 1322 - University Physics II **Credit Hours: 3.0**
- PHYS 1122 - University Physics Laboratory II **Credit Hours: 1.0**
- POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**

Total 16

Spring Semester

- ECE 2202 - Circuit Analysis II **Credit Hours: 2.0**
- ECE 2100 - Circuit Analysis Laboratory **Credit Hours: 1.0**
- ECE 3331 - Programming Applications in Electrical and Computer Engineering **Credit Hours: 3.0**
- ENGI 2304 - Technical Communications for Engineers **Credit Hours: 3.0**
- ECE 3441 - Digital Logic Design **Credit Hours: 4.0**
- ECE 3317 - Applied Electromagnetic Waves **Credit Hours: 3.0**

Total 16

Third and Fourth Year

Students must select one of the six Electrical Engineering concentration areas. A total seven lecture courses and four laboratory courses in the concentration area must be successfully completed. Courses are selected as follows.

- **Category 1:** Courses specified in Category 1 are required for the concentration area.
- **Category 2:** Electives are chosen from Category 2 so as to complete seven lecture and four laboratory courses in the concentration area.
- **ECE Electives:** Two ECE courses at the 3-, 4-, or 5000 level are chosen. The student must also satisfy any prerequisites specified for the chosen courses.
- **Technical Elective:** One course is chosen from an approved list of courses. Alternatively, a third ECE elective may be chosen.

Third Year

Fall Semester

- ECE 3155 - Electronics Laboratory **Credit Hours: 1.0**
- ECE 3355 - Electronics **Credit Hours: 3.0**
- ECE 3337 - Signals and Systems Analysis **Credit Hours: 3.0**
• ECE 3436 - Microprocessor Systems **Credit Hours: 4.0**
• Creative Arts: Approved Core Courses **Credit Hours: 3.0**
• ECE Elective **Credit Hours: 3.0**

Total 17

**Spring Semester**

• Concentration Elective **Credit Hours: 3.0**
• ECE 3340 - Numerical Methods for Electrical and Computer Engineers **Credit Hours: 3.0**
• ECE Elective **Credit Hours: 3.0**
• Elective Lab **Credit Hours: 1.0**
• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
• INDE 2333 - Engineering Statistics **Credit Hours: 3.0**

Total 16

**Fourth Year**

**Fall Semester**

• ECE 4335 - Electrical and Computer Engineering Design I **Credit Hours: 3.0**
• Concentration Elective **Credit Hours: 3.0**
• Concentration Elective **Credit Hours: 3.0**
• Elective Lab **Credit Hours: 1.0**
• Technical Elective **Credit Hours: 3.0**
• ECON 2304 - Microeconomic Principles **Credit Hours: 3.0**

Total 16

**Spring Semester**

• ECE Elective Lab **Credit Hours: 1.0**
• ECE Concentration Elective **Credit Hours: 3.0**
• ECE Concentration Elective **Credit Hours: 3.0**
• ECE Concentration Elective **Credit Hours: 3.0**
• Language, Philosophy & Culture: Approved Core Courses **Credit Hours 3.0**
• ECE 4336 - Electrical and Computer Engineering Design II **Credit Hours: 3.0**

Total 16

**Degree Total Hours: 129**

**Minor**
Nano Engineering Minor

Students who choose to minor in Nano Engineering must complete 15 hours in Nano Engineering including

- ECE 5319 - Introduction to Nanotechnology **Credit Hours: 3.0**
- CHEE 5319 - Introduction to Nanotechnology **Credit Hours: 3.0**
- MECE 5319 - Introduction to Nanotechnology **Credit Hours: 3.0**

- MECE 5320 - Introduction to Nanomaterials Engineering **Credit Hours: 3.0**
- MECE 5120 - Nanomaterials Engineering Laboratory **Credit Hours: 1.0**
- MECE 5321 - Nanoscale Design & Fabrication **Credit Hours: 3.0**

Note(s):

Prerequisite and/or co-requisites must be observed and will be enforced.

The students must also complete

Independent study course conducting supervised research on a Nano Engineering project approved by the Nano Engineering minor advisor in the Cullen College of Engineering.

- CHEE 4398 - Independent Study **Credit Hours: 3.0**

Note(s):

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors and contact the Nano Engineering minor advisor in the Cullen College of Engineering.

Students must earn a 3.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. No course may count toward the minor in which a grade of less than C- is earned.

Department of Industrial Engineering

Chair: Gino Lim

Professors:
Thomas Chen (Research), Suresh Khator, Hamid R. Parsaei

Associate Professors:
Christopher A. Chung, Ali K. Kamrani, Jinho "Gino" Lim, Lawrence Schulze

Assistant Professors:
Qianmei (May) Feng, Maher Lahmar
Major

Industrial Engineering (as a Second Bachelor)

Cullen College of Engineering > Department of Industrial Engineering > Industrial Engineering (as a Second Bachelor)

Students who have completed a Bachelor of Science at the University of Houston in another field of engineering may obtain a Bachelor of Science in Industrial Engineering degree by completing, at the University of Houston, the additional year of course work shown below. Required prerequisites for this program are INDE 2333 and INDE 3333, in addition to those courses required for the first degree.

Requirements

- INDE 2333 - Engineering Statistics I Credit Hours: 3.0
- INDE 3333 - Engineering Economy I Credit Hours: 3.0
- INDE 3364 - Engineering Statistics II Credit Hours: 3.0
- INDE 3382 - Stochastic Models Credit Hours: 3.0
- INDE 3381 - Linear Optimization Credit Hours: 3.0
- INDE 3432 - Manufacturing Processes Credit Hours: 4.0
- INDE 4331 - Analysis of Industrial Activities Credit Hours: 3.0
- INDE 4369 - Facilities Planning and Design Credit Hours: 3.0
- INDE 4372 - Operation Control Credit Hours: 3.0
- Technical Elective Credit Hours: 3.0

Total for Additional Degree 31

Industrial Engineering, B.S.I.E.

Students must earn a 2.25 grade point average in all courses and in INDE major courses in order to enroll in 3000-level and above INDE courses. The major grade point average of 2.25 must be maintained at all times until the last semester before graduation.

The major grade point average is calculated using all INDE courses plus all Engineering Computing XXXX 1331 courses.

The number of attempts of an INDE course is limited to two. Attempt is defined as formal enrollment (registration) that results in a student receiving a letter grade, including grades of U, W, and I.

First Year

Fall Semester

- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- ENGL 1303 - First Year Writing Credit Hours: 3.0
• ENGI 1100 - Introduction To Engineering Credit Hours: 1.0
• MATH 1431 - Calculus I Credit Hours: 4.0
• Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0

Total 15

Spring Semester

• ENGI 1331 - Computing and Problem Solving for Engineers Credit Hours: 3.0
• ENGL 1304 - First Year Writing II Credit Hours: 3.0
• HIST 1377 - The U S To 1877 Credit Hours: 3.0
• MATH 1432 - Calculus II Credit Hours: 4.0
• PHYS 1321 - University Physics I Credit Hours: 3.0

Total 16

Second Year

Fall Semester

• INDE 2333 - Engineering Statistics I Credit Hours: 3.0
• INDE 3330 - Financial and Cost Management Credit Hours: 3.0
• MATH 2433 - Calculus III Credit Hours: 4.0
• PHYS 1322 - University Physics II Credit Hours: 3.0
• POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0

Total 16

Spring Semester

• MECE 3400 - Introduction to Mechanics Credit Hours: 4.0
• ENGE 2304 - Technical Communications for Engineers Credit Hours: 3.0
• INDE 3333 - Engineering Economy Credit Hours: 3.0
• INDE 2331 - Computer Applications for Industrial Engineers Credit Hours: 3.0
• MATH 3321 - Engineering Mathematics Credit Hours: 3.0

Total 16

Third Year

Fall Semester

• INDE 3382 - Stochastic Models Credit Hours: 3.0
• INDE 3364 - Engineering Statistics II **Credit Hours: 3.0**
• INDE 3432 - Manufacturing Processes **Credit Hours: 4.0**
• INDE 3310 - Statistical Process Quality Control and Improvement **Credit Hours: 3.0**
• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Total 16

Spring Semester

• INDE 3362 - Computer Aided Design/ Computer Aided Manufacturing **Credit Hours: 3.0**
• INDE 4331 - Analysis of Industrial Activities **Credit Hours: 3.0**
• INDE 4369 - Facilities Planning and Design **Credit Hours: 3.0**
• INDE 3381 - Linear Optimization **Credit Hours: 3.0**
• Creative Arts: Approved Core Courses **Credit Hours: 3.0**

Total 15

Fourth Year

Fall Semester

• INDE 4370 - Discrete Event Simulation **Credit Hours: 3.0**
• INDE 4111 - Industrial Engineering Seminar **Credit Hours: 1.0**
• INDE 4320 - Computer Integrated Manufacturing **Credit Hours: 3.0**
• INDE 4364 - Big Data and Analytics **Credit Hours: 3.0**
• Social and Behavioral Sciences: Approved Core Courses **Credit Hours: 3.0**
• HIST 1378 - The U.S. Since 1877 **Credit Hours: 3.0**

Total 16

Spring Semester

• INDE 4315 - Supply Chain Design and Management **Credit Hours: 3.0**
• INDE 4334 - Engineering Systems Design **Credit Hours: 3.0**
• INDE 4337 - Human Factors and Ergonomics **Credit Hours: 3.0**
• INDE 4372 - Operation Control **Credit Hours: 3.0**

Total 15

Degree Total: 125

Systems Engineering, B.S.Sys.E.
The proposed program in Systems Engineering (SE) is designed to provide students with in-depth knowledge and skill sets to successfully develop and implement solutions to increasingly complex multidisciplinary engineering systems. The curriculum of this program will have a good balance between theory and hands-on experience training. Its objectives include:

1. to provide students with a sound foundational core engineering education, along with solid education in SE including engineering probability and statistics, system thinking, system integration and optimization, decision analysis and risk management.
2. to help students develop holistic viewpoints and methodologies that look at all sub-systems of a complex system and how these sub-systems can be integrated efficiently and effectively to produce the best quality product meeting end-customers' needs and serving shareholders' interests.
3. to provide students with hands-on training through a variety of real-world applications across different fields so that students can adapt their knowledge and expertise to different industrial environments.

Students in this program will complete their degree entirely in UH at Katy campus. All courses will be taught using face-to-face mode at Katy campus, online (i.e., asynchronous or synchronous instruction methods) or hybrid mode.

Requirements

Admission Requirements

Systems Engineering majors are required to follow all requirements and regulations outlined in the Academic Information - Cullen College of Engineering section of the Undergraduate Catalog.

Major Change for Current UH Students

Students must earn a 2.25-grade point average (GPA) in all courses and in INDE major courses in order to enroll in 3000-level and above INDE & SYSE courses. The major GPA of 2.25 must be maintained at all times until the last semester before graduation.

The Systems Engineering Major GPA is calculated using all attempts of the following courses taken in residence at the University of Houston: all SYSE courses, all INDE courses, ENGI 1331 - Computing and Problem Solving for Engineers and CEA 3201 - Computer Programming for Engineers. When seeking transfer credit for engineering courses, students are expected to include detailed syllabi, as well as graded assignments and exams, with their petitions requesting course credit.

Web: http://www.ie.uh.edu/undergraduate/overview.

Course Requirements

First Year

Fall Term

- HIST 1376 - The United States To 1877 Credit Hours: 3.0 OR
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1431 - Calculus I Credit Hours: 4.0
- ENGI 1100 - Introduction To Engineering Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
Spring Term

- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
- ENGI 1331 - Computing and Problem Solving for Engineers Credit Hours: 3.0
- PHYS 1321 - University Physics I Credit Hours: 3.0
- MATH 1432 - Calculus II Credit Hours: 4.0

Total 15

Second Year

Fall Term

- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- INDE 2331 - Computer Applications for Industrial Engineers Credit Hours: 3.0
- MATH 2433 - Calculus III Credit Hours: 4.0
- INDE 2333 - Engineering Statistics I Credit Hours: 3.0
- PHYS 1322 - University Physics II Credit Hours: 3.0

Total 16

Spring Term

- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0 OR
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0
- Creative Arts: Approved Core Courses Credit Hours: 3.0
- MATH 3321 - Engineering Mathematics Credit Hours: 3.0

Total 15

Third Year

Fall Term

- CEA 3201 - Computer Programming for Engineers Credit Hours: 2.0
- SYSE 3301 - Fundamentals of Systems Engineering Credit Hours: 3
- SYSE 3315 - Systems Architecture & Design Credit Hours: 3
• INDE 3364 - Engineering Statistics II Credit Hours: 3.0
• INDE 3310 - Statistical Process Quality Control and Improvement Credit Hours: 3.0
• INDE 3330 - Financial and Cost Management Credit Hours: 3.0

Total 17

Spring Term

• INDE 4331 - Analysis of Industrial Activities Credit Hours: 3.0
• SYSE 3340 - Systems Integration, Verification and Validation Credit Hours: 3
• INDE 3333 - Engineering Economy I Credit Hours: 3.0
• INDE 3381 - Linear Optimization Credit Hours: 3.0
• SYSE 3355 - Systems Thinking Credit Hours: 3

Total 15

Fourth Year

Fall Term

• INDE 4370 - Discrete Event Simulation Credit Hours: 3.0
• SYSE 4111 - Systems Engineering Seminar Credit Hours: 1
• SYSE 4320 - Project Management of Complex Systems Credit Hours: 3
• INDE 3382 - Stochastic Models Credit Hours: 3.0
• SYSE Elect 1 - Concentration Elective 1 Credit Hours: 3.0
• Social and Behavioral Sciences: Approved Core Courses Credit Hours: 3.0

Total 16

Spring Term

• INDE 4337 - Human Factors and Ergonomics Credit Hours: 3.0
• INDE 4364 - Big Data and Analytics Credit Hours: 3.0
• INDE 4315 - Supply Chain Design and Management Credit Hours: 3.0
• SYSE 4334 - Systems Engineering Capstone Design Credit Hours: 3
• SYSE Elect 2 - Concentration Elective 2 Credit Hours: 3.0

Total 15

Degree Total: 125.0 Credit Hours

Dual Degree Program
Bachelor of Science in Industrial Engineering/Master of Business Administration (Dual Degree)

Sample Degree Plan

First Year

Fall Semester

- CHEM 1111 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
- CHEM 1331 - Fundamentals of Chemistry **Credit Hours: 3.0**
- ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- HIST 1376 - The United States To 1877 **Credit Hours: 3.0**
  or
- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
- MATH 1431 - Calculus I **Credit Hours: 4.0**
- Language, Philosophy & Culture Core Course **Credit Hours: 3.0**

Total 17

Spring Semester

- ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
- HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**
  or
- HIST 1379 - The United States Since 1877 **Credit Hours: 3.0**
- MATH 1432 - Calculus II **Credit Hours: 4.0**
- PHYS 1321 - University Physics I **Credit Hours: 3.0**
- ENGI 1100 - Introduction To Engineering **Credit Hours: 1.0**

Total 17

Second Year

Fall Semester

- INDE 2333 - Engineering Statistics I **Credit Hours: 3.0**
- INDE 3330 - Financial and Cost Management **Credit Hours: 3.0**
- MATH 2433 - Calculus III **Credit Hours: 4.0**
- PHYS 1322 - University Physics II **Credit Hours: 3.0**
- INDE 2331 - Computer Applications for Industrial Engineers **Credit Hours: 3.0**
Total 16

Spring Semester

- MECE 3400 - Introduction to Mechanics Credit Hours: 4.0
- ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
- INDE 3333 - Engineering Economy I Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- MATH 3321 - Engineering Mathematics Credit Hours: 3.0

Total 16

An internship will follow this second year.

Third Year

Fall Semester

- INDE 3382 - Stochastic Models Credit Hours: 3.0
- INDE 3364 - Engineering Statistics II Credit Hours: 3.0
- INDE 3362 - Manufacturing Processes Credit Hours: 4.0
- INDE 3330 - Statistical Process Quality Control and Improvement Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Total 16

Spring Semester

- INDE 3362 - Computer Aided Design/Computer Aided Manufacturing Credit Hours: 3.0
- INDE 4331 - Analysis of Industrial Activities Credit Hours: 3.0
- INDE 4369 - Facilities Planning and Design Credit Hours: 3.0
- INDE 3381 - Linear Optimization Credit Hours: 3.0
- Creative Arts Core Course Credit Hours: 3.0

Total 15

An internship will follow this third year.

Fourth Year

Fall Semester
- INDE 4370 - Discrete Event Simulation Credit Hours: 3.0
- INDE 4111 - Industrial Engineering Seminar Credit Hours: 1.0
- INDE 4320 - Computer Integrated Manufacturing Credit Hours: 3.0
- ACCT 6361. Financial Accounting Credit Hours: 3.0
- Social/Behavioral Sciences Core Course Credit Hours: 3.0

Total 13

Spring Semester

- INDE 4315 - Supply Chain Design and Management Credit Hours: 3.0
- INDE 4334 - Engineering Systems Design Credit Hours: 3.0
- INDE 4337 - Human Factors and Ergonomics Credit Hours: 3.0
- INDE 4372 - Operation Control Credit Hours: 3.0
- FINA 6387. Managerial Analysis Credit Hours: 3.0

Total 15

BS Degree Total: 125

An internship will follow this fourth year.

Fifth Year - MBA Program

Fall Semester - sessions 1 and 2

- FINA 6A35. Managerial Finance Credit Hours: 1.5
- SCM 6A01. Production and Operations Management Credit Hours: 1.5
- MARK 6A61. Marketing Communication Credit Hours: 1.5
- GENB 6A50. Business Communication Credit Hours: 1.5
- MANA 6A83. Strategic Management Credit Hours: 1.5
- MBA xxxx. MBA elective Credit Hours: 3.0
- MBA xxxx. MBA elective Credit Hours: 3.0
- MBA xxxx. MBA elective Credit Hours: 3.0

Total 16.5

Spring Semester - sessions 1 and 2

- MIS 6A41. Information Systems Credit Hours: 1.5
- MANA 6A25. Ethical Leadership and Critical Reasoning Credit Hours: 1.5
- MANA 6A33. Organizational Behavior & Management Credit Hours: 1.5
- MBA xxxx. MBA elective Credit Hours: 3.0
• MBA xxxx. MBA elective **Credit Hours: 3.0**  
• MBA xxxx. MBA elective **Credit Hours: 3.0**  
• MBA xxxx. MBA elective **Credit Hours: 3.0**  

**Total 16.5**

**Summer Semester - sessions 1 and 2**

• MBA xxxx. MBA elective **Credit Hours: 3.0**  
• Internship (recommended)

**Total credit during MBA fifth year 36**

**Double-Counted Courses**

• ACCT 6361. Financial Accounting **Credit Hours: 3.0**  
• FINA 6387. Managerial Analysis **Credit Hours: 3.0**  
• INDE 2333 Engineering Statistics I (prerequisite for INDE 3364)  
• INDE 3364 Engineering Statistics II (substitutes for STAT 6360) **Credit Hours: 3.0**  
• INDE xxxx. Industrial Engineering elective (3 credit hours counts as 1.5) **Credit Hours: 1.5**
• INDE xxxx. Industrial Engineering elective (3 credit hours counts as 1.5) **Credit Hours: 1.5**

**Total double-counted courses 12**

**Total credit counted toward MBA: 48**

**Note:**

MBA electives can be 1.5 or 3 credits. The outline above is one example of how the electives may be structured. Students can also take the 3 credit electives.

**Department of Mechanical Engineering**

**Chair:**

Pradeep Sharma

**Associate Chair:**

Jagannatha R. Rao

**Professors:**
Richard B. Bannerot, Hal Brinson (Emeritus), Yi-Chao Chen, Charles Dalton (Emeritus), Bonnie J. Dunbar, Roger Eichhorn (Emeritus), Matthew Franchek, Karolos M. Grigoriadis, John H. Lienhard (Emeritus), Ralph W. Metcalfe, Kamel Salama (Emeritus), Venkat Selvamanickam, Pradeep Sharma, Gangbing Song, Li Sun, SuSu Wang, Kenneth W. White, Larry C. Witte (Emeritus)

Associate Professors:

Jagannatha R. Rao

Assistant Professors:

Ashutosh Agrawal, Haleh Ardebili, Yashashree Kulkami, Dong Liu, Philippe Masson, Anastassios Mavrokefalos, Jae-Hyun Ryou

Adjunct Faculty:

Phaneendra Kondapi, William Thomas

Instructional Assistant Professor:

Xuemei Chen

Web: www.me.uh.edu

Major

Mechanical Engineering, B.S.M.E.

Mechanical engineering majors must earn a grade of C- or better in all engineering, mathematics, and science courses, including transfer courses. No grade lower than C- will be accepted for other courses transferred to the University of Houston. When petitioning for transfer credit for Mechanical Engineering courses, students are expected to submit details of course syllabi plus their graded assignments and exams from the courses taken at the external institution.

Students with senior standing in Mechanical Engineering are required to take four technical electives. The elective requirements can be satisfied by one of the following options:

- Take four MECE 5000-level or higher Mechanical Engineering courses.
- Take three MECE 5000-level or higher Mechanical Engineering courses, and one course from the approved list of non-MECE 3000+ level courses from other departments in engineering or math or science.
- Complete a senior honors thesis using MECE 3399 and MECE 4399, and then take two MECE 5000-level or higher Mechanical Engineering courses.

Students in the Fast Track Program can substitute 6000-level MECE courses for the 5000-level MECE courses. Students doing an Honors thesis would have to take an extra three hours to satisfy the requirements for a Math Minor. One MECE 4398 course (Individual Study) can be used in place of a 5000-level MECE course.

A drafting requirement (for no credit toward graduation) may be satisfied by completing MECT 1330 or MECT 3341 or an equivalent. A computer-aided course would be best. (This requirement may be met using other courses, or high school drafting completed in the tenth, eleventh, or twelfth grade, or industrial experience by filing a petition in the department.)
The major grade point average for mechanical engineering majors is calculated using all attempts in the following courses taken in residence at the University of Houston: all MECE courses, CIVE 2330 - Mechanics I (Statics), CIVE 2331 - Mechanics II (Dynamics), ENGI 2334 - Introduction to Thermodynamics and all of the following courses: BIOE 1331, CHEE 1331, CIVE 1331, ECE 1331, ENGI 1331, and INDE 1331.

First Year

See "4".

Fall Semester

- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- MATH 1431 - Calculus I Credit Hours: 4.0 \(^{2}\)
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0 \(^{1}\)
- ENGI 1100 - Introduction To Engineering Credit Hours: 1.0

Total 15

Spring Semester

- CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- ENGI 1331 - Computing and Problem Solving for Engineers Credit Hours: 3.0
- MATH 1432 - Calculus II Credit Hours: 4.0
- PHYS 1321 - University Physics I Credit Hours: 3.0

Total 17

Second Year

Fall Semester

- CIVE 2330 - Mechanics I (Statics) Credit Hours: 3.0
- MATH 2433 - Calculus III Credit Hours: 4.0
- PHYS 1322 - University Physics II Credit Hours: 3.0
- Language, Philosophy & Culture Core Course Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0 \(^{1}\)

Total 16

Spring Semester
• MATH 3321 - Engineering Mathematics Credit Hours: 3.0
• ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
• MECE 2334 - Thermodynamics Credit Hours: 3.0
• MECE 3336 - Mechanics II (Dynamics) Credit Hours: 3.0
• MECE 2361 - Introduction to Mechanical Design Credit Hours: 3.0

Total 15

Third Year

Fall Semester

• MECE 3338 - Dynamics and Control of Mechanical Systems Credit Hours: 3.0
• MATH 3363 - Introduction to Partial Differential Equations Credit Hours: 3.0
• MECE 3345 - Materials Science Credit Hours: 3.0
• MECE 3369 - Solid Mechanics Credit Hours: 3.0
• HIST 1377 - The U S To 1877 Credit Hours: 3.0
• Social/Behavioral Sciences Core Course Credit Hours: 3.0

Total 18

Spring Semester

• HIST 1378 - The U S Since 1877 Credit Hours: 3.0
• MECE 3245 - Materials Science Laboratory Credit Hours: 2.0
• MECE 3360 - Experimental Methods Credit Hours: 3.0
• MECE 3363 - Introduction to Fluid Mechanics Credit Hours: 3.0
• MECE 3381 - Introduction to Finite Element Methods for Mechanical Engineers Credit Hours: 3.0
• Creative Arts Core Course Credit Hours: 3.0

Total 17

Fourth Year

Fall Semester

• MECE 4364 - Heat Transfer Credit Hours: 3.0
• MECE 4340 - Mechanical Engineering Capstone I Credit Hours: 3.0
• MECE 53xx. Mechanical Engineering Elective Credit Hours: 3.0 12
• MECE 4331 - Design of Machine Elements Credit Hours: 3.0
• MECE 4343 - Thermal Design Credit Hours: 3.0

Total 15
Spring Semester

- MECE 4341 - Mechanical Engineering Capstone II  Credit Hours: 3.0
- MECE 4371 - Thermal-Fluids Laboratory  Credit Hours: 3.0
- MECE 53xx. Mechanical Engineering Elective  Credit Hours: 3.0
- MECE 53xx. Mechanical Engineering Elective  Credit Hours: 3.0
- MECE 53xx. Mechanical Engineering Elective  Credit Hours: 3.0

Total 15

Degree Total 128

Minor

**Mechanical Engineering Minor**

Students who choose to minor in mechanical engineering must complete the general requirements for a minor with at least 18 hours in Mechanical Engineering including MECE 2334, MECE 3363, and MECE 3400 or equivalent. Students must be admissible to Mechanical Engineering to pursue the Mechanical Engineering minor.

Courses in the minor program can be selected from any of the Mechanical Engineering courses listed in the Undergraduate Studies catalog, including the senior level electives, provided that prerequisites are satisfied. No special problems or thesis courses are allowed.

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors and contact the undergraduate advisor in the Department of Mechanical Engineering.

Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. No course may count toward the minor in which a grade of less than C- is earned.

**Department of Petroleum Engineering**

Interim Chair: Thomas K. Holley, Ph.D.

Web: http://www.petro.uh.edu

Major

**Petroleum Engineering, B.S.P.E.T.E.**

The major grade point average for petroleum engineering majors is calculated using all PETR courses plus all Engineering Computing XXXX 1331 courses.

PETR First Year
Fall Semester

- ENGL 1303 - First Year Writing I  Credit Hours: 3.0
- MATH 1431 - Calculus I  Credit Hours: 4.0
- GEOL 1330 - Physical Geology  Credit Hours: 3.0
- GEOL 1130 - Physical Geology Lab  Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
- ENGI 1100 - Introduction To Engineering  Credit Hours: 1.0

Total 16

Spring Semester

- ENGL 1304 - First Year Writing II  Credit Hours: 3.0
- MATH 1432 - Calculus II  Credit Hours: 4.0
- PHYS 1321 - University Physics I  Credit Hours: 3.0
- CHEM 1332 - Fundamentals of Chemistry 2  Credit Hours: 3.0
- CHEM 1112 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
- ENGI 1331 - Computing and Problem Solving for Engineers  Credit Hours: 3.0

Total 17

PETR Second Year

Fall Semester

- HIST 1377 - The U S To 1877  Credit Hours: 3.0
- MATH 2433 - Calculus III  Credit Hours: 4.0
- PHYS 1322 - University Physics II  Credit Hours: 3.0
- INDE 2333 - Engineering Statistics I  Credit Hours: 3.0
- PETR 1111 - Introduction to Petroleum Engineering  Credit Hours: 1.0
- PETR 2311 - Reservoir Petrophysics  Credit Hours: 3.0
- PETR 2111 - Petroleum Petrophysics Lab  Credit Hours: 1.0

Total 18

Spring Semester

- HIST 1378 - The U S Since 1877  Credit Hours: 3.0
- MATH 3321 - Engineering Mathematics  Credit Hours: 3.0
- Social and Behavioral Sciences Core Course  Credit Hours: 3.0
- ENGI 2334 - Introduction to Thermodynamics  Credit Hours: 3.0
• PETR 2313 - Reservoir Fluids **Credit Hours: 3**

**Total 15**

**PETR Third Year**

**Fall Semester**

• ENGI 2304 - Technical Communications for Engineers **Credit Hours: 3.0**
• MECE 3400 - Introduction to Mechanics **Credit Hours: 4.0**
• PETR 3315 - Introduction to Well Logging **Credit Hours: 3.0**
• PETR 3362 - Reservoir Engineering I **Credit Hours: 3.0**
• PETR 3372 - Petroleum Production Operation **Credit Hours: 3.0**

**Total 16**

**Spring Semester**

• POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
• CHEE 3363 - Fluid Mechanics for Chemical Engineers **Credit Hours: 3.0**
• PETR 3318 - Drilling Engineering I **Credit Hours: 3**
• PETR 3321 - Petroleum Pressure Transient Testing **Credit Hours: 3.0**
• PETR 3310 - Petroleum Production Economics **Credit Hours: 3.0**

**Total 15**

**PETR Fourth Year**

**Fall Semester**

• POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
• Creative Arts Core Course **Credit Hours: 3.0**
• Petroleum Technical Elective #1 (See Approved List) **Credit Hours: 3.0**
• PETR 4301 - Reservoir Characterization and Modeling **Credit Hours: 3.0**
• PETR 4311 - Petroleum Capstone Project I **Credit Hours: 3.0**

**Total 15**

**Spring Semester**

• Language, Philosophy & Culture Core Course **Credit Hours: 3.0**
• Petroleum Technical Elective #2 (See Approved List) **Credit Hours: 3.0**
• Petroleum Technical Elective #3 (See Approved List) **Credit Hours: 3.0**
• Geoscience Elective (See Approved List) **Credit Hours: 3.0**
• PETR 4312 - Petroleum Capstone Project II **Credit Hours: 3.0**

Total 15

Degree Total Hours: 127

**Minor**

**Petroleum Engineering Minor**

Students who choose to minor in Petroleum Engineering must complete 16 hours in Petroleum Engineering courses. Students must be admissible through the change of major requirements as listed on the college of engineering website to pursue the Petroleum Engineering minor.

Enrollment is contingent upon official addition of the petroleum minor plan to the student's career and provided that prerequisites of each course are satisfied.

**Course Requirements:**

- PETR 1111
- PETR 2311
- PETR 2313

Any three of the following four courses:

- PETR 3362
- PETR 3318
- PETR 3315
- PETR 3372

Students must earn a 2.00 minimum cumulative grade point average on the courses attempted in the minor discipline at the University of Houston. No course may count toward the minor in which a grade of less than **C-** is earned.
Engineering Footnotes

College: Cullen College of Engineering

1 Refer to the University of Houston Admissions website for information on equivalents and substitutions and for information on advanced placement examinations.

2 Students not qualified to enter MATH 1431 must complete MATH 1300, MATH 1310 and/or MATH 1330, as indicated by results of the Mathematics placement examination, prior to enrolling in MATH 1431.

3 Students must complete successfully one chemistry elective, two technical electives and one science elective chosen from a list published by the Department of Chemical Engineering twice a year. These electives must be chosen from within one of the following six specialties: Process Engineering, Biotechnology, Electronic Materials, Process Control, Environmental Engineering and Petroleum Engineering. Students must also complete successfully either Biochemical Engineering or Materials Science & Engineering II.

4 This degree may require three additional semester hours. Note the graphics requirement described under this department section.

5 Electives in the BSCE Degree Program are described on the Department of Civil and Environmental Engineering Website. Elective selections must be approved by BSCE program director.

6 A list of approved Technical Communication courses will be available in the department and posted on the departmental Web site.

7 Electives in the BSEE Degree Program are described on the ECE Department website.

8 Electives in the BSCpE Degree Program are described on the ECE Department website.

9 Approved technical courses are MATH 3336, MATH 3333, MANA 3335, MIS 3370, and INDE 4388. Other technical courses must be approved in advance by the Industrial Engineering departmental advisor.

10 Electives can be chosen from any MECE 5000-level course, or upon approval of the department, a MECE 6000-level course or an appropriate course outside of MECE.

11 Electives can be chosen from any upper-level course (BIOE 3000, 4000, or 5000), with the approval of the undergraduate advisor. BIOE 6000-level course, or an appropriate course outside of BIOE may be considered.

12 Electives in the BSConE Degree Program are described on the Department Civil and Environmental Engineering Website. Elective selections must be approved by the program director.

13 Electives in the BSSysE Degree Program are described on the Department Industrial Engineering Website. Elective selections must be approved by the program director.
Exploratory Studies

About Exploratory Studies at UH

Exploratory Studies is a short-term entry major that intentionally integrates academic support with career counseling to allow undecided students to make informed decisions about, and prepare for, declaring a degree-seeking major. Exploratory Studies majors interact with professionals in career fields, faculty and students in majors of interest, and colleagues making similar academic and career decisions.

By University of Houston policy, all freshmen students will declare a major by the beginning of their sophomore year (30 credit hours).

Exploratory Studies is a part of the UH Undergraduate Student Success Center.

Contact Information

- For general Exploratory Studies questions: ExploratoryStudies@uh.edu
- For TSI questions or to request a TSI Staff Review: TSI@uh.edu
- Front desk phone: 832-842-2100
- Fax: 713-743-8998
- Web: http://www.uh.edu/ussc/exploratorystudies/

Courses

- CORE 1101 - College Success

CORE 1101 - College Success
The Honors College

Contact Information

Office of the Dean:

HONORS COLLEGE
M.D. ANDERSON LIBRARY
4333 UNIVERSITY DR  RM 212
HOUSTON TX  77204-2001
713-743-9010

Dean:

William Monroe, Ph.D., University of Chicago

Associate Dean of Undergraduate Research:

Stuart Long, Ph.D., Harvard University

Assistant Dean for Student Success:

Andrew Hamilton, Ph.D., University of California, San Diego

Assistant Dean for Academic Programs:

Christine LeVeaux-Haley, Ph.D., Louisiana State University

Assistant Dean for Student Affairs:

Brenda Rhoden, Ph.D., University of Houston

Teaching Faculty:

Originally created in 1958, the University Honors Program became the Honors College at the University of Houston in 1993. Created to serve the intellectual needs of gifted students in over 100 fields of study, the Honors College provides the careful guidance, flexibility, and personal instruction that nurture individual excellence.

Benefits of Honors College membership include priority enrollment (registration) for courses, competitive scholarships, special academic advising by faculty, opportunities for individual study, and the chance to live in the Honors residence halls.

The curriculum of the Honors College is both flexible and varied. The College draws on the talents of the finest faculty members across the university to teach smaller honors sections of courses in various disciplines. These courses take the place of regular required courses and fulfill the university's baccalaureate degree requirements. One key sequence of courses, "The Human Situation," is team-taught by the core Honors faculty and designed to ensure that Honors students are introduced to the philosophical, literary, and historical foundations of Western civilization, from classical Greece to modern America.

Honors students can take advantage of a wide range of challenging programs, including the Honors Program in the Health Professions, Bauer Business Honors Program, Honors Engineering Program, Speech and Debate Program, and the Bonner Leaders Program. Students can also choose from several minors including, Medicine and Society, Phronesis Program in Politics and Ethics, Creative Work and the new minors in Leadership Studies and Energy & Sustainability.

Students make significant contributions to the life of the Honors College. The Student Governing Board conducts evaluations of all honors courses each term and maintains the results in the Honors College for students to consult when selecting courses and instructors. In addition to their participation in the College's academic affairs, students help plan and attend special events throughout the school year. Designed especially for beginning students, the fall Honors Retreat is the first event of each academic year. Students new to the College join upper-level advisors and Honors faculty at a wooded retreat center for two days of recreation and interaction.

Students also have many exciting possibilities for studying abroad and away, and engaging in undergraduate research with dedicated faculty mentors. On any given day, the Honors College is a hub of learning and co-curricular activity, with many award-winning writers, thinkers, and entrepreneurs visiting the Honors Commons, our marketplace of ideas.
The Honors College Admission Requirements

The Honors College welcomes applications from students who are entering the university as freshmen, have been enrolled for a term or two, or are transferring from other colleges or universities. To apply for admission to the college, students must complete an Honors College application, provide copies of standardized test scores (SAT or ACT) and transcripts, and submit a sample of their writing.

Admission to the Honors College is competitive. The majority of first-time-in-college students are in the top 10% of their secondary-school class. Most continuing UH students and transfer students have at least a 3.50 cumulative GPA in prior college coursework. However, there are no "minimum admission requirements," and all students interested in the Honors College are encouraged to apply. To view a profile of our entering class, please visit The Honors College online (www.uh.edu/honors/).
Academic Information - The Honors College

Graduation with Honors

Students who complete The Honors College curriculum (36) hours and complete a senior honors thesis graduate with University Honors with Honors in Major, the highest distinction that an undergraduate can earn at the University of Houston. Students who complete The Honors College curriculum and elect not to complete a senior honors thesis graduate with University Honors.

Students graduate with Collegiate Honors either by fulfilling the requirements for the honors program in the college of their major, including 21 hours of honors courses; or by completing an Honors College minor, or by completing 21 hours of approved honors courses. If students also complete a senior honors thesis, they graduate with Collegiate Honors with Honors in Major.

Students who affiliate with The Honors College during their undergraduate years and complete fewer than 21 hours of honors courses graduate with Membership in the Honors College. If students also complete a senior honors thesis and fulfill the requirements of their major with distinction, they graduate with Membership in the Honors College with Honors in Major. Students who earn these academic distinctions receive special recognition at commencement ceremonies and on their transcripts.

Academic Requirements

Honors students are expected to take at least one honors course each term and to maintain a 3.25 minimum cumulative grade point average. The Honors College does not grant degrees; baccalaureate degrees are granted by the college of the student's major.
Honors

The Honors College

Programs

Bachelor of Arts

• 3 + 3 Undergraduate/Law Dual Degree Program

Bachelor of Science

• Honors Biomedical Sciences

Minor

• Creative Work Minor
• Data and Society Minor
• Global Engagement and Research Minor
• Interdisciplinary Minor in Energy and Sustainability
• Leadership Studies Minor
• Medicine and Society Minor
• Phronesis Politics and Ethics Minor

Other Programs

• Accelerated B.A./B.S. in Liberal Studies/Master of Public Policy
• Bauer Business Honors Program
• Bonner Leaders Program
• Honors Degree Core Curriculum
• Honors Program in the Health Professions
• Nursing Dual Degree with UTSON

Bachelor of Arts

3 + 3 Undergraduate/Law Dual Degree Program

Application Process

It is expected that consideration for early admission to the J.D. program at the Law Center as a dual-degree student will require a cumulative grade point average, "GPA," of at least 3.5 at the end of 90 undergraduate-eligible semester hours and achieving at least the median Law School Admission Test, "LSAT," score of the preceding year’s entering class at the Law Center. Early admission is also contingent upon approval of the student’s moral character and fitness responses.

Students participating in the program who have a GPA lower than 3.5 or who have an LSAT lower than the previous year’s median may be considered for early admission at the discretion of the Law Center admissions committee. Additional application materials may be required, including a statement describing why they merit early admission. Early admission for such applicants will be contingent upon approval of the student’s moral character and fitness responses.
Students who have earned college credit prior to enrolling in the Honors College may apply to and participate in the 3+3 program. However, in order to preserve the culture of the Honors College, in no case shall an Honors College undergraduate student be admitted to the Law Center through this program unless that student has completed at least 90 undergraduate-eligible semester hours while a student in residence in the Honors College.

Required Academic Credits and Undergraduate Degree Requirements

1. In their first three years at the University of Houston, interested Honors College students will complete at least 90 semester credit hours toward a bachelor's degree in Liberal Studies, including two undergraduate minors, one of which must be Phronesis. Students admitted to the Law Center can begin the first-year law school curriculum only after completing at least 90 undergraduate semester hours in residence. Students must begin the first-year law school curriculum in the fall semester.

2. To receive an undergraduate degree, program students must successfully complete at least 120 undergraduate-eligible semester hours, as well as all of the requirements for a Bachelor of Arts degree in Liberal Studies. For purposes of this degree program, the Law Center's first-year courses are undergraduate-eligible semester hours.

3. In their fourth year in the program, eligible students admitted to the Law Center will take the required first-year law school curriculum, which will fulfill the final 30 undergraduate-eligible semester hours required for an undergraduate degree. Such students will also fulfill the third minor required for the Liberal Studies degree by completing at least 15 semester hours of the first-year law school curriculum. The 15 hours a student would take at the Law Center during the first semester of the student's fourth year would count toward the student's undergraduate degree, in the event that the student chose not to continue with law studies after that point (i.e., if the student discontinued the law program before finishing the entire first year of law school). The student then could finish the undergraduate degree by taking 15 more hours of undergraduate courses to complete the 120 hours of required credits for the undergraduate degree. Thus, the student would receive full credit for all hours taken at the Law Center, if the student decided to stop the law program short of getting the 30 hours of credit for first-year law courses that complete the undergraduate degree.

4. Students enrolled in the program may substitute the Human Situation sequence in place of Introduction to Liberal Studies as a first-year course for Liberal Studies majors.

Required Courses for the Liberal Studies Degree

Liberal Studies

- ILAS 2350 - Knowledge and Methods **Credit Hours: 3** (May substitute with the Human Situtation Sequence.)
- ILAS 4350 - Interdisciplinary Problem Solving **Credit Hours: 3**

Phronesis

For further information, please see the Phronesis Politics and Ethics Minor page.

Law Center First Year Curriculum

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<th>Fall Semester</th>
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Lawyering Skills & Strategies 4

Total 16

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<td>Total</td>
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**Bachelor of Science**

**Honors Biomedical Sciences**

**(HP)^2 Contacts**

Simon Bott, Director

Helen Valier, Associate Director & Director of Medicine & Society

Houston Biomedical Sciences (HBS) offers a rigorous Bachelor of Science degree that partners with the University of Texas Medical School in Houston and the University of Texas Medical Branch in Galveston. Affiliated faculty from the University of Houston, the University of Texas Medical School, the University of Texas Medical Branch, local research hospitals, and other health care institutions regularly participate in activities pertaining to the major. HBS requires students to be in the Honors College.

**Requirements to major in HBS:**

- Admissions to the University of Houston and the Honors College
- High School GPA of 3.5 on a 4.0 scale
- Minimum SAT Score of 1350 (CR+M)

**3/4 Program**

The 3/4 Program is a highly competitive, accelerated BS/MD program within the Honors Biomedical Sciences major. After applying, students enter a vigorous interview process where only 10 applicants per year are selected. These 10 students are automatically accepted to either the University of Texas Medical School or the University of Texas Medical Branch provided that they meet all the program requirements.
Degree Requirements

General Honors Biomedical Sciences Degree

Core (31 hours):

- Honors Human Situation (10 hours)
- History (6 hours)
- Government/Political Science (6 hours)
- Creative Arts course (3 hours)
- PSYC 1300 (preferably Honors)
- Writing in the Discipline

Science and Math (53 hours)

- Honors General Chemistry (6 hours)
- Organic Chemistry (6 hours) (preferably Honors)
- Microbiology or Honors Genetics (3 hours)
- Honors General Biology (6 hours)
- Biochemistry 1 (3 hours)
- Physics (6 hours)
- Science Labs (9 hours)
- Human Physiology (3 hours)
- Calculus 1 and 2 (8 hours)
- Statistics for the Sciences (3 hours)

Medicine and Society (15 hours)

- Readings in Medicine and Society (3 hours)
- Electives (9 hours)
- Honors Research (3)
- Honors Research 2 (3)

Sample Degree - General Honors Biomedical Sciences

Physician's Assistant (PA) Track (120 Hours)

Sample Degree - PA Track

CORE (31 hours):

- Honors Human Situation (10 hours)
- History (6 hours)
- Government (6 hours)
• Visual/Performing Arts course (3 hours)
• Writing in the Discipline
• PSYC 1300 - Introduction to Psychology Credit Hours: 3.0 (preferably Honors)

**SCIENCE AND MATH (53 hours)**

• Honors General Chemistry (6 hours)
• Organic Chemistry (6 hours) (preferably Honors)
• Honors Genetics (3 hours)
• Honors General Biology (6 hours)
• Microbiology (3 hours)
• Biochemistry 1 (3 hours)
• Physics (6 hours)
• Science Labs (9 hours)
• Calculus 1 and 2 (8 hours)
• Statistics for the Sciences (3 hours)

**MEDICINE AND SOCIETY (15 hours)**

• Readings in Medicine and Society (3 hours)
• Electives (9 hours)
• Honors Research (3 hours)

**HONORS RESEARCH (3 hours)**

• Honors Research II (3 hours)

**PA SPECIFIC COURSES (18 hours)**

• Immunology (3 hours)
• Microbiology lab (1 hour)
• Anatomy & Physiology 1 + lab (4 hours)
• Anatomy & Physiology 2 + lab (4 hours)
• Medical Terminology (3 hours)
• Sociology or Psychology elective (3 hours)

**Minor**

**Creative Work Minor**

This is an academic, interdisciplinary minor that examines the important role of creativity across all disciplines and professions. The aim of the minor is to inspire innovative practices, thinking, and research, and to enrich students’ personal growth and learning, by encountering the familiar through creative perspectives and experiences. The minor is open to all UH students regardless of major.
The curriculum explores the practices associated with the creative process and its many modalities of expression and implementation, including the arts and literature, and the ways these can complement, inform, and reshape practices associated with business, politics, law, medicine, science, family, religion, and other social and cultural institutions. It also includes co-curricular partnerships with community organizations, as well as with other colleges and departments across the university.

Minor Requirements

Credit hours required for this minor: 18.0

Foundational Courses

- HON 3310 - Poetics and Performance Credit Hours: 3.0

Capstone Course

One 4000-level capstone course* from the following:

- HON 4310 - City Dionysia Credit Hours: 3.0 OR
- HON 4315 - Artists and Their Regions: Creative Work in Performance and Context Credit Hours: 3.0

Electives

9 additional elective hours must be taken, of which a minimum of 6 credit hours must be advanced, and may be selected from the following approved list for the minor:

- AAS 3301 - Hip Hop History and Culture Credit Hours: 3.0
- ANTH 4340 - Anthropology Through Literature Credit Hours: 3.0
- CHNS 3350 - Chinese Culture Through Films Credit Hours: 3.0
- CLAS 3380 - Epic Masculinity: Ideologies of Manhood in Ancient Epic and Modern Film Credit Hours: 3.0
- CLAS 3381 - From Homer to Hollywood: Archaic and Classical Greek Themes in Modern Cinema Credit Hours: 3.0
- COMM 4338 - Family in Popular Culture Credit Hours: 3.0
- ENGL 4373 - Film, Text, and Politics Credit Hours: 3.0
- ENGL 4367 - Documenting Community Culture Credit Hours: 3.0
- ENGL 4371 - Literature and Medicine Credit Hours: 3.0
- ENGL 3367 - Gay and Lesbian Literature Credit Hours: 3.0
- GERM 3364 - Writing Holocausts: The Literatures of Genocide Credit Hours: 3.0
- HON 3312 - Immersion Journalism Credit Hours: 3.0
- HON 3397 - Honors Selected Topics Credit Hours: 3.0
  Topic(s):
  - Literature and Psychoanalysis
  - Literature of Trauma
- HON 4397 - Honors Selected Topics Credit Hours: 3
  Topic(s):
  - The Anatomical Theatre
  - Literary Identities
  - Narratives in the Professions
• Representing Islam
• HON 4398 - Independent Study Credit Hours: 3.0
• ITAL 3306 - Italian Cinema Credit Hours: 3.0
• ITAL 4308 - Dante and His World Credit Hours: 3.0
• MAS 3341 - Mexican American Experience Through Film Credit Hours: 3.0
• MUSI 3303 - Popular Music in the Americas Since 1840 Credit Hours: 3.0
• PHIL 3361 - Philosophy of Art Credit Hours: 3.0
• WCL 2351 - World Cultures Through Literature and Art Credit Hours: 3.0
• WCL 2352 - World Cinema Credit Hours: 3.0
• WCL 3373 - Gender and Sexuality in World Film Credit Hours: 3.0
• WCL 4367 - Voices from Exile and Diaspora Credit Hours: 3.0

Additional Academic Requirements

• A minimum of 12 hours must be taken in residence.
• A 3.0 or higher cumulative GPA in all courses used to fulfill minor requirements is required for graduation.
• Up to 6 elective credit hours may be satisfied by an internship with a local arts organization or by a Senior Honors Thesis with advanced approval of the minor program director.
• A maximum of 6 semester hours of completed minor coursework may be counted toward a student’s major. Note that any course that counts toward a student’s major and toward the Core Curriculum cannot also count toward the 18 semester hours required for the minor.
• *A Senior Honors Thesis may satisfy the capstone requirement. A course listed as a capstone may count as an elective if another capstone course is completed to fulfill the capstone requirement.

Contact

Dr. Lynda G. Hallmark, Director of the Center for Creative Work
lghallmark@uh.edu

Data and Society Minor

The Data and Society minor combines critical thinking with real world engagement to create relevant skills for interpreting and understanding data science. Students will gain a basic understanding of data science approaches and how they impact humanities-informed decision-making. The humanities emphasis allows students to see the broad social impact of data science, including how the new techniques are embedded in broader economic and political systems, while the integration of basic data analytics techniques and a project-based curriculum engages the students in basic skills acquisition and exposes them to the best use of data science to address important challenges in today’s world.

As with all minors in the Honors College, the courses are grounded in cross-disciplinary approaches open to all students, regardless of affiliation.

Requirements:

• HON 3350 - Principles of Data and Society Credit Hours: 3.0
• HON 4350 - Data and Society in Practice Credit Hours: 3.0
• Nine hours of approved courses at the 3000- or 400- level.
Approved Electives:

- CIS 4320 - Decision Informatics Credit Hours: 3.0
- COMM 4372 - Media, Power, and Society Credit Hours: 3.0
- ECON 3368 - Economics of Health Care Credit Hours: 3.0
- HON 4355 - Engaged Data Credit Hours: 3.0
- POLS 3312 - Arguments, Data, and Politics Credit Hours: 3.0
- POLS 3316 - Statistics for Political Scientists Credit Hours: 3.0

Eligibility and Application Process

In order to apply for the Minor in Data and Society, students must have:

1. Good Academic Standing
2. Met application deadlines: Applications will be accepted beginning on October 1 and March 1 for admission in the subsequent semester.
3. Been admitted into the Minor prior to the completion of the final 9 credits of Minor coursework.

Notes:

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors.

Global Engagement and Research Minor

The interdisciplinary Minor in Global Engagement and Research is open to baccalaureate students in all majors and degree programs. The minor is based on the idea that in an increasingly globalized environment, success requires the ability to navigate a dynamic multicultural terrain, whether in Houston, across the nation, or internationally, and that in developing that global awareness and perspective, students should build upon what they learn in the classroom through meaningful engagement with the communities they are studying and seek to understand.

Two aspects of the minor will make it distinct: global is not defined as international, but more broadly, as including Houston and its region, the nation, and the world. This global focus will be designed for the student to explore questions about how a specific place and its physical, political, economic, social, historical, and cultural topography make a difference relative to other locales.

Said another way, the minor addresses the question, "what difference does 'here' make?" In addition, each elective course approved for the minor will include a significant experiential learning component; this engagement, ranging from Learning Abroad/Learning Away experiences to service learning or community research components, will differentiate the minor from a traditional, classroom-restricted approach to global and international studies.

Required Courses (6 hours):

- HON 3360 - Principles and Practices of Global Engagement Credit Hours: 3.0 OR
- ANTH 3365 - Principles and Practices of Global Engagement Credit Hours: 3.0
- HON 3361 - Global Engagement and Research Credit Hours: 3.0

Approved Courses (9 hours):
Courses listed below, when they include experiential learning components, are an initial list of approved courses for the Global Engagement and Research Minor. Academic petitions for approval of coursework that can be applied to the Minor, not listed below, will be made to the director of the Global Engagement and Research Minor and the dean of the Honors College. Students must earn a 3.0 average GPA or higher in all coursework counted toward the minor.

- BIOL 4302 - Galapago! Research-based Learning Abroad Credit Hours: 3.0
- COMM 4389 - Media for Social Justice: Digital Media & Activism in Latin America & Houston Credit Hours: 3.0
- BUSI 4334 - Principles of Microfinance Credit Hours: 3.0
- HON 3331 - Introduction to Civic Engagement Credit Hours: 3.0
- HON 3397 - Honors Selected Topics Credit Hours: 3.0
- HON 4315 - Artists and Their Regions: Creative Work in Performance and Context Credit Hours: 3.0
- WGSS 3321 - Gender in Transnational Perspective Credit Hours: 3.0

Additional Program Requirements:

In addition, students must complete at least 12 hours in residence, 9 hours of which must be at the advanced level. A maximum of 6 hours of approved transfer credits may be accepted toward the minor upon the approval of the program director. No more than 6 hours of a student's major may be applied towards the minor.

For more information contact: The Office of Global Engagement and Special Programs

Co-Curricular Requirements:

Students will complete three documented and approved experiential learning excursions, from at least two of the following categories, with one of the excursions lasting at least 10 days, or (by petition) involving a commensurate level of intensity over a shorter duration.

- Local - Texas
- National - outside Texas, but in the United States and its territories
- International - outside the United States

Approval Process:

The Office of Global Engagement and Special Programs (OGESP) maintains a list of approved excursions at http://uh.edu/honors/students/current-students/global-engagement/. Faculty or students may submit additional experiential learning excursions for either prior or retroactive approval. Once an excursion has been approved and added to the list, any documented participant may count it toward the minor.

Approval Criteria:

To be approved, excursions must have a global (defined as focusing on how a specific place and its physical, political, economic, social, historical, and cultural topography make a difference relative to other locales) orientation and offer opportunity for meaningful community engagement, research, and/or reflection. In addition, OGESP considers the following as positive criteria when evaluating excursions: faculty leadership of the trip, integration into a for-credit course, duration and intensity of the experiential learning component, inclusion of reflective practice and other high-impact practices.

Documentation Process:
For each of the three experiential learning excursions to be applied of the minor, students must submit documentation in one of the following forms: of a first-person written reflection assignment previously submitted for course credit, a faculty affidavit attesting successful participation and completion of the excursion, or other documentation.

**Interdisciplinary Minor in Energy and Sustainability**

The Energy and Sustainability minor welcomes students from all majors. Although housed in the Honors College, it is open to all qualified students. The minor is designed to provide students with an interdisciplinary approach to broad issues regarding energy and sustainability, with a common introductory course and capstone course. Topics would include existing, transitional, and alternative energy resources; conservation and consumption; and energy and sustainability from the perspectives of economics and business, architecture and design, public policy, and education.

**Declaring the Minor**

- A 2.5 cumulative GPA on 15 or more hours at UH and sophomore standing are the requirements to declare the Energy and Sustainability minor.
- Students must be admitted to the minor prior to completing the last 9 hours for the minor.

**GPA Requirements**

A 3.0 or higher cumulative GPA in all courses used to fulfill minor requirements is required for graduation.

**Minor Course and Residency Requirements**

The Energy and Sustainability minor consists of 18 credit hours, 9 credit hours of which must be advanced hours in residence.

**Required Courses (6 Credit Hours)**

- ENRG 3310 - Introduction to Energy and Sustainability Credit Hours: 3.0
- ENRG 4320 - Case Studies in Energy and Sustainability Credit Hours: 3.0 OR an approved research or writing project

**Elective Courses (12 Credit Hours)**

The additional 12 credit hours are selected from the following, with no more than 6 credit hours from any one area (with no more than 12 credit hours of ENRG courses total for the minor), and two courses required from each of the two categories:

**First Category: Energy Production and Management (6 Credit Hours)**

- ARAB 3397 - Selected Topics in Arab Studies Credit Hours: 3.0
  Topic: Oil, Culture, and the Middle East
- ECON 3385 - Economics of Energy Credit Hours: 3.0
- FINA 4370 - Energy Trading Credit Hours: 3.0
- FINA 4372 - Upstream Economics Credit Hours: 3.0
- FINA 4373 - Petrochemical and Refining Economics Credit Hours: 3.0
• HIST 3394 - Sel Tops-Us History Credit Hours: 3
  Topics:
  • Energy in Modern America
  • Africa and the Oil Industry
• HIST 3395 - Sel Top-European Hist Credit Hours: 3.0
  Topic(s):
  • Ideology and Empire: Russia
• INDE 3333 - Engineering Economy I Credit Hours: 3.0
• POLS 4341 - Risk Analysis and Assessment Credit Hours: 3.0
• POLS 4349 - International Energy Politics Credit Hours: 3.0
• SCM 4302 - Energy Supply Chain Credit Hours: 3.0
• TECH 1325 - Energy For Society Credit Hours: 3.0
• ENRG 4397 - Selected Topics in Energy and Sustainability Credit Hours: 3.0
• ENRG 4398 - Independent Study in Energy and Sustainability Credit Hours: 3.0

Second Category: Sustainability and the Future (6 Credit Hours)

• ARCH 3368 - Sustainable Development Credit Hours: 3.0
• ARCH 3397 - Selected Topics Credit Hours: 3.0
  Topic: Sustainable Affordable Housing
• ARCH 4373 - Urban Environments Credit Hours: 3.0
• CIVE 3331 - Environmental Engineering Credit Hours: 3.0
• CIVE 4333 - Water and Wastewater Treatment Credit Hours: 3.0
• CIVE 4337 - Transportation Engineering Credit Hours: 3.0
• ECON 3363 - Environmental Economics Credit Hours: 3.0
• GEOL 1302 - Introduction to Global Climate Change Credit Hours: 3.0
• HIST 3378 - Modern Middle East Credit Hours: 3.0
• BUSI 1301 - Business Principles Credit Hours: 3.0
• INTB 4397 - Selected Topics in Inb Credit Hours: 3.0
• MIS 4390 - Energy Trading Systems Credit Hours: 3.0
• TECH 4310 - Future of Energy and the Environment Credit Hours: 3.0
• ENRG 4397 - Selected Topics in Energy and Sustainability Credit Hours: 3.0
• ENRG 4398 - Independent Study in Energy and Sustainability Credit Hours: 3.0

Note:
ENRG 4397 and ENRG 4398, as well as electives not included on this list require approval from the Director of the Minor to be used to fulfill minor requirements.

Leadership Studies Minor

The Minor in Leadership Studies is an interdisciplinary and experiential program open to baccalaureate students in all majors and degree programs. The foundation of the Minor in Leadership Studies is four leadership core hours, coupled with four elective courses organized into themes: Individual Leadership, Group/Organizational Leadership, Global Leadership, and Field Experience for a total of 17 credit hours.
The Minor in Leadership Studies seeks to promote college student leadership development by educating undergraduate students for and about leadership in a complex world. The goal of the minor is to prepare students to serve effectively in formal and informal leadership roles in campus, local, national, and global contexts. Faculty, staff, and students in the minor are dedicated to advancing the field of leadership studies by building upon and critically evaluating existing theoretical, research-based, and practical knowledge.

Core courses in the minor are sequenced to meet increasingly complex sets of learning outcomes across cognitive, personal development, group/organizational domains, and global dimensions. Students in the minor are exposed to diverse theories and perspectives on leadership and are encouraged to apply analytical skills to develop their own working philosophy of leadership that will serve them in organizational and career contexts. Civic engagement and multicultural competence are viewed as necessary requirements for leadership.

Eligibility and Application Process

In order to apply for the Minor in Leadership Studies, students must have:

1. Completed at least 30 credit hours prior to application to the program.
2. Be in good academic standing.
3. Completed HON 3330 with a C or better.
4. Met application deadlines: Applications will be accepted beginning on October 1 and March 1 for admission in the subsequent semester. The first 30 qualified applicants will be accepted on a first-come, first-serve basis each semester.
5. Been admitted into the Minor prior to the completion of the final 9 credits of Minor coursework.

Required Courses (4 hours)

- HON 3330 - Leadership Theory and Practice Credit Hours: 3.0
- HON 4130 - E-Portfolio Credit Hours: 1.0

Approved Courses (12 hours)

Courses listed below are approved courses for the Leadership Studies Minor. Academic petitions for approval of coursework that can be applied to the Minor, not listed below, will be made to the director of the Leadership Studies Minor and the dean of the Honors College.

Leadership as an Individual

- COMM 1333 - Interpersonal Communication Credit Hours: 3.0
- ENGI 2304 - Technical Communications for Engineers Credit Hours: 3.0
- HON 3312 - Immersion Journalism Credit Hours: 3.0
- PHIL 3351 - Contemporary Moral Issues Credit Hours: 3.0
- PHIL 3358 - Classics in the History of Ethics Credit Hours: 3.0
- HON 3332 - Mapping Success Credit Hours: 3
- HON 4330 - Narratives in the Professions Credit Hours: 3

Leadership within Group/Organizations

- HDFS 3300 - Introduction to Educational Psychology Credit Hours: 3.0
- HON 3331 - Introduction to Civic Engagement Credit Hours: 3.0
- MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
- SOC 3342 - Sociology of Work Credit Hours: 3.0
• TLIM 3340 - Organizational Leadership and Supervision **Credit Hours: 3.0**

**Leadership with a Global Context**

• HIST 4361 - 20th-Century Genocides **Credit Hours: 3.0**

• HON 3397 - Honors Selected Topics **Credit Hours: 3.0** (Argument, Advocacy, and Activism)

• HON 3361 - Global Engagement and Research **Credit Hours: 3.0**

• POLS 3365 - Polls, Public Opinion, and American Democracy **Credit Hours: 3.0**

• SOC 3365 - Sociology of Education **Credit Hours: 3.0**

**Field Experience Requirement (3 hours)**

• Internship, Service Learning, Travel Trip, or Thesis

**GPA Requirements**

A 3.0 or higher cumulative GPA in all courses used to fulfill minor requirements is required for graduation.

**Note:**

Please submit academic petitions for approval of coursework to the Honors College:

212 M.D. Anderson Library, 212B

Contact: Brenda Rhoden, Leadership Studies, Director

bjrhoden@uh.edu or 713-743-9025

**Medicine and Society Minor**

A minor in Medicine & Society requires 15 hours of approved coursework, including the mandatory course ‘Readings in Medicine & Society’ (HON 3301H) as well as four remaining courses chosen from the list of approved electives. At least two of these approved electives must be taken at the advanced level and in some cases, other related coursework may be applied towards the minor with prior approval from the director. Students must also earn a 3.0 GPA or higher for all coursework to be counted towards completion of the minor.

In addition, students must complete at least 12 hours in residence, 9 hours of which must be at the advanced level. A maximum of 6 hours of approved transfer credits may be accepted towards the minor upon the approval of the program director. No more than 6 hours of a student’s major may be applied towards the minor.

For more information, contact: Medicine & Society Program Director Dr. Helen Valier, or advisors Dr. Aaron Reynolds and Megan Prather at medsoc@uh.edu.

For a minor in **Medicine & Society**, a student must complete 15 semester hours of approved course work, including:

I. 3 hours from the following list:

• HON 3301 - Readings in Medicine and Society **Credit Hours: 3.0**
II. 12 hours from the following list:

- ANTH 3351 - Politics of Healthcare and the Latino Community Credit Hours: 3.0
- ANTH 3364 - Disease in Antiquity Credit Hours: 3.0
- ANTH 4331 - Medical Anthropology Credit Hours: 3.0
- COMM 3300 - Health Communication Credit Hours: 3.0
- COMM 3301 - Doctor-Patient Interaction Credit Hours: 3.0
- COMM 3304 - Multicultural Health Communication Credit Hours: 3.0
- ENGL 4371 - Literature and Medicine Credit Hours: 3.0
- HIST 3303 - Disease, Health, and Medicine in American History Credit Hours: 3.0
- HIST 3316 - Race and Racism in American Science and Medicine Credit Hours: 3.0
- HIST 3319 - Plagues and Pestilence: Epidemics in World History Credit Hours: 3.0
- HIST 3394 - Sel Tops-Us History Credit Hours: 3 (History of Madness)
- HIST 4361 - 20th-Century Genocides Credit Hours: 3.0
- HON 3300 - Introduction to Social Medicine Credit Hours: 3.0
- HON 3302 - Readings in Public Health & Community Medicine Credit Hours: 3.0
- HON 3303 - Readings in Mental Health & Society Credit Hours: 3.0
- HON 3305 - Medicine in Performance Credit Hours: 3.0
- HON 3306 - Health & Human Rights Credit Hours: 3.0
- HON 3307 - Narrative Medicine Credit Hours: 3.0
- HON 3308 - Lyric Medicine Credit Hours: 3.0
- HON 3309 - Introduction to Health Professions Credit Hours: 3.0
- HON 4301 - Medicine, Science & Technology in the Ancient World Credit Hours: 3.0
- HON 4302 - The Holocaust and Medical Ethics Credit Hours: 3.0
- HON 4330 - Narratives in the Professions Credit Hours: 3
- IDNS 4391 - Ethics in Science Credit Hours: 3.0
- IDNS 4392 - History of 20th Century Science Credit Hours: 3.0
- SOC 3380 - Introduction to the Sociology of Health Care Credit Hours: 3.0
- SPAN 3343 - Spanish for the Health Professions Credit Hours: 3.0
- SPAN 4343 - Health and Society in the Hispanic World Credit Hours: 3.0

Phronesis Politics and Ethics Minor

Phronesis is the ancient Greek word for prudence, or practical wisdom. Aristotle identified it as the distinctive characteristic of political leaders and citizens in adjudicating the ethical and political issues that affect their individual good and the common good. As an Honors Program in Politics and Ethics, Phronesis aims to cultivate practical intelligence. Students in this program develop their capacities to engage difficult moral and political issues confronting our world today. Building on the Honors College's signature course, "The Human Situation," the curriculum of Phronesis introduces students to major works in ethics, political theory, classics and history. In their courses, students discuss fundamental questions and problems of political and moral concern from a wide range of perspectives. To receive the Minor in Phronesis, a student must complete 19 hours of approved coursework, and all courses in the Minor must be Honors sections. Other courses may be approved for Minor credit by the Director through a general petition.

Course Requirements:

Foundational Courses
I. Honors Requirement

[4.0 credit hours]

- HON 2101 - The Human Situation: Modernity **Credit Hours: 1.0**
- ENGL 2361 - Western World Literature II - Honors **Credit Hours: 3.0**

II. Requirements in Politics & Ethics

[6.0 credit hours]

- POLS 3310 - Introduction to Political Theory **Credit Hours: 3.0**
- PHIL 3358 - Classics in the History of Ethics **Credit Hours: 3.0**

Elective Courses

III. Category Requirements

[9.0 credit hours]

- Choose one course from each category of designated Phronesis courses (see the list of approved course electives).

Approved Electives

**ANTIQUITY**

- CLAS 3341 - The Roman Republic **Credit Hours: 3.0**
- CLAS 3350 - Law and Society in Ancient Rome **Credit Hours: 3.0**
- ENGL 4360 - Bible as Literature **Credit Hours: 3.0**
- PHIL 3382 - Medieval Philosophy **Credit Hours: 3.0**
- PHIL 3383 - History of Ancient Philosophy **Credit Hours: 3.0**
- POLS 3340 - Ancient and Medieval Political Thought **Credit Hours: 3.0**
- RELS 3375 - Christianity and Ethics **Credit Hours: 3.0**

**MODERNITY**

- ENGL 3352 - Nineteenth-Century American Fiction **Credit Hours: 3.0**
- HIST 4338 - Enlightenment Stories: The Thought and Literature of the Enlightenment **Credit Hours: 3.0**
- PHIL 3304 - History of Seventeenth Century Philosophy **Credit Hours: 3.0**
- PHIL 3305 - History of Eighteenth Century Philosophy **Credit Hours: 3.0**
- PHIL 3387 - History of American Philosophy **Credit Hours: 3.0**
- POLS 3341 - Foundations of Modern Politics **Credit Hours: 3.0**
- POLS 3342 - Liberalism and Its Critics **Credit Hours: 3.0**
- POLS 3349 - Foundations in American Political Thought **Credit Hours: 3.0**
- POLS 3361 - Politics and Literature **Credit Hours: 3.0**
CONTEMPORARY

- ENGL 4373 - Film, Text, and Politics Credit Hours: 3.0
- HIST 4361 - 20th-Century Genocides Credit Hours: 3.0
- PHIL 3355 - Political Philosophy Credit Hours: 3.0
- PHIL 3357 - Punishment Credit Hours: 3.0
- POLS 3331 - American Foreign Policy Credit Hours: 3.0
- POLS 3350 - Public Law - Political Theory Credit Hours: 3.0
- POLS 3376 - Black Political Thought Credit Hours: 3.0

Other Degrees

**Accelerated B.A./B.S. in Liberal Studies/Master of Public Policy**

The Honors College, in collaboration with the Hobby School of Public Policy and the College of Liberal Arts and Social Sciences, offers a 3+2 Program, an Undergraduate/Masters in Public Policy Dual Degree Program. Housed in the Honors College, the 3+2 Program will allow a small group of exceptional students the opportunity to enter the Hobby School of Public Affairs' Master of Public Policy (MPP) program one year early, at the end of their junior year in the Honors College.

Students will major in Liberal Studies majors, with one minor in Phronesis and one minor in CLASS from a program that also offers a major, and will receive a BA or a BS, along with a Master’s degree, after five years.

The program will be kept small and offer mentoring, support, and advising. If you are an interested student, please contact Professor Alison Leland for more information.

**Bauer Business Honors Program**

The Bauer Business Honors Program (Bauer Honors) provides specialized business curriculum, academic services, and social and networking events to University students who are members of the Honors College and are also business majors or minors. Bauer Honors offers a wide variety of business courses reserved for Honors students. Compared to large lecture halls, these honors-level classes are small (no more than 25 students) and offer a friendly, casual environment in which students and teachers interact.

Through events like Freshman Fete, Bauer Honors Mixer, Scheduling Bash, and Spring Astros Game, Bauer Honors shows its dedication to providing our students with many opportunities to get to know each other, their professors, alumni, and potential employers. Connections with Bauer Honors grads and Houston employers can make the difference in a future job or internship search.

In addition, Bauer Honors students experience one-on-one academic advising sessions tailored to their individual needs, get information on research, internships, and other opportunities, as well as quick and detailed answers to their questions. All of these perks and services go a long way to help Bauer Honors students succeed in the College as well as in their lives beyond the University.

**Bonner Leaders Program**

The UH Bonner Program offers developmental and educationally meaningful service opportunities for students and faculty. The program is a structured way for community members, staff, and students to work together to address economic, social and cultural challenges affecting the quality of life in the city of Houston and the state of Texas through education, research, and service.
The Honors College is home to more than 150 Bonners, all of whom commit to contribute between five and ten hours each week to student-led anti-poverty service. Major recent projects include The Campus Kitchen at the University of Houston, which recovers unserved food from UH’s dining halls and delivers it to those who need it, tutoring in math and reading for 6th and 7th graders at schools near campus, SAT prep and college transition help for underserved high-school students, and fostering access to health care through Honors In Community Health (HICH).

Bonners are recruited in their first year at UH and make a four-year commitment to the program. Most first-year Bonners live together in a designated neighborhood in Cougar Village I, and study together in Introduction to Civic Engagement. They also benefit from a formal mentoring program coordinated by the Bonner Student Leadership Council. Most Bonners also receive a small service-based scholarship in return for their contributions to the program and the community.

The Bonner Program is housed in the Honors College, but is available to all students who qualify. For more information, contact:

Andrew Hamilton, Associate Dean and Director of Bonner Program: ahamilton@uh.edu or 713.743.0654.

Honors Degree Core Curriculum

Core Curriculum Requirements

The Honors College curriculum has been designed to coordinate with university-wide core curriculum requirements. Honors students, therefore, do not take more course work, but they are asked to fulfill some of their university core curriculum requirements through honors courses. Students following the guidelines below will fulfill Honors College and core curriculum requirements; students should consult the college of their chosen major for additional requirements.

1. Communication and Humanities Requirements
   a. Complete the six-hour course, "The Human Situation I: Antiquity," three hours of which count toward the core requirement in Communication, and three of which count toward the Humanities core requirement.
   b. Complete the four-hour sequel, "The Human Situation II: Modernity." The lecture portion of this course can count toward the university requirement in Communication if necessary.

2. American Studies Requirement
   a. Complete six hours of courses that satisfy the state-mandated requirement in American History, including at least three hours in an honors section (HIST 1377H or HIST 1378H).
   b. Complete six hours of courses that satisfy the state-mandated requirement in Political Science by successfully completing an honors section of U.S and Texas Constitution and Politics (POLS 1336H) and Government: Congress, President, and Courts (POLS 1337).

3. Natural Sciences and Mathematics Requirement
   a. Complete six hours of courses that satisfy the Natural Sciences core requirement, plus at least one hour of laboratory with these courses.
   b. Complete six hours of courses that satisfy the Mathematics and the Mathematics/Reasoning core requirement. Honors students must demonstrate a proficiency in mathematics at the "elementary functions" level or higher. Elementary functions courses include MATH 1314, MATH 1330 (recommended only for students desiring a foundation course to prepare for additional coursework in mathematics), and MATH 2311. This proficiency may be demonstrated by testing or by course work.

4. Social/Behavioral Sciences Requirement
5. Foreign Language Requirement

- Complete six hours of courses at the 2000-level (or above) in one foreign language, either modern or classical, with a 3.00 grade point average, or demonstrate an equivalent proficiency.
- Note: Students are expected to fulfill the foreign language requirement to the extent possible without adding hours to the degree plan in their major. The requirement is designed to complement the course requirement of particular degree plans and to recognize a student’s previous experience with languages other than English. Honors students should be aware that competence in a second language is increasingly important in personal and professional life.

6. Advanced Honors Course Requirement

Complete three hours in an approved Honors Colloquium at the 3000- or 4000-level.

7. Writing in the Disciplines

- Complete three hours of courses that satisfy the Writing in the Disciplines core requirement.
*An Honors requirement in this category is waived if a student completed this core requirement prior to joining the Honors College.

Senior Honors Thesis

For many outstanding students, the senior honors thesis represents the culmination of a bachelor’s degree. It is the final step toward graduation with University Honors With Honors in Major, Collegiate Honors in Major, or Membership in The Honors College with Honors in Major. The honors thesis provides an excellent opportunity for the mature student, working under the direction of a member of the faculty in the chosen field of study, to apply skills and knowledge acquired in the first three years of college toward the completion of an independent scholarly or creative project. During the process, students deepen the work they have done and apply the skills and knowledge they have accumulated. Moreover, they are expected to make full use of the University’s resources (especially the guidance and criticism of faculty thesis committee).

Students wishing to undertake a senior honors thesis need not be members of the Honors College, but they should have a 3.25 cumulative grade point average as well as a 3.50 grade point average in the field of the thesis or project. Interested students should review the "Guidelines for the Senior Thesis" on the Office of Undergraduate Research Web site.

Honors Program in the Health Professions

Spring 2013 marked the launch of a brand new program for students planning for a career in the health professions: The Honors Program in the Health Professions, or (HP)², is an exciting joint venture between the Honors College and the College of Natural Sciences & Mathematics, bridging the cultures of science to those of the liberal arts.

Students participating in the program will gain perspective on the diversity of opportunities available within the health professions and on what it takes to be a good candidate for professional school and ultimately in becoming a better kind of practitioner. Medicine, nursing, dentistry, pharmacy, optometry, or the dozens of other fields our students aspire to be part of will have a voice in (HP)², and students will meet many different kinds of professionals as they visit us to give talks or to guest lecture in the new classes being developed specifically for the program. Students are also expected to meet practicing health professionals through internship, research, and other planned clinical opportunities.
The program is open to all Honors College students who are interested in the Health Professions. Membership is required for students in special programs such as the new BS/MD collaboration with regional medical schools and the Houston Premedical Academy. In addition, students in the new Honors Biomedical Science major will automatically be part of (HP)^2. The Medicine & Society Program will become part of the new program, as the goal that inspired the minor guiding a generation of empathic, broadly-educated, and compassionate health professionals is also central to the mission of (HP)^2.

(HP)^2 Program Directors:

Simon Bott, Director
Helen Valier, Associate Director

Nursing Dual Degree with UTSON

The Dual Degree Agreement between UH and Cizik School of Nursing at UTHealth offers students the benefit of pursuing a Bachelor’s degree at UH while also completing pre-requisites for admission to Cizik to pursue a B.S. in Nursing. The Agreement imposes certain additional requirements on participating students while at UH and provides for certain exemptions from UH and CLASS degree requirements.

Students will require advising concerning this Pre-Nursing Track, faculty mentoring on their course of studies for the UH B.A. or B.S., and need to be evaluated periodically for ongoing program eligibility. Program advising and faculty mentoring is through Dr. Aaron Reynolds in the Medicine & Society program at the UH Honors College.

Students must meet the following requirements for participation in the Program, and to have the related UH degree program waivers or exemptions:

1. Interested FTIC students will complete at least 90 credit hours towards a UH bachelor’s degree (including nursing school pre-requisites) with a major selected from the College of Liberal Arts and Social Sciences (CLASS).
   a. While students may select any major from CLASS, two are particularly well-suited for Nursing Dual Degree students: Liberal Studies (the triple-minor major) and Psychology. Interested students will begin in their first year at UH to work on their core requirements and Nursing pre-requisites, which will include Growth & Development, Anatomy & Physiology, and Microbiology, for example. To be eligible for this program, transfer credit and AP credit is not allowed for all math and science nursing pre-requisites, and these courses must be taken at UH.
   b. Note that students in this Program are expected to fulfill all the requirements of the major they select, even if that might entail completing more than 90 hours at the University of Houston.

2. Participation in the Program requires obtaining and maintaining a 3.5 cumulative GPA and a 3.0 Science GPA. This requirement will be confirmed at 30, 60 and 75 credit hours.
   a. Starting with the review for eligibility at 30 hours and continuing so long as eligibility is maintained, participants in this Program will have priority registration privileges.

3. Students no longer eligible at any point for the Program due to failure to maintain GPA requirements may continue and complete a UH Bachelor’s degree. However, they will no longer be eligible for the program-related exemptions or waivers outlined below, and must instead fulfill all College and University degree requirements.

4. Based on continuing eligibility and successful admission to Cizik School of Nursing under this Program, up to 30 credit hours of approved coursework from the Cizik Bachelor’s degree in Nursing can apply to the completion of a UH Bachelor’s degree.
   a. The first 30 hours of Nursing coursework at Cizik will also substitute for the UH CLASS requirement of a minor, for purposes of awarding the Bachelor’s degree.
   b. Because of the above, students who are admitted to Cizik will be exempted from the normal rule requiring the last 30 hours of coursework be taken in residence at UH.

5. Students accepted into the Nursing Dual Degree who complete 30 hours at Cizik may also be exempted from the University of Houston requirement of at least 36 advanced hours for graduation.

6. Students accepted into the Nursing Dual Degree who complete 30 hours at Cizik will also be exempted from the College’s Foreign Language requirement for a Bachelor of Arts degree.
7. After 75 credit hours, eligible students will be advised to take the designated nursing admissions exam and to apply for admission to Cizik as a dual-degree applicant.
   a. At least 25 percent of the admissions slots for each application cycle at Cizik will be reserved for UH Nursing Dual Degree Program students.
   b. Students not eligible or not admitted through this program will have the option of applying through the general applicant pool at Cizik or of completing a single UH degree.
   c. Program Participants who do not complete the B.S. in Nursing at Cizik, but successfully complete at least 30 hours at Cizik, may still earn their UH Bachelor’s degree according to Program waivers and exemptions.
   d. Students not admitted to Cizik through this Program, or through Cizik’s general admission pool, or who do not successfully complete 30 hours at Cizik may continue to complete their UH Bachelor’s degree by fulfilling UH College and University degree requirements with no Nursing Dual Degree Program-related exemptions or waivers.

Due to the complicated nature this unique Dual Degree Program, interested students and eventual Program participants are recommended to stay in regular contact with the academic advisors in the Medicine & Society Program at the Honors College.
## Sample Degree - General Honors Biomedical Sciences

### Year 0 - Summer

Chemistry Bridge and introduction to campus life.

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| BIOL 3432 | 3                      |
| BIOL 1344/BIOL 1144 | 4                      |
| Soc Sci Elective | 3                      |
| BIOL 3332 | 3                      |
| CHEM 3399 | 3                      |
| Med/Soc Class | 3                      |
| HIST or GOV'T | 3                      |

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| BIOL 2301/BIOL 2012 | 3                      |
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Honors Engineering Program

The Cullen College of Engineering and the Honors College jointly offer a program for Honors College students with majors in engineering: the Honors Engineering Program (HEP).

The HEP is a challenging program that encourages a sense of community among Honors students in Engineering and provides an improved experience by offering courses tailored to the needs of these capable, enthusiastic students. As an example, the freshman-level HEP courses, beginning with ENGI 1100 Honors, emphasize team-based, project-oriented learning in small classes, restricted to HEP students. These fun, hands-on courses focus on fostering creative, open-ended thinking and engineering design. HEP students will fulfill many required courses in Honors sections of required engineering courses.

Many HEP students find they are earning internships and other opportunities by virtue of their participation in HEP. In addition, HEP students have access to the Honors Engineering Program listserv to find out about upcoming HEP events, such as meetings with industry representatives, field trips to engineering companies and sporting events, and various social events.

To join the Honors Engineering Program, students must be accepted to the Honors College and to the Cullen College of Engineering.

For additional information about the Honors Engineering Program, contact Dr. Fritz Claydon, Director of the Honors Engineering Program, at fclaydon@uh.edu or 713.743.4200.
Speech and Debate Program

The new Speech and Debate Program at the University of Houston is the result of the unification of the Policy Debate and Forensics programs.

SDP features a competitive debate and individual events team, a public debate series, and an exciting cluster of courses. The program draws on rhetorical theory and requires research into complex matters of public policy such as energy, the environment, and health care.

By demanding research, evidence, and reasoning, SDP pushes students to understand contemporary political issues and to make informed, real-world decisions. Tournaments foster public speaking ability, encourage civic engagement, and develop leadership.

Through partnerships with high school debate programs such as HUDL, the Houston Urban Debate League, and the annual public debate series, SDP engages the community in a dialogue about pressing policy issues. Future collaborations with the University of Houston Law Center, the Phronesis Program in Politics and Ethics, the Medicine & Society program, and the Leadership Studies Program provide further opportunities for development.

SDP at Houston is open to all students, from novices to seasoned competitors.

Contact one of the following coaches for details on joining the team or enrolling in related coursework.

Sarah Spring, Program Director, sespring@central.uh.edu or 713.743.5707

Joshua Gonzalez, Assistant Director, jagonzalez24@uh.edu or 713.743.9010
About the Conrad N. Hilton College of Hotel and Restaurant Management

Contact Information

<table>
<thead>
<tr>
<th>Office of the Dean</th>
<th>713-743-2607</th>
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<tbody>
<tr>
<td>Academic Services</td>
<td>713-743-2492</td>
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<tr>
<td>Internet Address</td>
<td><a href="http://www.hrm.uh.edu">www.hrm.uh.edu</a></td>
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Dean: Dennis Reynolds, Ph.D., Cornell University

Associate Dean of Academics: Mary Dawson, Ed.D., University of Houston

Associate Dean for Research & Graduate Studies: Ki-Joon Back, Ph.D., The Pennsylvania State University

Assistant Dean for Hilton College - San Antonio: Ashli Johnson, M.S., Florida International University

Assistant Dean for Business Development: Joel A. Jaffe, B.S., The Pennsylvania State University

General Manager, Hilton University of Houston: Steve Cunningham, A.A.B., Hocking College

Director - Undergraduate Academic Services: Jeremy L. Dafoe, B.S., University of Houston - Downtown

Director - Beverage Management Program: D. Christopher Taylor, Ph.D., Texas Tech University

Director - Career Development: Gloria Ratliff, B.S., University of Houston

Mission Statement

The Conrad N. Hilton College of Hotel and Restaurant Management at the University of Houston was established in 1969 by one of the most iconic names in the hospitality industry, Conrad N. Hilton. Consistently ranked one of the top hospitality programs in the world, our students benefit in countless ways from industry connections 50 years in the making, including bi-annual job fairs, a wide range of internship opportunities, and a well-placed network of more than 8,000 alumni in leadership positions in more than 50 countries around the world. Hilton College offers a specialized business degree that prepares students for careers in the world’s top hotels, restaurants, resorts, casinos and clubs. With a job placement rate of 91 percent upon graduation, Hilton College students typically have their choice of job opportunities in the United States and abroad and always have a solid foundation for post-graduate work.

Hilton College, which shares the same building as its teaching hotel, houses two hospitality-related industry institutes, numerous classrooms, two computer labs, a library and hospitality archives. Last spring, a new Center for Student Success opened, putting all the services needed to help students navigate their college careers under one roof. There is also a wine lab and several food science labs, including a beverage lab and product evaluation lab. And the College is home to a popular student-run coffee shop that, combined with its student lounge areas, gives students a “home away from home” to study and hang out with friends.
In addition to the Hilton University of Houston being the College's teaching hotel where students apply theoretical learning to practical hands-on experiences, students have experiential learning opportunities in the production of important annual College events. When the world is your classroom, learning also takes place as easily in a vineyard as it does in a casino or on the floor of a major industry trade show. Naturally then, annual trips to places like Napa Valley, Las Vegas, Chicago and New York City are also part of the hands-on experiential curriculum.

Spec's Beverage & Food Appreciation Laboratory

Thanks to the generosity of the Spec's Charitable Foundation, the new $750,000 state-of-the-art Spec's Beverage & Food Appreciation Laboratory opened in Fall 2014. With seating for up to 65 people for wine appreciation classes, industry training and special event tastings, the Spec's Lab has individual sinks, natural light and back-lit whiteboards to evaluate a wine's color. It also features wine-holding stations, so wines stay in the correct order for tastings. The only lab of its kind between the two coasts, this multi-purpose lab - a major renovation of the College's old demo kitchen - also continues to be used for cooking demonstrations as well as a general lecture hall.

Hospitality Industry Hall of Honor

Hilton College houses the Hospitality Industry Hall of Honor, which recognizes those leaders in the hospitality industry who have made extraordinary contributions to American and international business and society. Rotating displays in the Hall of Honor Gallery and the Hospitality Industry Archives memorialize the inductees' achievements and leadership providing a lasting tribute to the companies they conceived and built during their lifetimes.

Fred Parks Wine Cellar

The Fred Parks Wine Cellar is a state-of-the-art wine cellar and teaching laboratory dedicated to promoting knowledge of the wine industry among hospitality management students. The wine cellar contains an impressive collection of rare and collectible wines featuring more than 1,000 bottles from the early 1900s to contemporary vintages.

One of the goals of the wine cellar is to become an international resource center and a world repository for research, education and training in the study of wine and spirits.

In the spring of 2007, the Fred Parks Boardroom opened to extend this mission. In addition to displaying some of these wines, this room serves as the fine-dining venue for the University and provides our students another opportunity to exhibit their skills and creativity.

Massad Family Library Research Center and Hospitality Industry Archives

Hilton College maintains the largest hospitality industry archives in the world. Initially built in 1989 through a grant from the Conrad N. Hilton Foundation, the space underwent a $1.5 million renovation in 2009 thanks to Nick ('73) and Vicki Massad (Hon. ’03) of Houston-based American Liberty Hospitality. The Massad's donation was the largest gift ever presented to the College from a source other than the Hilton Foundation. In addition to a complete remodeling of the library, the $2.5 million project also included a major investment in new technology and an improvement to the library's extensive hospitality industry archives.

Designed by Fernando Brave of Houston-based Brave Architecture, the 4,000-square-foot Massad Family Library Research Center and Hospitality Archives, opened in February 2010. It contains more than 7,000 resources and references for students and visitors, including books, cookbooks, magazines, journals, graduate papers and corporate-communications materials. The collection covers numerous hospitality sectors, including food and beverage management, catering, facilities management, gaming, lodging, nutrition, travel and tourism and industry-leader biographies.

The library also has three private study/meeting rooms with seating for eight. Each room is equipped with a computer connected to a 55-inch LED TV allowing for collaboration on class projects. Additionally, there are six computer workstations with internet access and printing capabilities.

The Hospitality Industry Archives consist of more than 3,000 linear feet of a wide-ranging collection of corporate papers, historical documents, photographs, menus, film and memorabilia that attracts scholars, educators, hospitality-industry professionals and media outlets from around the
world. Collections include Hilton Hotels, Brinker International, Marriott International, Howard Johnson, Westin Hotels and Best Western International, along with several smaller collections from individual hospitality leaders.

News outlets such as the *Wall Street Journal* and the *New York Times*, as well as historians, authors and scholars, all have relied on these archives to provide a rich, thorough history of the industry. The archives have contributed to books on hotel history, scholarly articles and news reports. Even producers of the Emmy-winning television show "Mad Men," which is set in the 1960s, the Ron Howard movie "Rush" and the Steven Spielberg movie "Bridge of Spies" have turned to the College's archives for research.

**Computer Labs**

Hilton College has two open computer labs, one of which is adjacent to the Massad Family Library Research Center and Hospitality Archives. Between the Blue and Green Labs, there are 54 computer workstations, all of which have Microsoft Office, statistical software and nutritional-analysis applications, plus one workplace with connections for laptops. Each lab offers wireless internet access and printing capabilities, including color printing in the Green Lab.

**Institutes and Centers**

Hilton College is home to two national research information centers that meet the needs of both students and the hospitality industry. Housed at the College are:

- American Hotel & Lodging Association Information Center
- Hospitality Financial and Technical Professionals Research Institute

**Hilton University of Houston**

Built in 1975, the Hilton University of Houston completed a $12.5 million renovation to its facilities in 2010. The transformed contemporary, stylish "new" property serves as the training hotel for students attending the top-ranked Conrad N. Hilton College of Hotel and Restaurant Management. Here, hospitality students work with hotel professionals to gain hands-on experience in guest service, hotel operations and banquet service. The hotel has 86 hotel guest rooms. And with 25,000 square feet of flexible banquet space - including six meeting rooms and three ballrooms with capacities ranging from 10 to 600 people - it's the ideal on-campus destination for meetings, banquets, receptions, video conferencing and special events. Wedding receptions are also popular here. The Fred Parks Boardroom, on the second floor of the hotel, offers a stylish alternative venue for breakfast, lunch or dinner meetings and features a remarkable wine collection. This boardroom can also accommodate customized menus with wine pairing for 12 to 15 people. Accommodations can be made at any level and underground parking is available to guests.

Click here for current room rates and/or to make a reservation at the Hilton University of Houston, or call 866-327-1161.

To book an event, call the sales office at 832-531-6303 or 832-531-6300.

Eric's Restaurant, located just off the lobby of the Hilton University of Houston, is open seven days a week from 6:30 a.m. to 10 p.m., serving breakfast, lunch and dinner. Featuring casual dining with a Mediterranean flair, Eric's is also a popular spot to meet for happy hour. Bar service is available from 11 a.m. to 10 p.m. For reservations, please call 713-743-2512 or reserve your table online via Open Table.

Cougar Grounds, located on the first floor of the South Wing, is a student-run coffee shop and a campus hotspot for gourmet coffee. The gourmet coffee brewed here is second to none. Menu items include a variety of hot and cold gourmet coffees and deluxe teas, fair-trade coffees and signature coffee-blend drinks, including delicious macchiatos, mochas, chai lattes, caramel lattes and more, along with breakfast muffins and pastries, chocolate desserts and sandwiches. Of note, Cougar Grounds is the first university coffee shop in the country managed and staffed by students as part of an educational experience. Hours are 7:30 a.m. to 6 p.m. Monday through Thursday and 7:30 a.m. to 4 p.m. on Friday during the fall and spring semesters, and from 7:30 a.m. to 3 p.m. Monday through Friday during the summer semesters. Call 713-743-2882 for more information.
Scholarships and Awards

A number of competitive scholarships and awards are funded by the College and hospitality industry. Applications are available each year from November 1 through March 1 for the following academic year. Applications are only available online.

For information, write:

UH Conrad N. Hilton College of Hotel and Restaurant Management
Attn: Scholarships
4450 University Dr., Room CSS 104-D
Houston, Texas 77204-3028
713-743-2492

Student Organizations

There are 14 student organizations in which students can become involved. These include:

- Club Managers Association of America (CMAA)
- Conrad N. Hilton College Ambassadors
- Eta Sigma Delta
- Graduate Student Association (GSA)
- Hospitality Financial and Technology Professionals - Cougar Chapter (HFTP-CC)
- Hotel & Lodging Association of Greater Houston - UH Chapter
- Meeting Professionals International - Cougar Chapter (MPI-CC)
- National Association for Catering and Events - Houston Student Chapter (NACE)
- National Society of Minorities in Hospitality - Cougar Chapter (NSMH-CC)
- San Antonio Hotel & Lodging Association - Student Chapter
- San Antonio Restaurant Association - Student Chapter
- Texas Restaurant Association - Cougar Chapter (TRACC)

Faculty

Professors

JéAnna L. Abbott, Ki-Joon Back, Stephen C. Barth, Carl A. Boger Jr., Agnes L. DeFranco, Dennis Reynolds

Associate Professors

Mary Dawson, Jason Draper, Nancy S. Graves, Priyanko Guchait, Yoon Koh, Juan M. Madera, Cristian Morosan, Jay Neal, D. Christopher Taylor

Assistant Professors

Cathy Cheatham (Instructional), Simone Doudna (Instructional), Erin Oeser Goodell (Instructional), Nathan Jarvis (Clinical), Tucker Johnson (Instructional), Jaewook Kim, Minwoo Lee, Tiffany Legendre, Arlene D. Ramirez (Instructional), Sujata Sirsat, Scott Taylor

Lecturers

Aaron Corsi, Reba Haskell, Melissa Manske, Kevin S. Simon
Adjunct Lecturers

Joe Bendy, Christine Besosa, Pamela Powell, Dirk Smith
HRM Admission Requirements

Automatic Admissions Criteria

Freshmen applicants who graduate in the top 10% of their high school class will be automatically admitted to the University of Houston's Conrad N. Hilton College of Hotel and Restaurant Management. All applicants, regardless of class rank, must submit SAT I or ACT scores.

Regular Admission Criteria

Applicants will be admitted to the University of Houston’s Conrad N. Hilton College of Hotel and Restaurant Management if they meet the following criteria:

- Students who rank between 11 and 25 percent of their high school class, must have a minimum 1130 SAT I (critical reading and mathematics) or ACT of 21.
- Students who rank between 26 and 50 percent of their high school class must have a minimum of 1170 SAT I (critical reading and mathematics) or ACT 24.
- Students who rank in the bottom 50% of their high school class or where their high school does not rank may have their application individually reviewed.

Applicants to the Conrad N. Hilton College of Hotel and Restaurant Management who have earned 15 or more credit hours at another university must have a cumulative grade point average of 2.85 or higher for automatic admission.

International students are required to submit scores from either the Test Of English as a Foreign Language (TOEFL) or the International English Language Testing Service (IELTS). Students are required to score a minimum of 550 on the written examination, 213 on the computerized version, or 79-80 on the internet based version of the TOEFL in order to be considered for admission. The minimum IELTS score required is an overall score of a 6.5. The testing agency should mail the official results directly to the University of Houston. No electronic IELTS are accepted.

International Students must also meet the same requirements as entering freshmen or transfer students - whichever category they fall into. Please refer to the University of Houston International Undergraduate Admissions Booklet.

Change of Major

University of Houston students who have completed at least 15 hours of college level work must have a minimum of 2.85 cumulative grade point average in order to change their major to Hotel and Restaurant Management. Students must submit a General Petition Form to the Conrad N. Hilton College Office of Academic Services.
HRM Scholarships and Awards

A number of competitive scholarships and awards are funded by the hotel, restaurant, and hospitality industry. Applications are available each November online at http://www.uh.edu/hilton-college/students/scholarships. Deadline each year is March 1.

For information, write:

University of Houston
Conrad N. Hilton
College of Hotel and Restaurant Management
Attn: Scholarships
4450 University Drive, Room #227
Houston, TX  77204

General Information about UH scholarships and financial aid can be found here: www.uh.edu/financial/undergraduate/.
Hotel and Restaurant Management

Major

Hotel and Restaurant Management, B.S.

Core Curriculum Requirements

- Communication Credit Hours: 6.0
- Mathematics Credit Hours: 3.0
- Component Area Option (a): Mathematics/Reasoning Credit Hours: 3.0
- American History Credit Hours: 6.0
- Government/Political Science Credit Hours: 6.0
- Language, Philosophy & Culture Credit Hours: 3.0
- Creative Arts Credit Hours: 3.0
- Life and Physical Sciences Credit Hours: 6.0

Social/Behavioral Sciences

- ECON 2304 - Microeconomic Principles Credit Hours: 3.0 OR
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0

Writing in the Disciplines

- HRMA 3358 - Hospitality Industry Law Credit Hours: 3.0 (This course is used to also satisfy the HRM major course requirement.)

HRM Directed General Education

Statistics

- MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0 OR
- PSYC 3301 - Introduction to Psychological Statistics Credit Hours: 3.0 OR
- TMTH 3360 - Applied Technical Statistics Credit Hours: 3.0

Speech

- HRMA 2356 - Communication Strategies for Hospitality Professionals Credit Hours: 3.0 OR
- COMM 2356 - Business & Professional Communication Credit Hours: 3.0

Hotel and Restaurant Management Course Requirements

- HRMA 1301 - Hospitality Technology Credit Hours: 3.0
• HRMA 1320 - Foodservice Management Credit Hours: 3.0
• HRMA 1337 - Introduction to the Hospitality Industry Credit Hours: 3.0
• HRMA 1345 - Safety and Sanitation in the Hospitality Industry Credit Hours: 3.0
• HRMA 1367 - Lodging Management Credit Hours: 3.0
• HRMA 2160 - Professional Development Credit Hours: 1
• HRMA 2340 - Systems of Accounts in the Hospitality Industry Credit Hours: 3.0
• HRMA 2343 - Hospitality Cost Controls Credit Hours: 3.0
• HRMA 2350 - Management Principles in Hospitality Credit Hours: 3.0
• HRMA 3341 - Hospitality Managerial Accounting Credit Hours: 3.0
• HRMA 3348 - Principles of Hospitality Revenue Management Credit Hours: 3.0
• HRMA 3352 - Human Resource Management Credit Hours: 3.0
• HRMA 3358 - Hospitality Industry Law Credit Hours: 3.0 (This course is used to also satisfy the Writing in the Disciplines requirement.)
• HRMA 3361 - Hospitality Marketing Credit Hours: 3.0
• HRMA 4343 - Financial Administration for the Hospitality Industry Credit Hours: 3.0
• HRMA 4350 - Strategy and Innovation in the Hospitality Industry Credit Hours: 3.0
• HRMA 4352 - Hospitality Organizational Behavior Credit Hours: 3.0
• HRMA 4353 - Leadership in the Hospitality Industry Credit Hours: 3.0
• HRMA 4360 - Hospitality Internship Credit Hours: 3.0

Hotel and Restaurant Management Tracks

Credit hours: 10; Student selects one track:

Lodging (Credit hours: 10)

• HRMA 3364 - Hotel Sales Credit Hours: 3.0
• HRMA 3440 - Hotel Operations Credit Hours: 4.0
• HRMA 4361 - Marketing Strategies in the Hospitality Industry Credit Hours: 3.0

Foodservice (Credit hours: 10)

• HRMA 3336 - Beverage Management Credit Hours: 3.0
• HRMA 3420 - Foodservice Operations Credit Hours: 4.0
• HRMA 3349 - Hospitality Purchasing Credit Hours: 3.0

Wine and Beverage Studies (Credit hours: 10)

Prerequisite: minimum grade of "B" in HRMA 3345 - Wine Appreciation

• HRMA 3336 - Beverage Management Credit Hours: 3.0
• HRMA 3445 - Global Wine Immersion Credit Hours: 4.0
• HRMA 4336 - Beverage Marketing Credit Hours: 3.0

Project Management and Analytics (Credit hours: 10)
Prerequisite: minimum cumulative grade point average of 3.0

- HRMA 3353 - Hospitality Metrics and Data Analytics  **Credit Hours: 3.0**
- HRMA 4370 - Project Development and Management in the Hospitality Industry  **Credit Hours: 3.0**
- HRMA 4462 - Practical Project Management in the Hospitality Industry  **Credit Hours: 4.0**

Hotel and Restaurant Management Electives

- HRMA Electives (electives must be HRM based)  **Credit Hours: 10.0**

Degree Total 120

Dual Degree Program

Hotel and Restaurant Management and Hospitality Management, B.S./M.S.

Conrad N. Hilton College of Hotel and Restaurant Management > Hotel and Restaurant Management and Hospitality Management, B.S./M.S.

Program Description

For students who want to pursue a Bachelor of Science (B.S.) in Hotel and Restaurant Management and earn a Master of Science (M.S.) in Hospitality Management, the dual B.S./M.S. program offers an accelerated degree program to earn both in five years. The dual B.S./M.S. provides a clear and concise path toward accelerated academic goals and enables students to begin concentrated work on a professional focus in the hospitality industry during the final year of their B.S. degree plan. Students who are accepted into this program can complete 12 hours toward their M.S. degree as an undergraduate student, and the remaining credits for the M.S. can be completed in one additional calendar year as a graduate student.

Application Process

Applicants gain conditional admission to this joint program during their final undergraduate year. Unconditional admission to the M.S. program requires successful completion of the B.S. in Hotel and Restaurant Management a cumulative GPA of 3.0 or better, and completion of the graduate program application process, which includes the following:

- Completion of GRE or GMAT test (institution code for GRE is 6870 and GMAT is XT1-1C-69)
- Online graduate admission application completion at https://www.applyweb.com/uhouston/
- Completion of a Skype interview if invited to do so after review of application

Additional requirements for international applicants include the following:

- letter of financial backing form (supported by a current bank)
- passport sized photo
- copy of passport

Course replacement/acceptance
Admitted students can earn 12 credit hours of Master-level courses in their final year of the B.S. program. These 12 credit hours will be applied to both the B.S. and the M.S. degree. Upon completion of the B.S. degree and unconditional acceptance into the M.S. program, an additional 24 Master level credit hours will culminate in an M.S. in Hospitality Management.

Final year of B.S.

9 credit hours from the following that support the focus area of the B.S. and the elective/support requirements in the M.S.:

- HRMA 6153 - Hotel Marketing NY Style
- HRMA 6342 - Alcoholic Beverage Production
- HRMA 6343 - Beverage Management
- HRMA 6344 - California Wine Experience
- HRMA 6345 - Wine Appreciation
- HRMA 6349 - Hospitality Purchasing
- HRMA 6351 - Lodging Operations Management
- HRMA 6355 - Event Administration
- HRMA 6356 - Hotel Development
- HRMA 6364 - Hospitality Managerial Accounting
- HRMA 6383 - Country Club Operations Management
- HRMA 6384 - Gourmet Night Management
- HRMA 6385 - Hall of Honor Management
- HRMA 6397 (new course number pending) - Beer Appreciation
- HRMA 6397 (new course number pending) - Food Safety: Current Perspectives & Applications
- HRMA 6397 (new course number pending) - Restaurant Development

3 credit hours from the following:

- HRMA 6361 - Hospitality Marketing Analysis

Accelerated B.S./M.S. in Hospitality Management Degree Plan

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<thead>
<tr>
<th>Course ID</th>
<th>MS Course Title</th>
<th>BS Course Title</th>
<th>Credits</th>
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<tr>
<td>HRMA 6101</td>
<td>Colloquium</td>
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<tr>
<td>HRMA 6330</td>
<td>Statistical Data Analysis for Hospitality Industry</td>
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<td>HRMA 6353</td>
<td>Services Management</td>
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<td>HRMA 6369</td>
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<td>HRMA 6382</td>
<td>Methods of Research in Hospitality Management</td>
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<tr>
<td>HRMA 6360</td>
<td>Hospitality Graduate Practicum (PP Only)</td>
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<td>HRMA 6190</td>
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<td>HRMA 6599</td>
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**Support Courses (9 Hours Required)**

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<td>HRMA 5309</td>
<td>Legal Issues in the Hospitality Industry</td>
<td>3</td>
<td>Any MS semester</td>
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<td>HRMA 5337</td>
<td>Human Resources Mgmt. for Hospitality Industry</td>
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<td>HRMA 5361</td>
<td>Hospitality Marketing Analysis</td>
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<td>BS final year</td>
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<tr>
<td>HRMA 5366</td>
<td>Hospitality Management Strategies</td>
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<td>Any MS semester</td>
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<tr>
<td>HRMA 5397</td>
<td>Hospitality Real Estate Finance</td>
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<td>Any MS semester</td>
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<tr>
<td>HRMA 5341</td>
<td>Food and Beverage Systems Management</td>
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<td>Any MS semester</td>
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<tr>
<td>OPEN **</td>
<td><strong>OPEN</strong></td>
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<td><strong>SUPPORT TOTAL</strong></td>
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**Focus Courses (3 Hours Required)**

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<td>HRMA 6334</td>
<td>Pricing and Revenue Management</td>
<td>3</td>
<td>MS semester 2</td>
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<tr>
<td>HRMA 6343</td>
<td>Beverage Management</td>
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<td>MS semester 2</td>
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<tr>
<td>HRMA 6351</td>
<td>Lodging Operations Management</td>
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<td>MS semester 2</td>
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<td><strong>FOCUS TOTAL</strong></td>
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**Elective Courses (5 Hours Required)**

Any additional courses 6000 level or above as approved by the graduate program office

<table>
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<th>Course Code</th>
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<tr>
<td>HRMA</td>
<td>See above list</td>
<td></td>
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</table>
Minor

Beverage Management and Marketing Minor

The Conrad N. Hilton College of Hotel and Restaurant Management offers a minor degree in Beverage Management and Marketing. This minor is not required of Hotel and Restaurant majors but is open to all students at the University of Houston. This minor is an option for students who would like to consider a career in the multifaceted wine and spirit industry. Students successfully completing this minor in Beverage Management and Marketing will also be awarded an industry recognized certificate in Commercial Beverage Management.

General Requirements for Minor

Students must have a UH cumulative grade point average of 2.75. This minor requires 16 credit hours of course work, including an internship in the wine and spirit industry. Students must complete at least 9 credit hours in advanced courses. At least 9 credit hours must be satisfied in residence.

10 credit hours of required courses as follows:

- HRMA 3336 - Beverage Management Credit Hours: 3.0
- HRMA 3345 - Wine Appreciation Credit Hours: 3.0
- HRMA 4132 - Beverage Management and Marketing Internship Credit Hours: 1.0
- HRMA 4336 - Beverage Marketing Credit Hours: 3.0

6 credit hours of elective courses from the following list:

- HRMA 3335 - Alcoholic Beverage Production - Wine, Spirits and Beer Credit Hours: 3.0
- HRMA 3346 - Beer Appreciation Credit Hours: 3.0
- HRMA 4344 - California Wine Experience Credit Hours: 3.0
- HRMA 4346 - Texas Wine and Food Experience Credit Hours: 3.0

Other Programs

HRM Basic Degree Information

Students must meet the general requirements for a baccalaureate degree including completion of university core curriculum requirements. See the Academic Regulations and Degree Requirements section of this catalog for details. All students are required to seek the help of academic advisors before enrolling (registering) for the appropriate courses.

To receive the Bachelor of Science in Hotel and Restaurant Management, students must:
1. Complete a minimum of 120 semester hours of course work, including 36 advanced (junior or senior level) hours. Any change or substitution in general requirements must be approved by the dean of the college.

2. Complete a minimum of 30 semester hours (two semesters) in residence. 24 of the last 30 semester hours applied to an undergraduate degree must be taken in residence (from UH).

3. Complete all HRM course requirements.

4. Maintain a 2.00 minimum cumulative grade point average in this major and at this university

In addition to these special requirements, candidates for the degree must meet the special requirements for a Bachelor of Science degree listed in the Academic Regulations and Degree Requirements section of this catalog.
About the Law Center

Contact Information

<table>
<thead>
<tr>
<th>Office</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the Dean</td>
<td>713-743-2100</td>
</tr>
<tr>
<td>Office of Student Services</td>
<td>713-743-2182</td>
</tr>
<tr>
<td>Office of Career Services</td>
<td>713-743-2090</td>
</tr>
<tr>
<td>Office of Admissions</td>
<td>713-743-2280</td>
</tr>
</tbody>
</table>

General Information

Dean:
Leonard M. Baynes, J.D., Columbia University

Associate Dean:
Greg Vetter, J.D., Northwestern University School of Law

Associate Dean for Alumni and Community Relations:
Sondra R. Tennessee, J.D., Washington University

Executive Director of Law Alumni Relations:
Hope Young, B.A.

Assistant Dean for Admissions:
Pilar Mensah, J.D., University of Texas

Assistant Dean for Career Development:
Tiffany Tucker, J.D., Howard University School of Law

Assistant Dean for Faculty Development:
David Fagundes, J.D., Harvard Law School
Assistant Dean for Student Affairs:
Monica Mensah, J.D., University of Houston Law Center

Director of Business Operations:
Mybao Nguyen, B.B.A., University of Houston

Director for Law IT:
Tommy Abraham, M.B.A., Texas Women's University

Director of Trial Advocacy Program, Newell Blakely Advocacy Institute:
Jim Lawrence, J.D., University of Houston Law Center

Assistant Dean of Communications and Marketing:
Carrie Criado, J.D., University of Houston Law Center

Director of the O'Quinn Law Library:
Amanda Watson, J.D., University of Mississippi School of Law
The Law Center Admission Requirements

Candidates must hold a baccalaureate degree or the equivalent from an accredited college or university. All undergraduate majors are acceptable, with courses that develop writing skills and analytical thinking recognized as good preparation for the study of law.

The UH Law Center requires applicants to enroll for the Law School Credential Assembly Service (CAS). The Office of Admissions can supply information or you can contact:

Law School Admissions Council
662 Penn Street
Newton PA 18940
215-968-1001

http://www.lsac.org

A complete package submitted to the UH Law Center must contain:

- Application form
- Non-refundable application fee of $70
- Personal statement (no longer than 3 pages, double-spaced);
- Resumé
- Immigration documents (if not a U.S. citizen)

No application will be reviewed without the CAS report, which includes a recent LSAT score, transcripts for all colleges and universities attended, and at least 2 letters of recommendation (but not more than 3).

University of Houston Undergraduate Students - Effective Fall 2021

Pursuant to ABA Standard 503 and Interpretation 503-3, the University of Houston Law Center may admit up to 10% of its J.D. class from undergraduate students matriculated at the University of Houston without an applicant LSAT score in the CAS report provided that (1) the student has scored at or above the 85th percentile on the ACT or SAT and (2) the student has achieved a cumulative GPA of 3.6 or above through six semesters of academic work.

Application Process

The early decision deadline is November 15. Early decision is non-binding. The full-time program regular decision deadline is February 15. The part-time evening program regular decision deadline is May 15.

Because a rolling admission process is used, there is likely to be more availability earlier in the process. Decisions for full-time will be mailed by mid-May. Decisions for part-time will be mailed by mid-July.

It is university policy, consistent with State of Texas statutes, that no single criterion can be utilized as the sole determinant of admission status, nor can fixed weights be applied to any one criterion. Demonstrated academic ability achievements, honors, extracurricular activities, service to others, unique abilities, hardships overcome, advanced degrees, employment and leadership. The UH Law Center is also committed to diversity and the UH System Board of Regents recognizes and endorses the benefits of diversity in the university setting. The Admissions Committee will consider the following additional factors: cultural history, ethnic origin, and race. These and other elements may be addressed in a personal statement of up to three pages double-spaced.

Interviews are not granted, but an appointment may be scheduled to discuss the admissions process. Decisions are final. Applications will be reconsidered only under very compelling circumstances. Therefore, be sure to include all relevant information in your application materials.
Law

Degrees Granted

The College of Law, which is the academic branch of the Law Center, confers a Doctor of Jurisprudence (J.D.) degree on students who meet the curricular and academic requirements. Students are accepted either for full-time study (a three-year program) or for part-time study (a four-year program). Both programs begin in the fall only.

The College of Law also offers a graduate program leading to the Master of Laws (LL.M.) degree, with concentrations in energy and natural resources law, health law, intellectual property and information law, international law, and taxation law.

In addition, a Master of Laws program is available to attorneys from foreign countries interested in obtaining exposure to the United States legal system.

Additionally, the College of Law offers several accelerated degree programs, allowing students to earn two degrees in less time than it would take to complete them sequentially. More information regarding these programs can be found on the College of Law’s website. The College of Law also allows some Honors College students pursuing an undergraduate degree to accelerate earning a law degree. Information regarding this opportunity can be found here.

Please review the Graduate Catalog for more information about programs, degrees, and admission requirements.
# About the College of Liberal Arts & Social Sciences

## Contact Information

<table>
<thead>
<tr>
<th>Office of the Dean:</th>
<th>402 Agnes Arnold Hall</th>
<th>713-743-3000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dean:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Antonio D. Tillis, Ph.D., University of Missouri</td>
<td></td>
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</tr>
<tr>
<td><strong>Associate Dean, Undergraduate Studies:</strong></td>
<td></td>
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<tr>
<td>Todd Romero, Ph.D., Boston College</td>
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<tr>
<td><strong>Associate Dean, Graduate Studies:</strong></td>
<td></td>
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</tr>
<tr>
<td>(Interim) Ann Christensen, Ph.D., University of Illinois Urbana-Champaign</td>
<td></td>
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<tr>
<td><strong>Associate Dean, Faculty and Research:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dan O’Connor, Ph.D., University of Houston</td>
<td></td>
<td></td>
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<tr>
<td><strong>Associate Dean, Student and Faculty Success:</strong></td>
<td></td>
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</tr>
<tr>
<td>Billy Hawkins, Ph.D., University of Iowa</td>
<td></td>
<td></td>
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<tr>
<td><strong>Director of Communications:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toni Mooney Smith, MS, Northwestern University</td>
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<table>
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<tr>
<th>Academic Affairs Center</th>
<th>320 Agnes Arnold Hall</th>
<th>713-743-4001</th>
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</thead>
<tbody>
<tr>
<td>African American Studies</td>
<td>629 Agnes Arnold Hall</td>
<td>713-743-2811</td>
</tr>
<tr>
<td>Air Force ROTC</td>
<td>109 Garrison Gym</td>
<td>713-743-4932</td>
</tr>
<tr>
<td>American Cultures Program</td>
<td>559 Agnes Arnold Hall</td>
<td>713-743-3097</td>
</tr>
<tr>
<td>Jack J. Valenti School of Communication</td>
<td>101 Communication Building</td>
<td>713-743-3002</td>
</tr>
<tr>
<td>Department of Communication Sciences and Disorders</td>
<td>100 Clinical Research Center</td>
<td>713-743-2898</td>
</tr>
<tr>
<td>Department of Comparative Cultural Studies</td>
<td>233 Charles F. McElhinney Hall</td>
<td>713-743-3780</td>
</tr>
<tr>
<td>Department of Economics</td>
<td>204 Charles F. McElhinney Hall</td>
<td>713-743-3800</td>
</tr>
<tr>
<td>Department of English</td>
<td>205 Roy Cullen Bldg.</td>
<td>713-743-3004</td>
</tr>
<tr>
<td>Department of Health and Human Performance</td>
<td>104 Garrison Gymnasium Bldg.</td>
<td>713-743-9840</td>
</tr>
</tbody>
</table>
Objectives and Mission

The College of Liberal Arts and Social Sciences (CLASS) is a dynamic academic environment dedicated to the study of human creativity and society, as well as our mental and physical capabilities and conditions.

The largest and most diverse of the 12 colleges at the University of Houston, CLASS is home to 13 schools and departments, encompassing the creative arts, humanities, and social sciences.

Undergraduate and graduate majors cover the full-range of the human experience - from Anthropology to Human Space Exploration Sciences. The College also offers social and cultural analysis in African American, Mexican American, Women's, Gender & Sexuality and other interdisciplinary studies programs.

CLASS extends its scholarship to the university, City of Houston and nation through its policy, research and cultural centers, which includes the University Speech, Language and Hearing Clinic.

The College's goal is to stimulate and expand students' cultural, mental and physical explorations through rich course offerings, learning abroad programs and campus events. We encourage students to delve into the questions of life while building critical and analytical skills that animate professions and launch successful careers.
Our 345 permanent faculty members educate nearly 12,000 undergraduate majors and minors and 1,200 graduate students, preparing them for future studies and professional achievements.

By accessing and using new communication and research tools, CLASS students increase their reasoning skills, cultural awareness, aesthetic appreciation and ethical judgement. That foundation gives them the capacity to pursue their passions.

CLASS graduates are tomorrow’s economists, journalists, diplomats, business leaders, professors, lawyers, nurses, and doctors. Whatever they choose to do in life, CLASS graduates are prepared to make meaningful contributions to multi-cultural societies and global economies.

CLASS Scholarships

CLASS offers several scholarships at the college and department level. Contact the Office of the Dean for more information or visit the CLASS Website www.class.uh.edu. For departmental scholarships contact the individual departments.

Scholastic and Honorary Societies

Alpha Epsilon Rho

Alpha Epsilon Rho, the National Honorary Broadcasting Society with chapters on more than 100 major campuses in the United States, is open to all broadcasting and film students with a minimum 3.00 cumulative grade point average. Alumni are accepted for membership, and professional memberships are offered to faculty and interested people in the business community.

The objectives of this society are to encourage and reward scholarship and accomplishments among broadcasting students, and high-level accomplishments in the art and science of broadcasting, by both students and industry professionals, to promote the advancement of broadcasting education to establish meaningful communication between students and professional broadcasters, and to foster integrity in the use of the powerful instruments of radio, television, and film.

Alpha Kappa Delta

Alpha Kappa Delta, an international honorary society, exists to promote interest in the study of sociology, research of social problems, and other social and intellectual activities that will lead to improvement in the human condition. Qualified undergraduate and graduate students are eligible for membership.

The Anthropology Forum

The Anthropology Forum is a club open to all undergraduates majoring in anthropology at the University of Houston. It is designed to stimulate discussion of various issues in anthropology, to sponsor guest speakers from the field of anthropology and "brown bag lunch" discussion groups, to organize attendance at various anthropology seminars, and to encourage peer mentoring among club members. Leadership of the club is on a "rotating" basis, with various members in turn taking the minutes of the meeting, then assuming organization and leadership of the subsequent meeting.

The Communication Honors Union
The Communication Honors Union is open to majors in the Jack J. Valenti School of Communication who are enrolled in the university's Honors College. The union holds one major debate each term in which outstanding professionals discuss issues of importance to the world of journalism and mass communication.

**Delta Phi Alpha**

Delta Phi Alpha, an honorary scholastic organization designed to disseminate and extend knowledge of German culture, heritage, and literature, is open to all students. For additional information, interested students should call the Department of Modern and Classical Languages.

**National Society of Scabbard and Blade**

The purpose of the National Society of Scabbard and Blade, an honorary society founded at the University of Wisconsin during the school year 1904-05, is to raise the standard of military education in American colleges and universities. Students selected from outstanding cadet officers in the Advanced Course of ROTC are elected to lifetime membership.

**Omicron Delta Epsilon**

Membership in Omicron Delta Epsilon, an international honorary society, is open to qualified, interested students majoring in economics. In addition to social activities, the chapter sponsors programs and discussions on topics in economics.

**Phi Alpha Theta**

Phi Alpha Theta, an international honor society in history, is represented in the Department of History by the Zeta Kappa Chapter.

**Phi Beta Kappa**

Founded in 1776, Phi Beta Kappa is the oldest and most prestigious honor society in the nation. To be eligible for membership, students major in one of the arts and sciences disciplines (or complete substantial coursework in the arts and sciences), achieve a high grade point average so as to rank in the top 10% of the class, and demonstrate competency in a foreign language, among other requirements. For more information on membership and programming, contact Keri Myrick (kdmyrick@uh.edu) in the Honors College.

**Pi Delta Phi**

Pi Delta Phi, national honor society for French and member of the Association of College Honor Societies, recognizes excellence in the study of French regardless of major. For further information, contact the Department of Modern and Classical Languages.

**Pi Sigma Alpha**

Pi Sigma Alpha is the national honor society for the academic discipline of political science. In conjunction with the American Political Science Association, the society works to foster excellence in the study of politics and government, both at the undergraduate and graduate levels. The requirements for membership are completion of at least 15 hours of advanced political science courses at the University of Houston with a GPA of 3.50 in these courses. In addition, a 3.00 overall GPA must be maintained.
The activities of the society include invited speakers, conferences, paper competitions and a periodic newsletter. A membership drive is held in the spring term. For more information please contact the Political Science Department.

Psi Chi

Psi Chi is the national honor society of psychology in America. Operating in cooperation with the American Psychological Association, Psi Chi members include students nominated and elected either as undergraduates or graduates. Membership in the University of Houston chapter requires completion of at least nine semester hours, enrollment (registration) for major or minor standing in psychology, ranking in at least the top 30 percent of one's class, having a cumulative GPA of 3.00, maintaining a GPA of 3.50 in all psychology courses attempted at the University of Houston, exhibiting high standards of personal behavior, and the endorsement of three-fourths of the members attending a regular chapter meeting.

Sigma Delta Pi

Sigma Delta Pi, an honor society in the Department of Modern and Classical Languages, is an organization designed for exceptional students in upper and graduate level Spanish. The society also elects honorary faculty members.

Sigma Tau Delta

Sigma Tau Delta, the National English Honor Society, is open to English majors and minors who have a 3.2 overall GPA and a 3.4 English GPA, who have completed at least three advanced hours of English, who have completed or are in the process of completing at least six additional hours of English, and who have the willingness to be an active member. The purposes of the organization are to confer distinction for high achievement in English language and literature in undergraduate or graduate studies, to promote interest in literature and the English language, and to foster the discipline of English in all its aspects including creative and critical writing. For further information, contact the Department of English.

The Student Association for the Social Sciences

The purpose of the Student Association for the Social Sciences is to encourage, stimulate, and maintain scholastic excellence of individuals in all the subfields and disciplines of the social sciences, as well as to advance the science itself. SASS is designed to augment and enhance the regular curriculum, to afford opportunities for the members to utilize their talents in roles that are meaningful, and to promote interaction among fellow members of SASS, members of the college, the faculty of the departments, and other social scientists.

Professional Societies

The Houston Advertising Federation at UH

The Houston Advertising Federation at UH received its charter in 1983. Membership in the club is open to all university students. Dues are $12 per year. Members receive the AAF Newsletter and are eligible to participate in various workshops and the AAF National Student Competition.

The African American Honors Students' Association (AAHSA)

The African American Honors Students' Association (AAHSA) promotes unity and provides a voice for African American honors students, while seeking a better understanding among all students in the Honors College. AAHSA also seeks to improve retention rates of African American students in the Honors College. AAHSA continues to develop successful, goal oriented, community minded African American honors graduates and provides a
strong support network for its members. Our organization encourages participation, by its membership, in all Honors College activities. We seek these goals while benefiting the entire Honors College body and membership in AAHSA is open to all.

The American Center for Design (ACD)

The American Center for Design (ACD), a national professional graphic design organization with university student chapters across the country, provides funding for campus design programs, maintains a speaker’s bureau, and offers contact with the professional design community. Membership information is available from the ACD faculty advisor.

The Houston Student Chapter of the International Association of Business Communicators

The Houston Student Chapter of the International Association of Business Communicators is open to students at all major colleges and universities in the city. The organization has close ties to IABCHouston, one of the largest professional chapters in the country. Students may attend professional chapter meetings and seminars as well as student chapter events held on campus.

IABC offers students an opportunity to learn more about the fast-growing fields of public relations and business communications. Additionally, members receive IABC professional publications, attend IABC workshops, and utilize IABC's job referral service, which offered 250 positions last year.

The National Association of Black Journalists

The National Association of Black Journalists sponsors student chapters at many universities including the University of Houston. The organization provides a variety of programs aimed at professional and social development of student members.

The National Student Speech-Language and Hearing Association (NSSHLA)

The National Student Speech-Language and Hearing Association (NSSHLA) is the national organization for graduate and undergraduate students interested in the study of normal and disordered human communication behavior. It is the only national student association recognized by the American Speech-Language and Hearing Association (ASHA). National and local chapters sponsor conferences, seminars, a professional publication, scholarship programs and social activities. Membership also entitles students to benefits when applying for final professional certification in speech-language pathology or audiology. Further information is available through student advisors in the Department of Communication Sciences and Disorders.

The Public Relations Student Society of America (PRSSA)

The Public Relations Student Society of America (PRSSA) consists of a national organization and chapters at colleges and universities dedicated to supporting educational and professional opportunities for students interested in the field of public relations. Members participate in seminars, national case study competitions, approved internships, and a variety of other programs sponsored by the Houston professional chapter of the Public Relations Society of America (PRSA).

The society also fosters students’ understanding of contemporary public relations theories and procedures, and encourages adherence to the highest ideals and principles of the practice of public relations. Membership in the University of Houston chapter of PRSSA is open to both undergraduate and graduate students of any major. Further information is available from the faculty advisor in the Jack J. Valenti School of Communication.

The Society of Professional Journalists (SPJ)
The Society of Professional Journalists (SPJ) is a national professional organization with student chapters at universities across the country. It provides scholarships, sponsors various programs designed to enhance the education of prospective journalists, and brings prospective journalists in contact with working journalists. Further information is available from the faculty advisor in the Jack J. Valenti School of Communication.

**The Society of Motion Picture and Television Engineers (SMPTE)**

The Society of Motion Picture and Television Engineers (SMPTE) maintains a student section open to all undergraduate and graduate students interested in the activities of this international organization. The aim of the society is to gather pertinent information on motion pictures, sound and video technology and production, and share that information with its members.

SMPTE is the representative of the United States to international standards organizations and is responsible for setting standards in this country. SMPTE publishes a monthly journal. The Houston section holds monthly meetings, which include tutorials, seminars, and lectures on technology and techniques developed in television and motion pictures. Further information is available from the director’s office of the Jack J. Valenti School of Communication.

**The International Television Association (ITVA)**

The Houston Chapter of the International Television Association (ITVA) maintains a strong relationship with the Jack J. Valenti School of Communication and other units of the university. Workshops, tutorials, and seminars are held on a monthly and yearly basis on and off campus. The sessions cover key topics on the management and production aspects of industrial media production. Further information is available from the director’s office of the Jack J. Valenti School of Communication.
Academic Information

CLASS Policies and Procedures

Advising

The goal of the advisors in the CLASS Academic Affairs Center and the departments within the college is to ensure that each student has access to competent academic advising at all stages of the student’s college career. All incoming freshmen and transfer students are required to go through orientation, where pertinent policies and procedures are introduced and potential problems are discussed.

During orientation, students are given an overall view of the college, then undergraduate advisors in each department help students with the initial task of schedule planning and enrollment (registration). Thereafter, advisors are available on an ongoing basis should any questions or problems concerning academic progress occur.

Specific times when academic advising is suggested:

- upon entering the university (freshman or transfer)
- for enrollment (registration) and add/drop questions
- to declare or change a major
- to declare or change a minor
- to clarify any academic policy or procedure
- anytime UH semester GPA falls below 2.0 to discuss UH resources for success
- anytime UH cumulative GPA falls below 2.0 (required) to discuss UH resources for success, enrollment limitations and requirements in order to avoid suspension
- at or before 60 hours to review degree plan (reviewing your degree plan can and does minimize lost hours and delayed graduation)
- at or before 90 hours and each term thereafter until graduation to verify that all requirements will be met as expected (required)

Declaration of Major

Many entering students have a well-defined career objective and major course of study. These students should declare their majors upon entering the university and should seek academic counsel from their major departments. Students who are admitted to a major in the College of Liberal Arts and Social Sciences must enroll in at least one course each term in approved coursework for their declared major requirements.

Freshman students who are uncertain of their majors are encouraged to enroll first through Exploratory Studies and seek academic advising from the advisors for the major(s) they are considering. Before enrolling as sophomores (30 hours), students must petition for a change in major to one of the degree programs in the college.

For further information on degree requirements please read: CLASS General Degree Information.

Declaration of Minor

Students who wish to declare a minor to any of the college’s degree programs must have established at least a 2.00 minimum cumulative UH grade point average and meet the requirements of the desired minor. Some minor programs may have additional requirements, refer to the specific minor department for additional requirements.

For further information on minor requirements please read: CLASS Minors Requirements.
Change of Major

Students who wish to change their majors to any of the college's degree programs must have established at least a 2.00 minimum cumulative UH grade point average and meet the requirements of the individual department. Some departments, including Communication Sciences and Disorders, School of Communication, Economics, and Health and Human Performance, have additional requirements. Students must complete the requirements of a major based on the catalog year requirements in effect at the time the major was declared.

Students who wish to change their major to any of the college's degree programs must also enroll in at least one course each term in approved coursework for their declared major requirements.

Students with less than a 2.00 grade point average are encouraged to obtain academic advising from the department to which they wish to change; however, they are not eligible to officially change their major until the required grade point average is attained.

Double Majors

The baccalaureate degree objectives must be the same for both majors (e.g.: B.A., B.S., B.B.A., B.F.A.).

Students pursuing a double major must identify one of the two majors as primary one for purposes of establishing an academic home of record.

Students who complete a double major earn only one degree and are only eligible to participate in the graduation ceremonies based on their primary major.

The university does not recognize a triple major or any number of majors above two for a single bachelor's degree.

For more information, visit the undergraduate academic catalog for Degree Requirements for Double Major.

Double Degrees

Students who want official university recognition for more than a double major must earn more than one bachelors degree. Students who seek to pursue two separate undergraduate degrees, simultaneously, regardless if one of both degrees are from the same college, must officially declare and complete all requirements for both degree programs. Students pursuing a double degree will have two separate degrees awarded.

Students who are pursuing two majors that have different degree objectives (e.g.: B.A., B.S., B.F.A., B.M., B.B.A.) must pursue a double degree. Students can also earn a double degree for bachelor degrees with the same degree objective as long as they satisfy all necessary requirements.

In order to complete a double degree, a student must earn a minimum of 30 semester hours in addition to the minimum total hours required for the degree being pursued with the highest minimum total hour requirement. A minimum of 150 credit hours is needed for two degrees unless one of the degrees has a higher minimum total hour requirement. (See UH Catalog information for additional Bachelors Degree.)

Students must satisfy the university, college, and both major requirements under the catalog in which they qualify for. (See information in the UH Catalog Degree Requirements for "Graduation Under a Particular Catalog").

Students may not earn a degree with both a major and a minor in the same field of study. All majors and minors declared for pursuing a double degree must be from different fields of study. Students can add a second major and/or minor to one or both bachelor degrees as long as the second major or minor are from different fields of study. (See information in the UH Catalog Degree Requirements for "Double Major").

The University does not recognize a triple major or any number of majors above two for a single bachelors degree. (See information in the UH Catalog Degree Requirements for "Double Major").

For graduation purposes, students must apply for each bachelors degree separately and pay for each graduation fee during the term they intend to graduate. Students who complete a Double Degree will be eligible to participate in the graduation ceremonies for both degrees.
Students who are interested in pursuing a double degree should meet with each of their intended major advisors for degree planning.

For further information on degree requirements please read: CLASS General Degree Information.

**Repeated Courses**

Students may not count repeated course hours toward their graduation total or towards their 36 required advanced hours unless courses are listed in the catalog as repeatable, are designated as special/selected topics or are required for their major.

**Deadlines**

CLASS strictly adheres to the university calendar, e.g., deadlines for admission and enrollment (registration), and drop dates, and application for graduation, etc. These deadlines can be accessed through the Undergraduate Academic Calendar.

Exceptions are considered only for documented, extenuating, nonacademic circumstances.

**Grade Changes**

Questions regarding grades in CLASS courses must be resolved within 90 calendar days following the posting of the grade. Grade changes are approved only for correction of errors in computing the grade, and a grade change form must be submitted no later than the close of the semester/summer session following the posting of the grade.

Issues of grievance regarding grades, course requirements and classroom procedures can occur. The first and best source for resolving the problem is with the professor. The university expects most issues to be resolved amicably and informally with the professor. In the event that an informal resolution is not possible, students may file a written grievance on a General Petition Form, available in department and college offices, and online at www.uh.edu/academics/forms. These forms must be filed with the professor within 90 calendar days of the posting of the final grades for the course. Appeals may be considered at the following levels, as necessary: professor, departmental chair, college dean, senior vice president for academic affairs (or designated representative at all levels). Faculty are required to retain all evaluated student material not previously returned for a six month period after the end of the last class of the term evaluated. For more details regarding the issues of grievance regarding grades, please refer to this website: Undergraduate Academic Grievances.

Grades of I (incomplete) must be resolved within one year of the posting of the grade unless your agreement with your instructor is for less time. Incomplete grades must be resolved with the instructor awarding the grade and an Incomplete Agreement signed by the student and the instructor should be filed in the department. Incomplete grades cannot be resolved by re-enrolling for the course in question.

**Fulfillment of Grade Requirements for a Degree**

To determine the fulfillment of degree requirements, the required grade point average for graduation is calculated as described in the Academic Regulations and Degree Requirements section of this catalog with the following differences:

1. No incomplete grades (grades of I) can be remaining at the time of graduation. For more information on "incomplete grades" please read: Grade Explanations.
2. All courses taken in major and minor fields in CLASS, including repeated and failed courses, will be considered when determining major and minor GPAs. Additionally, UH coursework outside the subject area of the major and minor, if approved by the department to meet major and minor requirements, will also be considered when determining major and minor GPAs.

**Filing for Graduation**
Degrees are not awarded automatically upon completion of the scholastic requirements. To be a candidate for a degree, students must submit an application for graduation by logging in to myUH. Applications should be filed during the graduation filing period as listed in the Academic Calendar. Candidates for graduation who were previously disapproved must reapply.

Successful graduation candidates can anticipate the posting of the degree within 4-6 weeks after the official closing date of the term, and the receipt of their diplomas approximately two weeks after the degree is posted.

Undergraduate Course Load

Course loads for undergraduate and post-baccalaureate students are determined by university policy, curriculum of study, and personal factors such as work and family responsibilities. See the Academic Regulations and Degree Requirements section of this catalog for a complete discussion of course loads. In general, for those students who expect to complete the requirements for a bachelor’s degree in about four years, the maximum undergraduate course loads for the fall and spring terms are as follows:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen</td>
<td>16</td>
</tr>
<tr>
<td>Sophomore, Junior, Senior, Post-baccalaureate</td>
<td>19</td>
</tr>
<tr>
<td>Students on Probation/Academic Warning (Cumulative GPA below 2.0)</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Session 2</td>
<td>7</td>
</tr>
<tr>
<td>Summer Session 4</td>
<td>7</td>
</tr>
<tr>
<td>Total for Summer</td>
<td>15</td>
</tr>
</tbody>
</table>

The totals listed above include all courses for which students may wish to enroll. Permission to take course loads above these maximums must be approved by the faculty advisor (or the chair of the major department) and dean. (See Regulations and Requirements section for details on maximum course loads and overloads for Fall, Spring, and Summer sessions. Students on probation or academic warning must check regulations and requirements for specific class load limitations.)
Academic Grievance Policy

In the normal conduct of education at the University of Houston, justifiable grievances may arise concerning the violation of university, college, or department academic policies or procedures. CLASS is committed to resolving these grievances in a fair, orderly, and expeditious manner. To that end, the college has established informal and formal procedures beginning at the department level for settling academic grievances.

An academic grievance refers to an action taken against a student by a member of the faculty (including part-time instructors and teaching assistants), staff, or administration that either violates a university, college, or department academic policy or procedure or prejudicially treats the student on the basis of race, color, national origin, religion, sex, age, handicap, veteran status, or any other nonacademic status.

Because assigning a grade or evaluating a student's work performance involves the faculty's professional judgment and is an integral part of the faculty's teaching responsibilities, disagreement with an instructor concerning a grade or evaluation is not a justifiable grievance to be factors such as those mentioned in the previous paragraph can be shown to have affected that grade or evaluation.

A student with a justifiable grievance that can be substantiated should initiate academic grievance proceedings within 90 calendar days of the action in dispute.

Any student who believes he or she has an academic grievance involving CLASS should first try to resolve the grievance informally with the faculty member or other involved parties within 90 calendar days of the action in dispute. In some cases, the student may have to discuss the grievance with the department chair, the college officer designated by the dean, or both before obtaining a satisfactory resolution.

If the informal discussions do not resolve the academic grievance, students may initiate a formal grievance by submitting a written complaint to the chair of the department involved (or the college officer designated by the dean if the chair is the focus of the grievance) as soon as the informal proceedings have ended. This written complaint must be filed within 90 calendar days of the posting of the final grades for the course.

Students who do not obtain a satisfactory resolution at the departmental level may file a formal appeal first with the office of the dean and then, failing to obtain satisfaction, with the office of the senior vice president for academic affairs.

The procedures a graduate student must follow to file an academic grievance in the College of Liberal Arts and Social Sciences are in the Faculty Handbook. The procedures an undergraduate student must follow are available in writing in the office of each department in the college and in the Office of the Dean (402-AH).

Academic Warning

First time in college (FTIC) freshman students who earn less than a 2.00 grade point average in the first long term (i.e., Fall or Spring) of enrollment at the University of Houston shall be placed on academic warning. An academic advisement hold will be placed on a student's records as it is mandatory that they see their academic advisor for enrollment. CLASS students on academic warning may not enroll for more than 12-13 credit hours in fall and spring terms, and no more than five hours in Summer Session 2 or Summer Session 4, for a total of 10 hours for a summer semester.

Academic Probation

Students are placed on academic probation if their cumulative grade point average falls below 2.00. All students on academic probation are required to seek advising in their major departments in order to obtain academic support to improve academic performance and avoid academic suspension. CLASS students on academic probation may not enroll for more than 12-13 credit hours in fall and spring terms, and no more than five hours in Summer Session 2 or Summer Session 4, for a total of 10 hours for a summer semester.

Students on academic probation whose cumulative grade point average is below 2.00 but whose semester grade point average is higher will remain on continued academic probation. Students on academic probation will be removed from that status when their cumulative grade point average is at or above 2.00.
Students on academic probation whose cumulative grade point average is below 2.00 and whose semester GPA is below 2.00 will be placed on academic suspension and will be restricted from future enrollment until the terms of their suspension have been met.

**Suspension & Readmission**

Any student suspended from the college for academic or disciplinary reasons is ineligible to return during the designated period of suspension. Effective Fall 2011 all suspended students must reapply to the university as a former student through UH Admissions (http://www.uh.edu/undergraduate-admissions/apply/former-student-admissions/readmission-step-by-step). Students from other Colleges seeking readmission to CLASS should refer to the CLASS Policies and Procedures for Readmission and Contracts:

While on suspension at UH, a CLASS student may not enroll at the University of Houston main campus classes as follows:

- First suspension: student must sit out the next full term, either the fall or the spring. (Summer does not count as a full term.)
- Second suspension: student must sit out 1 full year (12 months).
- Third suspension: student will not be readmitted to UH.

CLASS does not grant readmission during summer terms. Students should be advised that readmission is neither automatic nor guaranteed.

A student readmitted from academic suspension enters the term on probation and must fulfill the following requirements to avoid further academic action.

1. Enroll in no more than 12 semester hours of approved courses during the semester of reentry and each term thereafter while on continued academic probation.
2. Earn a minimum 2.00 grade point average during the semester of reentry and each term thereafter while on continued academic probation.
3. Monitor progress of coursework closely and properly drop any course if necessary.
4. Additional requirements may apply.

Failure to attend the university during the term of readmission cancels the readmission approval. Students may reapply for any subsequent fall or spring term by posted deadlines.

**Independent Study Courses and Internships**

Each CLASS area provides opportunities for majors and minors to take independent study courses and/or internships. Participation in independent study courses and/or internships requires an approved petition to be on file in the appropriate department. CLASS students may use no more than 6 credit hours of Independent Study and/or Internship courses to satisfy any major requirements in CLASS, and no more than 6 credit hours to satisfy any minor requirements in CLASS.

Manual verification is needed to ensure that no more than 6 credit hours of Independent Study/Internships are used towards either all CLASS major requirements or all CLASS minor requirements.

Note: If a student takes nine or more hours of internship/independent study courses, no more than nine hours will be given a letter grade.

**Transfer Credit**

Questions concerning transfer credit should be discussed with the student’s major academic advisor. Courses taken at other institutions in which grades below C- were earned are not transferable or applicable toward degree requirements at the University of Houston.
A student cannot satisfy any baccalaureate degree requirement at the university with course work taken at another institution unless the course itself is both accepted by the university in transfer and applied toward the student's baccalaureate degree. Students who transfer credit that does not have specific UH course equivalency posted may submit an Undergraduate Transfer Credit Petition with their major advisor.

**Dean's List**

The Dean's List, a tabulation of the names of all undergraduate honor students, is compiled each term. To qualify for this recognition in CLASS, students must earn a 3.50 minimum grade point average (the grade of S is not counted) on twelve or more semester hours completed during the term. At least nine of the twelve semester hours must be letter grades. Students who earn a grade of I (except in a senior honors thesis course), D, F, or U during the term are excluded from consideration for the Dean's List. Students who have filed a Request to Withhold Public Information form with the university will not be listed.

For additional information regarding general degree requirements, please see the General Degree Information section.

**Accreditation**

CLASS departments and schools hold the following accreditation:

- The Communication Sciences and Disorders program is accredited by the Council of Academic Accreditation in Audiology and Speech-Language Pathology, the accrediting body within the American Speech, Language, and Hearing Association (ASHA).
- The Human Nutrition and Foods program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND).
- The graduate program in Clinical Psychology is accredited by the Commission on Accreditation, the accrediting body within the American Psychological Association.
Scholarships & Financial Aid CLASS

CLASS offers several scholarships at the college and department level. Contact the Office of the Dean for more information or visit the CLASS Web site www.class.uh.edu. For Departmental scholarships contact the individual departments.

Office of the Dean: 713-743-3000
402 Agnes Arnold Hall

General information about UH scholarships and financial aid.
Navy ROTC Scholarships

Scholarship Navy ROTC students are appointed midshipmen, U.S. Naval Reserve, on a nationwide competitive basis. They receive retainer pay of $250- $400 per month for a maximum of four academic years, with all tuition, fees, and equipment paid for by the government. Additionally, students receive $300 per term for books. Midshipmen must complete the prescribed naval science courses and participate in drills and three summer cruises. After graduating with a bachelor’s or graduate degree, they accept a commission as an ensign in the U.S. Navy or as a second lieutenant in the U.S. Marine Corps.

Nonscholarship Navy ROTC students enter into a mutual contract with the Secretary of the Navy to take naval science courses and to participate in drills and one summer training cruise. On a competitive basis, students may apply to continue in the Navy ROTC program through their junior and senior years. The U.S. Navy pays these continuing students $300-$400 per month during their junior and senior years, offering them a commission in the U.S. Navy or Marine Corps upon graduation. The program chair may recommend nonscholarship students, on a local competitive basis, for scholarship status.

Two-Year Program Option

In their sophomore year, students may apply for the two-year Navy ROTC program, competing nationwide for available scholarships. If selected, they attend the six-week Naval Science Institute (NSI) at Newport, Rhode Island, during July and August. NSI provides students with course material and training normally covered during the first two years of the regular Navy ROTC program. Successful completion of NSI qualifies students for enrollment in the advanced Navy ROTC program on an equal footing with the four-year students. Usually about 15 percent of the nonscholarship students finishing NSI are offered two-year Navy ROTC scholarships. Additional scholarships occasionally may be awarded to others upon the recommendation of the program chair.

U.S. Marine Corps Program

Navy ROTC students, either scholarship or nonscholarship, may apply for the U.S. Marine Corps program. Students selected for that program are referred to as "Marine Corps option students" and attend separate classes under a U.S. Marine officer instructor during their junior and senior years.

Midshipman Company

NROTC students are required to participate in the midshipman company. The company meets several times a week for physical fitness and general class room training. The company also sponsors and competes in several drill and physical fitness competitions each term, as well as a formal event once a term. The midshipman company is the primary tool for leadership training that prepares midshipman to enter service as a commissioned officer in the United States Military.

Teacher Certification

CLASS Teacher Certification Program

College of Liberal Arts & Social Sciences >CLASS Teacher Certification Program

The University of Houston offers bachelor’s degree programs that meet the Texas State Board of Education requirements for the Provisional Teaching Certificate.
Programs of study leading to certification are approved jointly by CLASS and the College of Education. In this college, students may pursue certification in Art, Dance, English, French, German, History, Italian, Journalism, Latin, Music, Spanish, Social Studies Composite, and Speech Communication.

Students will take professional education courses in the College of Education and subject matter courses in this college. Advisors in CLASS will prepare students’ degree plans. Consult academic advisors in the department of the major each semester and regularly consult with advisors in the College of Education. See the College of Education section of this catalog for a more complete explanation of these options.

Note: Rules and regulations are set forth by the State of Texas and are subject to change at any time. The College of Education reserves the right to make changes to accommodate the State Board for Educator Certification, the Coordinating Board, and university decisions.

**CLASS Requirements for Entry into College of Education's Teacher Education Program**

To be eligible to apply for acceptance into the College of Education's Teacher Education Program, students whose primary major is in the College of Liberal Arts and Sciences (CLASS) must satisfy all of the following requirements.

- Achieve at least minimum passing scores for enrollment at the University of Houston.
- Demonstrate speech proficiency. This may be done by earning a grade of C or higher in either COMM 1331 or COMM 1332.
- Demonstrate computer proficiency. This may be done by satisfactorily completing CUIN 3313 during the Teacher Education Program.

To qualify for admission to the Teacher Education Program in any teaching field(s) in the College of Liberal Arts and Social Sciences, students must satisfy the following requirements in addition to those required for their bachelor’s degrees.

- Have an overall cumulative grade point average of at least 2.50.
- Have a cumulative grade point average of at least 2.50 on all courses taken to satisfy the major requirements in the teaching field(s).

For further information on teacher certification programs, consult the College of Education section of this catalog or academic advisors in the major fields of study offered for teacher certification in this college.

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**University of Houston**

College of Education

Curriculum and Instruction

256 Farish Hall

Houston, TX 77204-5027

713-743-4950

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**Other Programs**

**All Concentrations**

When the selected topic is relevant to the student's concentration:

- CCS 2394 Selected Topics in Comparative Cultural Studies
- CCS 3394 Selected Topics in Comparative Cultural Studies
- CCS 4394 Selected Topics in Comparative Cultural Studies
CLASS General Degree Information

Degree Requirements

The following are the minimum college requirements for a bachelor’s degree in the College of Liberal Arts and Social Sciences (CLASS).

- Satisfactory completion of at least 120 semester hours of acceptable credit.
  - Students sometimes may be able to use a single course to satisfy more than one degree requirement; however, a student may not “double count” such a course for purposes of satisfying the 120 semester hour requirement.

- Satisfactory completion of all university core curriculum requirement,
  - All bachelor’s degrees require completion of a core curriculum.
  - Further information on courses that satisfy core curriculum requirements can be obtained by consulting the core curriculum web site (UH Core Curriculum 2020-2021), the current class listings, or an academic advisor.

- Satisfactory completion of 25 percent of the semester hours required for a degree in residence at the University of Houston.

- Satisfactory completion of the last 30 semester hours of credit to be applied toward the degree in residence at the university; see the General Requirements for a Baccalaureate Degree for permitted exceptions and additional degree information.

- Satisfactory completion of at least 36 semester hours of credit in advanced courses (i.e. 3000- or 4000-level). Repeated advanced courses may not count towards this requirement.

- Satisfactory completion of at least 27 semester hours of credit in one major field of study.
  - Students seeking teacher certification must fulfill specific requirements stated under Teacher Certification Program in the College of Education section of this catalog.

- Satisfactory completion of at least 15 semester hours of credit, at least 12 of which shall be advanced, in the major, in residence at the university.
  - A minimum cumulative grade point average of 2.00 on all work attempted in residence at the university.

- A minimum cumulative grade point average of 2.00 on all coursework attempted in the major in residence, including:
  - all coursework attempted in the subject area of the major residence and
  - all University of Houston coursework outside the subject area of the major if approved by the department to meet major requirements.

- A minimum cumulative grade point average of 2.00 on all coursework attempted in the minor in residence including:
  - all coursework attempted in the subject area of the minor in residence and
  - all University of Houston coursework outside the subject area of the minor if approved by the department to meet minor requirements.

CLASS College Requirements

In addition to meeting the general university and college degree requirements previously stated, candidates for a Bachelor’s degree in CLASS must complete the following college requirements, all of which may be satisfied either by course credit or credit by examination:

1. CLASS Block
Satisfactory completion of six additional semester credit hours, in any two different fields of study offered by departments, schools, and programs within the College of Liberal Arts and Social Sciences.

-with the following restrictions-
Credit must be in a field of study outside the student’s major.
Credit must be in addition to that used to satisfy any core curriculum requirement.
Credit must be in addition to that used to satisfy the B.A. degree’s foreign language requirement.
Credit must be in addition to that used to satisfy the B.S. degree’s natural science and formal science requirement.
One credit hour physical activity courses in KIN and PEB cannot be used towards this requirement.
Physical Education Basic Instruction (PEB) independent studies courses cannot be used towards this requirement.

2. Diversity Requirement

Satisfactory completion of three credit hours from approved CLASS Diversity Course list. Courses that meet the diversity requirement are those that substantially address issues of social diversity, including racial, ethnic, gender, sexual orientation, or religious diversity. The following courses automatically fulfill the CLASS Diversity requirement:

- AAMS 2300 - Introduction to Asian American Studies Credit Hours: 3.0 *
- AAS 2320 - Introduction to African American Studies Credit Hours: 3.0 *
- ANTH 1300 - Introduction to Anthropology Credit Hours: 3.0
- ANTH 2301 - Introduction to Physical Anthropology Credit Hours: 3.0
- ANTH 2302 - Introduction to Cultural Anthropology Credit Hours: 3.0
- ANTH 2303 - Introduction to Archaeology Credit Hours: 3.0
- ANTH 3316 - Society and Culture of India Credit Hours: 3.0
- ANTH 3342 - Food and Culture Credit Hours: 3.0
- ANTH 3347 - Anthropology of Women Credit Hours: 3.0
- ANTH 3348 - Anthropology of Religion Credit Hours: 3.0
- ANTH 3350 - Women and Health: Anthropological Perspectives Credit Hours: 3.0
- ANTH 3351 - Politics of Healthcare and the Latino Community Credit Hours: 3.0
- ANTH 3360 - Human Variation Credit Hours: 3.0
- ANTH 3361 - Human Origins Credit Hours: 3.0
- ANTH 3362 - Monkeys, Apes, and Humans Credit Hours: 3.0
- ANTH 3375 - North American Archaeology Credit Hours: 3.0
- ANTH 3381 - Global Hinduism Credit Hours: 3.0
- CHNS 3350 - Chinese Culture Through Films Credit Hours: 3.0
- ENGL 3349 - Native American Literature Credit Hours: 3.0
- ENGL 3360 - Survey of African American Literature Credit Hours: 3.0
- ENGL 3361 - Mexican American Literature Credit Hours: 3.0
- ENGL 3362 - Women in Literature Credit Hours: 3.0
- ENGL 3363 - Masterpieces of African American Fiction Credit Hours: 3.0
- ENGL 3364 - African American Poetry and Drama Credit Hours: 3.0
- ENGL 3365 - Postcolonial Literature Credit Hours: 3.0
- ENGL 3366 - Jewish-American Literature Credit Hours: 3.0
- ENGL 3367 - Gay and Lesbian Literature Credit Hours: 3.0
- ENGL 3369 - Caribbean Literatures Credit Hours: 3.0
- ENGL 3371 - Contemporary Irish Literature Credit Hours: 3.0
- ENGL 4364 - Minorities in Literature Credit Hours: 3.0
- GERM 3380 - German Women Film Directors Credit Hours: 3.0
- HIST 2346 - America Eats: An Introduction to Food History Credit Hours: 3.0
- HIST 2348 - U.S. Latino/a Histories Credit Hours: 3.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2361</td>
<td>The Study of Early Civilizations</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 2363</td>
<td>Study of Modern Civilizations</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 2372</td>
<td>Latin American History Since 1820</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 2373</td>
<td>Environment in Latin America</td>
<td>3.0</td>
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<tr>
<td>HIST 3330</td>
<td>African American History to 1865</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 3331</td>
<td>African American History Since 1865</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 3379</td>
<td>World Civilizations to 1500</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 3380</td>
<td>World Civilization Since 1500</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 3389</td>
<td>China Since 1600</td>
<td>3.0</td>
</tr>
<tr>
<td>INDI 3356</td>
<td>Comparative Modernisms: The Global South</td>
<td>3.0</td>
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<tr>
<td>INDI 3372</td>
<td>Indian Film: Bollywood and Beyond</td>
<td>3.0</td>
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<tr>
<td>JWST 3385</td>
<td>History of the Jewish People</td>
<td>3.0</td>
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<tr>
<td>MAS 2340</td>
<td>Introduction to Mexican American Studies</td>
<td>3.0</td>
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<tr>
<td>MAS 3342</td>
<td>Mexican Immigration To the US</td>
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<tr>
<td>MAS 3347</td>
<td>Latino American Popular Music</td>
<td>3.0</td>
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<tr>
<td>POLS 3309</td>
<td>Democratization</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 3311</td>
<td>Introduction to Comparative Politics</td>
<td>3.0</td>
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<tr>
<td>POLS 3313</td>
<td>Introduction to International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 3315</td>
<td>International Organization</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 3322</td>
<td>Introduction to Latin American Politics</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 3326</td>
<td>Government and Politics in the Middle East</td>
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<tr>
<td>POLS 3336</td>
<td>Globalization</td>
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<tr>
<td>POLS 3346</td>
<td>Human Rights</td>
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<tr>
<td>POLS 3372</td>
<td>Latino Politics</td>
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<tr>
<td>POLS 3368</td>
<td>Race, Gender and Ethnic Politics</td>
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<tr>
<td>POLS 3376</td>
<td>Black Political Thought</td>
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<tr>
<td>PSYC 2344</td>
<td>Cultural Psychology</td>
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<tr>
<td>PSYC 4387</td>
<td>African American Psychology</td>
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<tr>
<td>RELS 1301</td>
<td>Introduction to Religious Studies</td>
<td>3.0</td>
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<tr>
<td>RELS 2310</td>
<td>The Bible and Western Culture I</td>
<td>3.0</td>
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<tr>
<td>RELS 2311</td>
<td>The Bible and Western Culture II</td>
<td>3.0</td>
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<tr>
<td>RELS 3323</td>
<td>Continuities: Jewish and Christian Texts and Traditions</td>
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<tr>
<td>RELS 3325</td>
<td>Paul of Tarsus: His Life and Letters</td>
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<tr>
<td>RELS 3360</td>
<td>Muslim-Christian Relations</td>
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<tr>
<td>RELS 3377</td>
<td>Belief and Unbelief: The Search for Meaning</td>
<td>3.0</td>
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<tr>
<td>RELS 3380</td>
<td>Introduction to Asian Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 3327</td>
<td>Race and Ethnic Relations in the United States</td>
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<tr>
<td>SOC 3328</td>
<td>Race and Ethnicity in World Perspective</td>
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<tr>
<td>SOC 3315</td>
<td>Sexuality and Society</td>
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<tr>
<td>SOC 3390</td>
<td>Sociology of Gender</td>
<td>3.0</td>
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<tr>
<td>SOC 3351</td>
<td>Social Class and Mobility in America</td>
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<tr>
<td>WCL 3355</td>
<td>Goddesses and Other Divine Women</td>
<td>3.0</td>
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<tr>
<td>WCL 3341</td>
<td>Early Islamic Society: Literature and Thought</td>
<td>3.0</td>
</tr>
<tr>
<td>WGSS 2350</td>
<td>Introduction To Women's Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>WGSS 2360</td>
<td>Introduction to GLBT Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>WGSS 3321</td>
<td>Gender in Transnational Perspective</td>
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</tr>
<tr>
<td>WGSS 3322</td>
<td>Intersectionalities of Race, Class, Age, Disability &amp; Gender</td>
<td>3.0</td>
</tr>
</tbody>
</table>

For a complete list of CLASS courses, including the approved Diversity coursework, refer to the College of Liberal Arts & Social Sciences section of the Undergraduate Catalog.
3. Satisfactory completion of the course requirements for one of the following:

- a minor
- a second major
- a second bachelor's degree
- Senior Honors Thesis
- Teacher Certification
- Nonprofit Leadership Alliance Certificate (formerly American Humanics Certificate)
- Global Studies and Research Certificate

No more than 6 credit hours in the subject field of a student's major (based on course prefix) may be used towards completion of any of these options. Students with majors and minors with more than 6 common credits must complete additional unique courses to fulfill minor requirements. Students completing a Senior Honors Thesis must complete 6 additional hours in advanced courses (i.e. 3000-or-4000-level) as electives for the major.

4. Major Requirements

Satisfactory completion of the stated requirements for the major.

Bachelor of Arts Degree

In addition to meeting the general university and college degree requirements previously stated, candidates for the Bachelor of Arts degree in CLASS must complete the following college requirements, all of which may be satisfied either by course credit or credit by examination:

**Foreign Language**

Satisfactory completion of six semester hours of credit at the 2000-level or higher in one foreign language.

More information is available in the Bachelor of Arts Degree Special Requirements section in this catalog.

Bachelor of Science Degree

In addition to meeting the general university and college degree requirements previously stated, candidates for the Bachelor of Science degree in CLASS must complete the following college requirements, all of which may be satisfied either by course credit or credit by examination.

1. **Formal Sciences**

Satisfactory completion of at least 12 semester hours in the quantitative or formal sciences, i.e., mathematics, computer science, formal logic, statistics, or other disciplines in which quantitative or formal analytical reasoning plays a major part. At least 6 semester hours must be in mathematics. Courses applied to this requirement must either be core-approved mathematics or mathematics/reasoning courses or have at least 6 hours of such courses as prerequisites.

2. **Natural Sciences**

Satisfactory completion of at least two semester hours of credit in the natural sciences (i.e., biochemistry [BCHS], biology [BIOL], chemistry [CHEM], geology [GEOL], physics [PHYS]).

Laboratory courses may be used to satisfy this requirement.
Advanced Degrees

The university offers several advanced degrees through CLASS. For more information about advanced degrees, refer to the appropriate department or the Graduate and Professional Studies catalog.

Course Limitations and Restrictions

Courses designated as developmental courses, such as ENGL 1100, ENGL 1300, IRW 1300, MATH 1100, MATH 1300, or READ 1300, shall not apply toward the 120 hour semester requirement for any degree in CLASS.

Students shall not apply more credit toward their degrees in CLASS than is indicated below for the following courses:

- No more than a combined total of 8 semester hours from DAN 1112, DAN 1211, and DAN 1215.
- No more than a combined total of 8 semester hours from MUSI 1100, MUSI 1102, MUSI 1103, MUSI 1110, MUSI 1120, MUSI 1121, and MUSI 1140.
- No more than a combined total of 8 semester hours from THEA 1111 and THEA 1112.

Unless they are obtaining a minor or major in Kinesiology, students can count toward a degree in CLASS any KIN or PEB course with the following restrictions:

- No more than three semester hours in KIN or PEB 1 credit hour physical activity courses.
- No special problems courses in KIN or PEB.

Courses numbered 6000 or higher are normally limited to graduate and postbaccalaureate students. Students may request permission from their department or college to enroll in these classes.

CLASS students may use no more than 6 credit hours of Special Problems and/or Internship courses to satisfy any major requirements in CLASS, and no more than 6 credit hours to satisfy any minor requirements in CLASS.

Manual verification is needed to ensure that no more than 6 credit hours of special problems/Internships are used towards either all CLASS major requirements or all CLASS minor requirements.

No more than 6 credit hours in the subject field of a student’s major (based on course prefix) may be used towards completion of any of these options. Students with majors and minors with more than 6 common credits must complete additional unique courses to fulfill minor requirements. Students completing a Senior Honors Thesis must complete 6 additional hours in advanced courses (i.e. 3000-or-4000-level) as electives for the major.

CLASS Minors Requirements

Minimum Requirements

Minimum requirements for a minor in CLASS are:

- Fifteen semester hours of which nine must be advanced.
- Nine semester hours in residence of which six must be advanced.
- A 2.00 cumulative grade point average on all courses attempted in the minor field at the University of Houston.

For additional requirements and other information regarding minor courses of study, refer to the specific department section and contact the department that offers the minor.

African American Studies

Who's Who in African American Studies
Director:
James L. Conyers, Jr.

Professors:
James L. Conyers, Jr., George Gamble, Billy Hawkins, Lawrence Hogue, Gerald Horne, Nicolas Kanellos, Antonio D. Tillis

Associate Professors:
Philip Howard, Kia Johnson, Kairn Klieman, Shayne Lee, Keith McNeal, Richard Mizelle, Jr., Demetrius Pearson, Linda Reed, Donna Stokes, Cedric Tolliver, Rheeda Walker, Louis Williams

Assistant Professors:
Julie-Françoise Tolliver

Lecturers:
John R. Childs, IV (Adjunct), Willie D. Francois (Adjunct), Alexander E.M. Johnson (Adjunct), Carlos Phillips (Adjunct), Carol Poindexter-Sylvers (Adjunct), Kevin B. Thompson (Adjunct), Aswad Walker (Adjunct)

Major

African American Studies, B.A.

The African American Studies major requires a minimum of 30 semester hours of coursework in the major. Each student must complete 18 hours of required courses and 12 hours of Africana Studies Electives. Students must complete at least 18 of the 30 required hours for a major in African American Studies in residence at the University of Houston, and 12 of those hours must be advanced courses at the 3000 or 4000 level. Students must earn a minimum cumulative grade point average of 2.00 in all courses applied to the major.

MAJOR REQUIREMENT ONE (Students must take all of the following courses - 12 hours)

- AAS 2320 - Introduction to African American Studies Credit Hours: 3.0
- AAS 3330 - African American Studies Oral History and Field Research Credit Hours: 3.0
- AAS 3366 - African American Studies Community Internship Credit Hours: 3.0
- AAS 4370 - Seminar in African American Studies Credit Hours: 3.0

MAJOR REQUIREMENT TWO (Select one of the following courses - 3 hours)

- AAS 3307 - African Spiritual Transformation in the Social Sciences Credit Hours: 3.0
- AAS 3350 - Slavery and Race Relations in the African Diaspora Credit Hours: 3.0
- AAS 3354 - African Nationalist Thought and Ethics in the U.S. Credit Hours: 3.0

MAJOR REQUIREMENT THREE (Select one of the following courses - 3 hours)

- AAS 4330 - The Black Church in America Credit Hours: 3.0
- AAS 4373 - Black Leaders of the Twentieth Century Credit Hours: 3.0
- AAS 4377 - Seminar on W.E.B. DuBois Credit Hours: 3.0
MAJOR REQUIREMENT FOUR (Select four courses - three must be at the 3000 or 4000 level - 12 hours)

AFRICANA STUDIES ELECTIVES

AAS 2330 - Black Liberation Theology Credit Hours: 3.0
AAS 2396 - The History of Black Education Credit Hours: 3
AAS 3301 - Hip Hop History and Culture Credit Hours: 3.0
AAS 3310 - African American Experience through Theatre Credit Hours: 3.0
AAS 3340 - Seminar in African American Sociolinguistics Credit Hours: 3.0
AAS 3348 - African Americans and the Law Credit Hours: 3.0
AAS 3356 - Africana Thought and Philosophy Credit Hours: 3.0
AAS 3379 - Africana Oratory Credit Hours: 3.0
AAS 3394 - Selected Topics Afr Am Stdy Credit Hours: 3.0
AAS 4300 - African Philosophy Credit Hours: 3.0
AAS 4440 - Model African Union Seminar Credit Hours: 4.0

Minor

African American Studies Minor

A minor in African American Studies requires a minimum of 18 semester hours. AAS 2320 - Introduction to African American Studies and AAS 4370 - Seminar in African American Studies are REQUIRED courses for the minor along with Six hours of approved electives from the Africana Studies Focus; and Six hours of approved electives from the Historical Focus, Social-Psychological Focus, Political-Economic Focus or Aesthetic Focus. Twelve of the 18 hours must be in residence; Twelve of the 18 hours must be in African American Studies (AAS) courses. Twelve hours must be advanced (3000 or 4000 level) and six of the twelve advanced hours must be in residence. A minimum 2.00-grade point average for all courses applied to the minor is required. Students may obtain a complete list of approved coursework for this minor in the Office of African American Studies or visiting the AAS website at http://www.uh.edu/class/aas/students/undergrad/index.

Air Force ROTC

Who's Who in Air Force ROTC

Commander and Professor:

Lieutenant Colonel Matthew Manning

Associate Professor:

Captain Randi Williams, Captain T.J O'Connor

Overview
The Air Force Reserve Officer Training (ROTC) program prepares men and women of character, commitment, and courage to assume leadership positions as commissioned officers in the active-duty United States Air Force. Upon completion of the curriculum, students will have a thorough understanding of the core values, leadership, teamwork, and other requirements to be an effective officer in the world's greatest Air Force.

For more information on the Air Force ROTC program, contact the Air Force ROTC Department at the University of Houston by calling 713-743-4932 or online at http://www.uh.edu/class/airforce/.

All courses and physical training sessions take place at the University of Houston - Main Campus.

Course Credit

ROTC classes may be taken for elective credit toward any degree plan at the University of Houston. Classes are open to all students. No military obligation is incurred as a result of enrollment in the freshman or sophomore courses. Junior and senior-level courses are more restrictive and may require a military obligation. ROTC scholarship recipients also incur a military obligation.

Four Year Program

The General Military Course (GMC) is the first half of the four year ROTC program and is taken during the freshman and sophomore years. This program allows the student to experience Air Force ROTC without obligation (unless the student is on an Air Force ROTC scholarship).

Each semester of the GMC consists of one classroom hour of instruction as well as a two-hour Leadership Laboratory each week.

During the first two years, the student will learn about the Air Force and the historical development of aerospace power.

During the summer preceding the junior year, the student will compete for the opportunity to attend a three-week LEAD. Successful completion of field training is mandatory for entrance into the Professional Officer Course (POC), the junior and senior years of the four-year AFROTC program.

As a junior, the student will study the core values, leadership, teamwork, and management tools required to become an effective Air Force officer.

During the senior year, students study the national security policy process, regional and cultural studies, and complete final requirements for commissioning as second lieutenants.

Leadership Laboratory

As an Air Force ROTC cadet, each student is required to attend an additional two-hour class known as Leadership Laboratory.

Leadership Laboratory is an intensive military training program in which students gain invaluable leadership and managerial experience while learning about the Air Force way of life. Students have numerous opportunities to hear guest speakers, panel discussions, participate in field trips, and experience practical leadership exercises.

AFROTC Scholarship Opportunities

Air Force ROTC offers scholarship opportunities for students at the University of Houston:

- In-College Scholarship Program (ICSP)

  **In-College Scholarship Program (ICSP)** - is a highly competitive scholarship program aimed primarily at college freshmen and sophomores in any major. The ICSP awards cover tuition capped at either $18,000 per year.
Stipend

All AFROTC scholarship recipients and POC cadets receive a nontaxable monthly stipend. The annual stipend amount ranges from $2,700 per year to $4,500 per year depending on the recipient’s enrollment year.

For Additional Information on AFROTC scholarship opportunities, please visit the AFROTC Web site at http://www.uh.edu/class/airforce/ or call 713.743.4932.

LEADERSHIP EVALUATION AND DEVELOPMENT (LEAD)

Cadets completing the General Military Course attend three weeks of LEAD during the summer at a selected Air Force base. This rigorous program of leadership training, physical conditioning and academics assesses the cadet's potential to be an Air Force officer.

Physical Fitness Training

Cadets meet three times per week at the University of Houston Alumni Center to perform physical fitness training. The training is mandatory and emphasizes push-ups, sit-ups, and running in order to pass the USAF physical fitness test.

For more information

Contact the Unit Admissions Officer at 713-743-4932, or visit the University of Houston Air Force Web site at http://www.uh.edu/class/airforce.

Minor

Air Force Leadership Minor

A minor in Air Force Leadership requires:

- A minimum of 18 credit hours, of which 12 hours must be advanced,
- Nine credit hours must be completed in residence, of which six must be advanced,
- Students must achieve a minimum 2.0 grade point average in all Air Force Science courses
- Students must attend Field Training in order to be commissioned.

American Cultures Program

Who's Who in the American Cultures Program

Director: Dr. Matthew J. Calvin

Jack J. Valenti School of Communication
Who's Who in the Jack J. Valenti School of Communication

Director:
Jennifer Vardeman (Interim)

Professors:
Larry Kelley (Instructional), Garth S. Jowett, Jaesub Lee, Lan Ni

Associate Professors:
Susan Buck (Instructional), Linda Camaj, Hoojoon Choi, Julie B. Fix (Instructional), Martha J. Haun, Summer Harlow, Keith Houk (Instructional), Beth M. Olson, Jennifer Vardeman, Zhiwen Xiao, Jill Yamasaki

Assistant Professors:
Allison Archer, Laura Ashley (Instructional), Craig Crowe (Instructional), Lea Hellmueller, Yan Huang, Wenlin Liu, Dani Madrid-Morales

Degrees and Majors

The Jack J. Valenti School of Communication strives to produce graduates who are broadly educated, ethical, technologically proficient, literate in the media of communication and able to assume leadership roles in the information age.

By stressing the study and the practice of communication in an urban environment, the school prepares students for lifetime careers in which they will shape, analyze, respond to, and work in the fields of communication. Students will acquire verbal, literate, numerate, visual, and social communication competencies through a combination of academic and professional experiences in an area of concentration selected by each student.

Professional internships are a key element in the broad education students may receive through the school. Students may qualify in their junior and senior years by meeting grade point requirements and completing relevant course work.

The Jack J. Valenti School of Communication offers Bachelor of Arts degrees in Communication Studies, Health Communication, Journalism, Media Production, and Strategic Communication.

The Jack J. Valenti School of Communication also offers Master of Arts degrees in Health Communication, Mass Communication, and Public Relations Studies.

For more information about admission to the graduate programs, requirements for the degrees and course listings, consult the school's Director of Graduate Studies, and refer to the Graduate and Professional Studies catalog.

General Requirements for the Jack J. Valenti School of Communication

Students in good academic standing may declare a degree program in the Jack J. Valenti School of Communication at any time. Students interested in the school but uncertain about a degree program may declare themselves Communication Unspecified (COMM-UN) up to completion of 30 hours. Then they must choose a degree program.
To declare a major in the Jack J. Valenti School of Communication a student must have a cumulative GPA of at least 2.25 or higher on a minimum of 12 semester hours at UH.

A transfer student or UH non-communication student with 15-60 semester hours of college credit who wants to declare a degree program in the Jack J. Valenti School of Communication must have a 2.25 or higher cumulative grade point average, including any attempted transfer courses.

Applicants who have completed more than 60 semester hours of college credit need a 2.25 or higher cumulative grade point average on the last 60 hours.

Transfer students who have earned fewer than 15 semester hours of college credit must meet freshman admission requirements.

All undergraduate majors in the Jack J. Valenti School of Communication must complete, with a GPA of at least 2.00, 6 semester hours as follows:

COMM 1301, COMM 1303, COMM 2356 and COMM 4303.

To take Jack J. Valenti School of Communication courses at the 3000- and 4000-level, students should complete COMM 1301 and COMM 1303. Majors should complete it in their first 30 hours; transfer students should do so in their first two terms at the university.

Students who enroll for advanced courses without completing the nonadvanced requirement may be dropped by the instructor or the school. Neither the school nor the instructor will be responsible for tuition refunds.

To graduate with a Bachelor of Arts in any of the communication degree programs:
Students must achieve a 2.00 cumulative GPA in all courses that count toward the degree with at least a C in each.
No COMM course for a degree (or minor) may be taken more than three times.

Minor in Jack J. Valenti School of Communication Concentrations

Students may minor in any of the school’s concentrations. See the required curriculum linked from the Jack J. Valenti School of Communication overview page in the catalog. Students must have a 2.00 GPA for all courses attempted in the minor at the University of Houston, with at least a C in each course. A minimum of 18 hours, nine of which must be advanced and nine of which must be in residence, are required for all Communication minors, except for the Film Studies minor which requires 12 advanced hours.

Major

Communication Studies, B.A.

Students in this degree program will choose from two concentrations: Film & Media Studies and Interpersonal Communication.

In the Film & Media studies concentration, students will deal critically with media issues that create and affect public policy and will explore media management policy. Course materials will also cover content, technology, training, programming, marketing, and audiences in national and international contexts.

Additionally, students will have an opportunity to study film and its impact on media and society.

Students completing this concentration will gain background and understanding of communication that could lead to management, consulting or further study.

In the Interpersonal Communication concentration, students will gain knowledge of the interplay between communication and relationships on both micro and societal levels. At the micro level, students will develop analytic and communication skills needed to understand the process of relationship development, maintenance and deterioration. At the societal level, students will acquire critical reasoning skills needed to interpret images and messages about families and other small groups.

Students will be prepared for entry-level communication positions in organizations such as those allied with health care and human development or for advanced work in communication studies and other fields focusing on the analysis of human behavior.
Communication Major

All undergraduate majors in the Jack J. Valenti School of Communication must complete, with a GPA of at least 2.00, 12 semester hours as follows:

COMM 1301, COMM 1303, COMM 2356 and COMM 4303.

To take Jack J. Valenti School of Communication courses at the 3000- and 4000-level, students should complete COMM 1301 within their first two terms at the university.

Students who enroll for advanced courses without completing the nonadvanced requirements may be dropped by the instructor or the school. Neither the school nor the instructor will be responsible for tuition refunds.

To graduate with a Bachelor of Arts in any Valenti School degree program:

Students must achieve a 2.00 cumulative GPA in all courses that count toward the major with at least a C in each.

No COMM course for major (or minor) may be taken more than three times.

Jack J. Valenti School Requirements (12.0 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1301 - Media and Society</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 1303 - Writing for Communicators</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 2356 - Business &amp; Professional Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 4303 - Communication Law &amp; Ethics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Communication Studies Concentrations

Students will choose one of the following concentrations for the additional 27 hours required for the degree:

Communication Studies - Film & Media Studies Concentration

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1302 - Intro To Comm Theory</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 3370 - History of Cinema</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 3376 - Media Effects</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 4378 - The Social Impact of New Information Technology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Elective Courses

Plus 5 courses (15 hours) from the following electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 3349 - Nonverbal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 3372 - Gender and Media</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 3373 - Television: History and Culture</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 3384 - The Media Industry</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 3385 - Communication Practicum Abroad</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 4302 - Latinx Media Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 4314 - Social Issues in Journalism</td>
<td>3.0</td>
</tr>
</tbody>
</table>
COMM 4337 - Television and the Family Credit Hours: 3.0
COMM 4338 - Family in Popular Culture Credit Hours: 3.0
COMM 4370 - Social Aspects of Film Credit Hours: 3.0
COMM 4371 - American Cinema: The Directors Credit Hours: 3.0
COMM 4372 - Media, Power, and Society Credit Hours: 3.0
COMM 4375 - Propaganda and Mass Communication Credit Hours: 3.0
COMM 4392 - Professional Internship Credit Hours: 3.0
COMM 4397 - Selected Topics Communication Credit Hours: 3.0
COMM 4398 - Independent Study Credit Hours: 3.0

Communication Studies - Interpersonal Communication Concentration

Required Courses

COMM 1333 - Interpersonal Communication Credit Hours: 3.0
COMM 2331 - Relational Communication Credit Hours: 3.0
COMM 3331 - Communication in the Family Credit Hours: 3.0
COMM 4331 - Persuasion Credit Hours: 3.0
COMM 4335 - Crisis Communication Credit Hours: 3.0
COMM 4357 - Intercultural Communication and Organizations Credit Hours: 3.0

Elective Courses

Plus 3 courses (9 hours) from the following electives:

COMM 2383 - Food As Communication Credit Hours: 3.0
COMM 3300 - Health Communication Credit Hours: 3.0
COMM 3301 - Doctor-Patient Interaction Credit Hours: 3.0
COMM 3303 - Health Literacy Credit Hours: 3.0
COMM 3304 - Multicultural Health Communication Credit Hours: 3.0
COMM 3306 - End of Life Communication Credit Hours: 3.0
COMM 3332 - Effective Meeting Management Credit Hours: 3.0
COMM 3340 - Health Campaigns Credit Hours: 3.0
COMM 3349 - Nonverbal Communication Credit Hours: 3.0
COMM 3352 - Small Group Process Credit Hours: 3.0
COMM 3368 - Principles of Public Relations Credit Hours: 3.0
COMM 3372 - Gender and Media Credit Hours: 3.0
COMM 3376 - Media Effects Credit Hours: 3.0
COMM 4314 - Social Issues in Journalism Credit Hours: 3.0
COMM 4337 - Television and the Family Credit Hours: 3.0
COMM 4338 - Family in Popular Culture Credit Hours: 3.0
COMM 4355 - Organizational Communication Credit Hours: 3.0
COMM 4372 - Media, Power, and Society Credit Hours: 3.0
COMM 4392 - Professional Internship Credit Hours: 3.0
COMM 4397 - Selected Topics Communication Credit Hours: 3.0
COMM 4398 - Independent Study Credit Hours: 3.0

Health Communication, B.A.
Students in health communication will develop and acquire knowledge and skills essential to becoming more effective health care consumers and advocates as well as learn the fundamentals of health campaign planning, implementation, and evaluation. Research, theory, and practical application are combined to help students develop communication strategies associated with positive health outcomes and successful negotiation of the health care system. Students will complete coursework across a wide range of health care situations focusing on interpersonal, group, organizational, cultural, and computer-mediated levels of analysis. Students will also complete coursework across a wide range of health care contexts focusing on the role of gender, media, tailored messages, and e-health in building, delivering, and evaluating mediated health campaigns to promote health and behavior change.

Communication Major

All undergraduate majors in the Jack J. Valenti School of Communication must complete, with a GPA of at least 2.00, 12 semester hours as follows:

COMM 1301, COMM 1303, COMM 2356 and COMM 4303.

To take Jack J. Valenti School of Communication courses at the 3000- and 4000-level, students should complete COMM 1301 within their first two terms at the university.

Students who enroll for advanced courses without completing the nonadvanced requirements may be dropped by the instructor or the school. Neither the school nor the instructor will be responsible for tuition refunds.

To graduate with a Bachelor of Arts in any Valenti School degree program:

Students must achieve a 2.00 cumulative GPA in all courses that count toward the major with at least a C in each.

No COMM course for major (or minor) may be taken more than three times.

Jack J. Valenti School Requirements (12.0 hours)

- COMM 1301 - Media and Society Credit Hours: 3.0
- COMM 1303 - Writing for Communicators Credit Hours: 3.0
- COMM 2356 - Business & Professional Communication Credit Hours: 3.0
- COMM 4303 - Communication Law & Ethics Credit Hours: 3.0

Health Communication Requirements: (12.0 hours)

- COMM 2310 - Writing for Print and Digital Media Credit Hours: 3.0
- COMM 3300 - Health Communication Credit Hours: 3.0
- COMM 3303 - Health Literacy Credit Hours: 3.0
- COMM 3340 - Health Campaigns Credit Hours: 3.0

Required Electives: 6.0 hours (two courses) from:

- COMM 3301 - Doctor-Patient Interaction Credit Hours: 3.0
- COMM 3302 - E-Health and Telemedicine Credit Hours: 3.0
- COMM 3304 - Multicultural Health Communication Credit Hours: 3.0
- COMM 3306 - End of Life Communication Credit Hours: 3.0
- COMM 4335 - Crisis Communication Credit Hours: 3.0

Required Electives: 9.0 hours (three courses) from:
COMM 2383 - Food As Communication Credit Hours: 3.0
COMM 3331 - Communication in the Family Credit Hours: 3.0
COMM 3352 - Small Group Process Credit Hours: 3.0
COMM 3353 - Information & Communication Technologies I Credit Hours: 3.0
COMM 3358 - Leadership Communication & Organizations Credit Hours: 3.0
COMM 3376 - Media Effects Credit Hours: 3.0
COMM 3384 - The Media Industry Credit Hours: 3.0
COMM 3385 - Communication Practicum Abroad Credit Hours: 3.0
COMM 4331 - Persuasion Credit Hours: 3.0
COMM 4355 - Organizational Communication Credit Hours: 3.0
COMM 4377 - Understanding Publics Credit Hours: 3.0
COMM 4392 - Professional Internship Credit Hours: 3.0
COMM 4397 - Selected Topics Communication Credit Hours: 3.0
COMM 4398 - Independent Study Credit Hours: 3.0
ENGL 4371 - Literature and Medicine Credit Hours: 3.0
HLT 4306 - Women's Health Issues Credit Hours: 3.0
HLT 4308 - Understanding Cancer Credit Hours: 3.0
HON 3301 - Readings in Medicine and Society Credit Hours: 3.0
SOC 3380 - Introduction to the Sociology of Health Care Credit Hours: 3.0

Journalism, B.A.

Students seeking this degree will develop an understanding of the political, economic, social, and cultural contexts in which news is gathered and disseminated. They will acquire the skills needed to investigate effectively the world of news and to report these findings accurately, clearly, completely, and in the public interest. They will graduate with the knowledge of the critical, analytical, and ethical perspectives necessary to succeed in entry-level jobs and in lifelong careers.

Communication Major

All undergraduate majors in the Jack J. Valenti School of Communication must complete, with a GPA of at least 2.00, 12 semester hours as follows:

COMM 1301, COMM 1303, COMM 2356 and COMM 4303.

To take Jack J. Valenti School of Communication courses at the 3000- and 4000-level, students should complete COMM 1301 within their first two terms at the university.

Students who enroll for advanced courses without completing the nonadvanced requirements may be dropped by the instructor or the school. Neither the school nor the instructor will be responsible for tuition refunds.

To graduate with a Bachelor of Arts in any Valenti School degree program:

Students must achieve a 2.00 cumulative GPA in all courses that count toward the major with at least a C in each.

No COMM course for major (or minor) may be taken more than three times.

Jack J. Valenti School Requirements (12.0 hours)

COMM 1301 - Media and Society Credit Hours: 3.0
COMM 1303 - Writing for Communicators Credit Hours: 3.0
COMM 2356 - Business & Professional Communication Credit Hours: 3.0
COMM 4303 - Communication Law & Ethics Credit Hours: 3.0

Journalism Required Courses (12 hours)

COMM 2310 - Writing for Print and Digital Media Credit Hours: 3.0
COMM 3315 - News and Social Media Credit Hours: 3.0
COMM 3317 - Multimedia Journalism Credit Hours: 3.0

And one of the following capstone courses:
COMM 3314 - Intermediate Writing and Reporting Credit Hours: 3.0
COMM 3316 - Electronic News Credit Hours: 3.0

Journalism Required Electives (15 hours)

COMM 2326 - Introduction to Sports Broadcasting Credit Hours: 3.0
COMM 3311 - Editing for Print and Digital Media Credit Hours: 3.0
COMM 3312 - Global Journalism Credit Hours: 3.0
COMM 3313 - Data Journalism Credit Hours: 3.0
COMM 3314 - Intermediate Writing and Reporting Credit Hours: 3.0 (If not taken as a capstone course)
COMM 3316 - Electronic News Credit Hours: 3.0 (If not taken as a capstone course)
COMM 3322 - Latino Journalism Credit Hours: 3.0
COMM 3324 - Photojournalism I Credit Hours: 3.0
COMM 3325 - Sports Journalism Credit Hours: 3.0
COMM 3353 - Information & Communication Technologies I Credit Hours: 3.0
COMM 3372 - Gender and Media Credit Hours: 3.0
COMM 3376 - Media Effects Credit Hours: 3.0
COMM 3384 - The Media Industry Credit Hours: 3.0
COMM 3385 - Communication Practicum Abroad Credit Hours: 3.0
COMM 3388 - Digital Media Entrepreneurship Credit Hours: 3.0
COMM 4302 - Latinx Media Studies Credit Hours: 3.0
COMM 4310 - Opinion Writing & Blogging Credit Hours: 3.0
COMM 4312 - Feature Writing for Print and Digital Media Credit Hours: 3.0
COMM 4313 - Investigative Reporting Credit Hours: 3.0
COMM 4314 - Social Issues in Journalism Credit Hours: 3.0
COMM 4316 - Advanced Electronic News Credit Hours: 3.0
COMM 4372 - Media, Power, and Society Credit Hours: 3.0
COMM 4386 - Reporting on Immigration, Hispanics and Data Credit Hours: 3.0
COMM 4387 - Media and Political Campaigns in the Digital Age Credit Hours: 3.0
COMM 4388 - Media, Hispanics and Development Credit Hours: 3.0
COMM 4389 - Media for Social Justice: Digital Media & Activism in Latin America & Houston Credit Hours: 3.0
COMM 4392 - Professional Internship Credit Hours: 3.0
COMM 4397 - Selected Topics Communication Credit Hours: 3.0
COMM 4398 - Independent Study Credit Hours: 3.0

Media Production, B.A.

Students will acquire the ability to create communications using audio, video, motion picture, photography and computer graphics techniques. An appreciation and ethical concern for the professional values and effects on an audience of utilizing such techniques will accompany both practical
and theoretical instruction. Skills needed to perform the research and writing functions that precede actual production of media programs as well as performance studies are included.

This degree program provides the preparation for internships and entry-level positions available in a wide variety of careers that require media production knowledge and skills, and the foundation for advancement in those fields.

To successfully complete the Media Production, BA degree, students will complete a minimum of 120 credit hours, including the 39 credit hours detailed below. Students have a choice of four concentrations within the degree program: General Media Production, Broadcast Television, Sports Production or Digital Cinematography.

Communication Major

All undergraduate majors in the Jack J. Valenti School of Communication must complete, with a GPA of at least 2.00, 12 semester hours as follows:

COMM 1301, COMM 1303, COMM 2356 and COMM 4303.

To take Jack J. Valenti School of Communication courses at the 3000- and 4000-level, students should complete COMM 1301 within their first two terms at the university.

Students who enroll for advanced courses without completing the nonadvanced requirements may be dropped by the instructor or the school. Neither the school nor the instructor will be responsible for tuition refunds.

To graduate with a Bachelor of Arts in any Valenti School degree program:

Students must achieve a 2.00 cumulative GPA in all courses that count toward the major with at least a C in each.

No COMM course for major (or minor) may be taken more than three times.

Jack J. Valenti School Requirements (12.0 hours)

- COMM 1301 - Media and Society **Credit Hours: 3.0**
- COMM 1303 - Writing for Communicators **Credit Hours: 3.0**
- COMM 2356 - Business & Professional Communication **Credit Hours: 3.0**
- COMM 4303 - Communication Law & Ethics **Credit Hours: 3.0**

Media Production Requirements: (9.0 hours)

- COMM 2320 - Fundamentals of Media Production **Credit Hours: 3.0**
- COMM 3380 - Electronic Field Production **Credit Hours: 3.0**
- COMM 3383 - Non-linear Editing **Credit Hours: 3.0**

Students will choose one of the following concentrations for the additional 18 hours required for the degree:

Media Production - General (18.0 hours)

Core Course
Choose a course (3.0 credit hours) from the following list:

- COMM 2328 - Broadcast Writing Basics Credit Hours: 3.0 OR
- COMM 2327 - Introduction to Screen Writing Credit Hours: 3.0

Electives Courses

Plus five courses (15.0 credit hours) from the following list:

- COMM 2322 - Television Production I Credit Hours: 3.0
- COMM 2370 - Introduction to Motion Pictures Credit Hours: 3.0
- COMM 2383 - Food As Communication Credit Hours: 3.0
- COMM 3318 - Multimedia Storytelling Credit Hours: 3.0
- COMM 3319 - Preproduction Management Credit Hours: 3.0
- COMM 3320 - Audio Production Credit Hours: 3.0
- COMM 3321 - Single Camera Studio Production Credit Hours: 3.0
- COMM 3329 - Media Performance Credit Hours: 3
- COMM 3353 - Information & Communication Technologies I Credit Hours: 3.0
- COMM 3370 - History of Cinema Credit Hours: 3.0
- COMM 3372 - Gender and Media Credit Hours: 3.0
- COMM 3373 - Television: History and Culture Credit Hours: 3.0
- COMM 3376 - Media Effects Credit Hours: 3.0
- COMM 3382 - Television II and Sports Production Credit Hours: 3.0
- COMM 3384 - The Media Industry Credit Hours: 3.0
- COMM 3385 - Communication Practicum Abroad Credit Hours: 3.0
- COMM 4320 - Media Production Workshop I Credit Hours: 3.0
- COMM 4322 - Television Producing and Directing I Credit Hours: 3.0
- COMM 4324 - Advanced Audio Production Credit Hours: 3.0
- COMM 4328 - Broadcast and Film Dramatic Writing Credit Hours: 3.0
- COMM 4377 - Understanding Publics Credit Hours: 3.0
- COMM 4370 - Social Aspects of Film Credit Hours: 3.0
- COMM 4371 - American Cinema: The Directors Credit Hours: 3.0
- COMM 4375 - Propaganda and Mass Communication Credit Hours: 3.0
- COMM 4378 - The Social Impact of New Information Technology Credit Hours: 3.0
- COMM 4380 - Live Sports Production Credit Hours: 3.0
- COMM 4381 - Digital Cinematography Credit Hours: 3.0
- COMM 4382 - Advanced Non-Linear Editing Credit Hours: 3.0
- COMM 4383 - Documentary Filmmaking Credit Hours: 3.0
- COMM 4392 - Professional Internship Credit Hours: 3.0
- COMM 4397 - Selected Topics Communication Credit Hours: 3.0
- COMM 4398 - Independent Study Credit Hours: 3.0

Media Production - Broadcast Television Concentration (18.0 hours)

Core Courses

Three courses (9.0 credit hours) from the following list:

- COMM 2322 - Television Production I Credit Hours: 3.0
- COMM 2328 - Broadcast Writing Basics Credit Hours: 3.0
COMM 3382 - Television II and Sports Production  **Credit Hours: 3.0**

**Elective Courses**

Plus three courses (9.0 credit hours) from the following electives:

- COMM 3318 - Multimedia Storytelling  **Credit Hours: 3.0**
- COMM 3319 - Preproduction Management  **Credit Hours: 3.0**
- COMM 3320 - Audio Production  **Credit Hours: 3.0**
- COMM 3329 - Media Performance  **Credit Hours: 3**
- COMM 3384 - The Media Industry  **Credit Hours: 3.0**
- COMM 3385 - Communication Practicum Abroad  **Credit Hours: 3.0**
- COMM 4320 - Media Production Workshop  **Credit Hours: 3.0**
- COMM 4322 - Television Producing and Directing  **Credit Hours: 3.0**
- COMM 4324 - Advanced Audio Production  **Credit Hours: 3.0**
- COMM 4382 - Advanced Non-Linear Editing  **Credit Hours: 3.0**
- COMM 4383 - Documentary Filmmaking  **Credit Hours: 3.0**
- COMM 4392 - Professional Internship  **Credit Hours: 3.0**
- COMM 4397 - Selected Topics Communication  **Credit Hours: 3.0**
- COMM 4398 - Independent Study  **Credit Hours: 3.0**
- COMM 4328 - Broadcast and Film Dramatic Writing  **Credit Hours: 3.0**

**Media Production - Sports Production Concentration (18.0 hours)**

**Core Courses**

Five courses (15.0 credit hours) from the following list:

- COMM 2322 - Television Production  **Credit Hours: 3.0**
- COMM 3328 - Introduction to Sports Production  **Credit Hours: 3**
- COMM 3382 - Television II and Sports Production  **Credit Hours: 3.0**
- COMM 2371 - Media, Sports and Culture  **Credit Hours: 3.0**
- COMM 4380 - Live Sports Production  **Credit Hours: 3.0**

**Elective Courses**

Plus one course (3.0 credit hours) from the following electives:

- COMM 3318 - Multimedia Storytelling  **Credit Hours: 3.0**
- COMM 3320 - Audio Production  **Credit Hours: 3.0**
- COMM 3384 - The Media Industry  **Credit Hours: 3.0**
- COMM 3385 - Communication Practicum Abroad  **Credit Hours: 3.0**
- COMM 4322 - Television Producing and Directing  **Credit Hours: 3.0**
- COMM 4324 - Advanced Audio Production  **Credit Hours: 3.0**
- COMM 4382 - Advanced Non-Linear Editing  **Credit Hours: 3.0**
- COMM 4383 - Documentary Filmmaking  **Credit Hours: 3.0**
- COMM 4392 - Professional Internship  **Credit Hours: 3.0**
- COMM 4397 - Selected Topics Communication  **Credit Hours: 3.0**
- COMM 4398 - Independent Study  **Credit Hours: 3.0**
Media Production - Digital Cinematography (18.0 hours)

Core Courses

Four courses (12.0 credit hours) from the following list:

- COMM 2327 - Introduction to Screen Writing Credit Hours: 3.0
- COMM 3321 - Single Camera Studio Production Credit Hours: 3.0
- COMM 3370 - History of Cinema Credit Hours: 3.0
- COMM 4381 - Digital Cinematography Credit Hours: 3.0

Elective Courses

Plus two courses (6.0 credit hours) from the following electives:

- COMM 3318 - Multimedia Storytelling Credit Hours: 3.0
- COMM 3319 - Preproduction Management Credit Hours: 3.0
- COMM 3320 - Audio Production Credit Hours: 3.0
- COMM 4320 - Media Production Workshop I Credit Hours: 3.0
- COMM 4324 - Advanced Audio Production Credit Hours: 3.0
- COMM 4328 - Broadcast and Film Dramatic Writing Credit Hours: 3.0
- COMM 4382 - Advanced Non-Linear Editing Credit Hours: 3.0
- COMM 4383 - Documentary Filmmaking Credit Hours: 3.0
- COMM 4392 - Professional Internship Credit Hours: 3.0
- COMM 4397 - Selected Topics Communication Credit Hours: 3.0
- COMM 4398 - Independent Study Credit Hours: 3.0

Strategic Communication, B.A.

The Strategic Communication BA degree provides basic knowledge, skills and ethical considerations to prepare students for entry into the fields of advertising, integrated communication, organizational/corporate communication and public relations. Students will learn the communication requirements to represent organizations, products, services, operations and policies effectively.

Specific areas of study include theory, principles, analytical and critical skills, ethical requirements, public policy development, copywriting, media planning and placement, campaign design and execution requirements, research methodologies, data analysis techniques, and communications skills especially appropriate for strategic communication.

Students in this degree program will choose from four areas of concentrated study: Advertising, Integrated Communication, Organizational/Corporate Communication or Public Relations.

Communication Major

All undergraduate majors in the Jack J. Valenti School of Communication must complete, with a GPA of at least 2.00, 12 semester hours as follows:

COMM 1301, COMM 1303, COMM 2356 and COMM 4303.

To take Jack J. Valenti School of Communication courses at the 3000- and 4000-level, students should complete COMM 1301 within their first two terms at the university.
Students who enroll for advanced courses without completing the nonadvanced requirements may be dropped by the instructor or the school. Neither the school nor the instructor will be responsible for tuition refunds.

To graduate with a Bachelor of Arts in any Valenti School degree program:

Students must achieve a 2.00 cumulative GPA in all courses that count toward the major with at least a C in each.

No COMM course for major (or minor) may be taken more than three times.

Jack J. Valenti School Requirements (12.0 hours)

- COMM 1301 - Media and Society Credit Hours: 3.0
- COMM 1303 - Writing for Communicators Credit Hours: 3.0
- COMM 2356 - Business & Professional Communication Credit Hours: 3.0
- COMM 4303 - Communication Law & Ethics Credit Hours: 3.0

Strategic Communication Required Courses (12 hours)

- COMM 2310 - Writing for Print and Digital Media Credit Hours: 3.0
- COMM 3360 - Principles of Strategic Communication Credit Hours: 3.0
- COMM 3369 - Strategic Communication Writing Credit Hours: 3.0

Plus one of the following capstone courses:

- COMM 4361 - Advertising Campaign Competition Credit Hours: 3.0
- COMM 4363 - Integrated Communication Campaigns Credit Hours: 3.0
- COMM 4368 - Public Relations Campaigns Credit Hours: 3.0
- COMM 4384 - Strategic Communication Applications Credit Hours: 3.0

Strategic Communication Concentrations

Students will choose one of the following concentrations for the additional 15 hours required for the degree:

Strategic Communication - Integrated Communication Concentration (15 hours)

Five courses from the following:

- COMM 3311 - Editing for Print and Digital Media Credit Hours: 3.0
- COMM 3326 - Graphics Applications Credit Hours: 3.0
- COMM 3349 - Nonverbal Communication Credit Hours: 3.0
- COMM 3353 - Information & Communication Technologies I Credit Hours: 3.0
- COMM 3359 - Sports Media & Communication Credit Hours: 3.0
- COMM 3361 - Advertising Copywriting Credit Hours: 3.0
- COMM 3363 - Global & Multicultural Advertising Credit Hours: 3.0
- COMM 3367 - Student-Run Agency Experience Credit Hours: 3.0
- COMM 3368 - Principles of Public Relations Credit Hours: 3.0
- COMM 3374 - Strategic Social Media Credit Hours: 3.0
- COMM 3377 - Strategic Public Relations Planning Credit Hours: 3.0
- COMM 3384 - The Media Industry Credit Hours: 3.0
- COMM 3385 - Communication Practicum Abroad Credit Hours: 3.0
COMM 4354 - Organizational Crisis Communication  
Credit Hours: 3.0

COMM 4355 - Organizational Communication  
Credit Hours: 3.0

COMM 4357 - Intercultural Communication and Organizations  
Credit Hours: 3.0

COMM 4360 - Media Planning & Placement  
Credit Hours: 3.0

COMM 4361 - Advertising Campaign Competition  
Credit Hours: 3.0

COMM 4363 - Integrated Communication Campaigns  
Credit Hours: 3.0

COMM 4365 - Digital Public Relations and Advertising  
Credit Hours: 3.0

COMM 4368 - Public Relations Campaigns  
Credit Hours: 3.0

COMM 4369 - Advertising Portfolio  
Credit Hours: 3.0

COMM 4384 - Strategic Communication Applications  
Credit Hours: 3.0

COMM 4392 - Professional Internship  
Credit Hours: 3.0

COMM 4397 - Selected Topics Communication  
Credit Hours: 3.0

COMM 4398 - Independent Study  
Credit Hours: 3.0

Strategic Communication - Advertising Concentration (15 hours)

Required Courses

COMM 3361 - Advertising Copywriting  
Credit Hours: 3.0

COMM 4360 - Media Planning & Placement  
Credit Hours: 3.0

COMM 4366 - Advertising Account Planning  
Credit Hours: 3.0

Elective Courses

Plus 2 courses (6 hours) from the following electives:

COMM 3311 - Editing for Print and Digital Media  
Credit Hours: 3.0

COMM 3326 - Graphics Applications  
Credit Hours: 3.0

COMM 3349 - Nonverbal Communication  
Credit Hours: 3.0

COMM 3353 - Information & Communication Technologies I  
Credit Hours: 3.0

COMM 3359 - Sports Media & Communication  
Credit Hours: 3.0

COMM 3363 - Global & Multicultural Advertising  
Credit Hours: 3.0

COMM 3367 - Student-Run Agency Experience  
Credit Hours: 3.0

COMM 3374 - Strategic Social Media  
Credit Hours: 3.0

COMM 3377 - Strategic Public Relations Planning  
Credit Hours: 3.0

COMM 3384 - The Media Industry  
Credit Hours: 3.0

COMM 3385 - Communication Practicum Abroad  
Credit Hours: 3.0

COMM 4361 - Advertising Campaign Competition  
Credit Hours: 3.0

COMM 4363 - Integrated Communication Campaigns  
Credit Hours: 3.0

COMM 4365 - Digital Public Relations and Advertising  
Credit Hours: 3.0

COMM 4368 - Public Relations Campaigns  
Credit Hours: 3.0

COMM 4369 - Advertising Portfolio  
Credit Hours: 3.0

COMM 4384 - Strategic Communication Applications  
Credit Hours: 3.0

COMM 4392 - Professional Internship  
Credit Hours: 3.0

COMM 4397 - Selected Topics Communication  
Credit Hours: 3.0

COMM 4398 - Independent Study  
Credit Hours: 3.0

Strategic Communication - Organizational/Corporate Communication Concentration (15 hours)
Required Courses

- COMM 1302 - Intro To Comm Theory Credit Hours: 3.0
- COMM 2300 - Communication Research Methods Credit Hours: 3
- COMM 4355 - Organizational Communication Credit Hours: 3.0

Elective Courses

Plus 2 courses (6 hours) from the following electives:

- COMM 2331 - Relational Communication Credit Hours: 3.0
- COMM 3326 - Graphics Applications Credit Hours: 3.0
- COMM 3332 - Effective Meeting Management Credit Hours: 3.0
- COMM 3349 - Nonverbal Communication Credit Hours: 3.0
- COMM 3353 - Information & Communication Technologies I Credit Hours: 3.0
- COMM 3358 - Leadership Communication & Organizations Credit Hours: 3.0
- COMM 3359 - Sports Media & Communication Credit Hours: 3.0
- COMM 3367 - Student-Run Agency Experience Credit Hours: 3.0
- COMM 3383 - Non-linear Editing Credit Hours: 3.0
- COMM 3384 - The Media Industry Credit Hours: 3.0
- COMM 3385 - Communication Practicum Abroad Credit Hours: 3.0
- COMM 4331 - Persuasion Credit Hours: 3.0
- COMM 4354 - Organizational Crisis Communication Credit Hours: 3.0
- COMM 4358 - Bargaining and Negotiation Credit Hours: 3.0
- COMM 4367 - Issues Management Credit Hours: 3.0
- COMM 4378 - The Social Impact of New Information Technology Credit Hours: 3.0
- COMM 4392 - Professional Internship Credit Hours: 3.0
- COMM 4397 - Selected Topics Communication Credit Hours: 3.0
- COMM 4398 - Independent Study Credit Hours: 3.0

Strategic Communication - Public Relations Communication (15 hours)

Required Courses

- COMM 3311 - Editing for Print and Digital Media Credit Hours: 3.0
- COMM 3377 - Strategic Public Relations Planning Credit Hours: 3.0

Elective Courses

Plus 3 courses (9 hours) from the following electives:

- COMM 3326 - Graphics Applications Credit Hours: 3.0
- COMM 3353 - Information & Communication Technologies I Credit Hours: 3.0
- COMM 3349 - Nonverbal Communication Credit Hours: 3.0
- COMM 3359 - Sports Media & Communication Credit Hours: 3.0
- COMM 3367 - Student-Run Agency Experience Credit Hours: 3.0
- COMM 3368 - Principles of Public Relations Credit Hours: 3.0
- COMM 3374 - Strategic Social Media Credit Hours: 3.0
- COMM 3384 - The Media Industry Credit Hours: 3.0
COMM 3385 - Communication Practicum Abroad Credit Hours: 3.0
COMM 4354 - Organizational Crisis Communication Credit Hours: 3.0
COMM 4355 - Organizational Communication Credit Hours: 3.0
COMM 4357 - Intercultural Communication and Organizations Credit Hours: 3.0
COMM 4363 - Integrated Communication Campaigns Credit Hours: 3.0
COMM 4365 - Digital Public Relations and Advertising Credit Hours: 3.0
COMM 4367 - Issues Management Credit Hours: 3.0
COMM 4368 - Public Relations Campaigns Credit Hours: 3.0
COMM 4373 - Intercultural Public Relations Credit Hours: 3.0
COMM 4377 - Understanding Publics Credit Hours: 3.0
COMM 4384 - Strategic Communication Applications Credit Hours: 3.0
COMM 4392 - Professional Internship Credit Hours: 3.0
COMM 4397 - Selected Topics Communication Credit Hours: 3.0
COMM 4398 - Independent Study Credit Hours: 3.0

Minor

Advertising Minor

Students pursuing an Advertising Minor must complete a minimum of 9 advanced hours and a minimum of 9 hours in Residence.

1. Concentration Required Courses: (9 hours)

   COMM 1301 - Media and Society Credit Hours: 3.0
   COMM 2310 - Writing for Print and Digital Media Credit Hours: 3.0
   COMM 3360 - Principles of Strategic Communication Credit Hours: 3.0

2. Required Electives: 3 courses (9 hours) from:

   COMM 3326 - Graphics Applications Credit Hours: 3.0
   COMM 3353 - Information & Communication Technologies I Credit Hours: 3.0
   COMM 3361 - Advertising Copywriting Credit Hours: 3.0
   COMM 3363 - Global & Multicultural Advertising Credit Hours: 3.0
   COMM 3368 - Principles of Public Relations Credit Hours: 3.0
   COMM 3374 - Strategic Social Media Credit Hours: 3.0
   COMM 4360 - Media Planning & Placement Credit Hours: 3.0
   COMM 4365 - Digital Public Relations and Advertising Credit Hours: 3.0
   COMM 4366 - Advertising Account Planning Credit Hours: 3.0
   COMM 4397 - Selected Topics Communication Credit Hours: 3.0
   COMM 4398 - Independent Study Credit Hours: 3.0

Corporate Communication Minor

Students pursuing a Corporate Communication Minor must complete a minimum of 9 advanced hours and a minimum of 9 hours in Residence.

1. Concentration Requirements: 9 hours (three courses)
COMM 1302 - Intro To Comm Theory Credit Hours: 3.0
COMM 2356 - Business & Professional Communication Credit Hours: 3.0
COMM 4355 - Organizational Communication Credit Hours: 3.0

2. Required Electives 9 hours (three courses) from:

Note: Only 3 hours (one course) may be at the 2000 level

COMM 2310 - Writing for Print and Digital Media Credit Hours: 3.0
COMM 2320 - Fundamentals of Media Production Credit Hours: 3.0
COMM 3349 - Nonverbal Communication Credit Hours: 3.0
COMM 3358 - Leadership Communication & Organizations Credit Hours: 3.0
COMM 3360 - Principles of Strategic Communication Credit Hours: 3.0
COMM 4354 - Organizational Crisis Communication Credit Hours: 3.0
COMM 4357 - Intercultural Communication and Organizations Credit Hours: 3.0
COMM 4358 - Bargaining and Negotiation Credit Hours: 3.0
COMM 4378 - The Social Impact of New Information Technology Credit Hours: 3.0
COMM 4397 - Selected Topics Communication Credit Hours: 3.0
COMM 4398 - Independent Study Credit Hours: 3.0

Film Studies Minor

Students pursuing a Film Studies Minor must complete a minimum of 12 advanced hours and a minimum of 9 hours in Residence.

1. Concentration Requirements: 9 hours

NOTE: Students may take a maximum of two lower-level classes (6 credit hours).

COMM 1301 - Media and Society Credit Hours: 3.0
COMM 3370 - History of Cinema Credit Hours: 3.0
COMM 4370 - Social Aspects of Film Credit Hours: 3.0

2. Required Electives 9 hours (three courses) from:

CHNS 3350 - Chinese Culture Through Films Credit Hours: 3.0
COMM 2327 - Introduction to Screen Writing Credit Hours: 3.0
COMM 2370 - Introduction to Motion Pictures Credit Hours: 3.0
COMM 4328 - Broadcast and Film Dramatic Writing Credit Hours: 3.0
COMM 4371 - American Cinema: The Directors Credit Hours: 3.0
COMM 4375 - Propaganda and Mass Communication Credit Hours: 3.0
COMM 4397 - Selected Topics Communication Credit Hours: 3.0
COMM 4398 - Independent Study Credit Hours: 3.0
ENGL 3358 - Hong Kong Cinema Credit Hours: 3.0
ENGL 4373 - Film, Text, and Politics Credit Hours: 3.0
FREN 3319 - History of French Cinema Credit Hours: 3.0
GERM 3380 - German Women Film Directors Credit Hours: 3.0
GERM 3381 - History of German Cinema Credit Hours: 3.0
GERM 3384 - Fascism and German Cinema Credit Hours: 3.0
GERM 3385 - East German Cinema  Credit Hours: 3.0  
GERM 3395 - Topics in German Cinema  Credit Hours: 3.0  
HIST 4314 - American History Through Film  Credit Hours: 3.0  
ITAL 3305 - Italian Culture Through Films  Credit Hours: 3.0  
ITAL 3306 - Italian Cinema  Credit Hours: 3.0  
MAS 3341 - Mexican American Experience Through Film  Credit Hours: 3.0

Global & Intercultural Communication Minor

The minor in Global and Intercultural Communication is designed for students seeking degrees from schools and departments outside of the Jack J. Valenti School who anticipate careers in which they work in global and intercultural communication contexts in diverse fields, such as health communication, public relations, advertising, corporate communication, and journalism.

Students must complete 18 hours of courses, 15 of which must be advanced. Students must also complete a minimum of 9 hours in residence. Minimum GPA required to successfully complete the minor is 2.0.

Required Course (3 credit hours):

COMM 4357 - Intercultural Communication and Organizations  Credit Hours: 3.0

Required Electives (15 credit hours - 5 courses) from the following:

Electives:

- ANTH 2302 - Introduction to Cultural Anthropology  Credit Hours: 3.0
- COMM 3304 - Multicultural Health Communication  Credit Hours: 3.0
- COMM 3312 - Global Journalism  Credit Hours: 3.0
- COMM 3363 - Global & Multicultural Advertising  Credit Hours: 3.0
- COMM 3385 - Communication Practicum Abroad  Credit Hours: 3.0
- COMM 4314 - Social Issues in Journalism  Credit Hours: 3.0
- COMM 4373 - Intercultural Public Relations  Credit Hours: 3.0
- COMM 4388 - Media, Hispanics and Development  Credit Hours: 3.0
- COMM 4389 - Media for Social Justice: Digital Media & Activism in Latin America & Houston  Credit Hours: 3.0
- COMM 4397 - Selected Topics Communication  Credit Hours: 3.0
- COMM 4398 - Independent Study  Credit Hours: 3.0

Health Communication Minor

Students seeking a minor in health communication must take a minimum of 9 advanced hours and a minimum of 9 hours in residence.

A minimum of 18 semester hours

Required Courses (6 hours)

- COMM 1301 - Media and Society  Credit Hours: 3.0
- COMM 3300 - Health Communication  Credit Hours: 3.0 (formerly COMM 4333)
Required Electives (12 hours - four courses)

- COMM 3301 - Doctor-Patient Interaction  Credit Hours: 3.0
- COMM 3302 - E-Health and Telemedicine  Credit Hours: 3.0
- COMM 3303 - Health Literacy  Credit Hours: 3.0
- COMM 3304 - Multicultural Health Communication  Credit Hours: 3.0
- COMM 3306 - End of Life Communication  Credit Hours: 3.0
- COMM 3340 - Health Campaigns  Credit Hours: 3.0
- COMM 4335 - Crisis Communication  Credit Hours: 3.0

Hispanic Journalism & Media Minor

The minor in Hispanic Journalism and Media is designed for students who anticipate careers in journalism or communication positions where their working language is Spanish and/or where they report on Hispanic communities in the U.S. or abroad. The minor is also designed for students who wish to continue the study of the Spanish language and culture for specific journalistic and communicative purposes.

Students must complete 18 hours of advanced courses, 9 of which must be in residence. Minimum GPA required to successfully complete the minor is 2.0.

The 18-hour minor consists of students taking courses in three separate areas: language, culture, and communication.

Language Block: Take 2 courses (6 hours)

For Non-Heritage Learners:

Students must complete SPAN 3301, 3302, 3339 or 4341.

- SPAN 3301 - Spanish Oral Communication for Critical Thinking  Credit Hours: 3.0
- SPAN 3302 - Advanced Spanish for Non-Heritage Learners  Credit Hours: 3.0
- SPAN 3339 - Spanish for the Global Professions  Credit Hours: 3.0
  or
- SPAN 4341 - Advertising and Public Relations for the Latino/a Market  Credit Hours: 3.0

For Heritage Learners:

Students must complete SPAN 3307, 3308, 3339 or 4341.

- SPAN 3307 - Public Speaking in Spanish  Credit Hours: 3.0
- SPAN 3308 - Written Communication for Hispanic Heritage Learners  Credit Hours: 3.0
- SPAN 3339 - Spanish for the Global Professions  Credit Hours: 3.0
  or
- SPAN 4341 - Advertising and Public Relations for the Latino/a Market  Credit Hours: 3.0

Culture Block: Take 2 courses (6 hours)

Recommended 3000/4000 Courses:

- SPAN 3342 - Cross-Cultural Business Contexts: U.S./Latin America  Credit Hours: 3.0
SPAN 3374 - Spanish American Culture and Civilization  Credit Hours: 3.0
SPAN 3375 - United States Hispanic Culture and Civilization  Credit Hours: 3.0
SPAN 4391 - Latin American and Latino Cultural Studies  Credit Hours: 3.0

Communication Block: Take 2 courses (6 hours)

Recommended 3000/4000 Courses:

COMM 3322 - Latino Journalism  Credit Hours: 3.0
COMM 4302 - Latinx Media Studies  Credit Hours: 3.0
COMM 4386 - Reporting on Immigration, Hispanics and Data  Credit Hours: 3.0
COMM 4388 - Media, Hispanics and Development  Credit Hours: 3.0
COMM 4389 - Media for Social Justice: Digital Media & Activism in Latin America & Houston  Credit Hours: 3.0

Integrated Communication Minor

Students pursuing an Integrated Communication Minor must complete a minimum of 9 advanced hours and a minimum of 9 hours in Residence.

1. Concentration Requirements: 9 hours

COMM 1301 - Media and Society  Credit Hours: 3.0
COMM 2310 - Writing for Print and Digital Media  Credit Hours: 3.0
COMM 3360 - Principles of Strategic Communication  Credit Hours: 3.0

2. Required Electives 9 hours (three courses) from:

COMM 3361 - Advertising Copywriting  Credit Hours: 3.0
COMM 3363 - Global & Multicultural Advertising  Credit Hours: 3.0
COMM 3368 - Principles of Public Relations  Credit Hours: 3.0
COMM 3369 - Strategic Communication Writing  Credit Hours: 3.0
COMM 3374 - Strategic Social Media  Credit Hours: 3.0
COMM 4331 - Persuasion  Credit Hours: 3.0
COMM 4354 - Organizational Crisis Communication  Credit Hours: 3.0
COMM 4355 - Organizational Communication  Credit Hours: 3.0
COMM 4360 - Media Planning & Placement  Credit Hours: 3.0
COMM 4365 - Digital Public Relations and Advertising  Credit Hours: 3.0
COMM 4366 - Advertising Account Planning  Credit Hours: 3.0
COMM 4397 - Selected Topics Communication  Credit Hours: 3.0
COMM 4398 - Independent Study  Credit Hours: 3.0

Interpersonal Communication Minor

Students pursuing an Interpersonal Communication Minor must complete a minimum of 9 advanced hours and a minimum of 9 hours in residence.

1. Concentration Requirements: 6 hours
COMM 1301 - Media and Society  Credit Hours: 3.0
COMM 1333 - Interpersonal Communication  Credit Hours: 3.0

2. 12 hours (four courses) from:

Note: Only 3 hours (one course) may be at the 2000 level

COMM 2331 - Relational Communication  Credit Hours: 3.0
COMM 2356 - Business & Professional Communication  Credit Hours: 3.0
COMM 3300 - Health Communication  Credit Hours: 3.0
COMM 3304 - Multicultural Health Communication  Credit Hours: 3.0
COMM 3306 - End of Life Communication  Credit Hours: 3.0
COMM 3349 - Nonverbal Communication  Credit Hours: 3.0
COMM 4331 - Persuasion  Credit Hours: 3.0
COMM 4335 - Crisis Communication  Credit Hours: 3.0
COMM 4337 - Television and the Family  Credit Hours: 3.0
COMM 4338 - Family in Popular Culture  Credit Hours: 3.0
COMM 4355 - Organizational Communication  Credit Hours: 3.0
COMM 4378 - The Social Impact of New Information Technology  Credit Hours: 3.0
COMM 4397 - Selected Topics Communication  Credit Hours: 3.0
COMM 4398 - Independent Study  Credit Hours: 3.0

Journalism Minor

Students pursuing a Journalism Minor must complete a minimum of 9 advanced hours and a minimum of 9 hours in Residence.

Concentration Requirements: 9 hours

COMM 1303 - Writing for Communicators  Credit Hours: 3.0
COMM 2310 - Writing for Print and Digital Media  Credit Hours: 3.0
COMM 3317 - Multimedia Journalism  Credit Hours: 3.0

Required Electives: Select 9 hours from

COMM 3311 - Editing for Print and Digital Media  Credit Hours: 3.0
COMM 3312 - Global Journalism  Credit Hours: 3.0
COMM 3313 - Data Journalism  Credit Hours: 3.0
COMM 3314 - Intermediate Writing and Reporting  Credit Hours: 3.0
COMM 3315 - News and Social Media  Credit Hours: 3.0
COMM 3316 - Electronic News  Credit Hours: 3.0
COMM 3322 - Latino Journalism  Credit Hours: 3.0
COMM 3324 - Photojournalism I  Credit Hours: 3.0
COMM 3353 - Information & Communication Technologies I  Credit Hours: 3.0
COMM 4303 - Communication Law & Ethics  Credit Hours: 3.0
COMM 4310 - Opinion Writing & Blogging  Credit Hours: 3.0
COMM 4312 - Feature Writing for Print and Digital Media Credit Hours: 3.0
COMM 4387 - Media and Political Campaigns in the Digital Age Credit Hours: 3.0
COMM 4397 - Selected Topics Communication Credit Hours: 3.0
COMM 4398 - Independent Study Credit Hours: 3.0

**Media Production Minor**

Students pursuing an Advertising Minor must complete a minimum of 9 advanced hours and a minimum of 9 hours in Residence.

Concentration Requirements: 9 hours (three courses):

- COMM 1301 - Media and Society Credit Hours: 3.0
- COMM 2320 - Fundamentals of Media Production Credit Hours: 3.0
- COMM 2328 - Broadcast Writing Basics Credit Hours: 3.0

Required Electives: 9 hours (three courses):

- COMM 3316 - Electronic News Credit Hours: 3.0
- COMM 3317 - Multimedia Journalism Credit Hours: 3.0
- COMM 3318 - Multimedia Storytelling Credit Hours: 3.0
- COMM 3320 - Audio Production Credit Hours: 3.0
- COMM 3353 - Information & Communication Technologies I Credit Hours: 3.0
- COMM 3372 - Gender and Media Credit Hours: 3.0
- COMM 3373 - Television: History and Culture Credit Hours: 3.0
- COMM 3376 - Media Effects Credit Hours: 3.0
- COMM 3380 - Electronic Field Production Credit Hours: 3.0
- COMM 3383 - Non-linear Editing Credit Hours: 3.0
- COMM 4372 - Media, Power, and Society Credit Hours: 3.0
- COMM 4397 - Selected Topics Communication Credit Hours: 3.0
- COMM 4398 - Independent Study Credit Hours: 3.0

**Media Studies Minor**

1. Concentration Requirements: 9 hours (three courses):

- COMM 1301 - Media and Society Credit Hours: 3.0
- COMM 2320 - Fundamentals of Media Production Credit Hours: 3.0
- COMM 3376 - Media Effects Credit Hours: 3.0

2. Required Electives 9 hours (three courses) from:

- COMM 3370 - History of Cinema Credit Hours: 3.0
- COMM 3372 - Gender and Media Credit Hours: 3.0
- COMM 3373 - Television: History and Culture Credit Hours: 3.0
- COMM 4302 - Latinx Media Studies Credit Hours: 3.0
- COMM 4314 - Social Issues in Journalism Credit Hours: 3.0
COMM 4337 - Television and the Family  
Credit Hours: 3.0

COMM 4338 - Family in Popular Culture  
Credit Hours: 3.0

COMM 4370 - Social Aspects of Film  
Credit Hours: 3.0

COMM 4371 - American Cinema: The Directors  
Credit Hours: 3.0

COMM 4372 - Media, Power, and Society  
Credit Hours: 3.0

COMM 4375 - Propaganda and Mass Communication  
Credit Hours: 3.0

COMM 4397 - Selected Topics Communication  
Credit Hours: 3.0

COMM 4398 - Independent Study  
Credit Hours: 3.0

**Public Relations Minor**

Students pursuing a Public Relations Minor must complete a minimum of 9 advanced hours and a minimum of 9 hours in Residence.

1. **Concentration Requirements: (9 hours)**

   COMM 1301 - Media and Society  
   Credit Hours: 3.0

   COMM 2310 - Writing for Print and Digital Media  
   Credit Hours: 3.0

   COMM 3368 - Principles of Public Relations  
   Credit Hours: 3.0

2. **Required Electives Select 9 hours (three courses) from:**

   COMM 3369 - Strategic Communication Writing  
   Credit Hours: 3.0

   COMM 3374 - Strategic Social Media  
   Credit Hours: 3.0

   COMM 3377 - Strategic Public Relations Planning  
   Credit Hours: 3.0

   COMM 4354 - Organizational Crisis Communication  
   Credit Hours: 3.0

   COMM 4365 - Digital Public Relations and Advertising  
   Credit Hours: 3.0

   COMM 4367 - Issues Management  
   Credit Hours: 3.0

   COMM 4368 - Public Relations Campaigns  
   Credit Hours: 3.0

   COMM 4373 - Intercultural Public Relations  
   Credit Hours: 3.0

   COMM 4377 - Understanding Publics  
   Credit Hours: 3.0

   COMM 4397 - Selected Topics Communication  
   Credit Hours: 3.0

   COMM 4398 - Independent Study  
   Credit Hours: 3.0

**Internship and Practical Training**

**Jack J. Valenti School of Communication - Experience Track**

The Jack J. Valenti School of Communication recognizes the value of developing students’ professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship and curricular practical training (CPT) experience by transcript notation.

**Eligibility for Internship**

The work must be related to the student’s major.
Internships must be approved by the Academic Department.
Additional restrictions apply to CPT for F-1 students (see below).
Steps to Declare the Experience Track

Students must declare by submitting a General Petition to their Departmental Advisor their intention to pursue this track prior to processing the paperwork for approval of the internship/CPT.

The Academic Department will verify the student's academic eligibility for internship/CPT.

The Academic Department will review the internship, including the formal job offer on the hiring company's stationery, a description of the work to be performed, a beginning and ending date, and the salary offered. The Academic department will determine whether or not the internship/CPT will provide the student with appropriate experience related to their major field of study. If a positive determination is made, then:

If the student wants to enroll for credit (COMM 4392) then the Academic Department will enroll the student in the course; otherwise, if the student wants to enroll for a zero-credit co-op internship/CPT, the approved petition and internship approval will be forwarded from the Academic Department to the Co-op office in the career center of the Cullen College of Engineering to complete the process. The student will be notified by the career center of the Cullen College of Engineering when the process is complete.

F-1 students seeking CPT should visit the International Student Scholar Services Office (ISSSO) for special instructions prior to the steps above.

For more information about Co-op Education and CPT, please visit the Co-operative Education (Co-op) and Curricular Practical Training (CPT) page.

Eligible Coursework

To satisfy the requirements for the Experience Track, students must declare their intention to pursue the track and complete an approved internship/CPT.

- COOP 0011 - COOP Education Work Period I Credit Hours: 0.0
- COOP 0012 - COOP Education Work Period II Credit Hours: 0.0
- COOP 0013 - COOP Education Work Period III Credit Hours: 0.0
- COOP 0014 - COOP Education Work Period IV Credit Hours: 0.0
- COOP 0015 - COOP Education Work Period V Credit Hours: 0.0
- COOP 0016 - COOP Education Work Period VI Credit Hours: 0.0
- COOP 0017 - COOP Education Work Period VII Credit Hours: 0.0

Courses for Academic Credit

Courses for academic credit are also available to satisfy the requirements for the Experience Track if approved by the respective academic department. Students can take COMM 4392 if they wish to receive academic credit for the internship experience.

Department of Communication Sciences and Disorders

Who's Who in the Department of Communication Sciences and Disorders

Chair:

Lynn M. Maher

Professors:
Martin R. Adams (Emeritus), Lynn S. Bliss (Emeritus), Stephanie Daniels, Susann Dowling (Emeritus), Donna Fox (Emeritus), Lynn M. Maher

**Associate Professors:**

Margaret Blake, Ferenc Bunta, Anny Castilla-Earls, Kia Johnson

**Assistant Professors:**

Terrell Brittain (Instructional), Laura Cizek (Clinical), Martha Dunkelberger (Clinical), Merilee Geitz (Instructional), Sharon Hill (Instructional), Michelle Ivey (Clinical), Ashwini Joshi, Scot Pott (Instructional), Byron Ross (Clinical), Amber Theissen

**Lecturers:**

Robyn Brittain, Kay James

**Department Overview**

The mission of the Department of Communication Sciences and Disorders (COMD) is to advance the understanding of normal and disordered speech, language and hearing through teaching, scholarship and service to the community.

We offer education in communication disorders for undergraduate and postbaccalaureate students, preprofessional training for SLPAs and professional training for graduate students, and continuing education opportunities for professionals. The Department fosters an environment that encourages and supports students and faculty to participate in scientific inquiry regarding normal and impaired communication processes. The goal of the service component is to provide high quality speech, language and hearing services to the community which are available to individuals from all cultures, ages, and abilities on the University of Houston campus and at outreach centers.

An undergraduate student with a major in Communication Sciences and Disorders is preparing for a career as a speech-language pathologist or audiologist. Professional speech-language pathologists and audiologists provide diagnostic and therapeutic services to individuals who present a variety of communication disorders.

**Preparation Program**

**Pre-ASLI**

Students who wish to major in ASLI must first declare an ASLI pre-major (PREASL) and work with the undergraduate advisor to complete program pre-requisites in order to declare an ASLI major.

**Declaring a Major in ASLI**

To be accepted into the major, students must complete both ASLI 2233 and ASLI 2301 or its equivalent with a grade of C or better and apply to the program by the set deadline. When compiling the application to the major, students should then submit a general petition form to the department to change their major from PREASL to ASLI. This form must be included in the application packet.

Degree plan should be filed once the student has reached junior status and has been accepted in the major. The degree plan must be filed the semester prior to enrollment in ASLI 4489 Service Learning.

ASLI students will take one of the following courses to complete their Writing in the Discipline (WID) requirement for the core.
PSYC 2344 - Cultural Psychology
SOC 2310 - Social Problems
SOC 2325 - American Minority Peoples
SOC 3330 - Introduction to Social Psychology

Or an intensive writing course which satisfies WID requirement with a grade of C or better.

All course in the major must be completed with a grade of C or better.

A satisfactory rate of progress toward the degree is required throughout the student's enrollment. A minimum grade point average (GPA) of 2.00 (C) for all ASLI courses attempted is required for continuation in the program. Failure to maintain a 2.00 grade point average may result in a warning. If a student is unable to improve their GPA within one semester, removal form the program is possible.

Prior to enrollment in a class any prerequisites must be completed successfully (grade of C or better). If a student enrolls in a class for which they have not successfully completed the prerequisites, they will be dropped. Neither the department nor the university will be responsible for any tuition refunds.

Only two courses in the major can be repeated, and they may be repeated only once.

All undergraduate students must attend all mandatory undergraduate advising meetings. It is recommended that students meet with their advisor at least once a year.

Students whose latest ASL class was over 12 months prior must be evaluated for placement in the appropriate ASL level.

Courses in the major that are seven or more years old may not count toward a degree, whether taken at the University of Houston or transferred to the University of Houston, unless successfully petitioned.

A minimum of twelve hours of advanced ASLI courses must be taken in residence at the University of Houston.

To file a degree plan

The student must complete ASLI 2302 or equivalent and 15 hours in the department, with a minimum grade of C for each course. Student must have achieved Junior status having completed at least 60 credits. Overall GPA must be 2.0 or better.

The following core classes must have successfully been completed:

6 credits Communications
6 credits Math or core Math/Reasoning
6 credits core Life & Physical Sciences
6 credits core American History
6 credits core Government/Political Science

All students should see their ASLI advisor for assistance in determining their full program of study which includes university and college core course requirements. ASLI and COMD courses are typically offered once a year and must be taken in sequence to accommodate prerequisites.

Academic Policies

University of Houston Academic Policies
Academic Information - CLASS

Major

American Sign Language Interpreting, B.A.

American Sign Language Interpreting (ASLI) Program Overview

The University of Houston American Sign Language Interpreting (ASLI) program is designed to prepare students to effectively interpret with 75% or more degree of accuracy between American Sign Language and English (spoken and written). Sign Language interpreters work in a vast array of
settings such as: social service agencies, K-12 schools, colleges and universities, courtrooms, hospitals, television programs and video relay services (VRS telephone calls).

To be successful students must possess the following requisite abilities:

Typical hearing, vision and speech capabilities, manual dexterity, limb, face and head movements, dual limb coordination, and physical stamina; Cognitive skills: critical thinking, selective attention, auditory and visual attention, mental stamina, short-term memory retrieval, information ordering, deduction of pattern inference, and fluent delivery of message details; Cultural and linguistic knowledge (knowledge and mastery of both spoken and written English, knowledge and fluency in American Sign Language, knowledge and fluency Contact Signing, understanding of norms and values of both the English-speaking community and the Deaf community); and Professional attributes (such as social perceptiveness, independence, interpersonal skills, adaptability in the workplace, emotional control and stability, problem-solving, conflict resolution, time management, ethical behavior). (For more information, see the Texas Board for Evaluators of Interpreters (BEI) Study Guide - "Essential Functions of a BEI Certified Interpreter". Further information may also be obtained from the Registry of Interpreters for the Deaf - Standard Practice Paper "Professional Sign Language Interpreting").

American Sign Language courses are taught by Deaf professors so that students experience both a cultural and linguistic immersion in the classroom setting. Throughout the 4-year program of study, students will interact with professional interpreters and members of the Deaf community. Interpreting courses are taught by professors who have expertise in training individuals to meet state and national certification standards. Successful graduates of the ASLI program are fluent in both English and American Sign Language, demonstrate an understanding of the profession and its ethical principles and will complete all University of Houston requirements for a Bachelor of Arts degree. The goal of the program is for graduates to be qualified to pass the entry-level Board of Evaluation of Interpreters certification exam.

General Requirements for the Bachelor of Arts in ASL Interpreting Program

To obtain a bachelor’s degree in ASL Interpreting (ASLI) the following requirements must be completed in addition to university core requirements as well as the requirements of the College of Liberal Arts and Social Science for the Bachelor of Arts Degree:

The following 45 credits constitute the required courses for the major in ASLI:

ASLI 2233 - History of Interpreting Credit Hours: 2.0
ASLI 2301 - Intermediate American Sign Language I Credit Hours: 3.0
ASLI 2302 - Intermediate American Sign Language II Credit Hours: 3.0
ASLI 2335 - Multiculturalism & Diversity in ASL Interpreting Credit Hours: 3.0
ASLI 3430 - Consecutive Interpreting and Translation Credit Hours: 4.0
ASLI 3433 - Simultaneous Interpreting I Credit Hours: 4.0
ASLI 3434 - Simultaneous Interpreting II Credit Hours: 4.0
ASLI 3460 - Advanced American Sign Language Credit Hours: 4.0
ASLI 4335 - Advanced Interpreting Techniques and Skills in ASL/English Credit Hours: 3.0
ASLI 4210 - Literature in American Sign Language Credit Hours: 2.0
ASLI 4346 - American Sign Language Transliteration and Educational Interpreting Credit Hours: 3.0
ASLI 4368 - Comparative study of ASL and English Linguistics Credit Hours: 3.0
ASLI 4489 - Service Learning - Internship Credit Hours: 4.0
COMD 3301 - History and Culture of American Deaf Community Credit Hours: 3.0

Pre-ASLI major:

All current students that wish to switch to the ASLI major are required to meet with the undergraduate advisor. Students must choose the designation of an ASLI pre-major (PREASL).
Change of Major to ASLI:

To be accepted into the major, students must complete both ASLI 2233 and ASLI 2301 or its equivalent with a grade of C or better and apply to the program by the set deadline. When compiling the application to the major, students should then submit a general petition form to the department to change their major from PREASL to ASLI. This form must be included in the application packet.

Degree plan should be filed once the student has reached junior status and has been accepted in the major. The degree plan must be filed the semester prior to enrollment in ASLI 4489 Service Learning-Internship.

ASLI students will take one of the following courses to complete their Writing in the Discipline (WID) requirement for the core.

- PSYC 2344 - Cultural Psychology
- SOC 3330 - Introduction to Social Psychology
- Or an intensive writing course which satisfies WID requirement with a grade of C or better.

All courses in the major must be completed with a grade of C or better.

A satisfactory rate of progress toward the degree is required throughout the student’s enrollment. A minimum grade point average (GPA) of 2.00 (C) for all ASLI courses attempted is required for continuation in the program. Failure to maintain a 2.00 grade point average may result in a warning. If a student is unable to improve their GPA within one semester, removal from the program is possible.

Prior to enrollment in a class any prerequisites must be completed successfully (grade of C or better). If a student enrolls in a class for which they have not successfully completed the prerequisites, they will be dropped. Neither the department nor the university will be responsible for any tuition refunds.

Only two courses in the major can be repeated, and they may be repeated only once.
All undergraduate students must attend all mandatory undergraduate advising meetings. It is recommended that students meet with their advisor at least once a year.

Students whose latest ASL class was over 12 months prior must be evaluated for placement in the appropriate ASL level.

Courses in the major that are seven or more years old may not count toward a degree, whether taken at the University of Houston or transferred to the University of Houston, unless successfully petitioned.

A minimum of twelve hours of advanced ASLI courses must be taken in residence at the University of Houston.

Degree Plans

To file a degree plan:

- The student must complete ASLI 2302 or equivalent and 15 credit hours in the department, with a minimum grade of C for each course.
- Student must have achieved Junior status having completed at least 60 credit hours. Overall GPA must be 2.0 or better.
- The following core classes must have successfully been completed:
  - 6 credits Communications
  - 6 credits Math or core Math/Reasoning
  - 6 credits core Life & Physical Sciences
  - 6 credits core American History
  - 6 credits core Government/Political Science

All students should see their ASLI advisor for assistance in determining their full program of study which includes university and college core course requirements. ASLI and COMD courses are typically offered once a year and must be taken in sequence to accommodate prerequisites.

Communication Sciences and Disorders, B.A.

Communication Sciences and Disorders Major

The Department of Communication Sciences and Disorders offers a Bachelor of Arts degree and a Bachelor of Science degree in communication sciences and disorders (speech-language pathology and audiology). A baccalaureate degree or equivalent semester hours of approved courses in communication sciences and disorders must be completed in order to enter a master’s degree program. The master’s degree is required for
professional certification and membership in the American Speech-Language-Hearing Association. The department offers a Master of Arts degree in communication sciences and disorders for speech-language pathology only. For more information about admissions to the graduate program, consult with the Program Coordinator (713-743-3272).

General Requirements for the Bachelor of Arts or Bachelor of Science Degree

In addition to successful completion of the University Core Requirements and CLASS college requirements, students in COMD must:

1. Complete 34 semester hours within COMD for the major.

Additional courses outside the major are also required as listed below:

- COMD 1333 - Introduction to Communication Disorders Credit Hours: 3.0
- COMD 2338 - Phonetics Credit Hours: 3.0
- COMD 2339 - Language Development Credit Hours: 3.0
- COMD 2376 - Anatomy for Communication Credit Hours: 3.0
- COMD 3371 - Speech Development and Disorders in Children Credit Hours: 3.0
- COMD 3381 - Audiology Credit Hours: 3.0
- COMD 3383 - Language Disorders in Children Credit Hours: 3.0
- COMD 3385 - Speech Science Credit Hours: 3.0
- COMD 4333 - Neuroscience for Communication Disorders Credit Hours: 3.0
- COMD 4382 - Aural Rehabilitation Credit Hours: 3.0
- COMD 4489 - Clinical Procedures Credit Hours: 4.0

6 hours of Social Sciences (must include 3 hours of 2000+ level Psychology courses). A list of suggested courses is available from the COMD advisor.

Students can meet the WID requirement by selecting any one of the following courses. Other writing intensive courses may be approved by petition, but are considered individually.

- CLAS 4305 Fifth-Century Athens: Readings in Intellectual, Literary, and Political History
- COMM 1302 Intro To Comm Theory
- ENGL 2330 Writing in the Discipline of English
- HIST 3333 Chicano History Since 1910
- HIST 3369 Colonial Mexico
- HDCS 1300 Human Ecosystems and Technological Change
- HDFS 1300 Development of Contemporary Families
- LAST 3300 Latin American Studies: Interdisciplinary Perspectives
- MUSI 3303 Popular Music in the Americas Since 1840
- PHIL 1334 Minds and Machines
- HON 2341 Classics of Modernity
- POLS 3310 Introduction to Political Theory
- PSYC 2344 Cultural Psychology
- PSYC 3310 Industrial-Organization Psychology
- PSYC 4321 Abnormal Psychology
- RELS 2340 Introduction to Hinduism
- RELS 2350 Introduction to Islam
- RELS 2360 Introduction to Buddhism
- RELS 3370 The Bible and Modern Science
- SOC 3351 Social Class and Mobility in America
- WCL 4351 Frames of Modernity I
- WCL 4352 Frames of Modernity II - Postmodernity and Globalization
- ITAL 4308 Dante and His World
It is recommended that students select a 3000 or 4000 level writing intensive course.

2. Complete the following three general education courses as required by the Council for Clinical Certification in Audiology and Speech-Language Pathology (CFCC).

   All of these requirements can be met through University Core Courses.

   A college level Statistics course;

   A college level Biological Sciences course;

   A college level Physics or Chemistry course.

3. Be advised concerning course prerequisites and sequences by COMD undergraduate faculty and staff advisor(s).

4. Apply as a Pre-COMD major with an overall GPA of 2.67

   This requirement pertains to any incoming freshman, university transfer, college or department transfer, or international student.

5. Complete the COMD Core requirements prior to being approved as COMD majors:

   Completion of COMD 1333 - Introduction to Communication Disorders or its equivalent

   Completion of COMD Core Courses with grades of B- or better:

   COMD 2339 - Language Development

   COMD 2338 - Phonetics

   COMD 2376 - Anatomy for Communication

   Completion of a speech, language and hearing screening

   Earned a minimum GPA of 2.67

   Once Pre-COMD requirements are completed, students must file a general petition to declare a COMD major. The general petition is subject to evaluation by the advisor, the undergraduate coordinator and the department chair. Students are NOT considered COMD majors until the petition has been approved.

   Why is there a COMD Core?

   The COMD Core courses (COMD 2339, COMD 2338 and COMD 2376) are foundational courses for our major. They (or their approved equivalents) are required for all Pre-COMD Students in order to ensure that each student has a solid basis on which to build knowledge in later classes. These courses must be completed with a grade of B- or higher and may not be repeated.

   Students who have not completed the COMD Core successfully will not be allowed to declare COMD as a major.

6. Complete all COMD courses with a grade no lower than B-.
COMD Core Sequence

A student must earn a grade of B- or better in the COMD Core sequence to remain eligible for the major.

COMD Core:

- COMD 2338 - Phonetics Credit Hours: 3.0
- COMD 2339 - Language Development Credit Hours: 3.0
- COMD 2376 - Anatomy for Communication Credit Hours: 3.0

Repeating COMD Core Courses

Students earning a grade below B- in one of these courses must obtain permission from the department petition committee to repeat the course. Enrollment in courses requiring completion of the COMD Core will be blocked pending a decision by the petition committee. Students should see the academic advisor for guidance in requesting permission to repeat a COMD Core course.

COMD Major Courses

A student must earn a grade of B- or better in the following COMD major courses.

- COMD 1333 - Introduction to Communication Disorders Credit Hours: 3.0

COMD Junior Sequence:

- COMD 3385 - Speech Science Credit Hours: 3.0
- COMD 3371 - Speech Development and Disorders in Children Credit Hours: 3.0
- COMD 3381 - Audiology Credit Hours: 3.0
- COMD 3383 - Language Disorders in Children Credit Hours: 3.0

COMD Capstone:

- COMD 4489 - Clinical Procedures Credit Hours: 4.0

Repeating COMD Major Courses

If a student earns a grade below B- in one of these courses, a single repetition of that course is allowed. A student who earns a second grade below B- in any of these courses will not be permitted to continue as a COMD major. Students should see the academic advisor for guidance in selecting another major and/or consideration of COMD minor completion.

7. File a degree plan once the following requirements are completed:

- A minor must be declared.
- A minor degree plan must be completed and approved.
- 60 credit hours must be completed with a cumulative GPA of 2.0 and a COMD major cumulative GPA of not less than 2.67.
- University Core requirements must be completed
  - UH Core Curriculum 2020-2021
- 18 COMD major hours must be completed.
All completed courses that are required by the major must have a grade of B- or better. Only one required COMD course may be repeated to achieve this standard.

8. Complete Clinical Procedures, COMD 4489,

This course introduces students to the clinical process and has a strong hands-on component. There is no substitute for this course. The following eligibility requirements are strictly enforced.

Only COMD majors with senior status may enroll in Clinical Procedures.

Students must have a COMD major degree plan filed and approved prior to enrollment.

Filing a major degree plan is a lengthy process and is dependent upon completion of multiple previous steps.

Students are strongly advised to submit a COMD major degree plan for approval in the summer before their fifth semester in COMD.

Students must have a GPA of 2.67 in the COMD major. This includes grades for all COMD courses taken. If a course has been repeated, both grades enter into the calculation.

Students must have completed 18 hours of COMD Major classes prior to enrolling in COMD 4489.

9. Enroll for advanced classes in COMD only upon successful completion of the prerequisites or they will be dropped by the instructor.

Neither the department nor the instructor will be responsible for tuition refunds.

10. Complete a minimum of 12 advanced hours in residence in the department.

Courses that are seven or more years old may not be counted toward the degree, whether taken at the University of Houston OR transferred to the University of Houston.

Note(s):

The communication disorders academic program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)

Communication Sciences and Disorders, B.S.

Communication Sciences and Disorders Major

The Department of Communication Sciences and Disorders offers a Bachelor of Arts degree and a Bachelor of Science degree in communication sciences and disorders (speech-language pathology and audiology). A baccalaureate degree or equivalent semester hours of approved courses in communication sciences and disorders must be completed in order to enter a master’s degree program. The master’s degree is required for professional certification and membership in the American Speech-Language-Hearing Association. The department offers a Master of Arts degree in communication sciences and disorders for speech-language pathology only. For more information about admissions to the graduate program, consult with the Program Coordinator (713-743-3272).
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It is recommended that students select a 3000 or 4000 level writing intensive course.
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All of these requirements can be met through University Core Courses.

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A college level Biological Sciences course;
A college level Physics or Chemistry course.

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This requirement pertains to any incoming freshman, university transfer, college or department transfer, or international student.

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Completion of COMD Core Courses with grades of B- or better:

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COMD 2338 - Phonetics
COMD 2376 - Anatomy for Communication

Completion of a speech, language and hearing screening

Earned a minimum GPA of 2.67

Once Pre-COMD requirements are completed, students must file a general petition to declare a COMD major. The general petition is subject to evaluation by the advisor, the undergraduate coordinator and the department chair. Students are NOT considered COMD majors until the petition has been approved.

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The COMD Core courses (COMD 2339, COMD 2338 and COMD 2376) are foundational courses for our major. They (or their approved equivalents) are required for all Pre-COMD Students in order to ensure that each student has a solid basis on which to build knowledge in later classes. These courses must be completed with a grade of B- or higher and may not be repeated.

Students who have not completed the COMD Core successfully will not be allowed to declare COMD as a major.

6. Complete all COMD courses with a grade no lower than B-.

COMD Core Sequence
A student must earn a grade of B- or better in the COMD Core sequence to remain eligible for the major.

COMD Core:

- COMD 2338 - Phonetics Credit Hours: 3.0
- COMD 2339 - Language Development Credit Hours: 3.0
- COMD 2376 - Anatomy for Communication Credit Hours: 3.0

Repeating COMD Core Courses

Students earning a grade below B- in one of these courses must obtain permission from the department petition committee to repeat the course. Enrollment in courses requiring completion of the COMD Core will be blocked pending a decision by the petition committee. Students should see the academic advisor for guidance in requesting permission to repeat a COMD Core course.

COMD Major Courses

A student must earn a grade of B- or better in the following COMD major courses.

- COMD 1333 - Introduction to Communication Disorders Credit Hours: 3.0

COMD Junior Sequence:

- COMD 3385 - Speech Science Credit Hours: 3.0
- COMD 3371 - Speech Development and Disorders in Children Credit Hours: 3.0
- COMD 3381 - Audiology Credit Hours: 3.0
- COMD 3383 - Language Disorders in Children Credit Hours: 3.0

COMD Capstone:

- COMD 4489 - Clinical Procedures Credit Hours: 4.0

Repeating COMD Major Courses

If a student earns a grade below B- in one of these courses, a single repetition of that course is allowed. A student who earns a second grade below B- in any of these courses will not be permitted to continue as a COMD major. Students should see the academic advisor for guidance in selecting another major and/or consideration of COMD minor completion.

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- A minor must be declared.
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- University Core requirements must be completed
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- 18 COMD major hours must be completed.
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Students are strongly advised to submit a COMD major degree plan for approval in the summer before their fifth semester in COMD.

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Students must have completed 18 hours of COMD Major classes prior to enrolling in COMD 4489.

9. Enroll for advanced classes in COMD only upon successful completion of the prerequisites or they will be dropped by the instructor.

Neither the department nor the instructor will be responsible for tuition refunds.

10. Complete a minimum of 12 advanced hours in residence in the department.

Courses that are seven or more years old may not be counted toward the degree, whether taken at the University of Houston OR transferred to the University of Houston.

Note(s):

The communication disorders academic program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)

Minor

Communication Sciences and Disorders, Minor

Important Notes:

All required courses must be completed with a grade of C or better to count toward the minor in Communication Sciences and Disorders. Following the completion of the minor in COMD, students are eligible to apply to the University of Houston Speech Language Pathology Assistant (SLPA) Certificate program.

Required Courses (18.0 credit hours)


COMD 1333 - Introduction to Communication Disorders Credit Hours: 3.0
COMD 2338 - Phonetics Credit Hours: 3.0
Certificate

Speech Language Pathology Assistant Certificate

The SLPA Certificate Program prepares students to provide speech and language therapy services under the supervision of a certified speech-language pathologist in a variety of work settings. Students who complete the SLPA Certificate Program will be eligible to apply for licensure in the State of Texas as a Speech Language Pathology Assistant (SLPA). The program is designed for individuals who have already achieved a bachelor’s degree in another discipline.

SLPA Certificate Program courses provide a basic understanding of speech, language, hearing and swallowing. We strongly recommend that the following background courses be completed prior to entering the SLPA Certificate Program:

- Biological Science (e.g., biology, human anatomy)
- Physical Science (e.g., physics, chemistry)
- Social Science (e.g., psychology, sociology, anthropology)
- Math (e.g., college-level algebra or higher)

For frequently asked questions about the SLPA Certificate Program, please click here.

Admission to the SLPA Certificate Program

You must be accepted into the Speech-Language Pathology Assistant Certificate Program through the University of Houston, Department of Communication Sciences and Disorders (ComD) in order to enroll in SLPA Certificate Program courses. If you are not accepted into the Department, you will be un-enrolled from ComD courses.

Be sure to provide current contact information on your material and include all previous names.

A minimum undergraduate GPA of 2.8 is required to be considered for admission.

Please click here for more information on applying to the SLPA Certificate Program.

SLPA Certificate Program Curriculum

The SLPA Certificate Program prepares students to provide speech and language therapy services under the supervision of a certified speech-language pathologist in a variety of work settings. Students who complete the SLPA Certificate Program will be eligible to apply for licensure in the State of Texas as a Speech Language Pathology Assistant (SLPA). The program is designed for individuals who have already achieved a bachelor’s degree in another discipline.

The requirements for completion of the SLPA Certificate Program include 24 credit hours of coursework and 8 credit hours of clinical training for a total of 32 credit hours. Students will acquire a minimum of 25 observation hours and 95 hours of clinical training under the direct, 100% supervision of a certified and licensed speech-language pathologist.

Please click here for more information about the curriculum and course information of the SLPA Certificate Program.
Contact Information:

SLPA Certificate Program, Department of Communication Sciences and Disorders, 100 Clinical Research Services Center, University of Houston, Houston, TX. 77204-6018; Phone: 713-743-7901; Email: kmjames@central.uh.edu

Department of Comparative Cultural Studies

Who's Who in the Department of Comparative Cultural Studies

Chair:
Nicholas De Genova (Anthropology)

Professors:
Kenneth L. Brown (Anthropology), Christian A. Eberhart (Program Director, Religious Studies), Nicholas De Genova (Anthropology), Susan Rasmussen (Anthropology), Rebecca Storey (Program Director, Anthropology)

Associate Professors:
Elizabet Farfan-Santos (Anthropology), Andrew J. Gordon (Anthropology), Keith McNeal (Anthropology and Religious Studies), Randolph J. Widmer (Anthropology)

Assistant Professors:
Rachel Afi Quinn (Women's Gender & Sexuality Studies)

Non-Tenure Faculty and Directors:
Luca Oliva (Program Coordinator, Liberal Studies), Caryn Tamber-Rosenau (Religious Studies)

Affiliated Faculty:
Chatwara Suwannamai Duran (Associate Professor of Applied Linguistics), Lauren Zentz (Associate Professor of Applied Linguistics)

Overview of Comparative Cultural Studies

The Department of Comparative Cultural Studies highlights the rich comparative traditions of disciplines and programs. The Department offers major degree programs in Anthropology (BA, BS, MA), Liberal Studies (BA), Religious Studies (BA) and minors in Anthropology, International and Global Studies, and Religious Studies.

Students in these programs explore the historical construction of cultures and the ways in which cultural constructs affect the political, social, and aesthetic relationships that shape human communities. By creating a shared space for scholarly debate and student learning, the Department of Comparative Cultural Studies enhances the interdisciplinary opportunities inherent in its constituent disciplines.

Mission Statement

The Department of Comparative Cultural Studies offers degree programs in Anthropology, Religious Studies, International and Global Studies (minor) and Liberal Studies, each dedicated to the comparative study of cultures worldwide.

CCS provides students with the foundation for a wide range of careers in education, research, media, business, government, and the professions. Our students gain the knowledge and skills to become effective cultural analysts, readers, thinkers, and leaders in the global workplace and in local communities.
Goals of Comparative Cultural Studies

to provide the skills and knowledge to understand and work in cross-cultural and global contexts;
to provide students with the disciplinary vocabularies to work in the intricate networks that define cultural production worldwide;
to compare cultures from diverse perspectives;
to consider the universals of culture, as well as practices and belief systems unique to particular cultures;
to help students gain the knowledge they need to innovate, work in transdisciplinary groups focused on real world issues and challenges.

Affiliated Programs

Asian-American Studies
Center for the Americas
Latin American Studies
Institute for World Literature
The Hemispheric Institute of Politics and Performance
Arab Studies

Major

Anthropology, B.A.

Program Overview

The Anthropology Program in the Comparative Cultural Studies Department focus on archaeology and ethnology as specialized areas of study. A diverse curriculum provides courses in the major subfields of ethnology, archaeology, linguistics, and physical anthropology as well as in the study of important world regions, such as the United States, North America, Latin America, and Africa.

Specialized courses are offered in medical anthropology, applied anthropology, historic archaeology, nutrition, sexuality, economic development, ethnic studies in the United States, and cultural reconstruction from symbolic behavior.

Topics are cast in a comparative, often global purview, and students view human problems such as hunger, religious conflict, sexism, racism, and inequality from the anthropological perspective.

The programs are designed to develop students concern and knowledge about current world problems and to provide them with skills and experience needed to enter professional careers in applied social sciences or to continue advanced training in the anthropological subdisciplines, law, public health, or other professional fields.

Recommended Courses for Pre-Law Training in Anthropology

The Anthropology Program recommends the following courses for meeting the various components for the University Core Curriculum, and the college and program requirements. Please note that this information is not intended to preclude completion of other courses that may be offered on an irregular basis, such as selected topics courses, nor does it imply that completion of these courses alone will satisfy the Bachelor of Arts or the Bachelor of Science degree requirements for graduation.

Core Curriculum Requirements
Mathematics/Reasoning:

PHIL 1321 - Logic I  Credit Hours: 3.0

Language, Philosophy & Culture

HIST 2351 - Western Civilization to 1450  Credit Hours: 3.0
HIST 2353 - Western Civilization From 1450  Credit Hours: 3.0
PHIL 1301 - Introduction to Philosophy  Credit Hours: 3.0
PHIL 1305 - Introduction to Ethics  Credit Hours: 3.0
POLS 3340 - Ancient and Medieval Political Thought  Credit Hours: 3.0
POLS 3341 - Foundations of Modern Politics  Credit Hours: 3.0
POLS 4346 - Greek Political Thought  Credit Hours: 3.0

Social/Behavioral Sciences

ECON 2304 - Microeconomic Principles  Credit Hours: 3.0
ECON 2305 - Macroeconomic Principles  Credit Hours: 3.0
GEOG 2340 - World Realms  Credit Hours: 3.0
POLS 3310 - Introduction to Political Theory  Credit Hours: 3.0
POLS 3311 - Introduction to Comparative Politics  Credit Hours: 3.0
PSYC 1300 - Introduction to Psychology  Credit Hours: 3.0
SOC 1300 - Introduction to Sociology  Credit Hours: 3.0

College Requirements

Minor preferably in Political Science to include courses from the Social Sciences lists. Nine hours of Social Sciences in addition to the six-hour core requirement: (Reminder: These 15 hours must be selected from three fields outside the major.)

POLS 3349 - Foundations in American Political Thought  Credit Hours: 3.0
POLS 3354 - Law and Society  Credit Hours: 3.0
POLS 3356 - Introduction to Constitutional Law  Credit Hours: 3.0
POLS 3357 - Constitutional Law: Civil Liberties  Credit Hours: 3.0
POLS 3364 - Legislative Processes  Credit Hours: 3.0
PSYC 4321 - Abnormal Psychology  Credit Hours: 3.0
SOC 3312 - Sociology of Deviance  Credit Hours: 3.0
SOC 3313 - Criminology  Credit Hours: 3.0

Program Requirements

Anthropology:

ANTH 2302 - Introduction to Cultural Anthropology  Credit Hours: 3.0
ANTH 2304 - Introduction to Language and Culture  Credit Hours: 3.0
ANTH 3305 - Psychological Anthropology  Credit Hours: 3.0
ANTH 3347 - Anthropology of Women  Credit Hours: 3.0
ANTH 3348 - Anthropology of Religion  Credit Hours: 3.0
Electives

ENGL 3340 - Advanced Composition  Credit Hours: 3.0
PHIL 3375 - Law, Society, and Morality  Credit Hours: 3.0

Note(s):

Address inquiries about pre-law counseling and training to:

University of Houston
Anthropology Program
Attn: Undergraduate Advisor
233 McElhinney Hall
Houston, TX 77204-5020

or

University of Houston
Department of Political Science
Attn: Pre-Law Advisor
447 Philip G. Hoffman Hall
Houston, TX 77204-3011

Anthropology Degree Requirements

Students must earn a minimum 2.00 grade point average in all courses in the major (required or elective) attempted at this university.

Students who choose to major in anthropology must also meet the university core requirements and the college core requirements for a Liberal Arts and Social Sciences Bachelor of Arts or Bachelor of Science degree.

Requirements

30 hours (at least 18 advanced) to include:

ANTH 2302 - Introduction to Cultural Anthropology  Credit Hours: 3.0

6 hours from:
ANTH 2301 - Introduction to Physical Anthropology  Credit Hours: 3.0 or
ANTH 2303 - Introduction to Archaeology  Credit Hours: 3.0 or
ANTH 2304 - Introduction to Language and Culture  Credit Hours: 3.0

ANTH 4310 - Theories of Culture  Credit Hours: 3.0
ANTH electives (advanced)  Credit Hours: 15.0
ANTH electives (any level)  Credit Hours: 3.0

Note(s):
Students must complete at least 15 of the required 30 hours in residence at the University of Houston. Twelve of these 15 hours must be advanced (3000-level or above). Transferred credit to be counted toward the anthropology major requirements must have a grade of C- or above. Majors who plan to pursue graduate study should consider taking one statistics course from the program’s recommended list.

For additional information, write, call, or visit the program Web site:

University of Houston
Anthropology Program
Attn: Landis Odoms
233 McElhinney Hall
Houston, TX 77204-5020
713-743-3783 or 713-743-3947

www.anthropology.uh.edu

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POLS 3349 - Foundations in American Political Thought  Credit Hours: 3.0  
POLS 3354 - Law and Society  Credit Hours: 3.0  
POLS 3356 - Introduction to Constitutional Law  Credit Hours: 3.0  
POLS 3357 - Constitutional Law: Civil Liberties  Credit Hours: 3.0  
POLS 3364 - Legislative Processes  Credit Hours: 3.0  
PSYC 4321 - Abnormal Psychology  Credit Hours: 3.0  
SOC 3312 - Sociology of Deviance  Credit Hours: 3  
SOC 3313 - Criminology  Credit Hours: 3  

Program Requirements  

Anthropology:  

ANTH 2302 - Introduction to Cultural Anthropology  Credit Hours: 3.0  
ANTH 2304 - Introduction to Language and Culture  Credit Hours: 3.0  
ANTH 3305 - Psychological Anthropology  Credit Hours: 3.0  
ANTH 3347 - Anthropology of Women  Credit Hours: 3.0  
ANTH 3348 - Anthropology of Religion  Credit Hours: 3.0  
ANTH 4310 - Theories of Culture  Credit Hours: 3.0  

Electives  

ENGL 3340 - Advanced Composition  Credit Hours: 3.0  
PHIL 3375 - Law, Society, and Morality  Credit Hours: 3.0
Note(s):

Address inquiries about pre-law counseling and training to:

University of Houston
Anthropology Program
Attn: Undergraduate Advisor
233 McEhinney Hall
Houston, TX 77204-5020
or

University of Houston
Department of Political Science
Attn: Pre-Law Advisor
447 Philip G. Hoffman Hall
Houston, TX 77204-3011

Anthropology Degree Requirements

Students must earn a minimum 2.00 grade point average in all courses in the major (required or elective) attempted at this university.

Students who choose to major in anthropology must also meet the university core requirements and the college core requirements for a Liberal Arts and Social Sciences Bachelor of Arts or Bachelor of Science degree.

Requirements

30 hours (at least 18 advanced) to include:

ANTH 2302 - Introduction to Cultural Anthropology Credit Hours: 3.0

6 hours from:

ANTH 2301 - Introduction to Physical Anthropology Credit Hours: 3.0 or
ANTH 2303 - Introduction to Archaeology Credit Hours: 3.0 or
ANTH 2304 - Introduction to Language and Culture Credit Hours: 3.0

ANTH 4310 - Theories of Culture Credit Hours: 3.0
ANTH electives (advanced) Credit Hours: 15.0
ANTH electives (any level) Credit Hours: 3.0

Note(s):

Students must complete at least 15 of the required 30 hours in residence at the University of Houston. Twelve of these 15 hours must be advanced (3000-level or above). Transferred credit to be counted toward the anthropology major requirements must have a grade of C- or above. Majors who plan to pursue graduate study should consider taking one statistics course from the program’s recommended list.

For additional information, write, call, or visit the program Web site:

University of Houston
Anthropology Program
Attn: Landis Odoms
Liberal Studies, B.A.

Program Coordinator: Luca Oliva (loliva@uh.edu)

The Bachelor of Arts with a Major in Liberal Studies offers an interdisciplinary liberal arts program that matches a variety of educational and professional aims of students.

Liberal Studies Program Required Courses

- ILAS 2350 - Knowledge and Methods Credit Hours: 3
- ILAS 4350 - Interdisciplinary Problem Solving Credit Hours: 3

Selection and Completion of Three Minors

In addition to the two required ILAS courses, students have to declare two of the three minors in CLASS. One of these three Minors can be selected from all eligible programs of UH colleges, including those that are outside of CLASS. The selection of such a Minor has no restriction and will count towards the Liberal Studies major.

As for the choice of the three minors, students must follow three mandatory rules.

- Declare at least one of the three minors in CLASS upon admission to the program.
- Declare the second minor by the end of the second semester enrolled in the program.
- Register in at least one course in at least one of the declared CLASS minors every semester.

These rules will be enforced by locking registration if non-compliant and placing a hold on the student account.

Students must complete all requirements for three separate Minors. Courses taken for one Minor cannot be used to satisfy requirements in either of the other two Minors.

Minor Administrative and Academic Requirements

Complete the 15 or 18 credit hours required for each Minor, totaling 45 to 54 credit hours. Additionally, students must satisfy the following requirements:

- 6 credit hours (Liberal Studies major requirement),
- 16 credit hours (UH language requirement),
- 42 credit hours (UH core requirement).

Complete all other requirements for each of the chosen Minors, including grade point averages.

The "Major GPA" for this program - comprised of 3 minors - will be calculated as a cumulative average of the grades taken in the two required courses of Liberal Studies.

General Requirements

Students must complete all other Core, College, and University requirements for the Bachelor of Arts degree.
Since the program is interdisciplinary in nature, students majoring in Liberal Studies will not have to fulfill the College requirement for an additional 9 hours across three fields outside of their Major.

"Legacy students," already enrolled as Liberal Studies majors, will be offered the option of switching to the new rules with a change of degree plan.

**Liberal Studies, B.S.**

*Program Coordinator: Luca Oliva* (loliva@uh.edu)

The Bachelor of Science with a Major in Liberal Studies offers an interdisciplinary liberal arts program that matches a variety of educational and professional aims of students.

**Liberal Studies Program Required Courses**

- ILAS 2350 - Knowledge and Methods *Credit Hours: 3*
- ILAS 4350 - Interdisciplinary Problem Solving *Credit Hours: 3*

**Selection and Completion of Three Minors**

In addition to the two required ILAS courses, students have to declare two of the three minors in CLASS. One of these three Minors can be selected from all eligible programs of UH colleges, including those that are outside of CLASS. The selection of such a Minor has no restriction and will count towards the Liberal Studies major.

As for the choice of the three minors, students must follow three mandatory rules.

- Declare at least one of the three minors in CLASS upon admission to the program.
- Declare the second minor by the end of the second semester enrolled in the program.
- Register in at least one course in at least one of the declared CLASS minors every semester.

These rules will be enforced by locking registration if non-compliant and placing a hold on the student account.

Students must complete all requirements for three separate Minors. Courses taken for one Minor cannot be used to satisfy requirements in either of the other two Minors.

**Minor Administrative and Academic Requirements**

- Complete the 15 or 18 credit hours required for each Minor, totaling 45 to 54 credit hours.
- Additionally, students must satisfy the following requirements:
  - 6 credit hours (Liberal Studies major requirement),
  - 16 credit hours (UH language requirement),
  - 42 credit hours (UH core requirement),
  - 8 additional hours (6 math and 2 science) for obtaining the Bachelor’s Degree of Science in Liberal Studies.
- Complete all other requirements for each of the chosen Minors, including grade point averages.
- The "Major GPA" for this program - comprised of 3 minors - will be calculated as a cumulative average of the grades taken in the two required courses of Liberal Studies.

**General Requirements**

Students must complete all other Core, College, and University requirements for the Bachelor of Science degree.
Since the program is interdisciplinary in nature, students majoring in Liberal Studies will not have to fulfill the College requirement for an additional 9 hours across three fields outside of their Major.

"Legacy students," already enrolled as Liberal Studies majors, will be offered the option of switching to the new rules with a change of degree plan.

**Religious Studies, B.A.**

The Bachelor of Arts in Religious Studies provides students with a well-rounded understanding of major religious traditions and practices while also offering specialization in particular religions, regions, and/or theoretical approaches to the study of religion in historical, global and comparative contexts.

In addition to fulfilling Core, College and University requirements for the Bachelor of Arts degree, students declaring the major in Religious Studies must have a minimum GPA of 2.0 and complete 30 credit hours in the major, which may include a three hour Practicum according to the criteria below. For successful completion of the major, 18 credit hours of coursework must be at the advanced level, 15 credit hours in residence, and a final minimum GPA of 2.0 in coursework. Note: no course taken to fulfill the major may be applied towards a student’s minor.

All of the following are required:

A) Required Courses (3 credit hours)

   RELS 1301 - Introduction to Religious Studies **Credit Hours: 3.0** (Language, Philosophy & Culture Core)

B) From each of the THREE following clusters

   Judaic, Christian, and Islamic traditions **(9 credit hours)**
   Asian, African, and Native American religions and world mythologies **(6 credit hours)**
   Religions in Global Perspective: Theoretical and thematic topics from the Humanities and/or Social Sciences **(6 credit hours)**

C) TWO more courses from any of the above clusters **(6 Credit Hours)**

   Course list, by cluster, below.

D) Religious Studies Practicum

   Religious Studies Practicum **(3 credit hours)** that may be satisfied by:
   
   - an approved internship program, or
   - a designated capstone research project or honors thesis, or
   - an approved study abroad program

   All of the foregoing options must be associated with a UH credit-bearing course, such as RELS 4350 Religious Studies Internship Practicum, RELS 4395 Religious Studies Senior Research Seminar, or ILAS 3300 Study Abroad Experience, upon approval of the Director of Religious Studies.

**Course Clusters**

I) Judaic, Christian, and Islamic traditions
### Courses in Religion

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARAB 3313</td>
<td>Qur’an as Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 4360</td>
<td>Bible as Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 2310</td>
<td>The Bible and Western Culture I</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 2311</td>
<td>The Bible and Western Culture II</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 2330</td>
<td>Judaism</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 2335</td>
<td>Rabbinic Biblical Interpretation</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 2350</td>
<td>Introduction to Islam</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 3330</td>
<td>Christianity</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 3375</td>
<td>Christianity and Ethics</td>
<td>3.0</td>
</tr>
<tr>
<td>WCL 3341</td>
<td>Early Islamic Society: Literature and Thought</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 3323</td>
<td>Continuities: Jewish and Christian Texts and Traditions</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 3331</td>
<td>Spiritual and Artistic Traditions of Orthodox Christianity</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 3360</td>
<td>Muslim-Christian Relations</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### II) Asian, African, and Native American religions, and world mythologies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS 4330</td>
<td>The Black Church in America</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 3338</td>
<td>Peoples of Africa</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 4394</td>
<td>Selected Topics in Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>CLAS 3307</td>
<td>Greek and Roman Myths of Heroes</td>
<td>3.0</td>
</tr>
<tr>
<td>CLAS 3308</td>
<td>Myths and Cult of the Greek Gods</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 2340</td>
<td>Introduction to Hinduism</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 2345</td>
<td>Sacred Texts and Mythologies of India</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 2360</td>
<td>Introduction to Buddhism</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 3335</td>
<td>Black Atlantic Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 3380</td>
<td>Introduction to Asian Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>RELS 3381</td>
<td>Global Hinduism</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### III) Religions in Global Perspective:

#### Theoretical and thematic topics from the Humanities and/or Social Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS 2330</td>
<td>Black Liberation Theology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 3334</td>
<td>Us and Them: Ethical Decision-Making in Complex Cultures</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 3335</td>
<td>Black Atlantic Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 3338</td>
<td>Peoples of Africa</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 3348</td>
<td>Anthropology of Religion</td>
<td>3.0</td>
</tr>
<tr>
<td>ARAB 3314</td>
<td>Women and Gender in Arabic Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ARAB 3340</td>
<td>Modernity and Rationalism in Islamic Tradition</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTH 2382</td>
<td>Medieval Art and Society</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTH 3312</td>
<td>Pre-Columbian Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTH 3318</td>
<td>Art and Architecture of India</td>
<td>3.0</td>
</tr>
<tr>
<td>CLAS 3307</td>
<td>Greek and Roman Myths of Heroes</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 3378</td>
<td>Modern Middle East</td>
<td>3.0</td>
</tr>
<tr>
<td>ITAL 4308</td>
<td>Dante and His World</td>
<td>3.0</td>
</tr>
<tr>
<td>JWST 2380</td>
<td>Introduction to Jewish Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 3377</td>
<td>Philosophy of Religion</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 3340</td>
<td>Ancient and Medieval Political Thought</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 4333</td>
<td>Islam and Democracy</td>
<td>3.0</td>
</tr>
</tbody>
</table>
POLS 4347 - Religion and Politics **Credit Hours: 3.0**
POLS 4348 - Contemporary Islamic Political Thought **Credit Hours: 3.0**
RELS 2380 - Religion and Film **Credit Hours: 3.0**
RELS 3320 - Ritual and Performance **Credit Hours: 3.0**
RELS 3334 - Us and Them: Ethical Decision-Making in Complex Cultures **Credit Hours: 3.0**
RELS 3336 - Caribbean Societies and Cultures **Credit Hours: 3.0**
RELS 3355 - Yoga and Philosophy **Credit Hours: 3.0**
RELS 3360 - Muslim-Christian Relations **Credit Hours: 3.0**
RELS 3366 - History of Magic, Witchcraft and the Occult **Credit Hours: 3.0**
RELS 3370 - The Bible and Modern Science **Credit Hours: 3.0**
RELS 3376 - Themes in Comparative Religion **Credit Hours: 3.0**
RELS 3377 - Belief and Unbelief: The Search for Meaning **Credit Hours: 3.0**
RELS 3382 - Politics and Religion in South Asia **Credit Hours: 3.0**
RELS 3386 - Comparative Study of Buddhism and Christianity **Credit Hours: 3.0**
RELS 4360 - Clash of Civilizations **Credit Hours: 3.0**
SOC 3355 - Sociology of India **Credit Hours: 3.0**
SOC 3362 - Sociology of Religion of India **Credit Hours: 3.0**
SOC 3375 - Religion and Society **Credit Hours: 3.0**
SOC 3385 - Sociology of World Religions **Credit Hours: 3.0**
WCL 2370 - Cultures of India **Credit Hours: 3.0**
WCL 3355 - Goddesses and Other Divine Women **Credit Hours: 3.0**
WCL 3380 - American Jewish Culture **Credit Hours: 3.0**

**Note:**

RELS Selected Topics courses (e.g. RELS 2396, 2397, 3396, 3397, 4396) or RELS Independent Study courses (e.g. RELS 3398, 4398) will be assigned to a category ad hoc per the Director of Religious Studies based on content.

**Minor**

**Anthropology Minor**

**Requirements**

18 hours (at least 9 advanced) to include:

- ANTH electives (advanced) **Cr. 9.**
- ANTH electives (any level) **Cr. 3.**

Select 6 hours from:

- ANTH 1300 - Introduction to Anthropology **Credit Hours: 3.0**
- ANTH 2301 - Introduction to Physical Anthropology **Credit Hours: 3.0**
- ANTH 2302 - Introduction to Cultural Anthropology **Credit Hours: 3.0**
- ANTH 2303 - Introduction to Archaeology **Credit Hours: 3.0**
- ANTH 2304 - Introduction to Language and Culture **Credit Hours: 3.0**
Note(s):

Students must take nine semester hours, at least six of them advanced (3000-level or above) in residence and earn a 2.00 minimum cumulative grade point average in all minor courses (required or elective) attempted at this university. The proposed minor program must be approved by the undergraduate advisor in anthropology.

Religious Studies Minor

College of Liberal Arts & Social Sciences > Department of Comparative Cultural Studies > Religious Studies Minor

A minor in Religious Studies requires a minimum of 15 credit hours.

Students must complete at least 12 credit hours in residence.
A minimum of 9 credit hours must be advanced, at least 6 of which must be in residence.
Students must earn a grade point average of 2.00 or higher on all courses attempted in the minor.
For additional information, please visit www.class.uh.edu/rels.

Course Requirements

The required 15.0 Credit Hours are to include:

1. Introduction to Religious Studies

   RELS 1301 - Introduction to Religious Studies Credit Hours: 3.0

2. The Bible and Western Culture

   3.0 Credit Hours of either:

   RELS 2310 - The Bible and Western Culture I Credit Hours: 3.0 or
   RELS 2311 - The Bible and Western Culture II Credit Hours: 3.0

3. World Religions

   At least 6.0 Credit Hours of RELS courses from the following list:

   ANTH 3348 - Anthropology of Religion Credit Hours: 3.0
   ARAB 3313 - Qur’an as Literature Credit Hours: 3.0
   ENGL 4360 - Bible as Literature Credit Hours: 3.0
   RELS 2310 - The Bible and Western Culture I Credit Hours: 3.0
   RELS 2311 - The Bible and Western Culture II Credit Hours: 3.0
   RELS 2330 - Judaism Credit Hours: 3.0
   RELS 2340 - Introduction to Hinduism Credit Hours: 3.0
   RELS 2345 - Sacred Texts and Mythologies of India Credit Hours: 3.0
   RELS 2350 - Introduction to Islam Credit Hours: 3.0
   RELS 2360 - Introduction to Buddhism Credit Hours: 3.0
   RELS 3323 - Continuities: Jewish and Christian Texts and Traditions Credit Hours: 3.0
RELS 3330 - Christianity Credit Hours: 3.0
RELS 3331 - Spiritual and Artistic Traditions of Orthodox Christianity Credit Hours: 3.0
RELS 3355 - Yoga and Philosophy Credit Hours: 3.0
RELS 3380 - Introduction to Asian Religions Credit Hours: 3.0
RELS 3386 - Comparative Study of Buddhism and Christianity Credit Hours: 3.0

4. Religions in Global Perspective: Theoretical and Thematic Topics from the Humanities and/or Social Sciences

At least 3.0 Credit Hours from the following list:

AAS 2330 - Black Liberation Theology Credit Hours: 3.0
AAS 4330 - The Black Church in America Credit Hours: 3.0
ANTH 3334 - Us and Them: Ethical Decision-Making in Complex Cultures Credit Hours: 3.0
ANTH 3348 - Anthropology of Religion Credit Hours: 3.0
ANTH 3381 - Global Hinduism Credit Hours: 3.0
ARAB 3313 - Qur'an as Literature Credit Hours: 3.0
ARAB 3340 - Modernity and Rationalism in Islamic Tradition Credit Hours: 3.0
ARTH 2382 - Medieval Art and Society Credit Hours: 3.0
ARTH 3312 - Pre-Columbian Art Credit Hours: 3.0
CLAS 3375 - Roman, Jew, and Christian: The Politics and Sociology of Religion in the First Century A.D. Credit Hours: 3.0
ENGL 4360 - Bible as Literature Credit Hours: 3.0
JWST 2380 - Introduction to Jewish Studies Credit Hours: 3.0
PHIL 3377 - Philosophy of Religion Credit Hours: 3.0
POLS 4333 - Islam and Democracy Credit Hours: 3.0
POLS 4347 - Religion and Politics Credit Hours: 3.0
RELS 2335 - Rabbinic Biblical Interpretation Credit Hours: 3.0
RELS 2380 - Religion and Film Credit Hours: 3.0
RELS 2396 - Sel Topics Religious Studies Credit Hours: 3.0
RELS 3320 - Ritual and Performance Credit Hours: 3.0
RELS 3334 - Us and Them: Ethical Decision-Making in Complex Cultures Credit Hours: 3.0
RELS 3360 - Muslim-Christian Relations Credit Hours: 3.0
RELS 3366 - History of Magic, Witchcraft and the Occult Credit Hours: 3.0
RELS 3370 - The Bible and Modern Science Credit Hours: 3.0
RELS 3375 - Christianity and Ethics Credit Hours: 3.0
RELS 3377 - Belief and Unbelief: The Search for Meaning Credit Hours: 3.0
RELS 3380 - Introduction to Asian Religions Credit Hours: 3.0
RELS 3381 - Global Hinduism Credit Hours: 3.0
RELS 3382 - Politics and Religion in South Asia Credit Hours: 3.0
RELS 3396 - Sel Topics Religious Studies Credit Hours: 3
RELS 3398 - Independent Study Credit Hours: 3.0
RELS 4396 - Sel Topics Religious Studies Credit Hours: 3.0
RELS 4398 - Independent Study Credit Hours: 3.0
SOC 3362 - Sociology of Religion of India Credit Hours: 3.0
SOC 3375 - Religion and Society Credit Hours: 3.0
SOC 3385 - Sociology of World Religions Credit Hours: 3.0
WCL 2370 - Cultures of India Credit Hours: 3.0
WCL 3341 - Early Islamic Society: Literature and Thought Credit Hours: 3.0
WCL 3355 - Goddesses and Other Divine Women Credit Hours: 3.0
Department of Economics

Who's Who in the Department of Economics

Chair:
David Papell

Professors:
John J. Antel, Aimee Chin, Steven G. Craig, Thomas R. DeGregori, Paul R. Gregory, Chinhui Juhn, Janet E. Kohlhase, David Papell, Bent E. Sorensen, Kei-Mu Yi

Associate Professors:
Elaine Liu, Vikram Maheshri, Christian Murray, Ruxandra Prodan-Boul (Instructional), Andrea Szabo, Rebecca Achee Thornton (Instructional), Gergely Ujhelyi, Dietrich Vollrath

Assistant Professors:
Nathan Canen, Cristopher Clarke (Instructional), German N. Cubas, Willa Friedman, Pauline T. Hardee (Instructional), Joel Melendez-Lugo (Instructional), Radek Paluszynski, Islam Rizvanoglu (Instructional), Fan Wang, Natalia Zhivan (Instructional)

Department Overview

The Department of Economics offers the Bachelor of Arts in Economics, the Bachelor of Science in Economics and the minor in Economics.

Advanced Degrees

The university offers the Master of Arts in Applied Economics and the Doctor of Philosophy in Economics in the Department of Economics. The Master of Arts in Applied Economics provides quantitative training for jobs in private industry and government. The Doctor of Philosophy in Economics provides training for academic jobs as well as jobs in government and private industry.

For admission to the graduate programs, degree requirements, and course listings, consult with the director of graduate studies in the Department of Economics and refer to the Graduate and Professional Studies catalog.

To receive detailed advice about constructing a degree plan, please contact:

University of Houston
Department of Economics
Attn: Undergraduate Advisor
204 McElhinney Hall
Houston, TX 77204-5019
713-743-3804

Major

Economics, B.A.
Objectives

Economics is the study of how a society chooses to allocate its finite resources among the infinite demands of its members. This includes analysis of the decisions made by households and firms about production and consumption of finished goods, inputs to production, and labor services, in addition to analysis of the impact of public policies on these decisions and on the economic well-being of society and its members.

Specific subject areas studied in economics include aggregate analysis of business cycles and economic growth (macroeconomics), analysis of labor markets, public finance and taxation, industrial organization, international trade, the economics of money and banking, and studies in specialized fields.

The academic programs of the Department of Economics seek to develop students' capacity to think systematically and analytically about social issues. These analytical abilities give our graduates a strong fundamental background for success in professional life. The department's graduate programs prepare students for careers as economists in business, government, and the academic community. The undergraduate program has been designed to allow students maximum flexibility to orient their curriculum either toward preparation for graduate study in law, business, or economics, or toward professional courses and career placement.

In addition to the academic experience, the department offers undergraduate students an opportunity for practical experience through our internship program (ECON 4390). The internship program allows students to earn advanced economics credit while obtaining practical experience in a professional environment.

Admission Requirements

To declare a major in Economics, the following must be met.

First time in college students may declare Economics as their major if they meet the qualifications required for admission to the University of Houston.

UH students who wish to change their majors to Economics must have a minimum 2.25 cumulative GPA on all coursework taken at UH.

Students who transfer from other colleges of universities must have a cumulative 2.25 GPA in previous coursework.

In addition, all students beyond their freshman year must enroll in, and remain enrolled in, one of the following courses:

- ECON 2304 - Microeconomic Principles Credit Hours: 3.0
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0
- ECON 3332 - Intermed Microeconomics Credit Hours: 3.0
- ECON 3334 - Intermed Macroeconomics Credit Hours: 3.0

Degree Requirements

Students who choose to major in economics must also meet the university core requirements and the college core requirements for a Liberal Arts and Social Sciences Bachelor of Arts degree.

33 hours (at least 24 advanced) to include:

- ECON 2304 - Microeconomic Principles Credit Hours: 3.0
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0
- ECON 2370 - Introduction to Economic Data Analysis Credit Hours: 3.0
- ECON 3332 - Intermed Microeconomics Credit Hours: 3.0
- ECON 3334 - Intermed Macroeconomics Credit Hours: 3.0
- ECON electives (advanced) Credit Hours: 18.0
Academic Policies

University of Houston Academic Policies
College Academic Policies

Economics, B.S.

Objectives

Economics is the study of how a society chooses to allocate its finite resources among the infinite demands of its members. This includes analysis of the decisions made by households and firms about production and consumption of finished goods, inputs to production, and labor services, in addition to analysis of the impact of public policies on these decisions and on the economic well-being of society and its members.

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In addition, all students beyond their freshman year must enroll in, and remain enrolled in, one of the following courses:

- ECON 2304 - Microeconomic Principles Credit Hours: 3.0
- ECON 2305 - Macroeconomic Principles Credit Hours: 3.0
- ECON 3332 - Intermed Microeconomics Credit Hours: 3.0
- ECON 3334 - Intermed Macroeconomics Credit Hours: 3.0

Degree Requirements

Students who choose to major in economics must also meet the university core requirements and the college core requirements for a Liberal Arts and Social Sciences Bachelor of Science degree.
33 hours (at least 24 advanced) to include:

- **ECON 2304 - Microeconomic Principles** Credit Hours: 3.0
- **ECON 2305 - Macroeconomic Principles** Credit Hours: 3.0
- **ECON 2370 - Introduction to Economic Data Analysis** Credit Hours: 3.0
- **ECON 3332 - Intermed Microeconomics** Credit Hours: 3.0
- **ECON 3334 - Intermed Macroeconomics** Credit Hours: 3.0
- **ECON 3370 - Introduction To Econometrics** Credit Hours: 3.0
- **ECON electives (advanced)** Credit Hours: 15.0

**Additional Information**

In addition, Bachelor of Science candidates must take either:

- **MATH 1314 - Calculus for Business and the Life Sciences** Credit Hours: 3.0 or
- **MATH 1431 - Calculus I** Credit Hours: 4.0

Students considering graduate study in economics are strongly urged to take MATH 1431 rather than MATH 1314, and to take additional electives in mathematics.

**Minor**

**Economics Minor**

**Requirements**

18 hours (12 advanced) to include:

- **ECON 2304 - Microeconomic Principles** Credit Hours: 3.0
- **ECON 2305 - Macroeconomic Principles** Credit Hours: 3.0
- **ECON 3332 - Intermed Microeconomics** Credit Hours: 3.0
- **ECON 3334 - Intermed Macroeconomics** Credit Hours: 3.0
- **ECON electives (advanced)** Cr. 6.

**Note(s):**

Students must take nine semester hours, at least six of them advanced (3000-level or above), in residence and earn a 2.00 minimum cumulative grade point average in all minor courses attempted at this university. The proposed minor program must be approved by the undergraduate advisor in Economics.

**Internship and Practical Training**

**Department of Economics - Experience Track**

The Department of Economics recognizes the value of developing students' professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship and curricular practical training (CPT) experience by transcript notation.
Eligibility for Internship

The work must be related to the student's major.
Internships must be approved by the Academic Department.
Additional restrictions apply to CPT for F-1 students (see below).

Steps to declare Experience Track

Students must declare by submitting a General Petition to their Departmental Advisor their intention to pursue this track prior to processing the paperwork for approval of the internship/CPT.
The Academic Department will verify the student’s academic eligibility for internship/CPT.
The Academic Department will review the internship, including the formal job offer on the hiring company’s stationery, a description of the work to be performed, a beginning and ending date, and the salary offered. The Academic department will determine whether or not the internship/CPT will provide the student with appropriate experience related to their major field of study. If a positive determination is made then:

- If the student wants to enroll for credit (ECON 4390) then the Academic Department will enroll the student in the course; otherwise
- If the student wants to enroll for a zero-credit co-op internship/CPT, the approved petition and internship approval will be forwarded from the Academic Department to the Co-op office in the career center of the Cullen College of Engineering to complete the process. The student will be notified by the career center of the Cullen College of Engineering when the process is complete.

F-1 students seeking CPT should visit the International Student Scholar Services Office (ISSS) for special instructions prior to the steps above.

For more information about Co-op Education and CPT, please visit the Co-operative Education (Co-op) and Curricular Practical Training (CPT) page.

Eligible Coursework

To satisfy the requirements for the Experience Track, students must declare their intention to pursue the track and complete an approved internship/CPT.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
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<tr>
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<tr>
<td>COOP 0017</td>
<td>COOP Education Work Period VII</td>
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Courses for Academic Credit

Courses for academic credit are also available to satisfy the requirements for the Experience Track if approved by the respective academic department. Students can take ECON 4390 if they wish to receive academic credit for the internship experience.

Department of English

Who's Who in the Department of English
Chair:
Ann Christensen

Professors:

Associate Professors:
Jason Berger, Harmon Boertien (Emeritus), Paul Butler, James Cleghorn (Emeritus), Audrey Colombe, Sally Connolly, Marianne Cooley (Emeritus), Terrell Dixon (Emeritus), Chatwara Duran, Jamie Ferguson, Peter Gingiss (Emeritus), Maria Gonzalez (Lower Division Studies Director), Paul Guajardo, Francine Harris, David Judkins (Emeritus), David Mazella, Alexander Parsons (Creative Writing Program Director), Nathan Shepley, Michael Snediker, Cedric Tolliver (Upper Division Director), George Trail (Emeritus), Lynn Voskuil, Linda Westervelt (Emeritus), Jennifer Wingard (Graduate Studies Director), Barry Wood, Patricia Yongue (Emeritus), Lauren Zentz

Assistant Professors:
Lauren Brozovich, Sreya Chatterjee, Sarah Ehlers, Amanda Ellis, Sebastian Lecourt, Auritro Majumder, Kavita Singh, Sunny Yang

Advanced Degrees

The University of Houston also offers the Master of Arts, Master of Fine Arts, and Doctor of Philosophy in the Department of English. The Master of Arts includes majors in English and American Literature, and the Master of Fine Arts in Creative Writing and Literature.

The Doctor of Philosophy includes English and American Literature, and Literature and Creative Writing.

For information regarding admission to the graduate programs, degree requirements, and course listing, consult with the Director of Graduate Studies in the Department of English and refer to the Graduate and Professional Studies catalog.

Language and Culture Center

The Language and Culture Center (LCC), housed in the Department of English, provides noncredit compensatory English language instruction to undergraduate and graduate international students who must improve their reading, writing, grammar, or spoken English language skills to compete successfully in the university classroom. Graduate students who score low on the Test of Spoken English (TSE), the Foreign Service Institute (FSI) direct proficiency oral interview, or other nationally standardized tests may enroll for courses in reading/writing, pronunciation, and teaching styles in higher education.

LCC courses do not count toward a degree, but do count toward full-time student status for immigration reporting purposes, and for calculation of building use and student service fees.

Undergraduate Programs

The Bachelor of Arts in English encompasses a variety of academic and career goals (e.g., graduate school in English; secondary certification); therefore, students with specific objectives should choose a concentration and consult with an English advisor as soon as possible to ensure optimal selection of advanced English electives.

Major
English, B.A.

Applied Linguistics Concentration
Creative Writing Concentration
Literature Concentration

Minor

English Minor
The English Department offers a minor that can complement any major discipline studied at UH and will prepare students with skills in critical thinking, literary analysis and research that will provide students with an edge in obtaining careers in various employment sectors.

Major

English, B.A.

The Bachelor of Arts in English encompasses a variety of academic and career goals (e.g., graduate school in English; secondary certification); therefore, students with specific objectives should choose a concentration and consult with the English advisor as soon as possible to ensure optimal selection of advanced English electives.

List of Concentrations

Literature
Creative Writing
Applied Linguistics

Concentration in Literature

Students majoring in English with a concentration in Literature must complete all university and college requirements for the Bachelor of Arts Degree. Before enrolling in advanced courses in English, students must complete the six-hour University Core requirement in Communication (ENGL 1303 and ENGL 1304 or equivalents) and (or be currently enrolled in) MATH 1310 or MATH 1311. Only six hours of 2000 level courses in English may be applied toward the major. In addition to the university and college requirements for the Bachelor of Arts degree, majors seeking a concentration in Literature will take thirty-six semester hours in English of which thirty advanced hours (3000- and 4000-level courses), are required for the major to include:

1. Three Hours in Literary Studies

It is strongly suggested that majors take this course within the first nine hours of advanced English.

ENGL 3301 - Introduction to Literary Studies Credit Hours: 3.0

2. Three Hours of Lower-Division English

Any 2000-Level Course

3. Six Hours of British Literature
Of which three must be before 1798

ENGL 3302 - Medieval Literature Credit Hours: 3.0
ENGL 3304 - Chaucer Credit Hours: 3.0
ENGL 3305 - English Renaissance Credit Hours: 3.0
ENGL 3306 - Shakespeare: The Major Works Credit Hours: 3.0
ENGL 3309 - Renaissance Drama Credit Hours: 3.0
ENGL 3312 - Literature of Restoration and Eighteenth Century Literature Credit Hours: 3.0
ENGL 3313 - Restoration and Eighteenth Century Drama Credit Hours: 3.0
ENGL 3317 - The British Novel Before 1832 Credit Hours: 3.0
ENGL 3327 - Masterpieces of British Literature to the Eighteenth Century Credit Hours: 3.0

And three hours in any British literature

3000- or 4000-level

4. Six Hours in American Literature

Of which three must before 1900

ENGL 3348 - Thoreau Credit Hours: 3.0
ENGL 3349 - Native American Literature Credit Hours: 3.0
ENGL 3350 - American Literature to 1865 Credit Hours: 3.0
ENGL 3352 - Nineteenth-Century American Fiction Credit Hours: 3.0

And Three Hours in Any American Literature

3000- or 4000-level

5. Three Hours in Global Literature Selected from Among the Following Courses:

ENGL 3322 - Contemporary Novel Credit Hours: 3.0
ENGL 3345 - Nobel Prize Winners in Literature Credit Hours: 3.0
ENGL 3358 - Hong Kong Cinema Credit Hours: 3.0
ENGL 3365 - Postcolonial Literature Credit Hours: 3.0
ENGL 3369 - Caribbean Literatures Credit Hours: 3.0
ENGL 3379 - African Literature Credit Hours: 3.0
ENGL 3380 - Modern Indian Literature Credit Hours: 3.0
ENGL 4394 - Topics in the Historical Novel Credit Hours: 3.0

6. Three Hours Theory, Methods, and Cultural Production

ENGL 3323 - Development of Literary Criticism and Theory Credit Hours: 3.0
ENGL 3324 - The Development of the Novel Credit Hours: 3.0
ENGL 3325 - Structures of Poetry Credit Hours: 3.0
ENGL 3340 - Advanced Composition Credit Hours: 3.0
ENGL 3341 - Business and Professional Writing Credit Hours: 3.0
ENGL 3343 - Advanced Composition: Style **Credit Hours:** 3.0
ENGL 4300 - Introduction to the Study of Language **Credit Hours:** 3.0
ENGL 4303 - Teaching English as a Second Language **Credit Hours:** 3.0
ENGL 4304 - Varieties of English **Credit Hours:** 3.0
ENGL 4310 - History of the English Language **Credit Hours:** 3.0
ENGL 4311 - Language Socialization **Credit Hours:** 3.0
ENGL 4315 - Sociolinguistics **Credit Hours:** 3.0
ENGL 4322 - Grammar and Usage **Credit Hours:** 3.0
ENGL 4340 - Feminist Criticism and Theory **Credit Hours:** 3.0
ENGL 4341 - Queer Theory **Credit Hours:** 3.0
ENGL 4342 - Gender and Writing **Credit Hours:** 3.0
ENGL 4366 - Introduction to Folklore **Credit Hours:** 3.0
ENGL 4367 - Documenting Community Culture **Credit Hours:** 3.0
ENGL 4371 - Literature and Medicine **Credit Hours:** 3.0
ENGL 4372 - Literature and the Environment **Credit Hours:** 3.0
ENGL 4373 - Film, Text, and Politics **Credit Hours:** 3.0

7. Three Hours of Senior Experience

(To be taken within the final three semesters at the senior rank). The following courses allow for the meeting of this 3-hour research-intensive seminar requirement:

ENGL 4319 - English in the Secondary Schools **Credit Hours:** 3.0
ENGL 4390 - Professional Internship **Credit Hours:** 3.0
ENGL 4391 - Senior Seminar: Advanced Community Engagement **Credit Hours:** 3.0
ENGL 4396 - Senior Experience Seminar Topics **Credit Hours:** 3.0
ENGL 4399 - Senior Honors Thesis **Credit Hours:** 3.0 (See note below.)
3 hours advanced community engagement or service-learning course
3 hours advanced Study Abroad course

8. Nine Hours of Electives in English

2000-, 3000-, or 4000-level

- No more than three credits can be in lower-division courses (2000-level)
- No more than six credits may come from the following Creative Writing courses:

ENGL 3330 - Beginning Creative Writing: Fiction **Credit Hours:** 3
ENGL 3331 - Beginning Creative Writing: Poetry **Credit Hours:** 3.0
ENGL 3332 - Beginning Creative Writing: Nonfiction **Credit Hours:** 3.0

ENGL 3399 cannot count toward this requirement.

Total Hours: 36.0

Note(s):

Students in the Literature Concentration may be permitted to write a senior honors thesis. In order to pursue a senior honors thesis, a student must have a minimum GPA of 3.5 in the major in addition to the thesis requirements set by the Honors College. In the spring of a student's junior year, she/he must identify a thesis advisor and submit a "Senior Honors Thesis Verification of Eligibility Form" to the English Director of Upper Division.
Studies. During a student’s senior year, she/he will enroll in ENGL 3399 and ENGL 4399. Both courses must be completed in order for credit to be earned. The thesis committee ultimately determines appropriate and sufficient length and quality.

Students must complete at least 15 hours in all courses in the major in residence at the University of Houston. 12 hours of the advanced courses in the English major must be in residence at the University of Houston. Students must complete a minimum of 30 credit hours of advanced courses in the English major.

Concentration in Creative Writing

Students majoring in English with a concentration in creative writing must complete all university and college requirements for the Bachelor of Arts degree. Students seeking to concentrate in Creative Writing must apply for admission into the Concentration. Application to the Concentration in Creative Writing requires the submission of a portfolio. Blind review of portfolios occurs once each semester. Students who are not admitted into the Concentration may reapply the following semester. Before enrolling in advanced courses in English, students must complete the six-hour university Core requirement in Communication (ENGL 1303 and ENGL 1304 or equivalents) and (or be concurrently enrolled in) MATH 1310 or MATH 1311. Only six hours of 2000 level courses in English may be applied toward the major. After completing those six hours, students should complete ENGL 3331, then advance to either ENGL 3330 or ENGL 3332 to complete the required 3000-level Creative Writing courses. 4000-level creative writing courses are open only to students who have been admitted to the Concentration in Creative Writing. In addition to the university and college requirements for the Bachelor of Arts degree, majors seeking a concentration in creative writing will take forty-two hours in English of which 36 advanced hours (3000- and 4000-level courses) are to be completed for the major to include:

1. Three hours of Lower-Division English
   - Any 2000-level course

2. Six Hours in British Literature
   Of which three must be before 1798

   - ENGL 3302 - Medieval Literature **Credit Hours: 3.0**
   - ENGL 3304 - Chaucer **Credit Hours: 3.0**
   - ENGL 3305 - English Renaissance **Credit Hours: 3.0**
   - ENGL 3306 - Shakespeare: The Major Works **Credit Hours: 3.0**
   - ENGL 3309 - Renaissance Drama **Credit Hours: 3.0**
   - ENGL 3312 - Literature of Restoration and Eighteenth Century Literature **Credit Hours: 3.0**
   - ENGL 3313 - Restoration and Eighteenth Century Drama **Credit Hours: 3.0**
   - ENGL 3317 - The British Novel Before 1832 **Credit Hours: 3.0**
   - ENGL 3327 - Masterpieces of British Literature to the Eighteenth Century **Credit Hours: 3.0**

   And three hours in any British literature
   - 3000- or 4000-level

3. Six Hours in American Literature
   Of which three must before 1900

   - ENGL 3348 - Thoreau **Credit Hours: 3.0**
ENGL 3349 - Native American Literature  
Credit Hours: 3.0
ENGL 3350 - American Literature to 1865  
Credit Hours: 3.0
ENGL 3352 - Nineteenth-Century American Fiction  
Credit Hours: 3.0

And Three Hours in Any American Literature

3000- or 4000-level

4. Three Hours in Global Literature Selected from Among the Following Courses:

ENGL 3322 - Contemporary Novel  
Credit Hours: 3.0
ENGL 3345 - Nobel Prize Winners in Literature  
Credit Hours: 3.0
ENGL 3358 - Hong Kong Cinema  
Credit Hours: 3.0
ENGL 3365 - Postcolonial Literature  
Credit Hours: 3.0
ENGL 3369 - Caribbean Literatures  
Credit Hours: 3.0
ENGL 3379 - African Literature  
Credit Hours: 3.0
ENGL 3380 - Modern Indian Literature  
Credit Hours: 3.0
ENGL 4394 - Topics in the Historical Novel  
Credit Hours: 3.0

5. Three Hours in Literature since 1950 Selected from Among the Following Courses:

ENGL 3322 - Contemporary Novel  
Credit Hours: 3.0
ENGL 3354 - Contemporary American Fiction  
Credit Hours: 3.0
ENGL 3360 - Survey of African American Literature  
Credit Hours: 3.0
ENGL 3361 - Mexican American Literature  
Credit Hours: 3.0
ENGL 3363 - Masterpieces of African American Fiction  
Credit Hours: 3.0
ENGL 3364 - African American Poetry and Drama  
Credit Hours: 3.0
ENGL 3365 - Postcolonial Literature  
Credit Hours: 3.0
ENGL 3366 - Jewish-American Literature  
Credit Hours: 3.0
ENGL 3367 - Gay and Lesbian Literature  
Credit Hours: 3.0
ENGL 3371 - Contemporary Irish Literature  
Credit Hours: 3.0
ENGL 4364 - Minorities in Literature  
Credit Hours: 3.0
ENGL 4371 - Literature and Medicine  
Credit Hours: 3.0
ENGL 4372 - Literature and the Environment  
Credit Hours: 3.0

6. Three Hours in Lower-Division or Advanced English

2000-, 3000-, or 4000-level courses excluding creative writing courses.
Note: ENGL 3399 cannot count toward this requirement.

7. Eighteen Hours in Creative Writing Courses, to Include:

a. Three Hours in:

ENGL 3331 - Beginning Creative Writing: Poetry  
Credit Hours: 3.0

b. Three Hours in:
ENGL 3330 - Beginning Creative Writing: Fiction Credit Hours: 3 OR
ENGL 3332 - Beginning Creative Writing: Nonfiction Credit Hours: 3.0

c. Six Hours Selected from Among the Following Courses:

ENGL 4353 - Fiction Forms Credit Hours: 3.0
ENGL 4354 - Poetic Forms Credit Hours: 3.0
ENGL 4357 - Nonfiction Forms Credit Hours: 3.0

d. Three Additional Hours of:

advanced Creative Writing

e. Three Hours Selected from Among the Following Courses:

ENGL 4355 - Senior Writing Projects in Creative Writing: Fiction Credit Hours: 3.0
ENGL 4356 - Senior Writing Projects in Creative Writing: Fiction Credit Hours: 3.0
ENGL 4358 - Senior Writing Projects in Creative Writing: Nonfiction Credit Hours: 3.0

(Senior Experience course to be completed within the final three semesters at the senior rank. Prerequisites for these courses will be the forms courses, ENGL 4353 or ENGL 4354 or ENGL 4357.)

Total Hours: 42.0

Note(s):

In order to graduate with a major in English with a Concentration in Creative Writing, the student must have a minimum overall average of B (3.00) in creative writing courses.

Students in the Creative Writing Concentration may be permitted to write a senior honors thesis. Students who affiliate with the Honors College and complete a senior honors thesis receive the honors designation with Honors College and complete a senior honors thesis receive the honors designation with Honors in English in addition to their Honors College designation (University Honors, Collegiate Honors, or Membership in the Honors College). In order to pursue a senior honors thesis in creative writing, the student must have a minimum GPA of 3.5 in the major in addition to the thesis requirements set by the Honors College. He or she must submit a preliminary manuscript of 10 pages of poetry or 20 pages of prose to a creative writing faculty member for review. If the manuscript is accepted, that faculty member will serve as the student's thesis advisor, and the student will register for ENGL 3399 and ENGL 4399. Both courses must be completed in order for credit to be earned. The student must complete, with a grade of B+ or better, the creative writing thesis, a manuscript of approximately 40 pages of poetry or 80 pages of prose. The thesis committee ultimately determines appropriate and sufficient length and quality.

Students must complete at least 15 hours in all courses in the major in residence at the University of Houston. 12 hours of the advanced courses in the English major must be in residence at the University of Houston. Students must complete a minimum of 36 credit hours of advanced courses in the English major.

Concentration in Applied Linguistics

Students majoring in English with a concentration in Applied Linguistics must complete all university and college requirements for the Bachelor of Arts Degree. Before enrolling in advanced courses in English, students must complete the six-hour University Core requirement in Communication (ENGL 1303 and ENGL 1304 or equivalents) and (or be currently enrolled in) MATH 1310 or MATH 1311. Only six hours of 2000 level courses in English may be applied toward the major. In addition to the university and college requirements for the Bachelor of Arts degree, majors
seeking a concentration in Applied Linguistics will take thirty-three semester hours in English of which twenty-seven advanced (3000- and 4000-level courses) are required for the major, to include:

1. Six Hours of Lower-Division English (2000-level)

Lower-division courses (2000-level) related to the study of language in other departments, including the study of foreign languages, may be used if approved by the department.

2. Three Hours in Global Literature Selected from Among the Following Courses:

Three hours in Global Literature:

ENGL 3322 - Contemporary Novel  Credit Hours: 3.0
ENGL 3345 - Nobel Prize Winners in Literature  Credit Hours: 3.0
ENGL 3358 - Hong Kong Cinema  Credit Hours: 3.0
ENGL 3365 - Postcolonial Literature  Credit Hours: 3.0
ENGL 3369 - Caribbean Literatures  Credit Hours: 3.0
ENGL 3379 - African Literature  Credit Hours: 3.0
ENGL 3380 - Modern Indian Literature  Credit Hours: 3.0
ENGL 4394 - Topics in the Historical Novel  Credit Hours: 3.0

3. Three Hours in Study of Language

ENGL 4300 - Introduction to the Study of Language  Credit Hours: 3.0

4. Three Hours in Sociolinguistics

ENGL 4315 - Sociolinguistics  Credit Hours: 3.0

5. Nine Hours (3000-or 4000-level) in Applied Linguistics Selected from Among the Following Courses:

ENGL 4303 - Teaching English as a Second Language  Credit Hours: 3.0
ENGL 4310 - History of the English Language  Credit Hours: 3.0
ENGL 4322 - Grammar and Usage  Credit Hours: 3.0
ENGL 4304 - Varieties of English  Credit Hours: 3.0
ENGL 4311 - Language Socialization  Credit Hours: 3.0

6. Three Hours in Theory, Methods, and Cultural Production

ENGL 3323 - Development of Literary Criticism and Theory  Credit Hours: 3.0
ENGL 3324 - The Development of the Novel  Credit Hours: 3.0
ENGL 3325 - Structures of Poetry  Credit Hours: 3.0
ENGL 3340 - Advanced Composition  Credit Hours: 3.0
ENGL 3341 - Business and Professional Writing  Credit Hours: 3.0
ENGL 4340 - Feminist Criticism and Theory  Credit Hours: 3.0
ENGL 4341 - Queer Theory  Credit Hours: 3.0
ENGL 4366 - Introduction to Folklore  Credit Hours: 3.0
ENGL 4367 - Documenting Community Culture  
**Credit Hours:** 3.0

ENGL 4371 - Literature and Medicine  
**Credit Hours:** 3.0

ENGL 4372 - Literature and the Environment  
**Credit Hours:** 3.0

ENGL 4373 - Film, Text, and Politics  
**Credit Hours:** 3.0

and courses in Composition, Folklore, Theory, and Linguistics

7. Three Hours (3000-or 4000-level) in Approved Elective with Linguistics Content:

Any 3000-4000 linguistics course. Courses from other departments with linguistics content may be used if approved by department.

8. Three Hours of Senior Experience

(To be taken within the final three semesters at the senior rank). The following courses allow for the meeting of this 3 hour research-intensive seminar requirement:

ENGL 4319 - English in the Secondary Schools  
**Credit Hours:** 3.0

ENGL 4390 - Professional Internship  
**Credit Hours:** 3.0

ENGL 4391 - Senior Seminar: Advanced Community Engagement  
**Credit Hours:** 3.0

ENGL 4396 - Senior Experience Seminar Topics  
**Credit Hours:** 3.0

ENGL 4398 - Independent Study  
**Credit Hours:** 1.0

ENGL 4399 - Senior Honors Thesis  
**Credit Hours:** 3.0 (See below note.)

3 hours advanced community engagement or service learning course

3 hours advanced Study Abroad course

**Total Hours:** 33.0

**Note(s):**

Students in the Applied Linguistics Concentration may be permitted to satisfy the "Senior Experience" requirement by writing a senior honors thesis. Choosing this option will bring the total concentration to 36 total credit hours. In order to pursue a senior honors thesis, a student must have a minimum GPA of 3.5 in the major in addition to the thesis requirements set by the Honors College. In the spring of a student’s junior year, she/he must identify a thesis advisor and submit a "Senior Honors Thesis Verification of Eligibility Form" to the English Director of Upper Division Studies. During a student’s senior year, she/he will enroll in ENGL 3399 and ENGL 4399. Both courses must be completed in order for credit to be earned. The thesis committee ultimately determines appropriate and sufficient length and quality.

Certain course offerings in other departments may be petitioned to replace similar categories/courses above: SPAN 3306 (for Category 2), SEDE 4314 (for ENGL 4303), Category 6 can be chosen from: AAS 3340, COMD 2338, COMD 2339, CUIN 4303; various courses in MCL and Spanish: SPAN 3305, SPAN 4355, SPAN 4356, SPAN 4357, SPAN 4365, SPAN 4367, and courses on the following list: http://www.uh.edu/class/linguistics/courses/; courses outside of CLASS may also be considered. Students must complete at least 15 hours in all courses in the major in residence at the University of Houston. 12 hours of the advanced courses in the English major must be in residence at the University of Houston. Students must complete a minimum of 27 credit hours of advanced courses in the English major.

**Minor**

**English Applied Linguistics Minor**
An English minor in Applied Linguistics consists of 18 semester hours of English courses at the 3000- and 4000-level. Please see required courses below. Before enrolling in advanced courses in English, students must complete the six hour university Core requirement in Communication (ENGL 1303 and ENGL 1304 or equivalents) and ENGL 1310 or equivalent. At least nine of the advanced semester hours must be completed in residence. A 2.00 minimum grade point average is required in all courses attempted at the university in the minor field excluding the required freshman courses. Courses to be applied to the minor must be approved by the department.

Applied Linguistics Requirements

Credit hours required for this minor: 18.0

Introduction to the Study of Language

3.0 Credit Hours

ENGL 4300 - Introduction to the Study of Language

Credit Hours: 3.0

Sociolinguistics

3.0 Credit Hours

ENGL 4315 - Sociolinguistics

Credit Hours: 3.0

Two courses from among the following:

6.0 Credit Hours

ENGL 4322 - Grammar and Usage

Credit Hours: 3.0

ENGL 4310 - History of the English Language

Credit Hours: 3.0

ENGL 4303 - Teaching English as a Second Language

Credit Hours: 3.0

ENGL 4391 - Senior Seminar: Advanced Community Engagement

Credit Hours: 3.0

ENGL 3396 - Selected Topics in English

Credit Hours: 3.0

ENGL 4311 - Language Socialization

Credit Hours: 3.0

or

ENGL 4304 - Varieties of English

Credit Hours: 3.0

Elective courses at the 3000 or 4000 level

6.0 Credit Hours

Two approved 3000- or 4000-level electives related to the study of language from English, Rhetoric, Composition, and Pedagogy (RCP), Modern and Classical Languages (MCL), Spanish, and/or Communication Sciences & Disorders (classes may be taken in any language as available).

Note

In order to receive concentration credit for ENGL 4391 and/or ENGL 3396 the course(s) content must focus on linguistics.

English Creative Writing Minor
A minor in English Creative Writing consists of 18 semester credit hours. Students may focus on poetry, fiction, or nonfiction. Portfolio admission is required before students can enroll in 4000-level Creative Writing courses. Students submit portfolios after the completion of ENGL 3331 and while enrolled in at least one of the following courses: ENGL 2318, ENGL 3330, or ENGL 3332. Students can transfer in 3 hours of credit for a creative writing course taken at the second-year level or beyond; the transfer course must include a workshop element. Courses to be applied to the minor must be approved by the department.

Creative Writing Minor Requirements

**Credit hours required for this minor: 18.0**

**Beginning Creative Writing**

**3.0 Credit Hours**

It is suggested that students take this course within the first six hours of advanced English.

ENGL 3331 - Beginning Creative Writing: Poetry  
Credit Hours: 3.0

**Creative Writing Courses at the 2000 and/or 3000 Level**

**6.0 Credit Hours**

Two Creative Writing courses at the 2000 and/or 3000 level selected from among the following:

ENGL 3330 - Beginning Creative Writing: Fiction  
Credit Hours: 3
ENGL 3332 - Beginning Creative Writing: Nonfiction  
Credit Hours: 3.0
ENGL 2318 - Creation and Performance of Literature  
Credit Hours: 3.0

**Literature Course at the 3000 or 4000 Level**

**3.0 Credit Hours**

One literature course at the 3000 or 4000 level that expands the student's understanding of literary traditions. Students may choose from the below options, but choices are not limited to this list. Courses outside this list may be approved by petition to the Director of Upper Division Studies and in consultation with an English advisor.

ENGL 3324 - The Development of the Novel  
Credit Hours: 3.0
ENGL 3325 - Structures of Poetry  
Credit Hours: 3.0
ENGL 3328 - Masterpieces of British Literature from the Eighteenth Century  
Credit Hours: 3
ENGL 3351 - American Literature Since 1865  
Credit Hours: 3.0
ENGL 3354 - Contemporary American Fiction  
Credit Hours: 3.0
ENGL 4332 - Modern and Contemporary Poetry  
Credit Hours: 3.0
Any ENGL 3000- or 4000-level course approved by petition

**Creative Writing Courses at the 4000 Level**

**6.0 Credit Hours**
Two Creative Writing courses at the 4000 level taken only AFTER the 3000 level course requirements and the literature requirement have been satisfied, as well as successful admission by portfolio. Choose from fiction, poetry, or nonfiction.

- ENGL 4350 - Short Story Writing  
  Credit Hours: 3.0
- ENGL 4351 - Poetry Writing  
  Credit Hours: 3.0
- ENGL 4352 - Nonfiction Writing  
  Credit Hours: 3.0
- ENGL 4355 - Senior Writing Projects in Creative Writing: Fiction  
  Credit Hours: 3.0
- ENGL 4356 - Senior Writing Projects in Creative Writing: Fiction  
  Credit Hours: 3.0
- ENGL 4353 - Fiction Forms  
  Credit Hours: 3.0
- ENGL 4354 - Poetic Forms  
  Credit Hours: 3.0
- ENGL 4358 - Senior Writing Projects in Creative Writing: Nonfiction  
  Credit Hours: 3.0
- ENGL 4357 - Nonfiction Forms  
  Credit Hours: 3.0

English Minor

College of Liberal Arts & Social Sciences > Department of English > English Minor

A minor in English consists of 15 semester hours of English above the 1000-level with at least 12 at the 3000- and 4000-level. At least nine of the advanced semester hours must be completed in residence. A 2.00 minimum grade point average is required in all courses attempted at the university in the minor field excluding the required freshman courses. Courses to be applied to the minor must be approved by the department.

Geography

Overview

The college offers courses in geography, which students may take to fulfill core requirements in social and behavioral sciences and for teacher certification programs. These courses are administered by the Office of the Dean.

Department of Health and Human Performance

Beginning fall 2010 term, all Health degrees (HLT) remain in the College of Education. If you are a current or prospective Health student please contact an advisor in the College of Education. All other Health and Human performance (HHP) degrees will continue to be offered through HHP which is now administratively located in the College of Liberal Arts and Social Sciences. Please contact HHP academic advisors if you are a current or prospective HHP student at http://hhp.uh.edu/advising.

Who's Who

Chair: Charles S. "Chuck" Layne

Professors:

Mark Hamilton, Charles S. Layne, William Paloski

Associate Professors:
Lisa Alastuey (Clinical), Sharon Bode (Clinical), Mark Clarke, Jon Gray (Instructional), Daniel P. O’Connor, Demetrius Pearson, Richard Simpson, Adam Thrasher

Assistant Professors:

Whitney Breslin (Visiting), Michael Cottingham, Stacy Gorniak, Kevin Haubrick (Clinical), Daphne Hernandez, Craig Johnson, Mark Knoblach, Mitzi Laughlin (Research), Emily LaVoy, Tracey Ledoux, Beom Chan-Lee, Dong Hun Lee, Thomas Lowder, Melissa Markofski, Kristen McAlexander (Instructional), Pranav Parikh, Yoonjung Park, Claudia Scott (Clinical), David Walsh (Clinical), Josh Yellen (Clinical)

Lecturers:

Carla Ferrell, Ann Svendsen-Sanchez

Physical Education Fees

Students enrolling (registering) for physical education courses in which one semester hour credit is received must pay $35 each term.

Students will be provided with a clean towel and clean gym uniform (except shoes) for each class and for any other time when they participate in physical education activities while attending the university.

Degree Programs

The Department of Health and Human Performance offers B.S. degrees in Kinesiology (Exercise Science, Fitness and Sports, and Sports Administration) and Human Nutrition and Foods (with and without ACEND Accreditation).

Admissions Requirement

In order to become a major in any of the degree programs offered in the Department of Health and Human Performance, UH students who have completed 15-60 hours of college level work at UH or other schools must have a minimum 2.30 cumulative GPA on all college course work.

University of Houston students who have completed 60 or more semester hours of college level work at either UH or other schools must have a minimum 2.30 cumulative GPA in the last 60 semester hours to enter one of the Department’s degree programs.

The computation of the GPA over the last 60 semester hours will include all grades for the term in which the 60th hour occurs.

Students on probation or suspension are not eligible to enter one of the Department’s degree programs.

Major

Exercise Science, B.S.

Academic Foundations

ENGL 1303 - First Year Writing | Credit Hours: 3.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0
MATH 1310 - College Algebra Credit Hours: 3.0
MATH 1330 - Precalculus Credit Hours: 3.0
MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0 OR
PSYC 3301 - Introduction to Psychological Statistics Credit Hours: 3.0
Mathematics/Reasoning: Approved Core Courses Credit Hours: 3.0
HIST 1377 - The U S To 1877 Credit Hours: 3.0
HIST 1378 - The U S Since 1877 Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
Creative Arts: Approved Core Courses Credit Hours: 3.0
BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
KIN 1304 - Public Health Issues in Physical Activity and Obesity Credit Hours: 3.0
Writing in the Disciplines: Approved Core Courses Credit Hours: 3.0

Kinesiology Core

KIN 1352 - Foundations of Kinesiology, Health, and Fitness Credit Hours: 3.0
KIN 3304 - Human Structure and Function Credit Hours: 3.0
KIN 3305 - Sociological and Cultural Aspects of Kinesiology and Sport Credit Hours: 3.0
KIN 3306 - Physiology of Human Performance Credit Hours: 3.0
KIN 3309 - Biomechanics Credit Hours: 3.0
KIN 3350 - Psychological Aspects of Sports and Exercise Credit Hours: 3.0
KIN 4310 - Measurement Techniques in Human Performance Credit Hours: 3.0
KIN 4315 - Motor Learning and Control Credit Hours: 3.0
KIN 4370 - Exercise Testing Credit Hours: 3.0
NUTR 2332 - Introduction To Human Nutrition Credit Hours: 3.0
Approved HHP Advanced Elective Credit Hours: 3.0
Approved HHP Advanced Elective Credit Hours: 3.0
Approved HHP Advanced Elective Credit Hours: 3.0

Exercise Science Primary Option

CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0 OR
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
PHYS 1301 - Introductory General Physics I Credit Hours: 3.0 OR
PHYS 1302 - Introductory General Physics II Credit Hours: 3.0
Approved Minor Credit Hours: 15-18
General Elective Credit Hours: 9-12

Exercise Science - Health Professions Option

BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0
BIOL 1334 - Human Anatomy and Physiology I Credit Hours: 3.0
BIOL 1134 - Human Anatomy and Physiology Laboratory I Credit Hours: 1.0

Students must meet the general degree requirements for the Bachelor of Science degree, including the formal science requirement.
BIOL 1344 - Human Anatomy and Physiology 2  **Credit Hours: 3.0**
BIOL 1144 - Hum Anat Physiol Lab II  **Credit Hours: 1.0**
CHEM 1331 - Fundamentals of Chemistry  **Credit Hours: 3.0**
CHEM 1111 - Fundamentals of Chemistry Laboratory  **Credit Hours: 1.0**
CHEM 1332 - Fundamentals of Chemistry 2  **Credit Hours: 3.0**
CHEM 1112 - Fundamentals of Chemistry Laboratory  **Credit Hours: 1.0**
PHYS 1301 - Introductory General Physics I  **Credit Hours: 3.0**
PHYS 1101 - General Physics Laboratory I  **Credit Hours: 1.0**
PHYS 1302 - Introductory General Physics II  **Credit Hours: 3.0**
PHYS 1102 - General Physics Laboratory II  **Credit Hours: 1.0**

**General Electives  **Credit Hours 7.0

Students must meet the general degree requirements for the Bachelor of Science degree, including the formal science requirement.

**Other Requirements**

Students must meet the general degree requirements for the Bachelor of Science degree, including the formal science requirement.

**Earned Grade Requirements for Kinesiology Courses:** Students receive 2 attempts to complete all prerequisite courses with a C- or better; failure to do so will result in ineligibility to graduate in the major.

**Fitness and Sports, B.S.**

**Academic Foundations**

ENGL 1303 - First Year Writing I  **Credit Hours: 3.0**
ENGL 1304 - First Year Writing II  **Credit Hours: 3.0**
MATH 1310 - College Algebra  **Credit Hours: 3.0**
HIST 1377 - The U S To 1877  **Credit Hours: 3.0**
HIST 1378 - The U S Since 1877  **Credit Hours: 3.0**
POLS 1336 - U.S. and Texas Constitution and Politics  **Credit Hours: 3.0**
POLS 1337 - U.S. Government: Congress, President, and Courts  **Credit Hours: 3.0**
KIN 1304 - Public Health Issues in Physical Activity and Obesity  **Credit Hours: 3.0**

Creative Arts: Approved Core Courses  **Credit Hours: 3.0**
Language, Philosophy & Culture: Approved Core Courses  **Credit Hours: 3.0**
Mathematics/Reasoning: Approved Core Courses  **Credit Hours: 3.0**
Writing in the Disciplines: Approved Core Courses  **Credit Hours: 3.0**

BIOL 1310 - General Biology 1  **Credit Hours: 3.0**  OR
BIOL 1361 - Introduction to Biological Science 1  **Credit Hours: 3.0**

BIOL 1320 - General Biology 2  **Credit Hours: 3.0**  OR
BIOL 1362 - Introduction to Biological Science 2  **Credit Hours: 3.0**

MATH 2311 - Introduction to Probability and Statistics  **Credit Hours: 3.0**  OR
PSYC 3301 - Introduction to Psychological Statistics  **Credit Hours: 3.0**

**Kinesiology Core**

KIN 1352 - Foundations of Kinesiology, Health, and Fitness  **Credit Hours: 3.0**
KIN 3304 - Human Structure and Function Credit Hours: 3.0
KIN 3305 - Sociological and Cultural Aspects of Kinesiology and Sport Credit Hours: 3.0
KIN 3306 - Physiology of Human Performance Credit Hours: 3.0
KIN 3309 - Biomechanics Credit Hours: 3.0
KIN 3350 - Psychological Aspects of Sports and Exercise Credit Hours: 3.0
KIN 4310 - Measurement Techniques in Human Performance Credit Hours: 3.0
KIN 4315 - Motor Learning and Control Credit Hours: 3.0
KIN 4370 - Exercise Testing Credit Hours: 3.0
NUTR 2332 - Introduction To Human Nutrition Credit Hours: 3.0

Fitness and Sports Core

KIN 3301 - Design and Evaluation of Physical Activity Programs Credit Hours: 3.0
KIN 4300 - Physical Activity in Older Adults Credit Hours: 3.0
KIN 4301 - Workplace Wellness Credit Hours: 3.0
KIN 4302 - Fitness and Human Sexuality Credit Hours: 3
KIN 4330 - Child and Adolescent Obesity Credit Hours: 3
KIN 4355 - Administration of Sport and Physical Activity Credit Hours: 3.0

NUTR 4351 - Gerontology and Nutrition Credit Hours: 3.0 OR
NUTR 4352 - Child and Adolescent Nutrition Credit Hours: 3.0

HHP Electives

Choose any KIN or NUTR 3000- or 4000- level course for which the student meets the prerequisite(s).
May include up to two hours of different PEB Activity courses.

Other Requirements

Electives Credit Hours: 12.0
Students must meet the general degree requirements for the Bachelor of Science degree, including the formal science requirement.
Earned Grade Requirements for Kinesiology Courses: Students receive 2 attempts to complete all prerequisite courses with a C- or better; failure to do so will result in ineligibility to graduate in the major.

Human Nutrition and Foods (ACEND Accredited Track), B.S.

The A.C.E.N.D. - Accredited Track of the Human Nutrition and Foods program at The University of Houston is currently accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of The Academy of Nutrition and Dietetics (A.N.D.), 120 South Riverside Plaza, Suite 2000, Chicago, Illinois 60606-6995 (Phone: 800/877-1600). Upon completion of this degree, also called the Didactic Program in Dietetics, students are eligible to apply for entry into a supervised practice program which will make them eligible to take the Registration Examination for dietitians. At the undergraduate level, this degree emphasizes the knowledge and skills essential for competent entry-level dietetics practice.

All students wishing to gain admittance to the accredited dietetics track (ACEND) will have to apply for admission upon reaching Junior status and a cumulative Grade Point Average of 3.0.

Academic Foundations (50 Credit Hours)
ENGL 1303 - First Year Writing I  
**Credit Hours:** 3.0

ENGL 1304 - First Year Writing II  
**Credit Hours:** 3.0

MATH 1310 - College Algebra  
**Credit Hours:** 3.0

MATH 2311 - Introduction to Probability and Statistics  
**Credit Hours:** 3.0 or

PSYC 3301 - Introduction to Psychological Statistics  
**Credit Hours:** 3.0

MATH 1330 - Precalculus  
**Credit Hours:** 3.0

Mathematics/Reasoning: Approved Core Courses  
**Credit Hours:** 3.0

HIST 1377 - The U.S. To 1877  
**Credit Hours:** 3.0

HIST 1378 - The U.S. Since 1877  
**Credit Hours:** 3.0

POLS 1336 - U.S. and Texas Constitution and Politics  
**Credit Hours:** 3.0

POLS 1337 - U.S. Government: Congress, President, and Courts  
**Credit Hours:** 3.0

Language, Philosophy & Culture: Approved Core Courses  
**Credit Hours:** 3.0

Creative Arts: Approved Core Courses  
**Credit Hours:** 3.0

CHEM 1111 - Fundamentals of Chemistry Laboratory  
**Credit Hours:** 1.0

CHEM 1331 - Fundamentals of Chemistry  
**Credit Hours:** 3.0

CHEM 1112 - Fundamentals of Chemistry Laboratory  
**Credit Hours:** 1.0

CHEM 1332 - Fundamentals of Chemistry 2  
**Credit Hours:** 3.0

KIN 1304 - Public Health Issues in Physical Activity and Obesity  
**Credit Hours:** 3.0

Writing in the Disciplines: Approved Core Courses  
**Credit Hours:** 3.0

**Major Requirements (70 Credit Hours)**

BCHS 3304 - General Biochemistry I  
**Credit Hours:** 3.0 or

BCHS 3307 - Biochemistry for Nutrition Majors  
**Credit Hours:** 3.0

BIOL 1134 - Human Anatomy and Physiology Laboratory I  
**Credit Hours:** 1.0

BIOL 1334 - Human Anatomy and Physiology I  
**Credit Hours:** 3.0

BIOL 1144 - Hum Anat Physiol Lab II  
**Credit Hours:** 1.0

BIOL 1344 - Human Anatomy and Physiology 2  
**Credit Hours:** 3.0

BIOL 1153 - Pre-Nursing Microbiology Laboratory  
**Credit Hours:** 1.0

BIOL 1353 - Prenursing Microbiology  
**Credit Hours:** 3.0

CHEM 3221 - Fundamentals of Organic Chemistry Laboratory  
**Credit Hours:** 2.0

CHEM 3331 - Fundamentals of Organic Chemistry  
**Credit Hours:** 3.0

NUTR 2133 - Commercial Food Production I Lab  
**Credit Hours:** 1.0

NUTR 2332 - Introduction To Human Nutrition  
**Credit Hours:** 3.0

NUTR 2333 - Commercial Food Production I  
**Credit Hours:** 3.0

NUTR 3101 - Dietetics as a Profession  
**Credit Hours:** 1.0

NUTR 3330 - Management in Food and Nutrition Systems  
**Credit Hours:** 3.0

NUTR 3334 - Advanced Nutrition  
**Credit Hours:** 3.0

NUTR 3336 - Nutritional Pathophysiology  
**Credit Hours:** 3.0

NUTR 4201 - Dietetics as a Profession II  
**Credit Hours:** 2.0

NUTR 4312 - Nutrition Assessment & Planning  
**Credit Hours:** 3.0

NUTR 4333 - Medical Nutrition Therapy - Cardiovascular  
**Credit Hours:** 3.0

NUTR 4334 - Community Nutrition  
**Credit Hours:** 3.0

NUTR 4346 - Research in Nutrition  
**Credit Hours:** 3.0

NUTR 4347 - Medical Nutrition Therapy - Metabolic  
**Credit Hours:** 3.0

NUTR 4348 - Introduction to Nutritional Counseling  
**Credit Hours:** 3.0

NUTR 4349 - Public Policy in Nutrition  
**Credit Hours:** 3.0
NUTR 4351 - Gerontology and Nutrition Credit Hours: 3.0
NUTR 4352 - Child and Adolescent Nutrition Credit Hours: 3.0
NUTR 4353 - Cultural Competency for Nutrition Professionals Credit Hours: 3.0
General Elective one credit hour course

Human Nutrition and Foods (Nutrition and Fitness Track), B.S.

The B.S. in Human Nutrition and Foods (Nutrition and Fitness Track) is a professional degree designed to provide a solid foundation in the science of nutrition and a comprehensive understanding of fitness and wellness across the lifespan and in diverse settings.

The B.S. in Human Nutrition and Foods Nutrition and Fitness Track) is not a pathway to becoming a Registered Dietitian (RD). Students wishing to pursue the RD credential must complete the B.S. in Human Nutrition and Foods (ACEND Accredited Track).

Academic Foundations

ENGL 1303 - First Year Writing I Credit Hours: 3.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0
MATH 1310 - College Algebra Credit Hours: 3.0

MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0 or
PSYC 3301 - Introduction to Psychological Statistics Credit Hours: 3.0

MATH 1330 - Precalculus Credit Hours: 3.0
Mathematics/Reasoning: Approved Core Courses Credit Hours: 3.0
HIST 1377 - The U S To 1877 Credit Hours: 3.0
HIST 1378 - The U S Since 1877 Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
Creative Arts: Approved Core Courses Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
KIN 1304 - Public Health Issues in Physical Activity and Obesity Credit Hours: 3.0
Writing in the Disciplines: Approved Core Courses Credit Hours: 3.0

Major Requirements

BIOL 1334 - Human Anatomy and Physiology 1 Credit Hours: 3.0
BIOL 1134 - Human Anatomy and Physiology Laboratory I Credit Hours: 1.0
BIOL 1344 - Human Anatomy and Physiology 2 Credit Hours: 3.0
BIOL 1144 - Hum Anat Physiol Lab II Credit Hours: 1.0
BIOL 1353 - Prenursing Microbiology Credit Hours: 3.0
BIOL 1153 - Pre-Nursing Microbiology Laboratory Credit Hours: 1.0
General elective one credit hour course
NUTR 2332 - Introduction To Human Nutrition Credit Hours: 3.0
NUTR 3334 - Advanced Nutrition Credit Hours: 3.0
NUTR 3336 - Nutritional Pathophysiology Credit Hours: 3.0
NUTR 4334 - Community Nutrition Credit Hours: 3.0
NUTR 4345 - The Obesity Epidemic Credit Hours: 3.0
NUTR 4349 - Public Policy in Nutrition Credit Hours: 3.0
KIN 3306 - Physiology of Human Performance Credit Hours: 3.0
KIN 4310 - Measurement Techniques in Human Performance Credit Hours: 3.0

Choose four from the following:
NUTR 4312 - Nutrition Assessment & Planning Credit Hours: 3.0
NUTR 4333 - Medical Nutrition Therapy - Cardiovascular Credit Hours: 3.0
NUTR 4346 - Research in Nutrition Credit Hours: 3.0
NUTR 4347 - Medical Nutrition Therapy - Metabolic Credit Hours: 3.0
NUTR 4351 - Gerontology and Nutrition Credit Hours: 3.0
NUTR 4352 - Child and Adolescent Nutrition Credit Hours: 3.0
NUTR 4353 - Cultural Competency for Nutrition Professionals Credit Hours: 3.0

Choose seven courses from the list below:
KIN 1352 - Foundations of Kinesiology, Health, and Fitness Credit Hours: 3.0
KIN 3301 - Design and Evaluation of Physical Activity Programs Credit Hours: 3.0
KIN 3304 - Human Structure and Function Credit Hours: 3.0
KIN 3305 - Sociological and Cultural Aspects of Kinesiology and Sport Credit Hours: 3.0
KIN 3360 - Professional Preparation for Sport Administration Credit Hours: 3.0
KIN 4300 - Physical Activity in Older Adults Credit Hours: 3.0
KIN 4301 - Workplace Wellness Credit Hours: 3.0
KIN 4355 - Administration of Sport and Physical Activity Credit Hours: 3.0

Human Nutrition and Foods (Nutritional Sciences Track), B.S.

The B.S. in Human Nutrition and Foods (Nutritional Sciences Track) is a degree plan designated to prepare students for post-graduate professional programs in medicine, dental, optometry, pharmacy, and other post-graduate professional programs in the health care arena. Students preparing to apply for professional programs after graduation must complete the degree requirements and prerequisites for the post-graduate health profession of their choice. Students earning a degree in the Nutritional Sciences track will have an in-depth knowledge of the science of nutrition and a solid foundation in applied science.

The B.S. in Human Nutrition and Foods (Nutritional Sciences Track) is not a pathway to becoming a Registered Dietitian (RD). Students wishing to pursue the RD credential must complete the B.S. in Human Nutrition and Foods (ACEND Accredited Track).

All students wishing to gain admittance to the Nutritional Sciences track of the Human Nutrition and Foods B.S. will have to apply for admission upon reaching Junior status and a cumulative Grade Point Average of 3.0.

Academic Foundations

ENGL 1303 - First Year Writing I Credit Hours: 3.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0
MATH 1310 - College Algebra Credit Hours: 3.0

MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0 or
PSYC 3301 - Introduction to Psychological Statistics Credit Hours: 3.0

MATH 1330 - Precalculus Credit Hours: 3.0
Mathematics/Reasoning: Approved Core Courses Credit Hours: 3.0
HIST 1377 - The U.S. To 1877 Credit Hours: 3.0
HIST 1378 - The U.S. Since 1877 Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
Creative Arts: Approved Core Courses Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
KIN 1304 - Public Health Issues in Physical Activity and Obesity Credit Hours: 3.0
Writing in the Disciplines: Approved Core Courses Credit Hours: 3.0

Major Requirements

BCHS 3304 - General Biochemistry I Credit Hours: 3.0 or
BCHS 3307 - Biochemistry for Nutrition Majors Credit Hours: 3.0

Biol 1134 - Human Anatomy and Physiology Laboratory I Credit Hours: 1.0
Biol 1334 - Human Anatomy and Physiology 1 Credit Hours: 3.0
Biol 1144 - Hum Anat Physiol Lab II Credit Hours: 1.0
Biol 1344 - Human Anatomy and Physiology 2 Credit Hours: 3.0
Biol 1153 - Pre-Nursing Microbiology Laboratory Credit Hours: 1.0
Biol 1353 - Prenursing Microbiology Credit Hours: 3.0
Chem 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
Chem 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
Chem 3222 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
Chem 3332 - Fundamentals of Organic Chemistry Credit Hours: 3.0
Kin 3306 - Physiology of Human Performance Credit Hours: 3.0
Kin 4310 - Measurement Techniques in Human Performance Credit Hours: 3.0
Nutr 2332 - Introduction To Human Nutrition Credit Hours: 3.0
Nutr 3334 - Advanced Nutrition Credit Hours: 3.0
Nutr 3336 - Nutritional Pathophysiology Credit Hours: 3.0
Nutr 4312 - Nutrition Assessment & Planning Credit Hours: 3.0
Nutr 4334 - Community Nutrition Credit Hours: 3.0
Nutr 4345 - The Obesity Epidemic Credit Hours: 3.0
General elective one credit hour course
Phys 1101 - General Physics Laboratory I Credit Hours: 1.0
Phys 1301 - Introductory General Physics I Credit Hours: 3.0
Phys 1102 - General Physics Laboratory II Credit Hours: 1.0
Phys 1302 - Introductory General Physics II Credit Hours: 3.0
Choose four courses from the list below:
Nutr 4333 - Medical Nutrition Therapy - Cardiovascular Credit Hours: 3.0
Nutr 4346 - Research in Nutrition Credit Hours: 3.0
Nutr 4347 - Medical Nutrition Therapy - Metabolic Credit Hours: 3.0
Nutr 4351 - Gerontology and Nutrition Credit Hours: 3.0
Nutr 4352 - Child and Adolescent Nutrition Credit Hours: 3.0
Nutr 4353 - Cultural Competency for Nutrition Professionals Credit Hours: 3.0

Sports Administration, BS
Academic Foundations

ENGL 1303 - First Year Writing I Credit Hours: 3.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0
MATH 1310 - College Algebra Credit Hours: 3.0
MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0
Mathematics/Reasoning: Approved Core Courses Credit Hours: 6.0
HIST 1377 - The U S To 1877 Credit Hours: 3.0
HIST 1378 - The U S Since 1877 Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
Language, Philosophy & Culture: Approved Core Courses Credit Hours: 3.0
Creative Arts: Approved Core Courses Credit Hours: 3.0
Life and Physical Sciences: Approved Core Courses Credit Hours: 3.0
KIN 1304 - Public Health Issues in Physical Activity and Obesity Credit Hours: 3.0
Writing in the Disciplines: Approved Core Courses Credit Hours: 3.0

Sports Administration Core

ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
ECON 2304 - Microeconomic Principles Credit Hours: 3.0
KIN 1352 - Foundations of Kinesiology, Health, and Fitness Credit Hours: 3.0
KIN 3303 - Sports Communication Credit Hours: 3.0
KIN 3305 - Sociological and Cultural Aspects of Kinesiology and Sport Credit Hours: 3.0
KIN 3360 - Professional Preparation for Sport Administration Credit Hours: 3.0
KIN 3370 - Sport Facility Management Credit Hours: 3.0
KIN 4190 - Sport Administration Seminar Credit Hours: 1.0
KIN 4340 - Sport Governance Credit Hours: 3.0
KIN 4345 - Economic and Financial Aspects of Sport Credit Hours: 3.0
KIN 4350 - Sport Marketing Credit Hours: 3.0
KIN 4355 - Administration of Sport and Physical Activity Credit Hours: 3.0
KIN 4365 - Legal and Ethical Aspects of Sport Credit Hours: 3.0
KIN 4690 - Internship in Sport Administration 1 Credit Hours: 6.0
KIN 4691 - Internship in Sport Administration 2 Credit Hours: 6.0

Other Requirements

Approved Minor Credit Hours: 15.0 - 18.0
Electives Credit Hours: 6.0
Student must meet the general degree requirements for the Bachelor of Science Degree, including the formal science requirement.
Earned Grade Requirements for Kinesiology Courses: Students receive 2 attempts to complete all prerequisite courses with a C- or better; failure to do so will result in ineligibility to graduate in the major.

Minor

Human Nutrition and Food Studies Minor
Human Nutrition and Food Studies

Required Course:

NUTR 2332 - Introduction To Human Nutrition Credit Hours: 3.0

Choose four from the following:

NUTR 3334 - Advanced Nutrition Credit Hours: 3.0
NUTR 4334 - Community Nutrition Credit Hours: 3.0
NUTR 4349 - Public Policy in Nutrition Credit Hours: 3.0
NUTR 4345 - The Obesity Epidemic Credit Hours: 3.0
NUTR 4351 - Gerontology and Nutrition Credit Hours: 3.0
NUTR 4352 - Child and Adolescent Nutrition Credit Hours: 3.0
NUTR 4353 - Cultural Competency for Nutrition Professionals Credit Hours: 3.0

Note(s):

This minor requires a total of 15 semester hours.

Kinesiology Minor

Kinesiology

KIN 1352 - Foundations of Kinesiology, Health, and Fitness Credit Hours: 3.0
KIN 3305 - Sociological and Cultural Aspects of Kinesiology and Sport Credit Hours: 3.0
KIN 3306 - Physiology of Human Performance Credit Hours: 3.0
KIN 3309 - Biomechanics Credit Hours: 3.0
KIN 4315 - Motor Learning and Control Credit Hours: 3.0
PHYS 1301 - Introductory General Physics I Credit Hours: 3.0

Note(s):

This minor requires a total of 18 semester hours.

Department of Hispanic Studies

Who's Who in Hispanic Studies

Chair:

Dr. Pedro Gutiérrez Revuelta
Director of Undergraduate Studies:
Dr. Guillermo De Los Reyes

Director of Graduate Studies:
Dr. Gabriela Baeza Ventura

Professors:
Dr. Anadeli Bencomo, Dr. Manuel J. Gutiérrez, Dr. Nicolás Kanellos

Associate Professors:
Dr. Gabriela Baeza Ventura, Dr. Guillermo de los Reyes, Dr. Marta Fairclough, Dr. Pedro Gutiérrez-Revuelta, Dr. Guadalupe Quintanilla, Dr. María Elena Solíño

Assistant Professors:
Dr. Mabel Cuesta, Dr. Alejandra González Pérez, Dr. Elizabeth Goodin Mayeda

General Requirements
Majors in Spanish must maintain a minimum cumulative 2.00 grade point average in all courses attempted in the major and must demonstrate or attain at least 2302 (fourth semester) level proficiency in a second foreign language.

Summer Programs Abroad in Spanish
The department encourages Spanish majors and minors to participate in study abroad programs. Up to 12 advanced semester credit hours of learning abroad coursework earned through affiliated learning abroad programs may be applied toward the fulfillment of requirements for the Spanish major and up to 6 semester credit hours of study abroad coursework may be applied toward fulfillment of the requirements for the Spanish minor.

Students interested in studying abroad should consult with the University Office of Learning Abroad and with the department’s undergraduate advisor.

Major
Spanish, B.A.

Chair: Dr. Pedro Gutierrez
In addition to completing the degree requirements for the Bachelor of Arts, students majoring in Spanish must complete 27 semester hours in Spanish at the advanced level (3000-4000). Spanish majors must take a minimum 15 credit hours in residence with the Department of Hispanic Studies, not including credit by exam or learning abroad. Students may take only one course with the HISP code that would may towards a requirement for the major.

Advanced-level courses must include the following:

- **SPAN 3301**: Spanish Oral Communication for Critical Thinking **Credit Hours: 3.0** (or 3307 for students on the heritage track)
- **SPAN 3302**: Advanced Spanish for Non-Heritage Learners **Credit Hours: 3.0** (or 3308 for students on the heritage track)
- **SPAN 3306**: Introduction to the Study of the Spanish Language **Credit Hours: 3.0**
- **SPAN 3384**: Introduction to Hispanic Literature **Credit Hours: 3.0**

 Fifteen hours from one or more of the following areas, including six hours at the 4000 level: Literature, Linguistics, Culture, Applied Spanish (business, education, translation, etc.).

Placement and Credit by Examination:

The Spanish Program offers two basic language programs that satisfy the foreign language requirement and prepare students for upper-division courses in linguistics, culture, literature, business and other practical areas:

1. **Basic Spanish Language Program for Spanish Foreign Language Students**

   A four semester sequence:
   - **SPAN 1501**: Elementary Spanish I **Credit Hours: 5.0**
   - **SPAN 1502**: Elementary Spanish II **Credit Hours: 5.0**
   - **SPAN 2301**: Intermediate Spanish I **Credit Hours: 3.0**
   - **SPAN 2302**: Intermediate Spanish II **Credit Hours: 3.0**

   Note(s):

   This program is designed for students whose home language is not Spanish.

   Students with previous studies in Spanish are required to take a placement exam, at the Testing Center (Student Service Center, 2nd floor), before enrollment. Enroll (register) online at testing.las.uh.edu/.

   Hispanic Studies offers a Placement/Credit Exam designed for Spanish as a Second Language students, who are required to take this exam before enrolling in a Spanish course. Students may be placed in SPAN 1501, SPAN 1502, SPAN 2301, SPAN 2302, SPAN 3301, SPAN 3302 or higher, and may earn up to 12 semester hours in Spanish. Credit at the 4000-level may not be earned by examination.

   Eligibility for credit by examination is determined by subsequent enrollment and academic performance in the class into which the student was placed. See departmental advisor for further information.

2. **Spanish Program for Hispanic Heritage Learners**

   - **SPAN 2307**: Spanish for Hispanic Heritage Learners I **Credit Hours: 3.0**
   - **SPAN 2308**: Spanish for Hispanic Heritage Learners II **Credit Hours: 3.0**

   Note(s):
Heritage language learners are students who grew up speaking Spanish at home.

Hispanic Studies offers a Placement/Credit Exam designed for Hispanic heritage learners, who are required to take this exam before enrolling in a Spanish course. Students may be placed in SPAN 1507, SPAN 2307, SPAN 2308, SPAN 3307, SPAN 3308, or higher, and may earn up to 12 semester hours in Spanish. Credit at the 4000-level may not be earned by examination. For designated test times, see schedule online at www.uh.edu.hispanicstudies/.

Advanced Placement Credit

For information about AP credit, see the Credit by Examination section of this catalog.

The department also offers a Master of Arts degree and a Doctor of Philosophy in Spanish. For general graduate admissions requirements and listing of courses, contact the respective graduate advisors in the Department of Hispanic Studies and consult the Graduate and Professional Studies catalog.

Minor

Spanish for the Global Professions Minor

The Minor in Spanish for the Global Professions is designed for students who anticipate careers in which they will need to interact with Hispanic communities in the U.S. or abroad and who wish to continue the study of Spanish language and culture for specific professional purposes: business, translation & interpretation, and health. Students must complete 15 hours of advanced Spanish courses.

Requirements

For Non-Heritage Speakers:

15 hours of advanced Spanish, 9 of which must be in residence. Minimum GPA=2.0
Students must complete 3301, 3302, 3339 and 6 additional advanced hours from the professional Spanish and Culture tracks.
- SPAN 3301 Spanish Oral Communication for Critical Thinking
- SPAN 3302 Advanced Spanish for Non-Heritage Learners
- SPAN 3339 Spanish for the Global Professions
- 6 hours in approved advanced Professional Spanish classes (see list below).

Minor in Spanish for Heritage Speakers

15 hours of advanced Spanish, 9 of which must be in residence. Minimum GPA=2.0
Students must complete 3307, 3308, 3339, and 6 additional advanced hours from the professional Spanish and Culture tracks.
- SPAN 3307 Public Speaking in Spanish
- SPAN 3308 Written Communication for Hispanic Heritage Learners
- SPAN 3339 Spanish for the Global Professions
- 6 hours in approved advanced Professional Spanish classes (see list below).

Recommended 3000/4000 Spanish Courses
Applied Spanish - Business

- SPAN 3341 - Language of Business and Trade Credit Hours: 3.0
- SPAN 3342 - Cross-Cultural Business Contexts: U.S./Latin America Credit Hours: 3.0
- SPAN 4341 - Advertising and Public Relations for the Latino/a Market Credit Hours: 3.0

Applied Spanish - Translation and Interpretation

- SPAN 3312 - Fundamentals of English/Spanish Translation Credit Hours: 3.0
- SPAN 4313 - Advanced English/Spanish Translation Credit Hours: 3.0
- SPAN 4387 - Literary and Legal Translation Credit Hours: 3.0

Applied Spanish - Teaching

- SPAN 3305 - Spanish Grammar Review Credit Hours: 3.0
- SPAN 4356 - Spanish Grammar for Teachers Credit Hours: 3.0
- SPAN 4371 - Techniques of Teaching Spanish Credit Hours: 3.0
- SPAN 4374 - Teaching Spanish to Heritage Learners Credit Hours: 3.0

Applied Spanish - Health

- SPAN 3343 - Spanish for the Health Professions Credit Hours: 3.0
- SPAN 4343 - Health and Society in the Hispanic World Credit Hours: 3.0

Culture

- SPAN 3345 - Hispanic Folklore of the Southwest Credit Hours: 3.0
- SPAN 3373 - Spanish Culture and Civilization Credit Hours: 3.0
- SPAN 3374 - Spanish American Culture and Civilization Credit Hours: 3.0
- SPAN 3375 - United States Hispanic Culture and Civilization Credit Hours: 3.0
- SPAN 3386 - Screen Memories: Spanish Culture Through Film Credit Hours: 3.0
- SPAN 4372 - Literature and the Visual Arts in Modern Spain Credit Hours: 3.0
- SPAN 4388 - Images of Women in Spanish-American Film and Literature Credit Hours: 3.0
- SPAN 4391 - Latin American and Latino Cultural Studies Credit Hours: 3.0

Spanish Minor

Students minoring in Spanish must complete at least 15 semester hours in Spanish, of which 12 must be advanced. Nine semester hours, including six advanced, must be completed in residence with the Department of Hispanic Studies, not including credit by exam or learning abroad. Spanish minors must earn a 2.00 minimum cumulative grade point average on all Spanish courses attempted at the University of Houston.

Department of History

Who's Who in the Department of History
Chair:
Philip Howard

Professors:

Associate Professors:
Xiaoping Cong, Steven Deyle, José Angel Hernández, Kairn Klieman, Natalia Milanesio, Richard M. Mizelle, Catherine F. Patterson, Monica Perales, Raúl Ramos, Linda Reed, Todd Romero, James Schafer, Abdel Razzaq Takriti, Tyrone Tillery, Cihan Yüksel Muslu

Assistant Professors:
Mark Goldberg, Alexey Golubev, Kristina Neumann, Kristin Wintersteen, Leandra Zarnow

Clinical Faculty:
Dina Al-Sowayel, Kelly Hopkins

Affiliated Faculty:
Thomas Behr, Ioanna Semendeferi, Helen Valier, Diana Velez, Mark Young

Department Overview

The Department of History offers the Bachelor of Arts in History, the Bachelor of Arts in History with Teacher Certification, a minor in History, the Master of Arts in History, and the Doctor of Philosophy in History.

Advanced Degrees

The university offers the Master of Arts and Doctor of Philosophy in the Department of History. The Master of Arts includes fields in Europe, Latin America, Public History, and the United States. The Doctor of Philosophy is available in fields of United States, European, and Latin American history.

For admission to the graduate programs, degree requirements, and course listings, consult with the director of graduate studies in the Department of History and refer to the Graduate and Professional Studies catalog.

Major

History, B.A.

Students who major in History must complete thirty-six semester hours in History, including:

Courses

HIST 1377;
HIST 1378;
HIST 2351, HIST 2361, or HIST 3379;
HIST 2353, HIST 2363, or HIST 3380 (or their equivalents) and at least 18 advanced semester hours.

With the permission of the Director of the Undergraduate Program (DUS), students may fulfill this requirement by writing a senior thesis, by completing a faculty-directed internship, or by completing a 6000-level graduate seminar.

at least six advanced semester hours must be in United States history 
at least six advanced semester hours must be in areas other than United States history

At least 6 of the 18 advanced semester hours must be at the 4000-level and include one of the following from this capstone course list:

- HIST 4301 - Issues in Feminist Research
- HIST 4306 - Social Reform Movements in Antebellum America
- HIST 4325 - Houston Eats!: Research in Food and Public History
- HIST 4327 - Europe 1930-1945
- HIST 4336 - A History of Histories: Capstone Course on Historiography
- HIST 4340 - Philosophies of History
- HIST 4347 - Stuart England, 1603-1714
- HIST 4348 - Social History of Early Modern England
- HIST 4350 - Alexander the Great
- HIST 4365 - Women in Latin America
- HIST 4375 - The Atlantic World since 1450: Slaves and Capitalists, Rebels and Zombies
- HIST 4384 - East Asian Women in Historical and Cross-Cultural Perspectives

Other Requirements

Students majoring in History must also meet:
- the University of Houston’s core curriculum requirements
- the College of Liberal Arts and Social Sciences requirements for the Bachelor of Arts degree

Students must complete at least 12 of the advanced hours in History in residence.
Students must earn at least a 2.0-grade point average on all work attempted in History at the University of Houston.

Requirements

36 hours (at least 18 advanced) to include:

HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**

HIST 2351 - Western Civilization to 1450 **Credit Hours: 3.0** or
HIST 2361 - The Study of Early Civilizations **Credit Hours: 3.0** or
HIST 3379 - World Civilizations to 1500 **Credit Hours: 3.0**

HIST 2353 - Western Civilization From 1450 **Credit Hours: 3.0** or
HIST 2363 - Study of Modern Civilizations **Credit Hours: 3.0** or
HIST 3380 - World Civilization Since 1500 **Credit Hours: 3.0**

One of the following courses from this capstone course list:

- HIST 4301 - Issues in Feminist Research **Credit Hours: 3.0**
- HIST 4306 - Social Reform Movements in Antebellum America **Credit Hours: 3.0**
- HIST 4325 - Houston Eats!: Research in Food and Public History **Credit Hours: 3.0**
- HIST 4327 - Europe 1930-1945 **Credit Hours: 3.0**
HIST 4336 - A History of Histories: Capstone Course on Historiography  Credit Hours: 3.0
HIST 4340 - Philosophies of History  Credit Hours: 3.0
HIST 4347 - Stuart England, 1603-1714  Credit Hours: 3.0
HIST 4348 - Social History of Early Modern England  Credit Hours: 3.0
HIST 4350 - Alexander the Great  Credit Hours: 3.0
HIST 4365 - Women in Latin America  Credit Hours: 3.0
HIST 4375 - The Atlantic World since 1450: Slaves and Capitalists, Rebels and Zombies  Credit Hours: 3
HIST 4384 - East Asian Women in Historical and Cross-Cultural Perspectives  Credit Hours: 3.0

U.S. History, 3000- or 4000-level  Credit Hours: 6.0
Non-U.S. history, 3000- or 4000-level  Credit Hours: 6.0
4000-level (any subject area)  Credit Hours: 3.0
History electives (any level)  Credit Hours: 6.0

Bachelor of Arts in History with Professional Studies Concentration

For history majors planning careers in energy/environment, law, medicine/health, or public history, the department offers a Professional Studies concentration, consisting of 9 hours. The 9 hours fit within the history major requirements and do not add additional hours. To pursue this concentration, students should take:

HIST 3315 - Introduction to Public History  Credit Hours: 3.0 or
HIST 2301 - The Historian's Craft  Credit Hours: 3.0

HIST 4398 - Independent Study  Credit Hours: 1.0
Students participating in this track can either take a History capstone course relating to the student's area of interest (approval from DUS is required) or undertake an internship, independent research project, or senior thesis on energy/environment, law, medicine, or public history. Students doing an internship or research project must register for this course under the supervision of a designated History faculty member or the DUS.*

A 3000 or 4000 level course relating to energy/environment, law, medical history, or public history. See list below for recommended courses. 3- or 4000-level Special Problems courses can count towards a concentration if relevant, but permission from the Director of Undergraduate Studies is required.*

Students will create an ePortfolio to access and save their work in this track; the DUS must approve the ePortfolio.

*Relevant graduate courses could count for either of the second or third courses in the track, but instructor and DUS permission is required.

Energy/Environment Area

HIST 3363 - Pirates and Smugglers in the Modern World  Credit Hours: 3.0
HIST 4318 - Africa and the Oil Industry  Credit Hours: 3.0
HIST 4322 - Environment in U.S. History  Credit Hours: 3.0

Law Area

HIST 3308 - The American West Since 1848  Credit Hours: 3.0
HIST 3314 - Liberals vs. Conservatives: FDR to the Present  Credit Hours: 3.0
HIST 3316 - Race and Racism in American Science and Medicine  Credit Hours: 3.0
HIST 3320 - U.S. Women's History Since 1840  Credit Hours: 3.0
HIST 3325 - The Mexican American Civil Rights Movement in 20th Century  Credit Hours: 3.0
HIST 3330 - African American History to 1865  Credit Hours: 3.0
HIST 3331 - African American History Since 1865 Credit Hours: 3.0
HIST 3332 - Chicano History to 1910 Credit Hours: 3.0
HIST 3333 - Chicano History Since 1910 Credit Hours: 3.0
HIST 3349 - War, Globalization, and Terrorism Credit Hours: 3.0
HIST 4304 - The American Revolution Credit Hours: 3.0
HIST 4306 - Social Reform Movements in Antebellum America Credit Hours: 3.0
HIST 4320 - Radicalism and Protest in the US Credit Hours: 3.0
HIST 4322 - Environment in U.S. History Credit Hours: 3.0
HIST 4355 - Topics in the History of Law and Society Credit Hours: 3.0

Medicine/Health Area

HIST 3303 - Disease, Health, and Medicine in American History Credit Hours: 3.0
HIST 3316 - Race and Racism in American Science and Medicine Credit Hours: 3.0
HIST 3319 - Plagues and Pestilence: Epidemics in World History Credit Hours: 3.0
HIST 4321 - The History of Jewish Food Credit Hours: 3.0

Public History Area

HIST 4301 - Issues in Feminist Research Credit Hours: 3.0
HIST 4303 - Women in the Civil Rights Movement Credit Hours: 3.0
HIST 4322 - Environment in U.S. History Credit Hours: 3.0

Bachelor of Arts in History with Teacher Certification

Students seeking the Bachelor of Arts in History with Teacher Certification should refer to the section on CLASS Teacher Certification Programs and to the College of Education Section of this catalog.

Minor

Food and Society Minor

The Food and Society Minor requires 15 semester hours (at least 9 advanced hours) taken from the courses listed below or upon approval from the Coordinator of the Food and Society Minor.

A minimum of 9 hours must be taken in residence.
Courses should be distributed from at minimum two departments.
A student must earn a 2.00 cumulative grade point average in courses attempted in the minor field at the University of Houston.

Required courses:

ANTH 3342 - Food and Culture Credit Hours: 3.0
ANTH 4342 - Anthropology of Wine Credit Hours: 3.0
COMM 2383 - Food As Communication Credit Hours: 3.0
COMM 3318 - Multimedia Storytelling Credit Hours: 3.0 (**Only when the class is focused on food films)
COMM 4383 - Documentary Filmmaking Credit Hours: 3.0 (**Only when the class is focused on food films)
ECON 4389 - Topics in Contemporary Economics II Credit Hours: 3.0 "Food, Population, and the Environment"
HIST 2355 - The Global History of Food Credit Hours: 3.0
HIST 2346 - America Eats: An Introduction to Food History Credit Hours: 3.0
HIST 4321 - The History of Jewish Food Credit Hours: 3.0
HIST 4367 - U.S. Latina/o Food History Credit Hours: 3.0
HIST 4368 - Food, Drink, and Drugs of Latin America Credit Hours: 3.0
HLT 4303 - The Obesity Epidemic Credit Hours: 3.0
HRMA 3335 - Alcoholic Beverage Production - Wine, Spirits and Beer Credit Hours: 3.0
HRMA 3345 - Wine Appreciation Credit Hours: 3.0
HRMA 3346 - Beer Appreciation Credit Hours: 3.0
NUTR 2332 - Introduction To Human Nutrition Credit Hours: 3.0
NUTR 4334 - Community Nutrition Credit Hours: 3.0
NUTR 4345 - The Obesity Epidemic Credit Hours: 3.0
NUTR 4349 - Public Policy in Nutrition Credit Hours: 3.0
SOC 3360 - Sociology of Food Credit Hours: 3.0
SOC 3361 - Sociology of Gender and Food Credit Hours: 3.0

History Minor

A minor in history consists of 15 semester hours, of which nine must be at the 3000- or 4000-level. These are in addition to the six semester hours of United States history in the core curriculum. At least nine semester hours of the minor courses, including six at the 3000- or 4000-level, must be completed at the University of Houston. Students must earn a 2.0 grade point average in all courses attempted in history at the university.

U.S. Ethnic Studies Minor

Ethnic Studies is the comparative study of the historical, political, social, and cultural realities that have created the United States’ diverse ethnic and racial populations. In the program, students develop skills in critical thinking, comparative analysis, social theory, data analysis, and communication. The Ethnic Studies Minor builds on the existing faculty and programmatic strengths in CLASS to benefit students.

Ethnic Studies is an exciting degree that prepares students to enter the workforce and function effectively and critically as informed citizens in a diverse multicultural society. The minor offers a solid liberal arts education for students considering admission to graduate or professional schools and careers in education, law, medicine, public health, social work, counseling, journalism, business, city planning, politics, psychology, international relations, or creative writing.

Ethnic Studies Minor Requirements:

- A minimum of 18 semester credit hours from the following approved list of courses.
- At least 12 of the semester credit hours must be taken in residence.
- At least 12 of the semester credit hours must be taken at the 3000 or 4000 level.
- No more than 6 credits can count towards both CORE and the minor.
- No more than 3 credits can count for credit toward another major or minor.
- A 2.00 minimum grade point average over all courses applied to the minor is required.

* - Indicates Core Curriculum Course

Part 1:

Two courses (6 credit hours) from the following:

- ETHN 2300 - Introduction to Ethnic Studies (proposed) Credit Hours: 3.0
- AAS 2320 - Introduction to African American Studies Credit Hours: 3.0 *
MAS 2340 - Introduction to Mexican American Studies **Credit Hours: 3.0**
AAMS 2300 - Introduction to Asian American Studies **Credit Hours: 3.0**
ANTH 2302 - Introduction to Cultural Anthropology **Credit Hours: 3.0**
WGSS 2350 - Introduction To Women's Studies **Credit Hours: 3.0**

Part 2:

A combination of 4 courses (12 credit hours) from the following list. Approval by academic advisor necessary to insure no more than 2 courses (6 credit hours) are focus exclusively on the same single ethnic group. Comparative courses are not subject to this limit:

AAS 3301 - Hip Hop History and Culture **Credit Hours: 3.0**
AAS 3348 - African Americans and the Law **Credit Hours: 3.0**
AAS 3350 - Slavery and Race Relations in the African Diaspora **Credit Hours: 3.0**
AAS 4373 - Black Leaders of the Twentieth Century **Credit Hours: 3.0**
AAS 4377 - Seminar on W.E.B. DuBois **Credit Hours: 3.0**
ANTH 2302 - Introduction to Cultural Anthropology **Credit Hours: 3.0**
ANTH 3312 - Mexican-American Culture **Credit Hours: 3.0**
ANTH 4363 - Race, Racialization and the Politics of Culture **Credit Hours: 3**
CCS 2350 - Perspectives on Cultural Studies **Credit Hours: 3.0**
COMM 4357 - Intercultural Communication and Organizations **Credit Hours: 3.0**
AAMS 3310 - Asian American in Popular Culture **Credit Hours: 3.0**
AAMS 4300 - Asian American Cultures and Communities **Credit Hours: 3.0**
ENGL 3349 - Native American Literature **Credit Hours: 3.0**
ENGL 3360 - Survey of African American Literature **Credit Hours: 3.0**
ENGL 3361 - Mexican American Literature **Credit Hours: 3.0**
ENGL 3363 - Masterpieces of African American Fiction **Credit Hours: 3.0**
ENGL 3366 - Jewish-American Literature **Credit Hours: 3.0**
ENGL 4364 - Minorities in Literature **Credit Hours: 3.0**
HDFS 4315 - Culture and Diversity in Human Development **Credit Hours: 3.0**
HIST 2341 - Texas To 1865 **Credit Hours: 3.0**
HIST 2348 - U.S. Latino/a Histories **Credit Hours: 3.0**
HIST 3316 - Race and Racism in American Science and Medicine **Credit Hours: 3.0**
HIST 3317 - Making of Ethnic America **Credit Hours: 3.0**
HIST 3332 - Chicanx History to 1910 **Credit Hours: 3.0**
HIST 3333 - Chicanx History Since 1910 **Credit Hours: 3.0**
HIST 3338 - Native American History **Credit Hours: 3.0**
HIST 3342 - Texas-Mexican History **Credit Hours: 3.0**
HIST 3330 - African American History to 1865 **Credit Hours: 3.0**
HIST 3331 - African American History Since 1865 **Credit Hours: 3.0**
KIN 3305 - Sociological and Cultural Aspects of Kinesiology and Sport **Credit Hours: 3.0**
MAS 3342 - Mexican Immigration To the US **Credit Hours: 3.0**
POLS 3368 - Race, Gender and Ethnic Politics **Credit Hours: 3.0**
POLS 3372 - Latino Politics **Credit Hours: 3.0**
POLS 3376 - Black Political Thought **Credit Hours: 3.0**
PSYC 2344 - Cultural Psychology **Credit Hours: 3.0**
SOC 3324 - Hispanic Identity **Credit Hours: 3.0**
SOC 3326 - Immigration in US Society **Credit Hours: 3.0**
SOC 3327 - Race and Ethnic Relations in the United States **Credit Hours: 3.0**
SOC 3372 - Mexican American Family **Credit Hours: 3.0**
SPAN 3331 - Mexican-American Literature **Credit Hours: 3.0**
SPAN 3345 - Hispanic Folklore of the Southwest Credit Hours: 3.0
SPAN 3374 - Spanish American Culture and Civilization Credit Hours: 3.0
SPAN 3375 - United States Hispanic Culture and Civilization Credit Hours: 3.0 *
SPAN 4368 - Mexican Literature in the Twentieth Century Credit Hours: 3.0
WCL 3351 - Introduction to Latino Cultural Studies Credit Hours: 3.0
WCL 3366 - Latin American and Latino Film Studies Credit Hours: 3.0
WCL 3380 - American Jewish Culture Credit Hours: 3.0
WCL 4362 - Seminar in Latin American and Latino Literatures Credit Hours: 3.0
WCL 4367 - Voices from Exile and Diaspora Credit Hours: 3.0 *
WCL 4381 - Seminar in Latin American and Latino Cultural Studies Credit Hours: 3.0
WGSS 3322 - Intersectionalities of Race, Class, Age, Disability & Gender Credit Hours: 3.0

Latin American Studies

Who's Who in Latin American Studies

Director:
Susan Kellogg

Minor

Latin American Studies Minor

College of Liberal Arts & Social Sciences > Latin American Studies > Latin American Studies Minor

A minor in Latin American Studies (LAST) requires a minimum of 18 semester hours:

Six hours of required coursework (LAST 3300, HIST 2371 or HIST 2372, or SPAN 3374 plus either a 3000- level Spanish-language course or a course covering Mexican-American and/or Latino-related topics).
Three 3000- or 4000-level courses across a variety of disciplines in at least two different departments.
One additional course at the 4000-level in the student’s area of concentration. This course may be an independent study course focusing on a research project or an internship in the student’s area of concentration.
Twelve of the 18 semester hours must be in residence, including 6 semester hours at the 3000- or 4000-level.
A minimum 2.0 grade point average for all courses applied to the minor is required.

Mexican American Studies

Who's Who in Mexican American Studies

Director:
Pamela Anne Quiroz

Associate Director:
Lorenzo Cano
Minor

Mexican American Studies Minor

The minor in Mexican American Studies conveys the broad, deep and rich experiences of Mexican Americans in the U.S. and prepares students to better understand the history, culture, folklore, literature, social issues, political behavior and other realities of the Mexican American population.

A minor in Mexican American Studies is important in that it improves the decision making in a number of fields such as public administration, law, politics, public education, artistic institutions, psychology, and a host of other professions. A minor in this field will become even more important as the population of Chicanos and Latinos increases throughout the state and nation.

A minor in Mexican American Studies requires 15 semester credit hours. This includes 9 semester credit hours from approved liberal arts courses and 6 semester credit hours from approved social science courses or, 9 semester credit hours from approved social science courses and 6 credit hours from approved liberal arts courses. Students pursuing the MAS minor are required to take MAS 2340 - Introduction to Mexican American Studies. MAS prefixed courses can be used under the liberal arts category and the social science category for purposes of obtaining the minor.

Social Sciences

Six to nine hours from the following:

- ANTH 3312 - Mexican-American Culture Credit Hours: 3.0
- ANTH 4372 - Maya Archaeology Credit Hours: 3.0
- ANTH 4373 - Archaeology of the Aztecs and Their Neighbors Credit Hours: 3.0
- POLS 3372 - Latino Politics Credit Hours: 3.0
- SOC 3324 - Hispanic Identity Credit Hours: 3.0
- SOC 3326 - Immigration in US Society Credit Hours: 3.0
- SOC 3372 - Mexican American Family Credit Hours: 3.0
- Special topics as appropriate from respective departments

Liberal Arts

Six to nine hours of humanities, fine arts, and communication courses from the following, to include no more than six hours in MAS courses, unless approved by the MAS advisor, and no more than three hours in Spanish language courses:

- MAS 2340 - Introduction to Mexican American Studies Credit Hours: 3.0 *
- MAS 3340 - The Development of the Mexican American Urban Community Credit Hours: 3.0 *(UH Core Course-Language, Philosophy & Culture)
- MAS 3341 - Mexican American Experience Through Film Credit Hours: 3.0 *
- MAS 3342 - Mexican Immigration To the US Credit Hours: 3.0 *
- MAS 3343 - Latino Psychology Credit Hours: 3.0
MAS 3395 - Sel Top Mexican American Stdy  Credit Hours: 3.0 *
ARTH 3312 - Pre-Columbian Art  Credit Hours: 3.0
ENGL 3361 - Mexican American Literature  Credit Hours: 3.0
ENGL 3396 - Selected Topics in English  Credit Hours: 3.0
HIST 3332 - Chicano History to 1910  Credit Hours: 3.0
HIST 3333 - Chicano History Since 1910  Credit Hours: 3.0
HIST 3342 - Texas-Mexican History  Credit Hours: 3.0
HIST 3369 - Colonial Mexico  Credit Hours: 3.0
HIST 4369 - Modern Mexico: 1810 to the Present  Credit Hours: 3.0
HIST 4394 - Sel Top-United States History  Credit Hours: 3.0 (those courses focusing primarily on Mexican Americans)
SPAN 2301 - Intermediate Spanish I  Credit Hours: 3.0
SPAN 2302 - Intermediate Spanish II  Credit Hours: 3.0
SPAN 2307 - Spanish for Hispanic Heritage Learners I  Credit Hours: 3.0
SPAN 2308 - Spanish for Hispanic Heritage Learners II  Credit Hours: 3.0
SPAN 3301 - Spanish Oral Communication for Critical Thinking  Credit Hours: 3.0
SPAN 3302 - Advanced Spanish for Non-Heritage Learners  Credit Hours: 3.0
SPAN 3331 - Mexican-American Literature  Credit Hours: 3.0
SPAN 3345 - Hispanic Folklore of the Southwest  Credit Hours: 3.0
Special topics as appropriate from respective departments

Note(s):

On occasion, courses are added to this approved list between editions of this catalog. For the most up-to-date list of approved courses for this minor, contact the Center for Mexican American Studies.

Bilingual education majors may substitute CUIN 3310 - Foundations of Bilingual Education, K-12, for three hours of Humanities and Fine Arts (liberal arts) courses in the minor.

*Note that individual courses with the "MAS" prefix can be used under the social science and liberal arts categories.

Department of Military Science

Who's Who in the Department of Military Science

Chair:

Lieutenant Colonel Neil Chaffee

Professor:

Lieutenant Colonel Neil Chaffee

Assistant Professors:

Captain Gerardo Rodriguez, Captain Troy Yard, Captain David Edwards
Training NCOs:

Master Sergeant Dwane Wells, Sergeant First Class Rian Harden

Department Overview

The goal of the U.S. Army ROTC program is to develop technically competent, physically fit and highly motivated men and women for positions of responsibility as commissioned officers in the active Army, the Army Reserve and Army National Guard. Upon completion of the curriculum, students will have an understanding of the fundamental concepts and principles of the military as an art and as a science. The leadership and managerial experience gained through ROTC provides great benefit for students in both their civilian endeavors and their military careers.

Statutory Authority

General statutory authority for establishment and operation of the ROTC program, including the scholarship program, is contained in Title 10, United States Code, Chapter 103 (Sec. 2102-2111). Specific rules and procedures are found in U.S. Army Regulation 145-1.

Course Credit

ROTC classes may be taken for elective credit toward any degree plan at the University of Houston. Freshman and sophomore level classes are open to all students, regardless of age or physical condition. No military obligation is incurred as a result of enrollment in these courses. Junior and senior level courses are more restrictive and do require a military obligation. ROTC scholarship students also incur a military obligation.

Veterans

Veterans who have served on active duty or in the Army Reserve/National Guard are also eligible for the ROTC program. Although veterans are not required to take the Basic Course, they are encouraged to do so. All students, including veterans, must have a minimum of 60 credit hours prior to enrolling in the Advanced Course.

National Guard and Army Reserve Members

Students enrolled in ROTC may also be members of the Army Reserve/National Guard. Through the Simultaneous Membership Program (SMP), those students enrolled in the Advanced Course will be assigned in a leadership position as a cadet and receive pay and entitlements from the Guard or Reserve in the pay grade of Sergeant (E-5).

Scholarships

The United States Army offers, on a competitive nationwide basis, four-, three-, and two-year scholarships. The scholarships will cover tuition. Recipients will also receive benefits for educational fees (to include lab fees), a book allowance and a subsistence allowance of $300-$500 per month. Applicants must be U.S. citizens and must be under age 32 on the anticipated graduation date. Applications are available from the Military Science Department.

Other Financial Aid
All students enrolled in the Advanced Course will receive a subsistence allowance of $450 per month for juniors and $500 per month for seniors. For more information contact the Military Science Department. GI Bill recipients still retain benefits.

**Tuition**

Members of the Army or the National Guard, Texas State Guard, or other reserve forces may be exempted from the nonresident tuition fee and other fees and charges.

**Special Training**

Basic and advanced course students may volunteer for and attend the U.S. Army Airborne and Air Assault courses during June, July and August. Cadet Troop Leadership training positions are also available to Advanced Course cadets during the summer months.

**Miscellaneous**

Cadets in the Advanced Course are paid an allowance of $450-$500 per month during the school year. Military textbooks and uniforms are furnished to all cadets. The Corps of Cadets sponsors an annual military ball in addition to other social events throughout the school year. The Department of Military Science sponsors extracurricular activities such as the University of Houston Color Guard; the Ranger Challenge Team.

**Minor**

**Military Leadership Minor**

College of Liberal Arts & Social Sciences>Department of Military Science >Military Leadership Minor

To qualify for a minor in military leadership, students must complete a minimum of 18 semester hours of course work, of which:

- twelve must be advanced.
- Nine semester hours must be completed in residence, of which six must be advanced.
- Students must also attend advanced camp.

Students must attain a 2.00 grade point average or higher in all military science courses attempted at this university.

Students may receive credit for 1000- and 2000-level courses based on prior military training, completion of ROTC Basic Camp, completion of JROTC training, or completion of one year at a service academy.

**Special Program**

**Army ROTC Four-Year Program**

The four-year program is divided into two courses: the basic course, which is normally attended by students during their freshman and sophomore years, and the advanced course attended during the junior and senior years. Advanced course students attend a five-week advanced camp at Fort Knox, Kentucky, normally between their junior and senior years.

**Basic Course**
The basic course consists of four semesters of military science which includes:

- MSCI 1210 - Introduction to the Army Credit Hours: 2.0
- MSCI 1220 - Foundations of Agile & Adaptive Leadership Credit Hours: 2.0
- MSCI 2210 - Leadership & Decision Making Credit Hours: 2.0
- MSCI 2220 - Army Doctrine & Team Development Credit Hours: 2.0

Note(s):

These freshman and sophomore level classes are open to all students without obligation.

Advanced Course

Students entering the advanced course must enter into a contract to pursue and accept a commission in the active Army, the Army Reserve or the Army National Guard. To be considered for contracting into the advanced course the student must: be a full-time student in a course of instruction that leads to a degree in a recognized academic field, have a minimum of two years of academic work remaining in a curriculum leading to a baccalaureate or advanced degree, be under age 30 when commissioned, and pass a physical examination.

Laboratory Requirements

A military science laboratory is required for students enrolling in

- MSCI 1210 - Introduction to the Army Credit Hours: 2.0
- MSCI 1220 - Foundations of Agile & Adaptive Leadership Credit Hours: 2.0
- MSCI 2210 - Leadership & Decision Making Credit Hours: 2.0
- MSCI 2220 - Army Doctrine & Team Development Credit Hours: 2.0
- MSCI 3310 - Training Management and the Warfighting Functions Credit Hours: 3.0
- MSCI 3320 - Applied Leadership in Small Unit Operations Credit Hours: 3.0

- MSCI 4310 - The Army Officer Credit Hours: 3.0 or
- MSCI 4320 - Company Grade Leadership Credit Hours: 3.0

Note(s):

This laboratory provides opportunities for marksmanship training, rappelling, drill and ceremonies, communications training, and other activities.

Army ROTC Three-Year Program

The Three-year program is divided into two courses: the basic course, which is normally attended by students during their freshman and sophomore years, and the advanced course attended during the junior and senior years. If you are prior military and have 30 hours towards your degree you can enroll in MSCI 2220. Student who have 30 hours towards their degree and do not have prior military experience can go to camp in the summer to waive the first year requirement. Advanced course students attend a five-week advanced camp at Fort Knox, Kentucky, normally between their junior and senior years.

Basic Course

- MSCI 1210 - Introduction to the Army Credit Hours: 2.0
MSCI 1220 - Foundations of Agile & Adaptive Leadership  Credit Hours: 2.0
MSCI 2210 - Leadership & Decision Making  Credit Hours: 2.0
MSCI 2220 - Army Doctrine & Team Development  Credit Hours: 2.0

Note(s):

These freshman and sophomore level classes are open to all students without obligation.

Advanced Course

Students entering the advanced course must enter into a contract to pursue and accept a commission in the active Army, the Army Reserve or the Army National Guard. To be considered for contracting into the advanced course the student must: be a full-time student in a course of instruction that leads to a degree in a recognized academic field, have a minimum of two years of academic work remaining in a curriculum leading to a baccalaureate or advanced degree, be under age 30 when commissioned, and pass a physical examination.

Laboratory Requirements

A military science laboratory is required for students enrolling in

MSCI 1210 - Introduction to the Army  Credit Hours: 2.0
MSCI 1220 - Foundations of Agile & Adaptive Leadership  Credit Hours: 2.0
MSCI 2210 - Leadership & Decision Making  Credit Hours: 2.0
MSCI 2220 - Army Doctrine & Team Development  Credit Hours: 2.0
MSCI 3310 - Training Management and the Warfighting Functions  Credit Hours: 3.0
MSCI 3320 - Applied Leadership in Small Unit Operations  Credit Hours: 3.0
MSCI 4310 - The Army Officer  Credit Hours: 3.0 or
MSCI 4320 - Company Grade Leadership  Credit Hours: 3.0

Note(s):

This laboratory provides opportunities for marksmanship training, rappelling, drill and ceremonies, communications training, and other activities.

Army ROTC Two-Year Program

The two-year program is designed for students who did not take the basic course but are otherwise eligible to enroll in the advanced course. This program allows students completing their sophomore year to attend a four week "Leader's Training Course" during summer at Fort Knox, Kentucky, in lieu of taking the first two years of ROTC. There is no military obligation for attending the "Leader's Training Course." The Army provides transportation, room, and board. Students are paid approximately $700 for the four week period.

Laboratory Requirements

A military science laboratory is required for students enrolling in

MSCI 1210 - Introduction to the Army  Credit Hours: 2.0
MSCI 1220 - Foundations of Agile & Adaptive Leadership  Credit Hours: 2.0
MSCI 2210 - Leadership & Decision Making  Credit Hours: 2.0
MSCI 2220 - Army Doctrine & Team Development Credit Hours: 2.0
MSCI 3310 - Training Management and the Warfighting Functions Credit Hours: 3.0
MSCI 3320 - Applied Leadership in Small Unit Operations Credit Hours: 3.0

MSCI 4310 - The Army Officer Credit Hours: 3.0 or
MSCI 4320 - Company Grade Leadership Credit Hours: 3.0

Note(s):

This laboratory provides opportunities for marksmanship training, rappelling, drill and ceremonies, communications training, and other activities.

Department of Modern and Classical Languages

Who's Who in the Department of Modern and Classical Languages

Chair:

Hildegard F. Glass

Professors:

Francesca Behr, Alessandro Carrera, Claudine Giacchetti, Casey Dué Hackney, Marie Theresa Hernández, Xiaohong (Sharon) Wen, Robert Zaretsky, Marc Zimmerman (Emeritus)

Associate Professors:

Richard Armstrong, Conrad James, Emran El-Badawi, Hildegard Glass, Julia Kleinheider (Instructional), Nina Tucci

Assistant Professors:

Rachel Early (Instructional), Monica Ercolani (Instructional), Michael Fares (Instructional), Melody Yunzi Li, Marshall McArthur (Instructional), Duy Lap Nguyen, Caryn Tamber-Rosenau (Instructional), Bhavia Tiwari, Julie Tolliver, Wei Wang, Jing Zhang (Instructional)

Lecturers & Instructors:


Chinese Studies Director:

Xiaohong Sharon Wen

Classical Studies Director:

Casey Dué Hackney
French Program Director:
Claudine Giacchetti

German Program Director:
Hildegard Glass

Italian Studies Director:
Alessandro Carrera

World Cultures and Literature Undergraduate Director:
Marie Theresa Hernández

World Cultures and Literature Graduate Director:
Alessandro Carrera

Degrees and Majors

The Department of Modern and Classical Languages offers the Bachelor of Arts degree in Chinese Studies, French, and World Cultures and Literatures. The World Cultures and Literatures B.A. offers the following concentrations: Ancient Studies, German Studies, Francophone Culture Studies, Italian Studies, Middle Eastern Studies, Global Cinema Studies, and Global Modernity Studies.

Minor programs include Arab Studies, Chinese, French, French for Business-Related Professions, German, German Area Studies, Greek, India Studies, Italian, Jewish Studies, Latin, and World Cultures and Literature. Requirements for minors precede the listing of courses.

Teacher certification for secondary education is available in French, Latin, and Italian studies.

For Chinese and French summer program, click here.

General Requirements

Majors in French must maintain a minimum cumulative 2.50-grade point average in all courses attempted in the major.

Major

Chinese Studies, B.A.

Requirements

In addition to completing the degree requirements for the Bachelor of Arts, students majoring in Chinese Studies must complete a minimum of 30 semester hours in areas listed as follows:
Nine semester hours at the advanced level selected from

- CHNS 3301 - Advanced Mandarin Chinese I Credit Hours: 3.0
- CHNS 3302 - Advanced Mandarin Chinese II Credit Hours: 3.0
- CHNS 3303 - Readings in Modern Chinese Credit Hours: 3.0
- CHNS 3304 - Business Chinese Credit Hours: 3.0
- CHNS 3305 - Survey of Chinese Literature Credit Hours: 3.0
- CHNS 3306 - Issues in Chinese Language and Linguistics Credit Hours: 3.0

Twelve semester hours in the courses taught in English, selected from

- CHNS 3350 - Chinese Culture Through Films Credit Hours: 3.0
- CHNS 3352 - Chinese Culture and Society Through Modern Literature Credit Hours: 3.0
- CHNS 3354 - Chinese Culture and Language Credit Hours: 3.0
- CHNS 3359 - Chinese Culture through History Credit Hours: 3.0
- CHNS 3360 - A Look Into Modern China Credit Hours: 3.0
- CHNS 3396 - Selected Topics Credit Hours: 3
- CHNS 3398 - Independent Study Credit Hours: 1.0
- HIST 3389 - China Since 1600 Credit Hours: 3.0
- ECON 4389 - Topics in Contemporary Economics II Credit Hours: 3.0
- CHNS 3342 - Tales of East Asian Cities Credit Hours: 3.0
- CHNS 3343 - Chinese Popular Culture Credit Hours: 3.0
- CHNS 3344 - Modern and Contemporary Global Chinese Literature Credit Hours: 3.0

Note(s):

Students who have not taken their first three semesters of Chinese at the University of Houston (including those with two or more years of high school Chinese) must take a placement examination and see a department advisor before enrolling in Chinese courses. Credit may be awarded by examination for courses at the 2000 and 3000-level.

Chinese studies majors must earn at least a 2.00 grade point average in all Chinese courses counting toward the major and attempted at the University of Houston. A minimum of 12 semester hours of advanced Chinese courses must be taken in residence. Some of the above requirements may be satisfied by courses from the department’s program in Beijing. Students majoring in Chinese Studies are encouraged to seek advice concerning their degree objectives from the department’s undergraduate advisor.

Classical Studies, B.A.

*Please note that effective fall 2011 the College of Liberal Arts and Social Sciences will no longer accept students into the Classical Studies degree program for spring 2012 and onward.*

In addition to fulfilling the college’s requirements for the Bachelor of Arts degree, students majoring in classical studies must complete 33 semester hours as follows:

1. Twelve semester hours in either Latin or ancient Greek language
At the 2000-level and above, or equivalent placement by examination.

2. Six semester hours from survey courses taught in English:

   CLAS 4381 - Latin Classics in Translation Credit Hours: 3.0
   Another course approved by the director.

3. Six semester hours

   HIST 3339 - Ancient Greece Credit Hours: 3.0
   HIST 3340 - Ancient Rome Credit Hours: 3.0

4. Nine semester hours from classical studies electives.

Note(s):

These courses may also be applied to meet general requirements for the Bachelor of Arts degree (for example, the foreign language requirement).

Because there is no uniform program of study for a degree in classical studies, majors should consult a classical studies advisor before enrolling in classes each semester. In general, however, students should begin the formal study of the ancient language (i.e., Greek or Latin) they choose for their major while they are still freshmen or as soon as possible after becoming a major. Many students will want to learn both Latin and Greek, but normally they should not begin both languages simultaneously at the elementary level. Taking the intermediate courses of one and the elementary courses of the other, however, usually presents no difficulty.

Selection of electives should follow the general criteria for students seeking the Bachelor of Arts degree. In selecting the classical studies electives, students will be guided by the faculty so that the courses they choose provide a general background in classical antiquities as well as a core of basic knowledge related to the individual student’s particular interest (ancient Greece, the Roman world, New Testament studies, medieval studies, comparative literature, ancient philosophy, etc.). Electives not listed may be taken and are subject to the approval of the program advisor.

Classical Studies Electives

Nine semester hours from the following courses (if not used to meet other requirements). Students may choose other courses, not listed here, with approval of the program director.

Art History (ARTH)

   ARTH 3310
   ARTH 3311 - Greek Art Credit Hours: 3.0

Classics (CLAS)

   CLAS 3307 - Greek and Roman Myths of Heroes Credit Hours: 3.0
   CLAS 3308 - Myths and Cult of the Greek Gods Credit Hours: 3.0
   CLAS 3341 - The Roman Republic Credit Hours: 3.0
   CLAS 3345 - Myth and Performance in Greek Tragedy Credit Hours: 3.0
   CLAS 3366 - The Trojan War Credit Hours: 3.0
CLAS 3371 - Ancient Comedy and Its Influence  
Credit Hours: 3.0
CLAS 3374 - Women in the Ancient World  
Credit Hours: 3.0
Credit Hours: 3.0
CLAS 3380 - Epic Masculinity: Ideologies of Manhood in Ancient Epic and Modern Film  
Credit Hours: 3.0
CLAS 3381 - From Homer to Hollywood: Archaic and Classical Greek Themes in Modern Cinema  
Credit Hours: 3.0
CLAS 4375 - Gender and Race in Greek Myths  
Credit Hours: 3.0

English (ENGL)

ENGL 3300 - Ancient and Classical Literature  
Credit Hours: 3.0
ENGL 3302 - Medieval Literature  
Credit Hours: 3.0
ENGL 3323 - Development of Literary Criticism and Theory  
Credit Hours: 3.0
ENGL 4366 - Introduction to Folklore  
Credit Hours: 3.0

Greek (GREK) or Latin (LATN)

GREK 3000 and above; LATN 3000 and above, if beyond the 18 semester hours required by the CLA STD degree in one of the two ancient languages.

History (HIST)

HIST 4328 - The Vikings  
Credit Hours: 3.0
HIST 4330 - Flowering of the Middle Ages  
Credit Hours: 3.0
HIST 4350 - Alexander the Great  
Credit Hours: 3.0

Philosophy (PHIL)

PHIL 3383 - History of Ancient Philosophy  
Credit Hours: 3.0
PHIL 6396 - Ancient Greek Science

Political Science (POLS)

POLS 3340 - Ancient and Medieval Political Thought  
Credit Hours: 3.0
POLS 4346 - Greek Political Thought  
Credit Hours: 3.0

Note(s):

Majors in Classical Studies may choose either Latin or Greek to fulfill their language requirement. We recommend that students who are planning to do graduate studies, especially in Classics or in History, take at least three years of one of the classical languages and two years of the other. It is advisable to begin one language in the first year of the major, and wait to begin the study of the other language the following year.

The elementary year of foreign languages, including Latin or Greek, does not count toward the total number of hours in the degree. Thus GREK 1301 – GREK 1302/LATN 1301 – LATN 1302 count as general elective hours. Students may place out of the elementary year by examination. At the intermediate level and above, students may earn credit by taking the Placement Exam. These exams are administered by Classical Studies, not by Testing and Counseling.

Credit in Modern Greek courses (GREK 1305 , GREK 1306 , GREK 2305 , GREK 2306 ) will not count as credits in one of the ancient languages, but may count as an elective
French, B.A.

In addition to the other requirements for the Bachelor of Arts, students will complete 27 semester hours in French at the advanced level (3000 and 4000) to include the following:

Advanced Level Courses

Six semester hours at the advanced level, as follows:

- FREN 3313 - Advanced Grammar and Composition Credit Hours: 3.0
- And three hours selected from the following:
  - FREN 3315 - Practical Translation Credit Hours: 3.0
  - FREN 3316 - Survey of French Culture and Civilization Credit Hours: 3.0
  - FREN 3317 - Business French Credit Hours: 3.0
  - FREN 3320 - Introduction to French Literature Credit Hours: 3.0
  - FREN 3331 - The Life of Words Credit Hours: 3.0
  - FREN 3335 - French Popular Music Credit Hours: 3.0
  - FREN 3340 - Contemporary French Society Credit Hours: 3.0
  - FREN 3341 - Women in French Cinema Credit Hours: 3.0
  - FREN 3351 - The Francophone World Credit Hours: 3.0
  - FREN 3352 - Youth in Francophone Film Credit Hours: 3.0

Language and Culture Courses

Fifteen semester hours chosen from 3000 or 4000 level language and culture courses.

French Courses

Six semester hours of French courses at the 4000-level.

Additional Requirements

Students starting a major in French should work in close consultation with the departmental advisor to ensure that their degree plan is coherent, well-balanced and appropriate to their long-range goals.

French majors must earn at least a 2.50-grade point average in all French courses counting toward the major and attempted at the University of Houston. Some of the above requirements may be satisfied by courses from the department’s program in France (see above). Students majoring in French are encouraged to seek advice concerning their degree objectives from the department’s undergraduate advisor during their first or second semester at the University of Houston.

In addition to the requirements in French, students majoring in French will choose a minor, to be approved by the department, in a field complementing the study of French and relevant to the students’ career interests. Suggested minors include other languages, English, Art History, Classical Studies, History, Business Administration, Economics, Political Science, or another minor of particular interest to the individual student. Specific prerequisites and requirements for minors are described in the appropriate sections of this catalog.

Prerequisites
Prerequisites for all the advanced courses in French include the equivalent of at least six semester hours in second-year college French. Students with credits in high school or college French must take a placement test before entering a French course at the University of Houston.

First-Year Requirements

Students with no high school French may satisfy the first-year requirements by completing both of the following courses:

First Semester:
- FREN 1501 - Elementary French I  
  **Credit Hours: 5.0**
- FREN 1502 - Elementary French II  
  **Credit Hours: 5.0**

Second-Year Requirements

Students may satisfy the second-year requirements by completing six hours from the following courses:

First Semester:
- FREN 2301 - Intermediate French  
  **Credit Hours: 3.0**
- FREN 2302 - Intermediate French  
  **Credit Hours: 3.0**

Students may also satisfy the second-year requirements in the summer program in France.

Credit by Examination

The department does not award credit by examination for elementary French. Students may obtain up to six hours of credit in intermediate (2000-level) French by special examination, administered by the department. Credit may be awarded by special examination for FREN 3313. No credit by exam is awarded for other 3000-level French except by a score of 4 or 5 on the AP exam or by special permission. Students should consult the following: Credit by Examination.

Italian Studies, B.A.

*Please note that effective fall 2020 the College of Liberal Arts and Social Sciences will no longer accept students into the Italian B.A. degree program. Please see the Italian track within World Cultures and Literatures for an alternate major*

In addition to completing the degree requirements for the Bachelor of Arts, students majoring in Italian Studies must complete 30 semester hours in areas listed. The requirements for the major in Italian Studies include:

1. Six semester hours taken from:
   - ITAL 2301 - Second Year Italian I  
     **Credit Hours: 3.0**
   - ITAL 2302 - Second-Year Italian II  
     **Credit Hours: 3.0**
   - ITAL 2601 - Accelerated Italian Second Year  
     **Credit Hours: 6.0**

2. Nine semester hours in courses
Taught in Italian, or courses that require a substantial amount of written work in Italian, selected from

ITAL 3302 - Reading in Italian Literature since Eighteenth Century  Credit Hours: 3.0
ITAL 3303 - Italian Conversation and Composition  Credit Hours: 3.0
ITAL 3304 - Culture of Italy  Credit Hours: 3.0
ITAL 3305 - Italian Culture Through Films  Credit Hours: 3.0
ITAL 3307 - Italian Renaissance  Credit Hours: 3.0
ITAL 3308 - Italian Heritage  Credit Hours: 3.0
ITAL 3335 - Survey of Italian Literature  Credit Hours: 3.0 (See Notes)
ITAL 4308 - Dante and His World  Credit Hours: 3.0 (See Notes)
ITAL 3309 - Women Writers and Filmmakers of Modern Italy  Credit Hours: 3.0
ITAL 4304 - Italian Culture in English Translation  Credit Hours: 3.0

3. Select one from

ITAL 3335 - Survey of Italian Literature  Credit Hours: 3.0
ITAL 4308 - Dante and His World  Credit Hours: 3.0

4. Twelve semester hours selected from

(students can also substitute courses listed in item 2 that have not been taken or other courses with the consent of the program director).

ARCH 3354 - The Culture of Architecture  Credit Hours: 3.0
CLAS 4381 - Latin Classics in Translation  Credit Hours: 3.0
CLAS 3374 - Women in the Ancient World  Credit Hours: 3.0
CLAS 3341 - The Roman Republic  Credit Hours: 3.0
CLAS 3350 - Law and Society in Ancient Rome  Credit Hours: 3.0
CLAS 3307 - Greek and Roman Myths of Heroes  Credit Hours: 3.0
CLAS 3308 - Myths and Cult of the Greek Gods  Credit Hours: 3.0
ENGL 4330 - European Renaissance  Credit Hours: 3.0
HIST 3340 - Ancient Rome  Credit Hours: 3.0
HIST 3395 - Sel Top-European Hist  Credit Hours: 3.0
    Topic:
    Ancient World Through Films
HIST 4330 - Flowering of the Middle Ages  Credit Hours: 3.0
MUSI 3300 - Listening to Music Masterworks  Credit Hours: 3.0
MUSI 3301 - Listening to World Music  Credit Hours: 3.0
MUSI 4380 - Opera Literature  Credit Hours: 3.0
THEA 3335 - History of the Theatre I  Credit Hours: 3.0
THEA 3336 - History of the Theatre II  Credit Hours: 3.0
WCL 2351 - World Cultures Through Literature and Art  Credit Hours: 3.0
WCL 2352 - World Cinema  Credit Hours: 3.0
WCL 4351 - Frames of Modernity I  Credit Hours: 3.0
WCL 4352 - Frames of Modernity II - Postmodernity and Globalization  Credit Hours: 3.0
WCL 4353 - Frames of Modernity III: Classics and Modernity  Credit Hours: 3.0
WCL 4356 - World Film & Film Theory  Credit Hours: 3.0

Note(s):
Italian Studies majors must earn at least a 2.00 grade point average in all Italian courses counting toward the major and attempted at the University of Houston.

Students who have not taken their first three semesters of Italian at the University of Houston (including those with two or more years of high school Italian, Heritage Learning students, returning from study abroad, etc.) must take a placement examination and see a department advisor before enrolling in Italian courses. The placement exam is available at the Testing Center year round.

Credit may be awarded by examination for courses at the 2000- and 3000-level. For information see the departmental advisor.

Students who have taken the IB or AP Italian Exam may also be able to receive credit for some courses. They should consult the following: Credit by Examination.

Transfer students must take at least 9 semester hours of advanced Italian course work in residence to qualify for a bachelor’s degree with a major in Italian Studies.

ITAL 3335 and ITAL 4308 do not require substantial knowledge of Italian and can be taken even during the First Year. Majors and Minors in Italian must take at least one of the two.

**World Cultures and Literatures, B.A.**

The B.A. degree in World Cultures and Literatures is an interdisciplinary major in the department of Modern & Classical Languages. Students acquire expertise in a foreign language and cross-cultural communication skills through advanced coursework in foreign languages and world or area literary and cultural studies.

In addition to the other requirements for the Bachelor of Arts, students will complete 27 semester hours in the specific track they select. Required courses for each track are specified below.

The Bachelor of Arts in World Cultures and Literatures offers the following tracks:

- Ancient Studies
- German Studies
- Global Cinema Studies
- Francophone Cultures Studies
- Italian Studies
- Middle Eastern Studies
- Studies in Global Modernity

Majors must earn at least a 2.50 cumulative grade point average in all courses counting toward the major track requirements.

**Ancient Studies Track**

1) 3.0 Credit Hours in:

   LATN 2302 - Intermediate Latin II Credit Hours: 3.0 OR
   GREK 2302 - Intermediate Greek II Credit Hours: 3.0

2) 3.0 Credit Hours in:

   WCL 2351 - World Cultures Through Literature and Art Credit Hours: 3.0

3) 3.0 Credit Hours in:

   CLAS 3366 - The Trojan War Credit Hours: 3.0 OR
CLAS 3374 - Women in the Ancient World Credit Hours: 3.0

4) 3.0 Credit Hours in:

CLAS 4381 - Latin Classics in Translation Credit Hours: 3.0 OR
CLAS 4305 - Fifth-Century Athens: Readings in Intellectual, Literary, and Political History Credit Hours: 3.0

5) 3.0 Credit Hours in:

WCL 4353 - Frames of Modernity III: Classics and Modernity Credit Hours: 3.0

6) 12.0 Credit Hours

Twelve credit hours chosen according to the student’s declared program emphasis (with approval of WCL undergraduate director), selected from the following list:

ARTH 2381 - Classical Art Credit Hours: 3.0
ARTH 2382 - Medieval Art and Society Credit Hours: 3.0
CLAS 2366 - Who Owns Antiquity? The Battle Over Our Cultural Heritage Credit Hours: 3.0
CLAS 3307 - Greek and Roman Myths of Heroes Credit Hours: 3.0
CLAS 3308 - Myths and Cult of the Greek Gods Credit Hours: 3.0
CLAS 3345 - Myth and Performance in Greek Tragedy Credit Hours: 3.0
CLAS 3366 - The Trojan War Credit Hours: 3.0
CLAS 3371 - Ancient Comedy and Its Influence Credit Hours: 3.0
CLAS 3374 - Women in the Ancient World Credit Hours: 3.0
CLAS 3375 - Roman, Jew, and Christian: The Politics and Sociology of Religion in the First Century A.D. Credit Hours: 3.0
CLAS 3380 - Epic Masculinity: Ideologies of Manhood in Ancient Epic and Modern Film Credit Hours: 3.0
CLAS 3381 - From Homer to Hollywood: Archaic and Classical Greek Themes in Modern Cinema Credit Hours: 3.0
CLAS 4350 - Age of Augustus Credit Hours: 3.0
CLAS 4370 - Comparative Epic Credit Hours: 3.0
CLAS 4374 - Sex and Gender in Antiquity Credit Hours: 3.0
CLAS 4375 - Gender and Race in Greek Myths Credit Hours: 3.0
ENGL 2360 - Western World Literature - Honors Credit Hours: 3.0
ENGL 3300 - Ancient and Classical Literature Credit Hours: 3.0
ENGL 3302 - Medieval Literature Credit Hours: 3.0
ENGL 3309 - Renaissance Drama Credit Hours: 3.0
ENGL 3323 - Development of Literary Criticism and Theory Credit Hours: 3.0
ENGL 4360 - Bible as Literature Credit Hours: 3.0
ENGL 4366 - Introduction to Folklore Credit Hours: 3.0
HIST 2351 - Western Civilization to 1450 Credit Hours: 3.0
HIST 2361 - The Study of Early Civilizations Credit Hours: 3.0
HIST 3379 - World Civilizations to 1500 Credit Hours: 3.0
HIST 3339 - Ancient Greece Credit Hours: 3.0
HIST 3340 - Ancient Rome Credit Hours: 3.0
HIST 4350 - Alexander the Great Credit Hours: 3.0
HON 2301 - The Human Situation: Antiquity Credit Hours: 3.0
WCL 3355 - Goddesses and Other Divine Women Credit Hours: 3.0

German Studies Track
1) 9.0 Credit Hours in:

- GERM 3333 - German Conversation and Composition **Credit Hours: 3.0**
- GERM 3330 - Reading German Texts **Credit Hours: 3.0**
- GERM 3334 - German Conversation and Composition **Credit Hours: 3.0**

2) 6.0 Credit Hours

Six credit hours selected from the following list:

- GERM 3362 - Paris - Berlin: Tales of Two Cities **Credit Hours: 3.0**
- GERM 3363 - Themes in German Drama **Credit Hours: 3.0**
- GERM 3364 - Writing Holocausts: The Literatures of Genocide **Credit Hours: 3.0**
- GERM 3380 - German Women Film Directors **Credit Hours: 3.0**
- GERM 3381 - History of German Cinema **Credit Hours: 3.0**
- GERM 3382 - History of German Cinema **Credit Hours: 3.0**
- GERM 3384 - Fascism and German Cinema **Credit Hours: 3.0**
- GERM 3385 - East German Cinema **Credit Hours: 3.0**
- GERM 3386 - Films of Fassbinder **Credit Hours: 3.0**
- WCL 4364 - History of Drama in Northern and Central Europe **Credit Hours: 3.0**
- WCL 3369 - Science Fiction in Literature and Film **Credit Hours: 3.0** OR
- HIST 3357 - Modern Germany, 1815-1918 **Credit Hours: 3.0** OR
- HIST 3358 - Modern Germany Since 1918 **Credit Hours: 3.0**
- POLS 3324 - Government and Politics in Contemporary Germany **Credit Hours: 3.0**

3) 3.0 Credit Hours

Three credit hours selected from the following list:

- GERM 3331 - Introduction to German Literature I **Credit Hours: 3.0**
- GERM 3332 - Introduction to German Literature II **Credit Hours: 3.0**
- GERM 3397 - Selected Topics in German Language, Culture, Civilization, and Literature **Credit Hours: 3.0**
- GERM 3329 - Introduction to Translation **Credit Hours: 3.0**

4) 6.0 Credit Hours

Six credit hours of 4000-level GERM courses (taught in German), selected from the following list:

- GERM 4329 - Advanced Translation **Credit Hours: 3.0**
- GERM 4356 - Romanticism **Credit Hours: 3.0**
- GERM 4357 - German Literature 1890-1945 **Credit Hours: 3.0**
- GERM 4358 - German Literature Since 1945 **Credit Hours: 3.0**
- GERM 4359 - Germany since Reunification **Credit Hours: 3.0**
- GERM 4361 - Advanced Writing and Reading Across Disciplines **Credit Hours: 3.0**
- GERM 4373 - German Cultural History I: From the Beginnings to World War I **Credit Hours: 3.0**
- GERM 4374 - German Cultural History II: The Twentieth Century **Credit Hours: 3.0**
- GERM 4397 - Selected Topics in German Language and Literature **Credit Hours: 3.0**
- GERM 4370 - Vienna 1900 - The Birth of the Modern **Credit Hours: 3.0**
5) 3.0 Credit Hours in:

WCL 4351 - Frames of Modernity I  Credit Hours: 3.0

Global Cinema Studies Track

1) 6.0 Credit Hours in:

WCL 2351 - World Cultures Through Literature and Art  Credit Hours: 3.0
WCL 2352 - World Cinema  Credit Hours: 3.0

2) 3.0 Credit Hours in:

WCL 4351 - Frames of Modernity I  Credit Hours: 3.0 OR
WCL 4352 - Frames of Modernity II - Postmodernity and Globalization  Credit Hours: 3.0

3) 6.0 Credit Hours

Six hours at the 3000-level taught in a foreign language.

4) 9.0 Credit Hours

Nine credit hours of film courses selected from the following list:

CHNS 3350 - Chinese Culture Through Films  Credit Hours: 3.0
FREN 3319 - History of French Cinema  Credit Hours: 3.0
FREN 3322 - Cinema of French-Speaking Africa  Credit Hours: 3.0
GERM 3381 - History of German Cinema  Credit Hours: 3.0
GERM 3380 - German Women Film Directors  Credit Hours: 3.0
GERM 3382 - History of German Cinema  Credit Hours: 3.0
GERM 3384 - Fascism and German Cinema  Credit Hours: 3.0
GERM 3385 - East German Cinema  Credit Hours: 3.0
GERM 3386 - Films of Fassbinder  Credit Hours: 3.0
GERM 3387 - Films of Herzog  Credit Hours: 3.0
GERM 3388 - Films of Wenders  Credit Hours: 3.0
GERM 3395 - Topics in German Cinema  Credit Hours: 3.0
HIST 3397 - Sel Tops-African History  Credit Hours: 3.0

Topic:

Pictures and Words: Palestine-Israel Conflict Through Film

ITAL 3306 - Italian Cinema  Credit Hours: 3.0
RUSS 3307 - Soviet and Post-Soviet Cinema: Collapse of the Soviet Realm and Revival of National Identity  Credit Hours: 3.0
WCL 4365 - World Fiction & Reportage  Credit Hours: 3.0
WCL 4355 - World Film & Film Theory  Credit Hours: 3.0
WCL 3342 - Tales of East Asian Cities  Credit Hours: 3.0
WCL 3371 - Cities in Film and the Arts  Credit Hours: 3.0
WCL 3372 - Indian Film: Bollywood and Beyond  Credit Hours: 3.0
WCL 3373 - Gender and Sexuality in World Film  Credit Hours: 3.0
WCL 3364 - World TV  
Credit Hours: 3.0

WCL 3366 - Latin American and Latino Film Studies  
Credit Hours: 3.0

WCL 3367 - National Cinema in a Global Perspective  
Credit Hours: 3.0

WCL 3375 - Black Cuba in Literature and Visual Culture  
Credit Hours: 3.0

5) 3.0 Credit Hours

Three credit hours selected from the following list:

COMM 3370 - History of Cinema  
Credit Hours: 3.0

COMM 2370 - Introduction to Motion Pictures  
Credit Hours: 3.0

SOC 3340 - Sociology of Film  
Credit Hours: 3.0

ENGL 4373 - Film, Text, and Politics  
Credit Hours: 3.0

ARTH 3396 - Selected Topics in Critical Studies in Film and Video  
Credit Hours: 3.0

Francophone Cultures Studies Track

1) 6.0 Credit Hours in:

FREN 3313 - Advanced Grammar and Composition  
Credit Hours: 3.0

plus additional course at the 3000-level (taught in French)  
Credit Hours: 3.0

2) 3.0 Credit Hours in:

WCL 2351 - World Cultures Through Literature and Art  
Credit Hours: 3.0

3) 3.0 Credit Hours in:

Three credit hours in a 4000-level capstone course.

WCL 4351 - Frames of Modernity I  
Credit Hours: 3.0

WCL 4352 - Frames of Modernity II - Postmodernity and Globalization  
Credit Hours: 3.0

WCL 4354 - Frames of Modernity IV: The Global South Before WWII  
Credit Hours: 3.0

WCL 4355 - Frames of Modernity V: The Global South From WWII to Present  
Credit Hours: 3.0

4) 9.0 Credit Hours

Nine credit hours from the following list:

FREN 3362 - Paris - Berlin: Tales of Two Cities  
Credit Hours: 3.0

FREN 3319 - History of French Cinema  
Credit Hours: 3.0

FREN 3322 - Cinema of French-Speaking Africa  
Credit Hours: 3.0

FREN 3364 - Writing Holocausts: The Literatures of Genocide  
Credit Hours: 3.0

WCL 4367 - Voices from Exile and Diaspora  
Credit Hours: 3.0

5) 6.0 Credit Hours
Six credit hours from the following list:

- HIST 3352 - Modern France Since 1870 **Credit Hours: 3.0**
- HIST 3356 - History of Madness **Credit Hours: 3.0**
- HIST 4338 - Enlightenment Stories: The Thought and Literature of the Enlightenment **Credit Hours: 3.0**
- HIST 4327 - Europe 1930-1945 **Credit Hours: 3.0**

**Italian Studies Track**

1) **3.0 Credit Hours**

Three credit hours taken from:

- WCL 4351 - Frames of Modernity I **Credit Hours: 3.0**
- WCL 4352 - Frames of Modernity II - Postmodernity and Globalization **Credit Hours: 3.0**
- WCL 4353 - Frames of Modernity III: Classics and Modernity **Credit Hours: 3.0**

2) **6.0 Credit Hours**

Six credit hours taken from:

- ITAL 3303 - Italian Conversation and Composition **Credit Hours: 3.0** (Students can take either ITAL 3303 or ITAL 3304 to fulfill the requirement)
- ITAL 3304 - Culture of Italy **Credit Hours: 3.0** (Students can take either ITAL 3304 or ITAL 3303 to fulfill the requirement)
- ITAL 3335 - Survey of Italian Literature **Credit Hours: 3.0** (Students can take either ITAL 3335 or ITAL 4308 to fulfill the requirement)
- ITAL 4308 - Dante and His World **Credit Hours: 3.0** (Students can take either ITAL 4308 or ITAL 3335 to fulfill the requirement)

3) **6.0 Credit Hours**

Six credit hours taken from:

- ITAL 2301 - Second Year Italian I **Credit Hours: 3.0**
- ITAL 2302 - Second-Year Italian II **Credit Hours: 3.0**
- ITAL 2601 - Accelerated Italian Second Year **Credit Hours: 6.0**

4) **6.0 Credit Hours**

Six credit hours taken from:

- ITAL 3302 - Reading in Italian Literature since Eighteenth Century **Credit Hours: 3.0**
- ITAL 3303 - Italian Conversation and Composition **Credit Hours: 3.0**
- ITAL 3304 - Culture of Italy **Credit Hours: 3.0**

Taught in English, but requiring (for minors and majors) a substantial amount of written work in Italian, selected from

- ITAL 3305 - Italian Culture Through Films **Credit Hours: 3.0**
- ITAL 3307 - Italian Renaissance **Credit Hours: 3.0**
- ITAL 3308 - Italian Heritage **Credit Hours: 3.0**
- ITAL 3309 - Women Writers and Filmmakers of Modern Italy **Credit Hours: 3.0**
- ITAL 3335 - Survey of Italian Literature **Credit Hours: 3.0**
- ITAL 3396 - Sel Tops-Ital Lang,Cult & Lit **Credit Hours: 3.0**
ITAL 3397 - Topics in Italian Literature in Translation Credit Hours: 3.0

5) 6.0 Credit Hours

Six credit hours taken from:

(students can also substitute courses listed in item 2 and 3 that have not been taken or other courses with the consent of the program director).

ITAL 4304 - Italian Culture in English Translation Credit Hours: 3.0
ITAL 4305 - Teaching Italian as a Foreign Language Credit Hours: 3.0
ITAL 4307 - Italian Renaissance Credit Hours: 3.0
ITAL 4308 - Dante and His World Credit Hours: 3.0
ITAL 4397 - Topics in Italian Literature Credit Hours: 3.0
CLAS 3307 - Greek and Roman Myths of Heroes Credit Hours: 3.0
CLAS 3308 - Myths and Cult of the Greek Gods Credit Hours: 3.0
CLAS 3341 - The Roman Republic Credit Hours: 3.0
CLAS 3350 - Law and Society in Ancient Rome Credit Hours: 3.0
CLAS 3374 - Women in the Ancient World Credit Hours: 3.0
CLAS 4381 - Latin Classics in Translation Credit Hours: 3.0
ENGL 4330 - European Renaissance Credit Hours: 3.0
HIST 3340 - Ancient Rome Credit Hours: 3.0
HIST 3395 - Sel Top-European Hist Credit Hours: 3.0
HIST 4330 - Flowering of the Middle Ages Credit Hours: 3.0
MUSI 4380 - Opera Literature Credit Hours: 3.0
WCL 2351 - World Cultures Through Literature and Art Credit Hours: 3.0
WCL 2352 - World Cinema Credit Hours: 3.0
WCL 3367 - National Cinema in a Global Perspective Credit Hours: 3.0
WCL 3373 - Gender and Sexuality in World Film Credit Hours: 3.0
WCL 4351 - Frames of Modernity I Credit Hours: 3.0
WCL 4352 - Frames of Modernity II - Postmodernity and Globalization Credit Hours: 3.0
WCL 4353 - Frames of Modernity III: Classics and Modernity Credit Hours: 3.0
WCL 4356 - World Film & Film Theory Credit Hours: 3.0

Note(s):

ITAL 3335 and ITAL 4308 do not require substantial knowledge of Italian and can be taken even during the First Year. WCL Majors in Italian Studies Track and Minors in Italian must take at least one of the two. However, students who take ITAL 3335 can also take ITAL 4308 as elective, and vice versa.

Italian Studies majors must earn at least a 2.00-grade point average in all Italian courses counting toward the major and attempted at the University of Houston.

Students who have not taken their first three semesters of Italian at the University of Houston (including those with two or more years of high school Italian, Heritage Learning students, returning from study abroad, etc.) must take a placement examination and see a department advisor before enrolling in Italian courses. The placement exam is available at the Testing Center year-round.

Credit may be awarded by examination for courses at the 2000- and 3000-level. For information see the departmental advisor.

Students who have taken the IB or AP Italian Exam may also be able to receive credit for some courses. They should consult the following: Credit by Examination.

Transfer students must take at least 9 semester hours of advanced Italian course work in residence to qualify for a WCL degree with Italian Studies Track.
Middle Eastern Studies Track

1) 3.0 Credit Hours in:

WCL 2351 - World Cultures Through Literature and Art Credit Hours: 3.0

2) 3.0 Credit Hours in:

Three credit hours in a 4000-level capstone course.

WCL 4351 - Frames of Modernity I Credit Hours: 3.0 OR
WCL 4352 - Frames of Modernity II - Postmodernity and Globalization Credit Hours: 3.0
WCL 4354 - Frames of Modernity IV: The Global South Before WWII Credit Hours: 3.0
WCL 4355 - Frames of Modernity V: The Global South From WWII to Present Credit Hours: 3.0

3) 3.0 Credit Hours in:

ARAB 2302 - Intermediate Arabic II Credit Hours: 3.0 OR

4) 18.0 Credit Hours

Eighteen hours selected from the following list:

ARAB 3301 - Advanced Modern Standard Arabic I Credit Hours: 3.0
ARAB 3302 - Advanced Modern Standard Arabic II Credit Hours: 3.0
ARAB 3312 - Introduction to Arabic Literature in Translation Credit Hours: 3.0
ARAB 3313 - Qur’an as Literature Credit Hours: 3.0
ARAB 3314 - Women and Gender in Arabic Literature Credit Hours: 3.0
ARTH 3313 - Roman Art Credit Hours: 3.0
ARAB 3340 - Modernity and Rationalism in Islamic Tradition Credit Hours: 3.0
ARAB 3377 - Energy, Society and the Middle East Credit Hours: 3.0
ARAB 3397 - Selected Topics in Arab Studies Credit Hours: 3.0
ENGL 3365 - Postcolonial Literature Credit Hours: 3.0
FREN 3322 - Cinema of French-Speaking Africa Credit Hours: 3.0
HIST 3378 - Modern Middle East Credit Hours: 3.0
HIST 3390 - Middle East: Pictures & Words Credit Hours: 3.0
HIST 3397 - Sel Tops-African History Credit Hours: 3.0
HIST 4393 - Selected Topics: Middle East Credit Hours: 3.0
POLS 3326 - Government and Politics in the Middle East Credit Hours: 3.0
POLS 4333 - Islam and Democracy Credit Hours: 3.0
POLS 4348 - Contemporary Islamic Political Thought Credit Hours: 3.0
RELS 2330 - Judaism Credit Hours: 3.0
RELS 2350 - Introduction to Islam Credit Hours: 3.0
RELS 3360 - Muslim-Christian Relations Credit Hours: 3.0
WCL 2380 - Introduction to Jewish Studies Credit Hours: 3.0
WGSS 3321 - Gender in Transnational Perspective Credit Hours: 3.0
WCL 3341 - Early Islamic Society: Literature and Thought Credit Hours: 3.0
WCL 3376 - Photography - Creating Visual Stories, Local and Global Credit Hours: 3.0
WCL 3377 - The Modern Middle East: Literature, Politics, and Ideas Credit Hours: 3.0

Studies in Global Modernity Track

1) 6.0 Credit Hours in:

   WCL 2351 - World Cultures Through Literature and Art Credit Hours: 3.0
   WCL 2352 - World Cinema Credit Hours: 3.0

2) 6.0 Credit Hours

   Six hours at the 3000-level in a foreign language.

3) 3.0 Credit Hours in:

   Three hours in a 4000-level capstone course.

   WCL 4351 - Frames of Modernity I Credit Hours: 3.0 OR
   WCL 4352 - Frames of Modernity II - Postmodernity and Globalization Credit Hours: 3.0
   WCL 4354 - Frames of Modernity IV: The Global South Before WWII Credit Hours: 3.0
   WCL 4355 - Frames of Modernity V: The Global South From WWII to Present Credit Hours: 3.0

4) 12.0 Credit Hours

   Twelve credit hours selected from the following list:

   CHNS 3360 - A Look Into Modern China Credit Hours: 3.0
   CHNS 3350 - Chinese Culture Through Films Credit Hours: 3.0
   CHNS 3352 - Chinese Culture and Society Through Modern Literature Credit Hours: 3.0
   ENGL 3365 - Postcolonial Literature Credit Hours: 3.0
   FREN 3319 - History of French Cinema Credit Hours: 3.0
   FREN 3322 - Cinema of French-Speaking Africa Credit Hours: 3.0
   FREN 3362 - Paris - Berlin: Tales of Two Cities Credit Hours: 3.0
   GERM 3350 - Understanding the 20th Century through German Culture Credit Hours: 3.0
   GERM 3362 - Paris - Berlin: Tales of Two Cities Credit Hours: 3.0
   GERM 3364 - Writing Holocausts: The Literatures of Genocide Credit Hours: 3.0
   GERM 3380 - German Women Film Directors Credit Hours: 3.0
   GERM 3382 - History of German Cinema Credit Hours: 3.0
   GERM 3384 - Fascism and German Cinema Credit Hours: 3.0
   GERM 3385 - East German Cinema Credit Hours: 3.0
   GERM 3386 - Films of Fassbinder Credit Hours: 3.0
   GERM 3387 - Films of Herzog Credit Hours: 3.0
   GERM 3388 - Films of Wenders Credit Hours: 3.0
   ITAL 3306 - Italian Cinema Credit Hours: 3.0
   ITAL 3309 - Women Writers and Filmmakers of Modern Italy Credit Hours: 3.0
   ITAL 3308 - Italian Heritage Credit Hours: 3.0
   ITAL 4304 - Italian Culture in English Translation Credit Hours: 3.0
   RUSS 3307 - Soviet and Post-Soviet Cinema: Collapse of the Soviet Realm and Revival of National Identity Credit Hours: 3.0
VIET 3300 - The Global Vietnamese Diaspora Credit Hours: 3.0
WCL 3365 - World Fiction & Reportage Credit Hours: 3.0
WCL 3368 - Pop Cultures and World Media Credit Hours: 3.0
WCL 3369 - Science Fiction in Literature and Film Credit Hours: 3.0
WCL 3371 - Cities in Film and the Arts Credit Hours: 3.0
WCL 3373 - Gender and Sexuality in World Film Credit Hours: 3.0
WCL 3375 - Black Cuba in Literature and Visual Culture Credit Hours: 3.0
WCL 3376 - Photography - Creating Visual Stories, Local and Global Credit Hours: 3.0
WCL 3377 - The Modern Middle East: Literature, Politics, and Ideas Credit Hours: 3.0
WCL 3378 - Debating India and the World Credit Hours: 3.0
WCL 3379 - Media & Post-Millennial Writings in India Credit Hours: 3.0
WCL 4367 - Voices from Exile and Diaspora Credit Hours: 3.0
WCL 4378 - Cultures of Dissent: A Global Perspective Credit Hours: 3.0
WCL 4379 - Critical Theory and Globalization Credit Hours: 3.0

Minor

Arab Studies Minor

The minor in Arab Studies requires 18 semester hours (at least 9 advanced hours) taken from the courses listed below. A minimum of 12 hours must be taken in residence, and at least 6 of the 9 advanced hours must be taken in residence. A student must earn a 2.00 cumulative grade point average in courses attempted in the minor field at the University of Houston.

The minor in Arab Studies consists of the following 18 hour requirement:

1. Nine semester hours required from:

   ARAB 2302 - Intermediate Arabic II Credit Hours: 3.0
   ARAB 3301 - Advanced Modern Standard Arabic I Credit Hours: 3.0
   ARAB 3302 - Advanced Modern Standard Arabic II Credit Hours: 3.0

2. Nine semester hours taken from:

   ARAB 3312 - Introduction to Arabic Literature in Translation Credit Hours: 3.0
   ARAB 3313 - Qur'an as Literature Credit Hours: 3.0
   ARAB 3314 - Women and Gender in Arabic Literature Credit Hours: 3.0
   ARAB 3340 - Modernity and Rationalism in Islamic Tradition Credit Hours: 3.0
   ARAB 3377 - Energy, Society and the Middle East Credit Hours: 3.0
   ARAB 3397 - Selected Topics in Arab Studies Credit Hours: 3.0
   ARTH 3317 - Ancient Near Eastern Art Credit Hours: 3.0
   ENGL 3365 - Postcolonial Literature Credit Hours: 3.0
   HIST 3378 - Modern Middle East Credit Hours: 3.0
   HIST 3390 - Middle East: Pictures & Words Credit Hours: 3.0
   HIST 3397 - Sel Tops-African History Credit Hours: 3.0
   HIST 4393 - Selected Topics: Middle East Credit Hours: 3.0
   POLS 3326 - Government and Politics in the Middle East Credit Hours: 3.0
   POLS 4333 - Islam and Democracy Credit Hours: 3.0
   POLS 4348 - Contemporary Islamic Political Thought Credit Hours: 3.0
RELS 2350 - Introduction to Islam Credit Hours: 3.0
RELS 3360 - Muslim-Christian Relations Credit Hours: 3.0
WGSS 3321 - Gender in Transnational Perspective Credit Hours: 3.0
WCL 3341 - Early Islamic Society: Literature and Thought Credit Hours: 3.0
WCL 3377 - The Modern Middle East: Literature, Politics, and Ideas Credit Hours: 3.0

Chinese Studies Minor

Components of the curriculum in Chinese Studies:

The minor in Chinese Studies requires 15 semester hours (at least 12 advanced hours) taken from the courses listed below. A minimum of 9 hours must be taken in residence, and at least 6 of the 9 hours must be advanced. A student must earn a 2.00-grade point average in all courses attempted in the minor field at the University of Houston.

Required Courses

Nine hours must be taken from:

CHNS 2302 - Intermediate Chinese II Credit Hours: 3.0
CHNS 3301 - Advanced Mandarin Chinese I Credit Hours: 3.0
CHNS 3302 - Advanced Mandarin Chinese II Credit Hours: 3.0
CHNS 3303 - Readings in Modern Chinese Credit Hours: 3.0
CHNS 3304 - Business Chinese Credit Hours: 3.0
CHNS 3305 - Survey of Chinese Literature Credit Hours: 3.0
CHNS 4301 - Public Speaking in Chinese Credit Hours: 3.0
CHNS 4302 - Integrated Chinese Credit Hours: 3.0
CHNS 4364 - Issues in Chinese Language and Linguistics Credit Hours: 3.0

Six hours must be taken from:

CHNS 3350 - Chinese Culture Through Films Credit Hours: 3.0
CHNS 3352 - Chinese Culture and Society Through Modern Literature Credit Hours: 3.0
CHNS 3354 - Chinese Culture and Language Credit Hours: 3.0
CHNS 3359 - Chinese Culture through History Credit Hours: 3.0
CHNS 3360 - A Look Into Modern China Credit Hours: 3.0
CHNS 3396 - Selected Topics Credit Hours: 3
CHNS 3398 - Independent Study Credit Hours: 1.0
CHNS 3342 - Tales of East Asian Cities Credit Hours: 3.0
CHNS 3343 - Chinese Popular Culture Credit Hours: 3.0
CHNS 3344 - Modern and Contemporary Global Chinese Literature Credit Hours: 3.0

Classical Studies Minor

College of Liberal Arts & Social Sciences > Department of Modern and Classical Languages > Classical Studies Minor

Students minoring in Classical Studies must complete at least 15 semester hours in ancient Greek and/or Roman civilization as follows:
1. Six semester hours from

HIST 3339 - Ancient Greece Credit Hours: 3.0
HIST 3340 - Ancient Rome Credit Hours: 3.0
HIST 4350 - Alexander the Great Credit Hours: 3.0
CLAS 3374 - Women in the Ancient World Credit Hours: 3.0
CLAS 4381 - Latin Classics in Translation Credit Hours: 3.0
Another course by consent of the director.

2. Three semester hours from

CLAS 3307 - Greek and Roman Myths of Heroes Credit Hours: 3.0
CLAS 3308 - Myths and Cult of the Greek Gods Credit Hours: 3.0
Another course by consent of the director.

3. Six elective semester hours from any

CLAS, Latin (2301 and above) or Greek (2301 and above) courses, or others by consent of the director.

Note(s):

Students may use up to six semester hours from relevant courses taken for their major or another minor, by consent of the director. A grade point average of no less than 2.0 must be maintained to obtain the minor in classical studies. Nine of the fifteen semester hours must be at the advanced level, and six of those nine advanced hours must be taken in residence.

French for the Business-Related Professions Minor

Students minoring in French for the Business-Related Professions must complete at least 15 semester hours in French, of which 12 must be advanced, including FREN 3316, FREN 3317, and FREN 4317. French minors must earn a 2.00 grade point average on all French courses attempted in the minor at the University of Houston.

French Minor

Students minoring in French must complete at least 15 semester hours in French. Twelve hours must be advanced, including three at the 4000-level. At least nine of the advanced semester hours in French must be completed in residence. French minors must earn a 2.00 minimum grade point average on all French courses attempted at the University of Houston.

German Area Studies Minor

A minor in German area studies requires 15 semester hours taken from courses listed below. A minimum of nine semester hours must be in residence. A student must earn a 2.00 grade point average in all courses attempted in the minor field at the University of Houston.

1. Requirements:
GERM 3333 - German Conversation and Composition **Credit Hours: 3.0**
GERM 3330 - Reading German Texts **Credit Hours: 3.0** or
GERM 3334 - German Conversation and Composition **Credit Hours: 3.0**
GERM 4373 - German Cultural History I: From the Beginnings to World War I **Credit Hours: 3.0** or
GERM 4374 - German Cultural History II: The Twentieth Century **Credit Hours: 3.0**

2. Six semester hours selected from

   GERM 3350 - Understanding the 20th Century through German Culture **Credit Hours: 3.0**
   GERM 3362 - Paris - Berlin: Tales of Two Cities **Credit Hours: 3.0**
   GERM 3363 - Themes in German Drama **Credit Hours: 3.0**
   GERM 3364 - Writing Holocausts: The Literatures of Genocide **Credit Hours: 3.0**
   GERM 3380 - German Women Film Directors **Credit Hours: 3.0**
   GERM 3384 - Fascism and German Cinema **Credit Hours: 3.0**
   GERM 3385 - East German Cinema **Credit Hours: 3.0**
   GERM 3386 - Films of Fassbinder **Credit Hours: 3.0**
   GERM 3387 - Films of Herzog **Credit Hours: 3.0**
   GERM 3388 - Films of Wenders **Credit Hours: 3.0**
   HIST 3357 - Modern Germany, 1815-1918 **Credit Hours: 3.0**
   HIST 3358 - Modern Germany Since 1918 **Credit Hours: 3.0**

   From other disciplines if course content relates directly to the field of German Area Studies. Approval by program director required.

**German Minor**

Students minoring in German must complete at least 15 semester hours in German. Twelve hours must be advanced, including three at the 4000-level. At least nine of the advanced semester hours in German must be completed in residence. German minors must earn at least a 2.00 minimum grade point average on all German courses attempted at the University of Houston.

**Greek Minor**

Students minoring in Greek must complete at least 15 hours in ancient Greek language and literature and Greek civilization as follows:

   GREK 2301 and GREK 2302.
   GREK 3398 and GREK 4398 or equivalent.
   Three semester hours from HIST 3339 or another course approved by the director.

   Another advanced course with the prefix CLAS relevant to the minor may be substituted with the approval of the Classical Studies advisor.

   Nine semester hours of the minor including six advanced hours must be completed in residence. A 2.00 minimum grade point average must be earned on all minor courses attempted at the University of Houston.

**India Studies Minor**

The minor in India Studies requires 15 semester hours (at least 9 advanced hours) taken from the courses listed below. Other courses with content relevant for India Studies may be petitioned and require approval from the Chair of Modern and Classical Languages. A minimum of 9 hours must be taken in residence. No more than one independent study course may be applied toward the minor. A student must earn a 2.00 cumulative grade point average in courses attempted in the minor field at the University of Houston.
Courses

HIND 2301 - Intermediate Hindi I  Credit Hours: 3.0
HIND 2302 - Intermediate Hindi II  Credit Hours: 3.0

ANTH 3316 - Society and Culture of India  Credit Hours: 3.0
ANTH 3381 - Global Hinduism  Credit Hours: 3.0 (WID)
(Either ANTH 3381 or RELS 3381; only one will count toward the minor)
ANTH 3347 - Anthropology of Women  Credit Hours: 3.0

ARTH 3318 - Art and Architecture of India  Credit Hours: 3.0

ENGL 2323 - Literature and Identity  Credit Hours: 3.0
ENGL 2325 - Literary Traditions of the Nonwestern World  Credit Hours: 3.0
ENGL 3365 - Postcolonial Literature  Credit Hours: 3.0

ECON 4389 - Topics in Contemporary Economics II  Credit Hours: 3.0

INDI 2397 - Selected Topics in India Studies  Credit Hours: 3.0
INDI 3397 - Selected Topics in India Studies  Credit Hours: 3.0
INDI 4397 - Selected Topics in India Studies  Credit Hours: 3.0
INDI 3398 - Independent Study  Credit Hours: 3.0
INDI 4398 - Independent Study  Credit Hours: 3.0
INDI 3356 - Comparative Modernisms: The Global South  Credit Hours: 3.0
(Either WCL 3356 or INDI 3356; only one will count toward the minor)
INDI 3355 - Yoga and Philosophy  Credit Hours: 3.0
(Either INDI 3355 or RELS 3355; only one will count toward the minor)
INDI 3372 - Indian Film: Bollywood and Beyond  Credit Hours: 3.0
(Either WCL 3372 or INDI 3372; only one will count toward minor)
INDI 3378 - Debating India and the World  Credit Hours: 3.0
INDI 3379 - Media & Post-Millennial Writings in India  Credit Hours: 3.0

HIST 2363 - Study of Modern Civilizations  Credit Hours: 3.0
POLS 3323 - Introduction to the Government and Politics of India  Credit Hours: 3.0
POLS 4348 - Contemporary Islamic Political Thought  Credit Hours: 3.0
POLS 3382 - Politics and Religion in South Asia  Credit Hours: 3.0
(Either POLS 3382 or RELS 3382; only one will count toward the minor)

RELS 2340 - Introduction to Hinduism  Credit Hours: 3.0 (WID)
RELS 2345 - Sacred Texts and Mythologies of India  Credit Hours: 3.0
RELS 2350 - Introduction to Islam  Credit Hours: 3.0 (WID)
RELS 2360 - Introduction to Buddhism  Credit Hours: 3.0
(RELS 3355 - Yoga and Philosophy  Credit Hours: 3.0
RELS 3380 - Introduction to Asian Religions  Credit Hours: 3.0
RELS 3381 - Global Hinduism  Credit Hours: 3.0
(Either RELS 3381 or ANTH 3381; only one will count toward the minor)
RELS 3382 - Politics and Religion in South Asia  Credit Hours: 3.0
(Either POLS 3382 or RELS 3382; only one will count toward the minor)
SOC 3355 - Sociology of India *Credit Hours: 3.0*
SOC 3362 - Sociology of Religion of India *Credit Hours: 3.0*
SOC 3385 - Sociology of World Religions *Credit Hours: 3.0*

WCL 2351 - World Cultures Through Literature and Art *Credit Hours: 3.0*
WCL 2370 - Cultures of India *Credit Hours: 3.0*
WCL 3355 - Goddesses and Other Divine Women *Credit Hours: 3.0*
WCL 3372 - Indian Film: Bollywood and Beyond *Credit Hours: 3.0*
(Either WCL 3372 or INDI 3372; only one will count toward the minor)

INTB 3350 - Introduction To International Business *Credit Hours: 3.0*
BUSI 1301 - Business Principles *Credit Hours: 3.0* (Honors Section)
INTB 3355 - Global Environment of Business *Credit Hours: 3.0* (Honors Section)

WCLSS 3321 - Gender in Transnational Perspective *Credit Hours: 3.0*

**Italian Minor**

Students minoring in Italian must complete at least 15 semester hours in Italian, nine of which must be advanced. Students must complete the following:

1) Six Credit Hours:

   ITAL 2301 - Second Year Italian I *Credit Hours: 3.0*
   ITAL 2302 - Second-Year Italian II *Credit Hours: 3.0*

2) Six Credit Hours:

   Six semester hours of Italian (ITAL) coursework at the 3000 or 4000 level.

3) Three Credit Hours:

   ITAL 4308 - Dante and His World *Credit Hours: 3.0* OR
   ITAL 3336 - Survey of Italian Literature in Translation *Credit Hours: 3.0*

**Additional Requirements**

Nine semester hours of the minor, including six advanced hours, must be completed in residence.
A 2.00 minimum grade point average must be earned on all minor courses attempted at the University of Houston.

**Jewish Studies Minor**

The Jewish Studies Program takes a broad interdisciplinary and multidimensional approach to the global study of Jewish cultures, exploring the rich diversity of their cultures, their philosophies, their religious practices, their histories, their roles in politics, and other areas of contemporary life.
This 18-hour interdisciplinary minor offers students the opportunity to study the key elements shaping the Jewish experience (religion, ethnicity, history, culture, nationality, art, and literature) essential to understanding today’s complex and diverse society. Jewish Studies introduces students not only to the theory behind these concepts but also to how they shape everyday lives.

The minor in Jewish Studies consists of the following 18 hour requirement. Additional courses may qualify with approval by the director:

1. Six hours of required courses:
   - WCL 2380 - Introduction to Jewish Studies Credit Hours: 3.0
   - WCL 3380 - American Jewish Culture Credit Hours: 3.0

2. Twelve semester hours taken from:
   - CLAS 3375 - Roman, Jew, and Christian: The Politics and Sociology of Religion in the First Century A.D. Credit Hours: 3.0
   - ENGL 3366 - Jewish-American Literature Credit Hours: 3.0
   - GERM 3364 - Writing Holocausts: The Literatures of Genocide Credit Hours: 3.0
   - HIST 3358 - Modern Germany Since 1918 Credit Hours: 3.0
   - HIST 3397 - Sel Tops-African History Credit Hours: 3.0
   - RELS 2330 - Judaism Credit Hours: 3.0
   - RELS 2335 - Rabbinic Biblical Interpretation Credit Hours: 3.0
   - WCL 3383 - Eastern European Jewish Culture
   - WCL 3384 - Jewish Women Through Biography Credit Hours: 3.0
   - WCL 4367 - Voices from Exile and Diaspora Credit Hours: 3.0
   - JWST 3371 - Women in the Hebrew Bible/Old Testament Credit Hours: 3.0
   - JWST 2372 - The Bible and Modern Pop Culture Credit Hours: 3.0

Note(s):

At least 12 of the 18 hours must be taken in residence of which 9 must be advanced.

**Latin Minor**

Students minoring in Latin must complete at least 15 hours in Latin language or literature and Roman Civilization:

- LATN 2301 and LATN 2302.
- LATN 3301 and LATN 3302.
- HIST 3340.

Another advanced course with the prefix CLAS relevant to the minor may be substituted with the approval of the classical studies advisor.

Nine semester hours of the minor including six advanced hours must be completed in residence. A 2.00 minimum grade point average must be earned on all minor courses attempted at the University of Houston.

**World Cultures and Literatures Minor**

The minor in World Cultures and Literatures (WCL) requires a minimum of 18 semester hours:

Three hours in an introductory course, World Cultures through Literature and the Arts.
Three hours in a 4000-level capstone course, Frames of Modernity.

Three hours in a modern and classical languages course at the level of 2302 or above in the student’s chosen language area and/or a class on race, gender, women’s or non-Western studies.

Nine hours chosen according to the student’s declared program emphasis and the approval of the WCL Director.

At least 12 of the 18 hours must be in residence including nine hours at the 3000- or 4000-level. As many as three approved courses may be taken outside WCL itself.

A minimum 2.0 grade point average for all courses in the minor is required.

Naval Science

Overview

The University of Houston, in collaboration with Rice University, offers scholarships that lead to a commission as a Naval Officer, as well as a minor in Naval Science.

Students enroll in the Navy Reserve Officers' Training Corps (NROTC) program as scholarship or non-scholarship students. Sophomores may apply for the optional two-year program that aims to provide a scholarship for the student’s junior and senior year.

The Department of Naval Science is administered by a senior U.S. Navy officer, assisted by officers and enlisted personnel of the U.S. Navy and Marine Corps.

Advising

The Naval Science courses offered by the University of Houston are taught at Rice University. Advising for the minor is available at the following location on the Rice campus

Naval Science Building
Rice University
6100 Main Street
Houston, TX
713-348-4825

Minor

Naval Science Minor

Program Learning Outcomes for Minor in Naval Science

Students graduating from this program will:

- Gain a broad understanding of the United States Navy and Marine Corps to include their current structure, organization, missions, and national security importance.
- Become familiar through the historical process with the major events, attitudes, personalities, and circumstances that have shaped the naval service and their relative impact on American history
Develop an understanding of Western moral traditions and ethical philosophy as they relate to military leadership and the conduct of warfare, to include Aristotle, Bentham, Mill, Kant, and Aquinas.

Develop skills in critical analysis and writing. They will use all methods to show full comprehension of all material.

Course Requirements for the Minor in Naval Science

The minor in Naval Science (NAVY) is available to all students majoring in other fields. A minor in naval science requires the successful completion of at least six courses (a minimum of 18 credit hours), with a minimum minor grade point average of 2.0. At least three of these courses (minimum of 9 hours) must be at the 300-level or higher, and study abroad or transfer courses cannot count for more than 2 courses (total of 6 hours) toward the minor.

Required Courses

NAVY 1301 - Naval Orientation Credit Hours: 3.0
NAVY 1302 - Seapower and Maritime Affairs Credit Hours: 3.0
NAVY 2301 - Leadership Management Credit Hours: 3.0
NAVY 4302 - Leadership and Ethics Credit Hours: 3.0

Electives

Choose two from the following:

NAVY 3301 - Navigation Credit Hours: 3.0
NAVY 3302 - Naval Operations Credit Hours: 3.0
NAVY 3303 - Evolution of Warfare Credit Hours: 3.0
NAVY 2302 - Naval Engineering - Naval Ship Systems I Credit Hours: 3.0
NAVY 3310 - Fundamentals of Maneuver Warfare Credit Hours: 3.0

All naval science courses are offered once every academic year with the exception of NAVY 3303 and NAVY 3310. These two courses are offered every other academic year.

Department of Philosophy

Who's Who in the Department of Philosophy

Chair:
David K. Phillips

Professors:
Gregory A. Brown, Cynthia A. Freeland, James W. Garson, David K. Phillips

Associate Professor:
Helen Hattab, Tamler Sommers, Josh Weisberg, Christy Mag Uidhir

Assistant Professors:
D. Justin Coates, Cameron Buckner
Master of Arts

The Master of Arts degree is offered in philosophy. For the general graduate admission and degree requirements, consult with the graduate advisor in the Department of Philosophy and refer to the Graduate and Professional Studies Catalog.

Major

Philosophy, B.A.

Requirements

Philosophy majors must complete 27 semester hours in philosophy, 18 of which are advanced.

Required Areas

Must include the following:

- Logic I
- One course in ethics
- Two approved courses in the history of philosophy

Logic I

PHIL 1321 - Logic I Credit Hours: 3.0

Approved Ethics Courses

- PHIL 1305 - Introduction to Ethics Credit Hours: 3.0
- PHIL 3350 - Ethics Credit Hours: 3.0
- PHIL 3351 - Contemporary Moral Issues Credit Hours: 3.0
- PHIL 3354 - Medical Ethics Credit Hours: 3.0
- PHIL 3355 - Political Philosophy Credit Hours: 3.0
- PHIL 3375 - Law, Society, and Morality Credit Hours: 3.0
- PHIL 3395 - Selected Topics in Phil Credit Hours: 3.0
- appropriate selected topics courses

Courses in the History of Philosophy

Of the two courses in history of philosophy

- One can be from any historical period
- The other must be from either:
  - a. the ancient period, e.g. PHIL 3383 - History of Ancient Philosophy Credit Hours: 3.0
  - b. the early modern period, e.g. PHIL 3304 - History of Seventeenth Century Philosophy Credit Hours: 3.0
Additional Requirements

A minimum of 15 semester hours must be done in residence, and 12 of those must be advanced. A 2.00 minimum grade point average is required on all major courses attempted at the University of Houston. Majors must also meet the general requirements for any Bachelor of Arts degree.

The study of philosophy can reasonably be pursued in so many diverse ways that to suggest a uniform program of study would be at best unhelpful and quite possibly misleading. Students should, of course, begin with one of the introductory courses (PHIL 1301 or PHIL 1305) and should also take Logic I relatively early.

Beyond that, the individual student’s program should be worked out in close consultation with the departmental undergraduate advisor. This consultation will range not only over the proposed program of philosophy courses, but also over the entire undergraduate curriculum, in an attempt to ensure that it is both coherent and appropriate to the student’s long-range goals.

Minor

Philosophy Minor

Minors must complete 15 semester hours in philosophy, nine of which are advanced. One course in the history of philosophy, from either the ancient or early modern periods, must be included. Examples of approved courses from these periods include PHIL 3383, PHIL 3304, PHIL 3305, and PHIL 3376.

It is strongly recommended that students completing a minor in philosophy include a course in either logic or ethics in their 15 semester hours, but primary emphasis is on the development of a sound and coherent program relevant to the student’s other pursuits.

The program is to be determined in consultation with the department’s undergraduate advisor. For example, students entering business or law should consider including PHIL 3350, PHIL 3355, and PHIL 3375, and students in the sciences or engineering should consider PHIL 1321, PHIL 3335, and PHIL 3344.

A minimum of nine semester hours of the minor must be done in residence, and six of those must be advanced. A 2.00 minimum grade point average is required on all minor courses attempted at the University of Houston.

Department of Political Science

Who's Who in the Department of Political Science

Chair:
Jeffrey Church

Professors:
The political science program focuses on the study of theories of government, government processes, and political forces that contribute to the formation, evolution, and operation of government. Students are offered a wide range of courses in several areas including political theory,
comparative politics, international politics, American government, public law, public administration, and methodology. These areas draw on the related disciplines of economics, history, and sociology.

The study of political science assists students in developing reasoning and analytical skills and in building competence in oral and written expression. Students are also given the opportunity to learn research and methodology procedures, and are encouraged to become familiar with statistical analysis and use of the computer. All of this training will be useful to students, regardless of their career choices.

The Department of Political Science has designed its program not only to develop informed and active citizens, but also to be useful for those who plan careers in higher education, the legal profession, state and local government, urban planning, the federal bureaucracy, journalism, or any other field that requires critical thinking and analysis. Political science also provides an excellent background for those who wish to pursue advanced studies in business, law, or public administration.

Pre-Law Training in Political Science

The Political Science Department recommends that students interested in a pre-law curriculum consult Departmental advisors to find courses stressing analytic reading, writing, and critical thinking.

Students in their junior and senior years who are seeking advice specifically about applying to law schools may want to consult with the Pre-Law advisor:

Professor Jerry Jackson
Department of Political Science
372 Philip G. Hoffman Hall
jjackson5@uh.edu

Please make appointments in advance.

Major

Political Science, B.A.

Political Science Major

The political science program focuses on the study of theories of government, government processes and institutions, and political forces that contribute to the formation evolution, and operation of government in the United States and around the world.

All political science majors take introductory courses on United States’ politics, comparative politics, political theory, and international relations. Majors are then given the flexibility to choose from a variety of advanced courses, allowing students to customize a path of study that either continues to span several of these fields or provides specialization in one of these areas.

The political science major helps develop informed and active citizens, but it is also good for future employment. It has proven useful for those who plan careers in secondary and higher education, the legal profession, government, urban planning, journalism, or any other field that requires critical thinking and analysis. Political science continues to provide an excellent background for those who wish to pursue advanced studies in business, law, or public administration. With faculty who excel both as teachers and researchers, the Department of Political Science has a strong tradition of excellence in undergraduate and graduate education.

Students who choose to major in Political Science must also meet the university core requirements and the college core requirements for a CLASS Bachelor of Arts or Bachelor of Science degree.
Students must earn a minimum 2.00 grade point average in all courses in the major (required or elective) attempted at this university. Students must complete 30 hours of political science courses, at least 24 hours in advanced courses.

Requirements

Select 3 hours from Political Theory

- POLS 3310 - Introduction to Political Theory  Credit Hours: 3.0
- POLS 3349 - Foundations in American Political Thought  Credit Hours: 3.0
- POLS 3348 - Left, Right, and Center  Credit Hours: 3.0

Select 3 hours from Methodology

- POLS 3312 - Arguments, Data, and Politics  Credit Hours: 3.0
- POLS 3316 - Statistics for Political Scientists  Credit Hours: 3.0

Select 6 hours from International Affairs

- POLS 3309 - Democratization  Credit Hours: 3.0
- POLS 3311 - Introduction to Comparative Politics  Credit Hours: 3.0
- POLS 3313 - Introduction to International Relations  Credit Hours: 3.0
- POLS 3315 - International Organization  Credit Hours: 3.0
- POLS 3333 - Comparative Elections  Credit Hours: 3.0
- POLS 3336 - Globalization  Credit Hours: 3.0

Electives

Students are strongly encouraged to take one course in comparative politics and one international relations.

Select 18 Hours of Electives

- Select 12 hours of advanced Political Science electives at the 3000/4000 level  Credit Hours: 12.0
- Select 6 hours of additional Political Science electives at any level, 1000 - 4000  Credit Hours: 6.0

Courses with an NSS prefix can be used towards elective hours.

Note(s):

- POLS 1336 and POLS 1337 or equivalents may not be applied toward the major.
- Students must complete at least 15 of the required 30 semester hours in political science in residence at the University of Houston. Twelve of the 15 hours must be advanced Political Science Courses.
- Transferred credit to be counted toward the Political Science major requirements must have a grade of C- or better.
- No more than six total semester hours of grades of D in political science will be applied toward degree requirements in the major.
- No more than six semester hours of special problems courses and/or internships may be used to satisfy any major requirement in political science.
Political Science, B.S.

Political Science Major

The political science program focuses on the study of theories of government, government processes and institutions, and political forces that contribute to the formation, evolution, and operation of government in the United States and around the world.

All political science majors take introductory courses on United States’ politics, comparative politics, political theory, and international relations. Majors are then given the flexibility to choose from a variety of advanced courses, allowing students to customize a path of study that either continues to span several of these fields or provides specialization in one of these areas.

The political science major helps develop informed and active citizens, but it is also good for future employment. It has proven useful for those who plan careers in secondary and higher education, the legal profession, government, urban planning, journalism, or any other field that requires critical thinking and analysis. Political science continues to provide an excellent background for those who wish to pursue advanced studies in business, law, or public administration. With faculty who excel both as teachers and researchers, the Department of Political Science has a strong tradition of excellence in undergraduate and graduate education.

Students who choose to major in Political Science must also meet the university core requirements and the college core requirements for a CLASS Bachelor of Arts or Bachelor of Science degree.

Students must earn a minimum 2.00 grade point average in all courses in the major (required or elective) attempted at this university. Students must complete 30 hours of political science courses, at least 24 hours in advanced courses.

Requirements

Select 3 hours from Political Theory

- POLS 3310 - Introduction to Political Theory Credit Hours: 3.0
- POLS 3349 - Foundations in American Political Thought Credit Hours: 3.0
- POLS 3348 - Left, Right, and Center Credit Hours: 3.0

Select 3 hours from Methodology

- POLS 3312 - Arguments, Data, and Politics Credit Hours: 3.0
- POLS 3316 - Statistics for Political Scientists Credit Hours: 3.0

Select 6 hours from International Affairs

- POLS 3309 - Democratization Credit Hours: 3.0
- POLS 3311 - Introduction to Comparative Politics Credit Hours: 3.0
- POLS 3313 - Introduction to International Relations Credit Hours: 3.0
- POLS 3315 - International Organization Credit Hours: 3.0
- POLS 3333 - Comparative Elections Credit Hours: 3.0
- POLS 3336 - Globalization Credit Hours: 3.0

Electives
Students are strongly encouraged to take one course in comparative politics and one international relations.

Select 18 Hours of Electives

Select 12 hours of advanced Political Science or NSS electives at the 3000/4000 level **Credit Hours: 12.0**
Select 6 hours of additional Political Science or NSS electives at any level, 1000 - 4000 **Credit Hours: 6.0**
Courses with an NSS prefix can be used towards elective hours.

Note(s):

POLS 1336 and POLS 1337 or equivalents may not be applied toward the major.
Students must complete at least 15 of the required 30 semester hours in political science in residence at the University of Houston.
Twelve of the 15 hours must be advanced Political Science Courses.
Transferred credit to be counted toward the Political Science major requirements must have a grade of **C-** or better.
No more than six total semester hours of grades of **D** in political science will be applied toward degree requirements in the major.
No more than six semester hours of special problems courses and/or internships may be used to satisfy any major requirement in political science.

**Accelerated Program**

**Accelerated BA/MA Program in Political Science**

**Program Description**

This program allows outstanding Political Science majors to complete their B.A. and M.A. at UH in five years. This program saves students a year of time and tuition, and gives them a graduate degree that can help them be more competitive in the job market and on their applications to grad school and law school.

Political Science, B.A.

Political Science, M.A.

Interested students should submit a preliminary application in their Junior year by April 15. If admitted into the program, students would begin taking graduate-level courses in the Fall of their Senior year.

**Shared Course Credit**

The most important feature of the program is that 6 semester hours of graduate-level courses can be used as dual credit for both the B.A. and the M.A. degrees. All other requirements for the degrees must still be fulfilled.

**Application Process**

To be eligible for the program, students must maintain a minimum of 3.33 GPA.
Preliminary Application: the first stage of the application process begins in the student’s Junior year. This application consists of a statement of purpose, unofficial transcripts, and one letter of recommendation. The application would be evaluated by the Graduate Committee in the Political Science department. Acceptance at this stage only means that a student may begin taking graduate courses his/her Senior year.

Full Graduate Application: Students accepted at the preliminary stage must still apply normally to the Political Science department. They would do so in February of their Senior year. The details for application can be found here:

http://www.uh.edu/class/political-science/graduate/admissions/index.php

Capstone Seminar Paper

The capstone project consists in a qualifying paper. This paper should be of sufficient quality to be presented at an academic conference or to be submitted for publication.

Sample Schedule

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring Junior Year</td>
<td>Preliminary Application due by April 15</td>
</tr>
<tr>
<td>Fall Senior Year</td>
<td>3 credits double counted to BA &amp; MA</td>
</tr>
<tr>
<td></td>
<td>3 credits to be transferred to MA</td>
</tr>
<tr>
<td>Spring Senior Year</td>
<td>3 credits double counted to BA &amp; MA</td>
</tr>
<tr>
<td></td>
<td>3 credits to be transferred to MA</td>
</tr>
<tr>
<td></td>
<td>Full Application due February 15</td>
</tr>
<tr>
<td>Summer before 5th year</td>
<td>3 credits</td>
</tr>
<tr>
<td>Fall 5th year</td>
<td>9 credits</td>
</tr>
<tr>
<td>Spring 5th year</td>
<td>9 credits</td>
</tr>
<tr>
<td>Summer after 5th year</td>
<td>3 credits (Capstone Project)</td>
</tr>
<tr>
<td>Total</td>
<td>36 SCH</td>
</tr>
</tbody>
</table>

Minor

Law, Values, and Policy Minor

Law, Values, and Policy is an interdisciplinary minor involving the Departments of Political Science, Philosophy, Political Science, Sociology, and others.

Participation in modern society requires an interdisciplinary grasp of issues. Ordinary party politics, structural changes to either state or federal government, changes in society, alterations in law or increased or decreased protections for racial, gender, or sexual orientation categories implicate issues of values, economics, and social interaction as well as law. Laws affect and change society. Changes in society drive changes in law and policy.
The minor in Law, Values, and Policy will provide students with an overview of the theories and analytical techniques of moral philosophy as well as the insights of economics, political science, history, and sociology on the desirability and consequences of different legal regimes, our current legal structures, and legal change.

The utility of the minor in Law, Values, and Policy (LVP) is not just the liberal arts objective of a broad education enabling full and knowledgeable participation in society, but also a sound foundation for a professional career in any field whether law, liberal arts, or social science.

The LVP minor provides a breadth of perspectives that would serve well for those students who intend to enter the legal profession or any of the professions that have a substantial interface with legal regulations. It would also provide a good background in the social sciences to enable graduate study in political science, sociology, philosophy, or history.

Minor in Law, Values, and Policy (18 hours)

Requirements:

Students complete a Law, Values, and Policy Minor by completing a minimum of eighteen hours in approved courses with a minimum of 12 of the 18 hours taken in residence, and at least nine hours in advanced courses, 6 of which must be in residence.

Students must take at least two courses from the "Values" category.

Students must take at least one course from the "Political and Public Communications" category.

Students must take at least one course from the "Social Theory" category.

Students must take at least two courses from the "Legal Issues and Policy" category.

Students must maintain a GPA of 2.5 or better in their minor courses.

A student may not use more than six hours of work in the LVP Minor to satisfy requirements for a major field and/or any other minor, although those six hours may be shared. Four of the six courses must come from outside the student's major field of study.

Students taking a course that appears in two categories can only use the course to fulfill the requirements in one category.

Values (Select 2)

AAS 3354 - African Nationalist Thought and Ethics in the U.S. Credit Hours: 3.0
COMM 4303 - Communication Law & Ethics Credit Hours: 3.0
HIST 4355 - Topics in the History of Law and Society Credit Hours: 3.0
PHIL 1321 - Logic I Credit Hours: 3.0
PHIL 2321 - Logic II Credit Hours: 3.0
PHIL 3350 - Ethics Credit Hours: 3.0
PHIL 3351 - Contemporary Moral Issues Credit Hours: 3.0
PHIL 3355 - Political Philosophy Credit Hours: 3.0
PHIL 3357 - Punishment Credit Hours: 3.0
PHIL 3375 - Law, Society, and Morality Credit Hours: 3.0
POLS 3346 - Human Rights Credit Hours: 3.0
POLS 3354 - Law and Society Credit Hours: 3.0
POLS 3350 - Public Law - Political Theory Credit Hours: 3.0
POLS 3359 - Criminal Justice Credit Hours: 3.0

Political and Public Communications (Select 1)

ENGL 3340 - Advanced Composition Credit Hours: 3.0
COMM 1FOS - Communications and Business Field of Study Credit Hours: 3.0
MARK 3337 - Professional Selling Credit Hours: 3.0
POLS 3381 - Political Psychology Credit Hours: 3.0
PSYC 2380 - Introduction to Social Psychology Credit Hours: 3.0
SPAN 3307 - Public Speaking in Spanish Credit Hours: 3.0

Social Theory (Select 1)

AAS 3354 - African Nationalist Thought and Ethics in the U.S. Credit Hours: 3.0
COMM 4303 - Communication Law & Ethics Credit Hours: 3.0
PHIL 3358 - Classics in the History of Ethics Credit Hours: 3.0
POLS 3310 - Introduction to Political Theory Credit Hours: 3.0
POLS 3343 - Democratic Theory Credit Hours: 3.0
POLS 3349 - Foundations in American Political Thought Credit Hours: 3.0
POLS 3350 - Public Law - Political Theory Credit Hours: 3.0
POLS 3351 - Law in Literature and Film Credit Hours: 3.0
POLS 3368 - Race, Gender and Ethnic Politics Credit Hours: 3.0
POLS 3390 - Women in Politics Credit Hours: 3.0
POLS 4344 - Equal, Just & Democracy Credit Hours: 3.0
PSYC 3334 - Psychology & Law Credit Hours: 3.0
SOC 3300 - Introduction to Sociological Theory Credit Hours: 3.0
SOC 3327 - Race and Ethnic Relations in the United States Credit Hours: 3.0
WGSS 3322 - Intersectionalities of Race, Class, Age, Disability & Gender Credit Hours: 3.0
WGSS 3350 - Gender, Society & Feminist Theory Credit Hours: 3.0

Legal Issues and Policies (Select 2)

ECON 4321 - Economic Analysis of U.S. Legal System Credit Hours: 3.0
POLS 3318 - Introduction to Public Policy Credit Hours: 3.0
POLS 3319 - Politics of Social Policy Credit Hours: 3.0
POLS 3346 - Human Rights Credit Hours: 3.0
POLS 3354 - Law and Society Credit Hours: 3.0
POLS 3355 - Judicial Process Credit Hours: 3.0
POLS 3356 - Introduction to Constitutional Law Credit Hours: 3.0
POLS 3357 - Constitutional Law: Civil Liberties Credit Hours: 3.0
POLS 3358 - Judicial Behavior Credit Hours: 3.0
POLS 3359 - Criminal Justice Credit Hours: 3.0
POLS 3385 - Introduction to Law Credit Hours: 3.0
POLS 3386 - Criminal Law and the Criminal Justice System Credit Hours: 3.0
POLS 4366 - Constitutional Design Credit Hours: 3.0
POLS 4397 - Selected Topics in Public Law and Public Administration Credit Hours: 3.0
PSYC 3334 - Psychology & Law Credit Hours: 3.0
SOC 3313 - Criminology Credit Hours: 3
SOC 3311 - Sociology of Law Credit Hours: 3

Other courses accepted by petition and approval of program advisor.

National Security Studies Minor

The National Security Studies Minor prepares students with diverse majors for careers in homeland security, intelligence collection and analysis, foreign relations, Department of Defense, Department of State, and related areas, or to enter graduate programs that will further prepare them for careers in these areas. These careers might be as diverse as being a diplomat, a cryptologist, an area studies specialist, a linguist, an intelligence analyst, an energy economist, or a policy analyst. The program culminates in a capstone course that integrates student experiences in other courses.
within the minor into a Crisis Management Exercise (CME). The CME requires students to play the roles of civilian officials and military officers tasked with addressing the crisis situation at hand in an interagency environment.

Requirements:

Students complete a National Security Studies Minor by completing a minimum of eighteen hours in approved courses with a minimum 12 of the 18 hours taken in residence, and at least nine hours in advanced courses 6 of which must be in residence.

Students must take the capstone course in National Security Affairs (AFSC 4301) or Capstone for National Security Studies (NSS 4345).

Students must take at least one course from the "Contemporary Security Environment" list.

Students must take at least one course from those included under "National Security Policies and Institutions."

Students must take a total of three courses (9 hours) from the "Contemporary Security Environment" and the "National Security Policies and Institutions" lists.

Students must maintain a GPA of 2.5 or better in their minor courses.

A student may not use more than six hours of work in the NSS Minor to satisfy requirements for a major field and/or any other minor, although those six hours may be shared. Four of the six courses must come from outside the student’s major field of study.

Students taking a course that appears in two categories can only use the course to fulfill the requirements in one category.

Of course, eighteen hours is a minimum requirement - students may take additional NSS courses as their schedules and other requirements permit. The remainder of the hours requirement can be satisfied by choosing electives from the NSS courses listed below. Students with very specific interests may petition the director to have a course in another department/program substituted as an elective course for the NSS minor.

During the sophomore year, students are also encouraged to apply for internships with the State Department, Department of Defense, National Security Agency, Central Intelligence Agency, U.S. Department of Homeland Security and other federal agencies in the attempt to enhance their understanding of various aspects of national security in a non-academic setting.

Capstone Courses (Pick 1)

- AFSC 4301 - National Security Affairs | Credit Hours: 3.0 (Fall)
- NSS 4345 - Capstone-National Security Studies | Credit Hours: 3

The Contemporary Security Environment (Pick 1 or 2)

- NSS 2342 - Introduction to National Security Studies | Credit Hours: 3
- POLS 3335 - Political Terrorism | Credit Hours: 3.0
- POLS 3382 - Politics and Religion in South Asia | Credit Hours: 3.0
- POLS 4343 - Causes and Politics of War | Credit Hours: 3.0
- POLS 4348 - Contemporary Islamic Political Thought | Credit Hours: 3.0
- POLS 4349 - International Energy Politics | Credit Hours: 3.0
- POLS 4350 - Political Economy of War | Credit Hours: 3.0
- POLS 4394 - Sel Top-Pol Theory/Meth | Credit Hours: 3.0
- Topic(s): Ideologies and Political Movements
- HIST 3378 - Modern Middle East | Credit Hours: 3.0
- HIST 3383 - World Revolutions | Credit Hours: 3.0
- HIST 3394 - Sel Tops-Us History | Credit Hours: 3
- Topic(s): War, Globalization, and Terrorism
- HIST 4318 - Africa and the Oil Industry | Credit Hours: 3.0
- HIST 4361 - 20th-Century Genocides | Credit Hours: 3.0
- ECON 2301 - Global Economic Concepts | Credit Hours: 3.0
- ECON 3342 - Global Issues in Economic Development | Credit Hours: 3.0
- ECON 4370 - International Trade | Credit Hours: 3.0
BUSI 1301 - Business Principles  
Credit Hours: 3.0

INTB 3350 - Introduction To International Business  
Credit Hours: 3.0

WCL 3346 - Terrorism: Past and Present  
Credit Hours: 3.0

National Security Policy and Institutions (Pick 1 or 2)

POLS 3313 - Introduction to International Relations  
Credit Hours: 3.0

POLS 3331 - American Foreign Policy  
Credit Hours: 3.0

POLS 4365 - National Defense Policy  
Credit Hours: 3.0

POLS 3344 - International Law and the Law of War  
Credit Hours: 3.0

POLS 3345 - National Security Law  
Credit Hours: 3.0

POLS 3346 - Human Rights  
Credit Hours: 3.0

POLS 3396 - Selected Topics in Comparative Politics and International Politics  
Credit Hours: 3.0

POLS 4334 - Strategy in International Relations  
Credit Hours: 3.0

POLS 4343 - Causes and Politics of War  
Credit Hours: 3.0

HIST 3322 - The Vietnam War  
Credit Hours: 3.0

HIST 3375 - The CIA in the Third World  
Credit Hours: 3.0

HIST 4318 - Africa and the Oil Industry  
Credit Hours: 3.0

ECON 2301 - Global Economic Concepts  
Credit Hours: 3.0

ECON 3342 - Global Issues in Economic Development  
Credit Hours: 3.0

ECON 4370 - International Trade  
Credit Hours: 3.0

IGS 2350 - Introduction to International and Global Studies  
Credit Hours: 3.0

BUSI 1301 - Business Principles  
Credit Hours: 3.0

INTB 3350 - Introduction To International Business  
Credit Hours: 3.0

NAVY 3303 - Evolution of Warfare  
Credit Hours: 3.0

Applications and Skills (Electives)

POLS 4340 - Intelligence Analysis  
Credit Hours: 3.0

POLS 4341 - Risk Analysis and Assessment  
Credit Hours: 3.0

POLS 4391 - Internships in International Affairs  
Credit Hours: 3.0

CIS 2337 - Fundamentals of Information Security  
Credit Hours: 3.0

AFSC 3301 - Air Force Leadership Studies I  
Credit Hours: 3.0

AFSC 3302 - Air Force Leadership Studies II  
Credit Hours: 3.0

MIS 4381 - Management of Information Security  
Credit Hours: 3.0

Electives

Additional courses in the categories appearing above may be taken as electives.

Note(s):

Students interested in the National Security Studies Minor should contact:

Zach Zwold, Ph.D.
Director, National Security Studies Minor
Department of Political Science
University of Houston 77204-3011
Political Science Minor

Required Courses

18 Credit Hours to include:

Choose one of the following:
- POLS 3310 - Introduction to Political Theory Credit Hours: 3.0
- POLS 3348 - Left, Right, and Center Credit Hours: 3.0
- POLS 3349 - Foundations in American Political Thought Credit Hours: 3.0

Choose one of the following:
- POLS 3312 - Arguments, Data, and Politics Credit Hours: 3.0
- POLS 3316 - Statistics for Political Scientists Credit Hours: 3.0

Choose one of the following:
- POLS 3309 - Democratization Credit Hours: 3.0
- POLS 3311 - Introduction to Comparative Politics Credit Hours: 3.0
- POLS 3313 - Introduction to International Relations Credit Hours: 3.0
- POLS 3315 - International Organization Credit Hours: 3.0
- POLS 3333 - Comparative Elections Credit Hours: 3.0
- POLS 3336 - Globalization Credit Hours: 3.0

Additionally:
- 3 Credit Hours of advanced political courses
- 6 Credit Hours of any political science courses

Note(s)

At least 12 semester hours of coursework toward the minor must be advanced.
A minimum of 9 semester hours, six of them advanced, must be completed in residence.
A minimum GPA of 2.0 in all courses attempted toward the minor must be achieved.
POLS 1336, POLS 1337, or equivalents may not be applied toward the minor.

Quantitative Social Science Minor

Who's Who in Quantitative Social Science

Director:

Scott Basinger, Department of Political Science
Overview

The Quantitative Social Science Minor exists to encourage students to acquire the knowledge, skills and tools needed to conduct scientific research. We draw inspiration from Herbert Simon - a seminal figure in the fields of Psychology and Political Science, and a Nobel Laureate in Economic Science - who wrote, "The social sciences need the same kind of rigor and the same mathematical underpinnings that made the "hard" sciences so brilliantly successful."

Quantitative Social Science is an interdisciplinary initiative, with faculty drawn from the departments of Economics, Political Science, Psychology, and Sociology. The Minor in Quantitative Social Science is available to all UH students; academic advising is offered by undergraduate advisory staff members in the aforementioned departments. The Minor is directed by Dr. Scott Basinger (PGH 447).

Many courses can satisfy both a requirement of the student's major and a requirement of the Quantitative Social Science Minor. However the interdisciplinary nature of quantitative methodology obliges students not to confine coursework to any one department. A maximum of 6 semester hours of completed minor coursework may be counted towards a student's major. Note that any course that counts towards a student's major and towards the Core Curriculum cannot also count towards the 18 semester hours required for the minor.

The Quantitative Social Science Minor requires a minimum of 18 semester hours:

1. Three hours on statistical concepts and basic statistical analysis

   ECON 2370 - Introduction to Economic Data Analysis Credit Hours: 3.0  
   MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0  
   POLS 3316 - Statistics for Political Scientists Credit Hours: 3.0  
   PSYC 3301 - Introduction to Psychological Statistics Credit Hours: 3.0  
   SOC 3400 - Introduction to Social Statistics Credit Hours: 4.0

2. Three hours on research design

   COMM 2300 - Communication Research Methods Credit Hours: 3  
   POLS 3312 - Arguments, Data, and Politics Credit Hours: 3.0  
   PSYC 2301 - Introduction to Methods in Psychology Credit Hours: 3.0

3. Three hours on regression analysis

   ECON 3370 - Introduction To Econometrics Credit Hours: 3.0

4. Three hours completing a directed research project

   Credit may be given for a Senior Honors Thesis (ECON 3399-ECON 4399, POLS 3399-POLS 4399, PSYC 3399-PSYC 4399, SOC 3398, SOC 4399), or students may use a 4000-level special problems course, completed after the required course on research design and the two required courses on statistical analysis. Research projects must satisfy minimal criteria determined by the QSS director.

5. Six hours of electives at the 3000-level or higher
Students may fulfill the elective component with approved courses in economics, political science, psychology, and sociology. A list of approved courses, updated each semester, will be available from the QSS director. Credit for appropriate Selected Topics or Special Problems courses offered by any department, including Interdepartmental Liberal Arts and Social Sciences (ILAS), may be granted by petition.

Note(s):

Each CLASS area provides the opportunity to take special problems (independent study) courses. Participation in these courses requires an approved petition to be on file in the appropriate department. No more than six semester hours of special problems courses may be used to satisfy any major or minor requirements in CLASS.

Partial Listing

Following is a partial listing of courses that would count as satisfactory electives for the Minor in Quantitative Social Science:

- ECON 4335 - Economic Growth Theory Credit Hours: 3.0
- ECON 4349 - Introduction to Game Theory Credit Hours: 3.0
- ECON 4360 - Introduction to Mathematical Economics Credit Hours: 3.0
- ECON 4374 - Behavioral Economics Credit Hours: 3.0
- ECON 4395 - Selected Topics in Applied Econometrics Credit Hours: 3
  
  Topic(s):
  
  Applied Econometrics
  Data Mining
  
  POLS 3381 - Political Psychology Credit Hours: 3.0
  PSYC 4347 - Tests and Measurements Credit Hours: 3.0
  SOC 3351 - Social Class and Mobility in America Credit Hours: 3.0
  SOC 3352 - Population Studies Credit Hours: 3.0
  SOC 3380 - Introduction to the Sociology of Health Care Credit Hours: 3.0

Note(s):

Courses numbered 6000 or higher are normally limited to graduate and postbaccalaureate students, however students may request permission from their department or college to enroll in these classes. The instructor’s permission should also be sought.

At least 12 of 18 hours must be in residence. A minimum 2.00 grade point average is required for all courses attempted in the minor.

Department of Psychology

Who's Who in the Department of Psychology

Chair:

Jack M. Fletcher

Professors:
Bruno G. Breitmeyer (Emeritus), James Campion, Joseph P. Carbonari (Emeritus), Robert Eisenberger, Jack M. Fletcher, Donald J. Foss, David J. Francis, Elena Grigorenko, Arturo E. Hernandez, Merrill Hiscock (Emeritus), Dale L. Johnson (Emeritus), Therese Kosten, C. Raymond Knee, Roy Lachman (Emeritus), Marco J. Mariotto, Clayton Neighbors, Richard M. Rozelle (Emeritus), Carla Sharp, Edward P. Sheridan (Emeritus), Alexander W. Siegel (Emeritus), John P. Vincent, Alan Witt, Steven Woods, Michael Zvolensky

**Associate Professors:**

Linda Acitelli (Emeritus), Candice Alfano, Julia Babcock, Paul T. Cirino, J. Leigh Leasure, Qian Lu, Paul J. Massman, Paras Mehta, Christiane Spitzmueller, Lynne Steinberg, Anka Vujanovic, Rheeda Walker, Hanako Yoshida

**Assistant Professors:**

Rodica Damian, Jaye Derrick, Matthew Gallagher, Andres Viana

**Overview**

Psychology is the science of behavior and social action in a variety of environments. To understand these complex interactions, students in the undergraduate and graduate programs of the Department of Psychology take courses in such areas as clinical, cognitive, developmental, industrial/organizational and social psychology, as well as neuropsychology.

With strong instruction in basic principles and methodology, undergraduate students are well prepared with a broad-based liberal arts foundation, rather than narrow technical training, which relates effectively to a wide variety of life experiences and employment contexts.

In addition, a psychology major prepares students for graduate study in fields such as law, medicine, psychology, social work, public health administration and others. The department’s graduate program offers study leading to the Doctor of Philosophy degree and preparation for professional careers in a variety of settings such as higher education, industry and public health care.

Because everyone interacts with others, knowledge of psychology is a valuable tool for living. The department seeks to serve the educational needs of majors and nonmajors by providing courses designed to improve the quality of life in the home, community and workplace through enhanced understanding of human interactions.

**Major**

**Psychology, B.A.**

**Psychology Major**

All new students who wish to major in psychology, and all current students who wish to switch to the Department of Psychology major will need to meet with an advisor in the Academic Affairs Office of the Department of Psychology (124 Heyne Building, 713-743-8508).

Any incoming freshman, college transfer student, international student, or current UH student with an overall GPA of 2.0 interested in majoring in psychology must apply first as a psychology pre-major.

**Change of Major to Psychology**
Upon completion of PSYC 1300, PSYC 2301, and PSYC 3301 with a grade of \textit{C} or above in each course, students may then submit a general petition to the department to change their major from psychology pre-major to psychology. This requirement must be met no later than two semesters prior to your graduating semester.

\textbf{Note:}

The psychology major requires a minimum of 33 credit hours in the major. Each major must complete 21 hours of required courses. Majors must earn at least a \textit{C} grade in each of the required courses applied to the major and must have an overall GPA of 2.0 (there is no limit as to the number of required courses students may retake, but each required course may be taken only two times). Students should plan to complete PSYC 1300, PSYC 2301, and PSYC 3301 by the end of their sophomore year. Majors file an official degree plan upon completion of 60 semester hours, have an overall and major minimum GPA of 2.0, and after having declared a minor, double major, or double degree. An undergraduate advisor in the Department of Psychology must approve the degree plan.

All 3000- and 4000-level courses in Psychology may contain a significant writing component. Majors must complete with a minimum 2.0 GPA a minor, double major, or double degree in order to complete their degree requirements for either a Bachelor of Arts or Bachelor of Science degree in the Department of Psychology. Psychology majors may not use any course taken to satisfy major requirements to satisfy requirements in their minor, double major, or double degree

\textbf{Required Psychology Courses}

- PSYC 1300 - Introduction to Psychology \textbf{Credit Hours: 3.0}
- PSYC 2301 - Introduction to Methods in Psychology \textbf{Credit Hours: 3.0}
- PSYC 3301 - Introduction to Psychological Statistics \textbf{Credit Hours: 3.0}
- PSYC 2380 - Introduction to Social Psychology \textbf{Credit Hours: 3.0}
- PSYC 3350 - Introduction to Cognitive Psychology \textbf{Credit Hours: 3.0}
- PSYC 3341 - Physiological Psychology \textbf{Credit Hours: 3.0}
- PSYC 3325 - Psychology of Personality \textbf{Credit Hours: 3.0}

\textbf{Note(s):}

Each major must choose 12 hours of psychology of which 6 hours must be advanced electives. In planning one's program, a student should note that some courses may be offered only annually or biennially. Majors are free to choose electives from one or several areas. Students should note that areas move from intermediate to advanced levels in the courses listed. Those majors planning to attend graduate or professional schools are strongly advised to participate in at least one Capstone experience in their senior year.

\textbf{Typical Psychology Major Electives}

- PSYC 2335 - Introduction to Health Psychology \textbf{Credit Hours: 3.0}
- PSYC 2344 - Cultural Psychology \textbf{Credit Hours: 3.0}
- PSYC 2350 - Child Development \textbf{Credit Hours: 3.0}
- PSYC 2351 - Psychology of Adolescence \textbf{Credit Hours: 3.0}
- PSYC 3310 - Industrial-Organization Psychology \textbf{Credit Hours: 3.0}
- PSYC 3331 - Psychology of Gender \textbf{Credit Hours: 3.0}
- PSYC 3337 - Psychology of Human Sexuality \textbf{Credit Hours: 3.0}
- PSYC 3338 - Psychology of Older Adults \textbf{Credit Hours: 3.0}
- PSYC 3339 - Introduction To Clinical Psychology \textbf{Credit Hours: 3.0}
- PSYC 4321 - Abnormal Psychology \textbf{Credit Hours: 3.0}
- PSYC 4347 - Tests and Measurements \textbf{Credit Hours: 3.0}
PSYC 4354 - Brain and Behavior Credit Hours: 3.0

Senior Capstone Experiences

Capstone experiences are intended as integrative, intensive exercises in critical thinking and analysis of content. These are opportunities for student-focused initiative, creativity and productivity under the close mentorship of Department of Psychology faculty.

PSYC 4306 - Community Service Practica Credit Hours: 3.0 (6 credit hour maximum)
PSYC 4307 - Research Practica Credit Hours: 3.0 (6 credit hour maximum)
PSYC 3399 - Senior Honors Thesis Credit Hours: 3.0
PSYC 4399 - Senior Honors Thesis Credit Hours: 3.0

Note(s):

For additional information, contact the department:

University of Houston
Department of Psychology
Academic Affairs
124 Heyne Building
Houston, Texas 77204-5022

Psychology, B.S.

Psychology Major

All new students who wish to major in psychology, and all current students who wish to switch to the Department of Psychology major will need to meet with an advisor in the Academic Affairs Office of the Department of Psychology (124 Heyne Building, 713-743-8508).

Any incoming freshman, college transfer student, international student, or current UH student with an overall GPA of 2.0 interested in majoring in psychology must apply first as a psychology pre-major.

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Upon completion of PSYC 1300, PSYC 2301, and PSYC 3301 with a grade of C or above in each course, students may then submit a general petition to the department to change their major from psychology pre-major to psychology. This requirement must be met no later than two semesters prior to your graduating semester.

Note:

The psychology major requires a minimum of 33 credit hours in the major. Each major must complete 21 hours of required courses. Majors must earn at least a C grade in each of the required courses applied to the major and must have an overall GPA of 2.0 (there is no limit as to the number of required courses students may retake, but each required course may be retaken only two times). Students should plan to complete PSYC 1300, PSYC 2301, and PSYC 3301 by the end of their sophomore year. Majors file an official degree plan upon completion of 60 semester hours, have an overall and major minimum GPA of 2.0, and after having declared a minor, double major, or double degree. An undergraduate advisor in the Department of Psychology must approve the degree plan.

All 3000- and 4000-level courses in Psychology may contain a significant writing component.
Majors must complete with a minimum 2.0 GPA a minor, double major, or double degree in order to complete their degree requirements for either a Bachelor of Arts or Bachelor of Science degree in the Department of Psychology. Psychology majors may not use any course taken to satisfy major requirements to satisfy requirements in their minor, double major, or double degree.

**Required Psychology Courses**

- PSYC 1300 - Introduction to Psychology **Credit Hours: 3.0**
- PSYC 2301 - Introduction to Methods in Psychology **Credit Hours: 3.0**
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- PSYC 2380 - Introduction to Social Psychology **Credit Hours: 3.0**
- PSYC 3350 - Introduction to Cognitive Psychology **Credit Hours: 3.0**
- PSYC 3341 - Physiological Psychology **Credit Hours: 3.0**
- PSYC 3325 - Psychology of Personality **Credit Hours: 3.0**

**Note(s):**

Each major must choose 12 hours of psychology of which 6 hours must be advanced electives. In planning one's program, a student should note that some courses may be offered only annually or biennially. Majors are free to choose electives from one or several areas. Students should note that areas move from intermediate to advanced levels in the courses listed. Those majors planning to attend graduate or professional schools are strongly advised to participate in at least one Capstone experience in their senior year.

**Typical Psychology Major Electives**

- PSYC 2335 - Introduction to Health Psychology **Credit Hours: 3.0**
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- PSYC 2351 - Psychology of Adolescence **Credit Hours: 3.0**
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- PSYC 3331 - Psychology of Gender **Credit Hours: 3.0**
- PSYC 3337 - Psychology of Human Sexuality **Credit Hours: 3.0**
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- PSYC 3339 - Introduction To Clinical Psychology **Credit Hours: 3.0**
- PSYC 4321 - Abnormal Psychology **Credit Hours: 3.0**
- PSYC 4347 - Tests and Measurements **Credit Hours: 3.0**
- PSYC 4354 - Brain and Behavior **Credit Hours: 3.0**

**Senior Capstone Experiences**

Capstone experiences are intended as integrative, intensive exercises in critical thinking and analysis of content. These are opportunities for student-focused initiative, creativity and productivity under the close mentorship of Department of Psychology faculty.

- PSYC 4306 - Community Service Practica **Credit Hours: 3.0** (6 credit hour maximum)
- PSYC 4307 - Research Practica **Credit Hours: 3.0** (6 credit hour maximum)
- PSYC 3399 - Senior Honors Thesis **Credit Hours: 3.0**
- PSYC 4399 - Senior Honors Thesis **Credit Hours: 3.0**

**Note(s):**
Minor

Psychology Minor

Minimum requirements are 18 hours of course work, nine of which must be advanced; nine semester hours in residence, six of which must be advanced. Psychology minors must earn a minimum grade of C in each course they apply to the minor. An undergraduate advisor in the Department of Psychology must approve the proposed minor program. Students must declare their minor for Psychology in the Department of Psychology, Academic Affairs Office, 124 Heyne Building.

Requirements:

PSYC 1300 - Introduction to Psychology Credit Hours: 3.0
PSYC 2301 - Introduction to Methods in Psychology Credit Hours: 3.0

Choose 3 courses from:

PSYC 3310 - Industrial-Organization Psychology Credit Hours: 3.0
PSYC 3325 - Psychology of Personality Credit Hours: 3.0
PSYC 3339 - Introduction To Clinical Psychology Credit Hours: 3.0
PSYC 3350 - Introduction to Cognitive Psychology Credit Hours: 3.0
PSYC 4321 - Abnormal Psychology Credit Hours: 3.0

Choose 1 course from:

PSYC 2344 - Cultural Psychology Credit Hours: 3.0
PSYC 2350 - Child Development Credit Hours: 3.0
PSYC 2351 - Psychology of Adolescence Credit Hours: 3.0
PSYC 2380 - Introduction to Social Psychology Credit Hours: 3.0

Note(s):

*** Minor Concentrations not Approved Unless Signed by the Dean ***

For additional information, write, call or visit our Web site:

University of Houston
Department of Psychology
Attn: Academic Affairs Office
Department of Sociology

Who's Who in the Department of Sociology

Chair:
Amanda Baumle

Professors:
Amanda Baumle, A. Gary Dworkin, Jon Lorence, Pamela A. Quiroz

Associate Professors:
T. Xavia Karner, Samantha Kwan, Shayne Lee, Scott V. Savage

Assistant Professors:
Kathryn Anderson, Sheila M. Katz, Maria A. Monserud

Associate Instructional Professors:
Stella Grigorian, Steven M. Nelson

Overview

The Department of Sociology offers the Bachelor of Arts in Sociology, the Bachelor of Science in Sociology, and the minor in Sociology.

Sociology majors at the University of Houston must complete core courses in sociological theory, social statistics, and research methods. Alongside core courses, sociology electives emphasize an understanding of a broad range of subjects including family, gender, healthcare, poverty, race and ethnicity, sexuality, and social psychology.

The study of sociology provides students with the tools to understand social problems and to create research and data-driven policies for alleviating these problems. In sociological theory, students will learn about sociological theories and concepts that will help them to think analytically and critically about the social world. In social statistics, they will learn to apply statistical techniques and to interpret statistical results. In research methods, they will gain hands-on experience developing and conducting a research study. In many of the writing-intensive electives in sociology, students will develop their problem solving and communication skills. All of these skills are invaluable in today's technical and data-driven work environment. The sociology major thus prepares students for graduate studies in the social sciences, as well as fields such as social work, education, and public health. It also prepares them for an array of jobs in the non-profit, for-profit, and government sectors.
Advanced Degree

The Department of Sociology also offers the Master of Arts in Sociology that provides students with extensive methodological training, including coursework in statistics, quantitative methods, qualitative methods, and social science research and writing. Graduate students can elect to pursue either a thesis track or an applied internship track for the Master’s degree.

Major

Sociology, B.A.

Sociology Major

Any incoming freshman, college transfer student, international student, or current UH student with an overall GPA of 2.00 interested in majoring in Sociology must apply first as a Sociology pre-major.

After completion of SOC 1300 and SOC 3300 or SOC 3400 with a minimum grade of C in each course, a student may petition the Department of Sociology to declare a major in Sociology. Students must earn a minimum 2.00 grade point average in all courses in the major (required or elective) attempted at this university.

Students who choose to major in Sociology must also meet the university core requirements and the college core requirements for a Liberal Arts and Social Sciences Bachelor of Arts or Bachelor of Science degree.

Requirements

34 hours (22 advanced) to include:

- SOC 1300 - Introduction to Sociology Credit Hours: 3.0
- SOC 3300 - Introduction to Sociological Theory Credit Hours: 3.0
- SOC 3400 - Introduction to Social Statistics Credit Hours: 4.0
- SOC 3301 - Introduction to Sociological Research Credit Hours: 3.0
- SOC Electives (advanced) Credit Hours: 12.0
- SOC Electives (any level) Credit Hours: 9.0

Concentrations

Students may elect to complete a concentration in one of the following areas:

- Health and Medicine
- Workplace Diversity

Students who elect to pursue a concentration must declare this at any time during matriculation, but after they have become a SOC major (they cannot be in Pre-SOC standing) and before the semester they anticipate to graduate. However, they are encouraged to declare this early on in their academic careers.

Students who complete all requirements of the concentration will graduate with a degree in sociology with a concentration in that specific area, e.g., BA/BS in Sociology with a concentration in Health and Medicine or BA/BS in Sociology with a concentration in Workplace Diversity.
To complete a concentration in Sociology, students must complete four courses from the approved list of concentration courses (see below). They must complete one required course on this list (see below).

Health and Medicine

To complete a concentration in Health and Medicine, students must complete one of the required courses plus three additional courses.

Required

One of the following:

- SOC 3380 - Introduction to the Sociology of Health Care Credit Hours: 3.0
- SOC 3353 - Health Disparities in Society Credit Hours: 3.0

Electives

Plus, three additional courses:

- SOC 3315 - Sexuality and Society Credit Hours: 3.0
- SOC 3316 - Sociology of Sport Credit Hours: 3.0
- SOC 3344 - Sociology of Aging Credit Hours: 3.0
- SOC 3350 - Sociology of the Body Credit Hours: 3.0
- SOC 3352 - Population Studies Credit Hours: 3.0
- SOC 3382 - Sociology of Drug Use and Recovery Credit Hours: 3.0

Workplace Diversity

To complete a concentration in Workplace Diversity, students must complete one of the required courses plus three additional courses.

Required

One of the following:

- SOC 3342 - Sociology of Work Credit Hours: 3.0
- SOC 3341 - Organizations Credit Hours: 3.0

Electives

Plus, three additional courses:

- SOC 3315 - Sexuality and Society Credit Hours: 3.0
- SOC 3327 - Race and Ethnic Relations in the United States Credit Hours: 3.0
- SOC 3328 - Race and Ethnicity in World Perspective Credit Hours: 3.0
- SOC 3330 - Introduction to Social Psychology Credit Hours: 3.0
- SOC 3351 - Social Class and Mobility in America Credit Hours: 3.0
- SOC 3390 - Sociology of Gender Credit Hours: 3.0
- SOC 3395 - Careers in Sociology Credit Hours: 3.0
- SOC 4394 - Internship in Sociology Credit Hours: 3.0
Note(s):

Students should plan to complete SOC 3300 and SOC 3400 by the end of their junior year. Students should plan to complete SOC 3301 by early in their senior year.

Students must complete at least 18 of the required 32 semester hours in sociology in residence at the University of Houston. Fifteen of these 18 hours must be advanced. Transferred credit to be counted toward the sociology major requirements must have a grade of C- or better.

Sociology majors must have an approved minor to graduate.

Additional Information

For additional information, write, call, or visit the Web site:

University of Houston
Department of Sociology
Attn: Undergraduate Advisor
450 Philip G. Hoffman Hall
Houston, Texas 77204-3012
713-743-3940

www.sociology.uh.edu

Sociology, B.S.

College of Liberal Arts & Social Sciences > Department of Sociology > Sociology, B.S.

Sociology Major

Any incoming freshman, college transfer student, international student, or current UH student with an overall GPA of 2.00 interested in majoring in Sociology must apply first as a Sociology pre-major.

After completion of SOC 1300 and SOC 3300 or SOC 3400 with a minimum grade of C in each course, a student may petition the Department of Sociology to declare a major in Sociology. Students must earn a minimum 2.00 grade point average in all courses in the major (required or elective) attempted at this university.

Students who choose to major in Sociology must also meet the university core requirements and the college core requirements for a Liberal Arts and Social Sciences Bachelor of Arts or Bachelor of Science degree.

Requirements

34 hours (22 advanced) to include:

- SOC 1300 - Introduction to Sociology Credit Hours: 3.0
- SOC 3300 - Introduction to Sociological Theory Credit Hours: 3.0
- SOC 3400 - Introduction to Social Statistics Credit Hours: 4.0
- SOC 3301 - Introduction to Sociological Research Credit Hours: 3.0
SOC Electives (advanced) **Credit Hours: 12.0**
SOC Electives (any level) **Credit Hours: 9.0**

**Concentrations**

Students may elect to complete a concentration in one of the following areas:

- **Health and Medicine**
- **Workplace Diversity**

Students who elect to pursue a concentration must declare this at any time during matriculation, but after they have become a SOC major (they cannot be in Pre-SOC standing) and before the semester they anticipate to graduate. However, they are encouraged to declare this early on in their academic careers.

Students who complete all requirements of the concentration will graduate with a degree in sociology with a concentration in that specific area, e.g., BA/BS in Sociology with a concentration in Health and Medicine or BA/BS in Sociology with a concentration in Workplace Diversity.

To complete a concentration in Sociology, students must complete four courses from the approved list of concentration courses (see below). They must complete one required course on this list (see below).

**Health and Medicine**

To complete a concentration in Health and Medicine, students must complete one of the required courses plus three additional courses.

**Required**

One of the following:

- SOC 3380 - Introduction to the Sociology of Health Care **Credit Hours: 3.0**
- SOC 3353 - Health Disparities in Society **Credit Hours: 3.0**

**Electives**

Plus, three additional courses:

- SOC 3315 - Sexuality and Society **Credit Hours: 3.0**
- SOC 3316 - Sociology of Sport **Credit Hours: 3.0**
- SOC 3344 - Sociology of Aging **Credit Hours: 3.0**
- SOC 3350 - Sociology of the Body **Credit Hours: 3.0**
- SOC 3352 - Population Studies **Credit Hours: 3.0**
- SOC 3382 - Sociology of Drug Use and Recovery **Credit Hours: 3.0**

**Workplace Diversity**

To complete a concentration in Workplace Diversity, students must complete one of the required courses plus three additional courses.

**Required**

One of the following:
SOC 3342 - Sociology of Work Credit Hours: 3.0
SOC 3341 - Organizations Credit Hours: 3.0

Electives

Plus, three additional courses:

SOC 3315 - Sexuality and Society Credit Hours: 3.0
SOC 3327 - Race and Ethnic Relations in the United States Credit Hours: 3.0
SOC 3328 - Race and Ethnicity in World Perspective Credit Hours: 3.0
SOC 3330 - Introduction to Social Psychology Credit Hours: 3.0
SOC 3351 - Social Class and Mobility in America Credit Hours: 3.0
SOC 3390 - Sociology of Gender Credit Hours: 3.0
SOC 3395 - Careers in Sociology Credit Hours: 3.0
SOC 4394 - Internship in Sociology Credit Hours: 3.0

Note(s):

Students should plan to complete SOC 3300 and SOC 3400 by the end of their junior year. Students should plan to complete SOC 3301 by early in their senior year.

Students must complete at least 18 of the required 32 semester hours in sociology in residence at the University of Houston. Fifteen of these 18 hours must be advanced. Transferred credit to be counted toward the sociology major requirements must have a grade of C- or better.

Sociology majors must have an approved minor to graduate.

Additional Information

For additional information, write, call, or visit the Web site:

University of Houston
Department of Sociology
Attn: Undergraduate Advisor
450 Philip G. Hoffman Hall
Houston, Texas 77204-3012
713-743-3940

www.sociology.uh.edu

Minor

Sociology Minor

Requirements

18 hours (at least 12 advanced) to include:
Concentrations

Students may elect to complete a concentration in one of the following areas:

- Health and Medicine
- Workplace Diversity

Students who elect to pursue a concentration must declare this at any time during matriculation, but after they have become a SOC major (they cannot be in Pre-SOC standing) and before the semester they anticipate to graduate. However, they are encouraged to declare this early on in their academic careers.

Students who complete all requirements of the concentration will graduate with a degree in sociology with a concentration in that specific area, e.g., BA/BS in Sociology with a concentration in Health and Medicine or BA/BS in Sociology with a concentration in Workplace Diversity.

To complete a concentration in Sociology, students must complete four courses from the approved list of concentration courses (see below). They must complete one required course on this list (see below).

Health and Medicine

To complete a concentration in Health and Medicine, students must complete one of the required courses plus three additional courses.

Required

One of the following:

- SOC 3380 - Introduction to the Sociology of Health Care Credit Hours: 3.0
- SOC 3353 - Health Disparities in Society Credit Hours: 3.0

Electives

Plus, three additional courses:

- SOC 3315 - Sexuality and Society Credit Hours: 3.0
- SOC 3316 - Sociology of Sport Credit Hours: 3.0
- SOC 3344 - Sociology of Aging Credit Hours: 3.0
- SOC 3350 - Sociology of the Body Credit Hours: 3.0
- SOC 3352 - Population Studies Credit Hours: 3.0
- SOC 3382 - Sociology of Drug Use and Recovery Credit Hours: 3.0

Workplace Diversity

To complete a concentration in Workplace Diversity, students must complete one of the required courses plus three additional courses.

Required
One of the following:

- SOC 3342 - Sociology of Work  
  Credit Hours: 3.0
- SOC 3341 - Organizations  
  Credit Hours: 3.0

Electives

Plus, three additional courses:

- SOC 3315 - Sexuality and Society  
  Credit Hours: 3.0
- SOC 3327 - Race and Ethnic Relations in the United States  
  Credit Hours: 3.0
- SOC 3328 - Race and Ethnicity in World Perspective  
  Credit Hours: 3.0
- SOC 3330 - Introduction to Social Psychology  
  Credit Hours: 3.0
- SOC 3351 - Social Class and Mobility in America  
  Credit Hours: 3.0
- SOC 3390 - Sociology of Gender  
  Credit Hours: 3.0
- SOC 3395 - Careers in Sociology  
  Credit Hours: 3.0
- SOC 4394 - Internship in Sociology  
  Credit Hours: 3.0

Note(s):

Students must take nine semester hours, at least six of them advanced (3000-level or above), in residence and earn a 2.00 minimum cumulative grade point average in all minor courses attempted at this university. The proposed minor program must be approved by the undergraduate advisor in sociology.

Internship and Practical Training

Department of Sociology - Experience Track

The Department of Sociology recognizes the value of developing students' professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship and curricular practical training (CPT) experience by transcript notation.

To satisfy the requirements of the Experience Track, students must complete two courses:

- SOC 3395 - Careers in Sociology
- SOC 4394 - Internship in Sociology

Steps to Declare the Experience Track

Students must declare by submitting a General Petition to the Sociology Undergraduate Advisor their intention to pursue this track prior to processing the paperwork for approval of the internship/CPT.

The Sociology Undergraduate Advisor will verify the student’s academic eligibility for internship/CPT and enroll qualified applicants in SOC 4394. Students will identify their internship placement in coordination with the faculty instructor of SOC 4394. An Internship Agreement will be drafted by the student in coordination with the field site supervisor that clearly details the terms of the internship, including a description of the work to be performed, a beginning and ending date, and the salary, if any, offered.

F-1 students seeking CPT should visit the International Student Scholar Services Office (ISSS) for special instructions prior to initiating the steps above.

For more information about Co-op Education and CPT, please visit the Co-operative Education (Co-op) and Curricular Practical Training (CPT) page.
Eligible Coursework

SOC 3395 - Careers in Sociology  Credit Hours: 3.0
SOC 4394 - Internship in Sociology  Credit Hours: 3.0

SOC3995 Careers in Sociology

Prerequisite: SOC1300.

Details: Using a sociological perspective, the course explores careers available to students with a Bachelor's degree in Sociology; we accomplish this through readings, guest speakers, and research about careers in the private/for-profit sector, nonprofit/foundations, public sector (city, county, state, and federal government), and academia (including graduate school).

SOC4394 Internship in Sociology

Prerequisites for the Internship

Sociology major or minor
2.5 cumulative GPA in sociology courses

Course Prerequisites

Six hours from the following:
SOC 3300 - Introduction to Sociological Theory  Credit Hours: 3.0
SOC 3400 - Introduction to Social Statistics  Credit Hours: 4.0

Internship Details

Field experience in an agency for 90 hours (about 6 hrs per week for the 14 weeks of the semester)
Field journal
Reading Assignments
Attending three group classes with the other interns
Three skype or in person meetings with the Sociology Internship Director
Final project (paper, video, or other format) in which you use sociological concepts or methods to discuss your internship agency and/or experience.

Women's, Gender & Sexuality Studies Program

Who's Who in the Women's, Gender & Sexuality Studies Program

Director: Prof. Elizabeth Gregory
Associate Directors: Prof. Dina Alsowayel; Prof. Guillermo de los Reyes
Assistant Professor: Rachel Afi Quinn
Overview

The Women's, Gender, & Sexuality Studies (WGSS) Program, an academic program offering a major and two minors, draws upon the dynamic energy of the global city of Houston, Texas, and the great diversity of the University of Houston campus. Since its founding as Women's Studies in 1991, the program has evolved to promote an intersectional, multidisciplinary and transnational approach that critically assesses existing hierarchies, inequalities, and forms of privilege. We celebrate Houston women’s many accomplishments while challenging students to understand how categories of gender, sexuality, race, class, dis/ability, and citizenship shape not only their own lives but also the lives of people in their communities and around the world. The program’s strength comes from the diversity of the perspectives it draws upon, including faculty affiliates from many disciplines as well as a deep engagement with communities and organizations in Houston.

The Women's, Gender & Sexuality Studies Program is housed in the College of Liberal Arts and Social Sciences (624 AH).
http://www.uh.edu/class/ws/

Major

Women's, Gender & Sexuality Studies, B.A.

A major in Women’s, Gender & Sexuality Studies consists of 30 hours of designated WGSS courses (WGSS 2350 or 2360 + 27 additional hours, at least 21 of them advanced). The 21 advanced hours must include either 3350 or 3360; either 3321 or 3322, or equivalent; 4350; and 4360; plus 5 approved electives. At least 21 of the 30 hours must be taken in residence. A maximum of nine semester hours of approved transfer substitutes will be accepted toward the major. A minimum grade of C (2.00) is required for a course to count toward the minor, and a minimum 2.00 grade point average is required for the minor.

Required courses for the WGSS major

1. One Intro course

   WGSS 2350: Intro to Women, Gender and Culture (Language, Philosophy & Culture CORE course) Credit Hours: 3.0
   and/or

   WGSS 2360: Intro to LGBT Studies (Language, Philosophy & Culture CORE course) Credit Hours: 3.0

2. One of the following:

   WGSS 3350 - Gender, Society & Feminist Theory Credit Hours: 3.0
   or

   WGSS 3360 - Sexuality and Queer Theory Credit Hours: 3.0

3. One course from either of the following categories:

   (it is recommended that a course from the other category be taken as an elective)

   A. Gender and Transnational Studies course

   WGSS 3321 - Gender in Transnational Perspective Credit Hours: 3.0
If not available, one of the following may be substituted:
- WCL 3355 - Goddesses and Other Divine Women **Credit Hours: 3.0**
- HIST 4384 - East Asian Women in Historical and Cross-Cultural Perspectives **Credit Hours: 3.0**

**B. Perspectives on the Intersectionalities of Identity**

- WGSS 3322 - Intersectionalities of Race, Class, Age, Disability & Gender **Credit Hours: 3.0**
  - If not available, one of the following may be substituted:
    - ANTH 4363 - Race, Racialization and the Politics of Culture **Credit Hours: 3**
    - HIST 3334 - Chicana History **Credit Hours: 3.0**
    - HIST 3326 - African American Women in Slavery and Freedom **Credit Hours: 3.0**
    - HIST 4384 - East Asian Women in Historical and Cross-Cultural Perspectives **Credit Hours: 3.0**
    - HIST 4389 - From Blues Era to Hip Hop World: Black Life in the 20th Century **Credit Hours: 3.0**
    - SOC 3327 - Race and Ethnic Relations in the United States **Credit Hours: 3.0**
    - SOC 3328 - Race and Ethnicity in World Perspective **Credit Hours: 3.0**
    - HIST 3316 - Race and Racism in American Science and Medicine **Credit Hours: 3.0**
    - HIST 3317 - Making of Ethnic America **Credit Hours: 3.0**
    & petitioned courses on Race, Class, Age, Disability & Gender

4. **WGSS 4350 - Issues in Feminist Research course**

(includes a presentation of students' work and includes primary-source analysis in the Shuart Women's Archive in the UH Library)

5. **WGSS 4360 - Capstone Internship Course**

(includes a presentation of students' work and includes primary-source analysis in the Shuart Women's Archive in the UH Library)

6. **Electives**

Choose from the following options to fulfill the remaining **5 course credits** for the major:

A. **Senior Essay** (one term) with approved faculty + 4 elective courses

B. **Senior Thesis** (two terms) for Honors credit with approved faculty + 3 elective courses

C. Five elective cross-listed courses from approved list, no more than 2 in one discipline

**Distributive requirements:**

At least two of a student’s electives must come from each area.

**Humanities**

- ARAB 3314 - Women and Gender in Arabic Literature **Credit Hours: 3.0**
- COMM 3376 - Media Effects **Credit Hours: 3.0**
- COMM 3301 - Doctor-Patient Interaction **Credit Hours: 3.0**
- COMM 3340 - Health Campaigns **Credit Hours: 3.0**
CLAS 3374 - Women in the Ancient World Credit Hours: 3.0
CLAS 4374 - Sex and Gender in Antiquity Credit Hours: 3.0
CLAS 4375 - Gender and Race in Greek Myths Credit Hours: 3.0
ENGL 3362 - Women in Literature Credit Hours: 3.0
ENGL 3367 - Gay and Lesbian Literature Credit Hours: 3.0
ENGL 4341 - Queer Theory Credit Hours: 3.0
ENGL 4378 - Women Writers Credit Hours: 3.0
ENGL 4396 - Senior Experience Seminar Topics Credit Hours: 3.0 (Title: Feminist Theory)
HIST 3320 - U.S. Women's History Since 1840 Credit Hours: 3.0
HIST 3326 - African American Women in Slavery and Freedom Credit Hours: 3.0
HIST 3334 - Chicana History Credit Hours: 3.0
HIST 3351 - Work and Family Life in Modern Europe Credit Hours: 3.0
HIST 3378 - Modern Middle East Credit Hours: 3.0
HIST 4323 - Witchcraft in the Old & New World Credit Hours: 3.0
HIST 4365 - Women in Latin America Credit Hours: 3.0
HIST 4384 - East Asian Women in Historical and Cross-Cultural Perspectives Credit Hours: 3.0
ITAL 3309 - Women Writers and Filmmakers of Modern Italy Credit Hours: 3.0
PHIL 3356 - Feminist Philosophy Credit Hours: 3.0
SPAN 3350 - Women in Hispanic Literature Credit Hours: 3.0
WCL 3373 - Gender and Sexuality in World Film Credit Hours: 3.0
WCL 3384 - Jewish Women Through Biography Credit Hours: 3.0

Social and Natural Sciences

ANTH 3306 - Sex and Culture Credit Hours: 3.0
ANTH 3347 - Anthropology of Women Credit Hours: 3.0
ECON 4331 - Economics of Gender Credit Hours: 3.0
HLT 4302 - Health Aspects of Human Sexuality Credit Hours: 3.0
HLT 4306 - Women's Health Issues Credit Hours: 3.0
KIN 4302 - Fitness and Human Sexuality Credit Hours: 3
POLS 3368 - Race, Gender and Ethnic Politics Credit Hours: 3.0
POLS 3390 - Women in Politics Credit Hours: 3.0
PSYC 3331 - Psychology of Gender Credit Hours: 3.0
SOC 3315 - Sexuality and Society Credit Hours: 3.0
SOC 3321 - African American Family Credit Hours: 3.0
SOC 3342 - Sociology of Work Credit Hours: 3.0
SOC 3350 - Sociology of the Body Credit Hours: 3.0
SOC 3371 - Sociology of the Family Credit Hours: 3.0
SOC 3372 - Mexican American Family Credit Hours: 3.0
SOC 3373 - Comparative Family Structures Credit Hours: 3.0
SOC 3390 - Sociology of Gender Credit Hours: 3.0
SOC 3397 - Sel-Topics in Sociology Credit Hours: 3 (Title: African American Women)

Additional courses will be added over time, and others may be petitioned, if 50% or more of the course will focus on women, gender and/or sexuality.

Minor

Gay, Lesbian, Bisexual and Transgender (GLBT) Studies, Minor
Housed in Women's, Gender & Sexuality Studies Program, the minor in GLBT Studies is available to all UH students. Academic advising is coordinated through the Women's, Gender & Sexuality Studies Program.

The minor consists of the following 18-hour requirement:

- 3 hours of Introduction to GLBT Studies;
- 9 hours in approved GLBT studies advanced courses;
- 3 hours from the list of approved Women's Studies advanced courses; and
- 3 hours in approved capstone course (supervised research, field-based service, internship, or an additional 3 hours in elective GLBT studies course).

At least 12 of the 18 hours must be taken in residence of which 9 must be advanced. A minimum 2.00 grade point average is required for all courses attempted in the minor.

The interdisciplinary nature of this minor requires students not to confine course work to any one department. A minimum of 9 hours of approved coursework (including the Introduction to GLBT Studies course) from the Humanities and a minimum of 6 hours approved coursework from the Social Sciences must be taken. A maximum of 6 hours approved transfer substitutes will be accepted toward the minor, and no more than 6 semester hours in a student’s major may apply to a minor in GLBT Studies.

**Humanities (9 Hours):**

- ENGL 3367 - Gay and Lesbian Literature Credit Hours: 3.0
- ENGL 4341 - Queer Theory Credit Hours: 3.0
- CLAS 3380 - Epic Masculinity: Ideologies of Manhood in Ancient Epic and Modern Film Credit Hours: 3.0

**Social Sciences (6 Hours):**

- ANTH 3306 - Sex and Culture Credit Hours: 3.0
- PSYC 3337 - Psychology of Human Sexuality Credit Hours: 3.0
- SOC 3315 - Sexuality and Society Credit Hours: 3.0
- WGSS 3360 - Sexuality and Queer Theory Credit Hours: 3.0

**Notes (s):**

Courses may be added to this approved list between editions of this catalog. For the most up-to-date list of approved courses for this minor, contact the Women's, Gender & Sexuality Studies Program.

**Women's Studies Minor**

A minor in Women's Studies consists of eighteen hours in designated women's studies courses (15 advanced hours + WGSS 2350). At least twelve of the eighteen hours must be taken in residence. A maximum of six hours of approved transfer substitutes will be accepted toward the minor. No more than six semester hours in a student’s major may apply to the minor. A minimum 2.00 grade point average is required for all courses attempted in the minor.
The interdisciplinary nature of this minor requires that students not confine course work to any one department or college. A minimum of nine hours of approved course work (including WGSS 2350) from the humanities, fine arts, and communication fields of study and a minimum of six hours of approved course work from the social sciences fields of study must be taken.

**Social Sciences (6 hours):**

- ANTH 3347 - Anthropology of Women **Credit Hours: 3.0**
- HLT 4306 - Women's Health Issues **Credit Hours: 3.0**
- POLS 3368 - Race, Gender and Ethnic Politics **Credit Hours: 3.0**
- POLS 3390 - Women in Politics **Credit Hours: 3.0**
- PSYC 3331 - Psychology of Gender **Credit Hours: 3.0**
- SOC 3315 - Sexuality and Society **Credit Hours: 3.0**
- SOC 3321 - African American Family **Credit Hours: 3.0**
- SOC 3350 - Sociology of the Body **Credit Hours: 3.0**
- SOC 3371 - Sociology of the Family **Credit Hours: 3.0**
- SOC 3372 - Mexican American Family **Credit Hours: 3.0**
- SOC 3373 - Comparative Family Structures **Credit Hours: 3.0**
- SOC 3390 - Sociology of Gender **Credit Hours: 3.0**
- WGSS 3321 - Gender in Transnational Perspective **Credit Hours: 3.0**
- WGSS 3322 - Intersectionalities of Race, Class, Age, Disability & Gender **Credit Hours: 3.0**
- WGSS 3350 - Gender, Society & Feminist Theory **Credit Hours: 3.0**
- WGSS 3360 - Sexuality and Queer Theory **Credit Hours: 3.0**
- WGSS 4350 - Issues in Feminist Research **Credit Hours: 3.0**
- WGSS 4360 - Capstone Internship Course **Credit Hours: 3.0**

**Humanities (9 hours):**

- CLAS 3307 - Greek and Roman Myths of Heroes **Credit Hours: 3.0**
- CLAS 3345 - Myth and Performance in Greek Tragedy **Credit Hours: 3.0**
- CLAS 3374 - Women in the Ancient World **Credit Hours: 3.0**
- COMM 3300 - Health Communication **Credit Hours: 3.0**
- COMM 3340 - Health Campaigns **Credit Hours: 3.0**
- COMM 3376 - Media Effects **Credit Hours: 3.0**
- COMM 4338 - Family in Popular Culture **Credit Hours: 3.0**
- ENGL 3321 - Modern British Literature **Credit Hours: 3.0**
- ENGL 3362 - Women in Literature **Credit Hours: 3.0**
- ENGL 3365 - Postcolonial Literature **Credit Hours: 3.0**
- ENGL 3367 - Gay and Lesbian Literature **Credit Hours: 3.0**
- ENGL 3369 - Caribbean Literatures **Credit Hours: 3.0**
- ENGL 4378 - Women Writers **Credit Hours: 3.0**
- ENGL 4396 - Senior Experience Seminar Topics **Credit Hours: 3.0**
- HIST 3320 - U.S. Women’s History Since 1840 **Credit Hours: 3.0**
- HIST 3326 - African American Women in Slavery and Freedom **Credit Hours: 3.0**
- HIST 3351 - Work and Family Life in Modern Europe **Credit Hours: 3.0**
- HIST 3378 - Modern Middle East **Credit Hours: 3.0**
- HIST 4327 - Europe 1930-1945 **Credit Hours: 3.0**
- HIST 4384 - East Asian Women in Historical and Cross-Cultural Perspectives **Credit Hours: 3.0**
- PHIL 3356 - Feminist Philosophy **Credit Hours: 3.0**
- SPAN 3350 - Women in Hispanic Literature **Credit Hours: 3.0**
*Must be petitioned for credit.

Note(s):

Courses may be added to this approved list between editions of this catalog. For the most up-to-date list of approved courses for this minor, contact the Women's, Gender and Sexuality Studies Program.
The Honors College Information

Overview

The College of Liberal Arts and Social Sciences and The Honors College collaborate to offer courses, workshops, internships, visiting lectures, and co-curricular activities. For additional information, refer to The Honors College section of this catalog.
Summer Abroad

Chinese and French

The summer program in Chinese is academically rigorous and culturally enriching. It offers intensive course work and extensive travel on weekends. Students may take up to three courses (nine credit hours) toward the Chinese minor or Chinese Studies major in approximately five weeks while in Beijing. The program offers language courses at all levels and culture/literature courses taught in English. All courses have the same curriculum as the courses offered on the UH campus.

A summer program of study in France allows qualified students to earn residence credit in French at various undergraduate levels. The program is directed by a full-time faculty member of the department. A minimum of one year of college French, or equivalent, is required. Contact the department for more information.

In addition, the department encourages students interested in studying abroad during the regular academic year to consult with the department's undergraduate advisor.
Religious Studies Program

Who's Who in the Religious Studies Program

Director:

Lynn E. Mitchell

Professor:

Lynn E. Mitchell (Clinical), Ibrahim Sumer (Visiting Scholar in Religion, Islamic Studies)

Lecturers and Instructors:


Overview

The Religious Studies Program offers a rational and analytical approach to the study of world religions and of religion in America. The program provides a valuable and fruitful interdisciplinary approach to the study of humanities and to the securing of a liberal education.

A typical course in the program draws upon the disciplines of literary analysis, history, sociology, anthropology, psychology, art history, and political philosophy.

The intent of the program is not denominational advocacy, but instead to promote the academic study of the human experience. Within the contours of a single course, therefore, students can encounter many essential aspects of the human experience.
College of Natural Sciences and Mathematics

Contact Information

<table>
<thead>
<tr>
<th>Department</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the Dean</td>
<td>713-743-2611</td>
</tr>
<tr>
<td>Department of Biology and Biochemistry</td>
<td>713-743-2666</td>
</tr>
<tr>
<td>Department of Chemistry</td>
<td>713-743-2701</td>
</tr>
<tr>
<td>Department of Computer Science</td>
<td>713-743-3350</td>
</tr>
<tr>
<td>Department of Earth and Atmospheric Sciences</td>
<td>713-743-3399</td>
</tr>
<tr>
<td>Department of Mathematics</td>
<td>713-743-3500</td>
</tr>
<tr>
<td>Department of Physics</td>
<td>713-743-3550</td>
</tr>
</tbody>
</table>

Web Address: www.uh.edu/nsm

Dean:

Dan E. Wells, Ph.D., Indiana University

Associate Deans:

Andrew Hamilton, Ph.D., University of California, San Diego; Ian Evans, Ph.D., Texas A&M University; Anne Delcour, Ph.D., Cornell University; T. Randall Lee, Ph.D., Harvard University; James Briggs, Ph.D., Purdue University

Mission Statement

The College of Natural Sciences and Mathematics (NSM) is committed to excellence in teaching and research in the natural sciences and mathematics.

Academic departments within the college are: Biology and Biochemistry, Chemistry, Computer Science, Earth and Atmospheric Sciences, Mathematics, and Physics.

Because NSM faculty members are engaged in creation of new knowledge through research, they bring the latest information to their classrooms and teaching laboratories.

Departmental curricula and courses are designed to help students acquire appropriate content knowledge and develop well-honed critical thinking and scientific literacy skills.

NSM graduates are competitive in the job market, and students aspiring to graduate or medical school often have opportunities to participate in research with faculty members.

The college sponsors several academic support programs.
The Scholar Enrichment Program (http://www.uh.edu/nsm/scholar-enrichment/) and
The Houston-Louis Stokes Alliance for Minority Participation (http://www.uh.edu/nsm/scholar-enrichment/hlsamp/)

These programs offer excellence workshops associated with certain core courses in mathematics, chemistry, and physics. Participation in these programs hones problem-solving skills for success in more advanced coursework, and facilitates mentoring relationships.

The Center for Academic Support and Assessment (CASA) provides tutorial services for students in lower level mathematics courses.

Student Organizations

Student groups offer opportunities for students with common goals to develop leadership skills, network, and serve the university community. Membership in the following organizations is encouraged for students in good standing who meet eligibility requirement:

- NSM Ambassadors
- Alpha Epsilon Delta, the National Pre-Medical Honor Society
- Allied Health Professions Society
- Mu Delta, African American Pre-Health Association
- Biology and Biochemistry Undergraduate Association
- Delta Delta Sigma, Pre-Dental Professional Society
- Pre-Optometry Professional Society
- Sigma Gamma Epsilon, National Honorary Earth Science Society
- Society of Physics Students
- University of Houston Math Enthusiasts
- University of Houston GeoSociety
- American Association of Petroleum Geologists - Student Chapter
- Society of Exploration Geophysicists - Student Chapter
Academic Information - NSM

Advanced Placement

Natural Sciences and Mathematics majors are strongly encouraged to take advanced placement and/or achievement tests. College level course work in several areas will be waived upon presentation of suitable scores. For further information, consult the department chair and refer to the Office of Admissions website.

Declaration of Major

Many entering students have a well-defined career objective and major course of study. These students are advised to declare their major upon entering the college and to seek academic advisement from their major department.

Freshman students who are uncertain of their major may enroll as natural sciences and mathematics unspecified majors. Academic advising for these students is provided by the Office of the Dean. Prior to enrollment in the college with sophomore standing, students must petition for a change of major to one of the university degree programs.

Expected Background of Entering Freshmen

It is expected that, in addition to the minimum requirements for admission to the university’s undergraduate programs, each freshman entering the college will have completed in high school the following courses of study:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
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<tbody>
<tr>
<td>Biology, chemistry, or physics</td>
<td>2 or more</td>
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<tr>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>Algebra</td>
<td>2</td>
</tr>
<tr>
<td>Geometry</td>
<td>1</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>½</td>
</tr>
<tr>
<td>Elementary Analysis or Analytical Geometry</td>
<td>½</td>
</tr>
<tr>
<td>English</td>
<td>4</td>
</tr>
</tbody>
</table>

Students who wish to enter the college without this background are advised to enroll as natural sciences and mathematics unspecified majors and obtain academic advising from the Office of the Dean.

Adequate Progress

In order to ensure progress toward a degree, entering FTIC (First Time in College) NSM majors who do not have credit for college-level Calculus I are expected to successfully complete MATH 1431 (Calculus I) by the end of their first two terms at UH (30 credit hours). Students who fail to meet this
requirement cannot continue as NSM majors. Exceptions to this rule may be considered following appropriate academic counseling and approval of the Dean (or Dean's designee).

**Change of Major Requirements**

Students currently enrolled at UH and seeking a change of major into or within the College of Natural Sciences and Mathematics must have:

- Established a minimum cumulative UH grade point average of at least 2.50.
- A mathematics and science GPA of at least 2.50 based on all math and science courses taken at UH that are applicable to NSM degrees.
- Students seeking majors in the departments of Biology & Biochemistry, Chemistry, Earth & Atmospheric Sciences, Mathematical Biology, and Physics must have completed a minimum of 3 credit hours of mathematics (MATH 1431 or equivalent or higher) and 3 credit hours of science.
- Students seeking majors in the departments of Computer Science and Mathematics must have completed a minimum of six credit hours in mathematics (MATH 1431 or equivalent or higher).

**NSM Policies and Procedures**

Dean's List; Readmission from Academic Suspension; Grievance Procedures; Grade Changes; Transfer Credit; Petitions; Senior Thesis - Senior Research Project; Degree Plans; Filing to Graduate; Deadlines

**Dean's List**

To qualify for this recognition, undergraduate students must earn a 3.50 minimum grade point average (the grade of S is not counted) on 12 or more credit hours completed during the term. Students who earn a grade of I (incomplete), D, F, or U, during the term are excluded from consideration for the Dean's List.

**Readmission From Academic Suspension**

Any student suspended from the college for academic or disciplinary reasons is ineligible to return during the designated period of suspension. Readmission from Academic Suspension is neither automatic nor guaranteed. NSM majors on academic suspension must be readmitted to UH and through the NSM Office of the Dean prior to enrolling in classes. While on suspension at UH, an NSM student may not enroll in classes as follows:

- First suspension: student must sit out the next long term, either the fall or the spring. (Summer is not considered a "long" term.) NSM students who have been placed on their first academic suspension are required to sit out for one long term (fall or spring) and have to reapply for admission to UH after completing their sit out term.
  - Suspended students will be admitted under contract as long as they reapply to UH and are accepted for readmission for a term to begin before the 13 month deadline and comply with all the requirements associated with the readmission process.
  - Suspended students who sit out more than the 13 months will have to meet the UH and NSM entry standards applied to Former UH students at the time of their application, and can only do so by taking course work elsewhere in order to generate a blended GPA (cumulative and math & science) greater than 2.50 or higher. See the Former Student Admissions Requirements page for more details.
- Second suspension: student must sit out 1 calendar year (12 months). NSM majors receiving a second suspension should not expect to be readmitted through NSM.
- Third suspension: student will not be readmitted to UH.

NSM does not grant readmission during summer terms.
The readmission from suspension policy and associated application forms are available in the NSM Office of the Dean and the NSM Undergraduate Advising Center. Readmission dates are set and posted for each term. Please contact the NSM Undergraduate Advising Center for specific dates and times.

Students classified as Natural Sciences and Mathematics-Unspecified will not be readmitted from academic suspension through NSM.
No student with a major outside of NSM will be readmitted from academic suspension through NSM.
Students subject to suspension based upon course work 10 or more years old should consider the Academic Fresh Start Program.

A student readmitted from academic suspension enters the term on probation and must fulfill the following requirements to avoid further academic action.

- Enroll in no more than 13 credit hours of approved courses during the term of re-entry.
- Earn a minimum 2.50 grade point average during the term of re-entry.
- Cannot earn a grade of "F", "W", "U", or "I" during the term of re-entry.
- Additional requirements may apply.

Failure to attend the university during the term of readmission cancels the readmission approval. Students may reapply in any subsequent term.

**Students on a first suspension** are required to reapply for readmission to UH after sitting out for one long term. If they apply for readmission after their sit out term, and before 13 months have elapsed, the college will readmit them under contract. If they sit out for more than 13 months they will be required to meet UH and NSM entry standards at the time of their application, and can only do so by taking course work elsewhere in order to generate a blended GPA (cumulative and math & science) greater than 2.50 or higher.

**Grievance Procedures**

A student with a justifiable grievance that can be substantiated should initiate academic grievance proceedings within 90 calendar days of the action in dispute. These proceedings begin when the student contacts the professor with an appropriate concern about the grade or evaluation. Because assigning a grade for evaluating a student's work performance involves the faculty's professional judgment and is an integral part of the faculty's teaching responsibilities, disagreement with an instructor concerning a grade or evaluation is not a justifiable grievance to be considered under this policy unless a violation of university, college, or department academic policies or procedures can be shown to have affected that grade or evaluation.

A multilevel procedure of redress of grievance concerning academic matters is available to undergraduate students of the College.

- Every effort shall be made by the student, faculty, and department chair to resolve the grievance within the department structure. If step one does not resolve the grievance, the student may, within fifteen calendar days of the receipt of the departmental decision regarding the grievance, go to step two.
- The request for a college review begins with the completion of the NSM Academic Grievance/Grade Appeal Form. If, after review of the NSM Academic Grievance/Grade Appeal form, the Dean (or designee) decides that the grievance, as submitted, does not contain relevant, detailed specifics with associated supporting evidence or does not contain information or arguments not already fully addressed at the department level, the Dean can reject the request for an appeal. If, in the judgment of the Dean, the grievance as submitted warrants further review, the Dean will appoint a three-member faculty committee to make a recommendation. None of the committee member shall be from the instructor's home department. Normally, the committee shall complete its work within thirty calendar days of the request for a hearing, unless extenuating circumstances make this deadline impossible to meet. The decision of the Academic Grievance Committee shall be forwarded to the Dean (or designee) for review and a final decision. This decision will be communicated to the grievant within ten calendar days of the receipt of the committee's report. The decision of the Dean shall be binding on both the department and the student.

If the student does not find the Dean's decision acceptable, the student may, within ten calendar days of the receipt of the Dean's decision, appeal their case to the senior vice president for academic affairs.

**Grade Changes**
Questions regarding grades in NSM courses must be resolved within 90 days following the posting of the grade. Grade changes are approved only for correction of errors in computing the grade.

Grades of I (Incomplete) must be resolved within one year of the posting of the grade or will be changed automatically to F. Incomplete grades must be resolved with the instructor awarding the grade. Incomplete grades cannot be resolved by re enrolling (re-registering) for the course in question.

**Transfer Credit**

Questions concerning transfer credit are resolved by the petition process. This process originates in the NSM Undergraduate Advising Center, and the petitions are routed to the relevant department and dean's offices.

**Petitions**

Students wishing to enroll in Independent Study courses (xx98) must seek approval in advance by the petition process. Credit for Independent Study courses is contingent upon approval of a petition detailing the project and method of evaluation. Generally, Independent Study courses are limited to S/U (satisfactory/unsatisfactory) grading.

**Senior Thesis; Senior Research Project**

Students wishing to complete either the Senior Thesis (3399-4399) or Senior Research Project (3396-4396) must seek approval in advance by the petition process. Credit for these courses is contingent upon approval of a petition detailing the project and method of evaluation.

**Degree Plans**

Students are responsible for all requirements of the catalog under which they are graduating. Requests for a degree plan should be made in the department of the major as soon as the student has completed 60 credit hours. Students with a major in NSM applying for graduation without an official degree plan will be disapproved.

**Filing To Graduate**

To be a degree candidate, students must submit an application for graduation by the stated deadline in the class listings. Candidates for graduation, previously disapproved, must reapply.

Degrees are not awarded automatically upon completion of the scholastic requirements. Successful graduation candidates can anticipate the posting of the degree approximately six weeks after the closing date of the term allowing for final audit procedures.

**Deadlines**

NSM strictly adheres to the University Calendar, e.g. admission and enrollment (registration) deadlines, drop dates, application for graduation, etc. Exceptions are considered only for documented, extenuating, nonacademic circumstances.

**Graduate Programs**
The college offers both the Master of Science and Doctor of Philosophy degrees in all departments. Entry into any graduate program requires a bachelor’s degree from a recognized institution and an adequate background in the subject to be studied.

Through reciprocal agreements, graduate students at certain components of the University of Texas System, Rice University, and Baylor College of Medicine may take courses for credit at the University of Houston. University of Houston graduate students may take courses for credit at any of these three institutions. Charges for enrollment (registration) and tuition are made by the parent institution.

For more information on graduate and professional programs and a listing of courses, refer to the Office of the Dean, the appropriate department, or the Graduate and Professional Studies catalog.

**Preprofessional Training**

The college offers preprofessional training for students planning to study dentistry, medicine, medical technology, nursing, physical therapy, veterinary medicine, and other health professions. Students are expected to acquaint themselves with the specific requirements of the professional schools they wish to enter. Health professions advisors in the Academic Advising Center, 832-842-2100, in room N140 Cougar Village 2 and department academic advisors are available to help students obtain the greatest possible benefit from preprofessional training.

**Special Programs**

The College of Natural Sciences and Mathematics recognizes the value of developing students' professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship/Curricular Practical Training (CPT) experience by a transcript notation. For more information, please refer to the College of Natural Sciences and Mathematics - Experience Track section of this catalog.
General NSM Degree Information

Baccalaureate Degrees

The college offers the Bachelor of Science degree in all departments and the Bachelor of Arts degree in biochemical and biophysical sciences, biology, chemistry, earth science, mathematics, and physics. Students interested in teaching biology, chemistry, earth science, mathematics, or physics at the secondary level should contact the Office of the Dean for advisement.

Requirements for a Baccalaureate Degree

The following requirements must be met by students who expect to earn a Bachelor of Arts or a Bachelor of Science degree with a major in the College of Natural Sciences and Mathematics. Students will also be required to meet special requirements listed in the Academic Regulations and Degree Requirements section of this catalog.

Completion of a minimum of 120 credit hours. At least 36 of the 120 credit hours are to be advanced according to the respective degree plans.

- Any change or substitution must have the College Dean’s written approval. Students must earn a 2.00 minimum cumulative grade point average in all courses attempted at the university.

Completion of the core curriculum requirements.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1303 - First Year Writing I, ENGL 1304 - First Year Writing II</td>
<td>6</td>
</tr>
<tr>
<td>MATH 1310 - College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Three hours in approved math, logic, statistics, computer science, or music theory courses</td>
<td>3</td>
</tr>
<tr>
<td>Life and Physical Sciences: Approved Core Courses</td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences: Approved Core Courses</td>
<td>3</td>
</tr>
<tr>
<td>Writing in the Disciplines: Approved Core Courses</td>
<td>3</td>
</tr>
<tr>
<td>Language, Philosophy &amp; Culture: Approved Core Courses</td>
<td>3</td>
</tr>
<tr>
<td>Creative Arts: Approved Core Courses</td>
<td>3</td>
</tr>
<tr>
<td>American History: HIST 1377 and HIST 1378 or equivalent</td>
<td>6</td>
</tr>
<tr>
<td>Government/Political Science: POLS 1336 and POLS 1337 or equivalent</td>
<td>6</td>
</tr>
</tbody>
</table>

Completion of college degree requirements (B.A. or B.S.) to include a major (29 to 50 credit hours of which at least 18 must be advanced) and NSM Capstone course work (at least 6 advanced hours)
Of all courses attempted in the major and applicable to the major (including both required and "elective" courses in the major), no more than six credit hours with grades below C-. Students exceeding that limit must retake sufficient courses and obtain acceptable grades (C- or above), so that they do not exceed the six credit hour limit. Students may choose the course(s) to retake unless prohibited by specific catalog language. Substitutions must be approved by the major department and the Dean's Office.

The Bachelor of Science and Bachelor of Arts degrees in NSM, require that:

- No course in the major with a grade below C- be used as a prerequisite for any required or elective major course;
- Students with more than six hours below C- in their major courses not be allowed to enroll in subsequent major courses without written permission from the undergraduate advisor.
- Students who have successfully completed any NSM course with a grade of B- or better may not re-enroll in that class without the express written permission of the NSM Dean. This policy does not apply to courses referred to as repeatable, such as Independent Study or Selected Topics courses, that are often designed to be taken more than once for additional credits each time.

All NSM majors are encouraged to meet with the undergraduate advisor prior to enrollment (registration) each term.

Prerequisites for all major courses are strictly enforced.

Students must earn a minimum 2.00 grade point average in all courses in the major (both required and elective) attempted at the university.

**Special Requirements - Bachelor of Arts Degree**

In addition to meeting the core curriculum requirements, students must complete the following (see major department for specific course work which may be required):

**Major department courses: 29-50 hours**

- Of all courses attempted and applicable to the major (including both required and "elective" courses in the major), no more than six credit hours with grades below C-. Students exceeding that limit must retake sufficient courses and obtain acceptable grades (C- or above), so that they do not exceed the six credit hour limit. Students may choose the course(s) to retake unless prohibited by specific catalog language. Substitutions must be approved by the major department and the Dean's Office. Students must earn a minimum 2.00 grade point average in all courses (either required or elective) attempted in the major at the university.

**Foreign Language: 6 hours**

- Courses at the 2000-level or above in the same language are required. International students may not take English or their native language (more information is available in the Regulations and Requirements section of this catalog).

**Mathematics: 6 hours**

- These must be selected from courses approved for NSM majors.

**Life & Physical Sciences: 7 hours**

- Two approved courses in the same discipline, chosen from biochemical and biophysical science, biology, chemistry, earth and atmospheric sciences, and physics. These courses must be from outside the student's major, and only include those courses approved for NSM majors.

**NSM Capstone: 6-21 hours**

- The NSM Capstone requirement may be satisfied by completing one of the following options:
  - A double major.
  - A double or previous four-year degree.
  - A six-hour senior research project.
  - A six-hour senior honors thesis.
  - Six (6) hours of NSM-designated paired capstone courses: GEOL 3355, GEOL 3360; GEOL 4355, GEOL 4381; COSC 4353, COSC 4354; COSC 4353, COSC 4355.
  - An approved minor.
  - Completion of TeachHouston requirements

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions will not be included in the minor grade point average.
Special Requirements - Bachelor of Science Degree

In addition to meeting the general requirements, students must complete the following (see major department for specific course work which may be required):

**Major department courses: 29-50 hours**
Of all courses attempted and applicable to the major (including both required and "elective" courses in the major), no more than six credit hours with grades below C-. Students exceeding that limit must retake sufficient courses and obtain acceptable grades (C- or above), so that they do not exceed the six-credit hour limit. Students may choose the course(s) to retake unless prohibited by specific catalog language. Substitutions must be approved by the major department and the Dean's Office. Students must earn a minimum 2.00 grade point average in all courses (either required or elective) attempted in the major at the university.

**Life & Physical Sciences: 14 hours**
Approved courses, including two laboratories in the same discipline, chosen from biochemical and biophysical science, biology, chemistry, earth and atmospheric sciences, and physics. These courses must be from outside the student's major, and only include those courses approved for NSM majors.

**Mathematics: 12 hours**
These must be selected from courses approved for NSM majors.

**NSM Capstone: 6-21 hours**
The NSM Capstone requirement may be satisfied by completing one of the following options:
- A double major.
- A double or previous four-degree degree.
- A six-hour senior research project.
- A six-hour senior honors thesis.
- Six (6) hours of NSM-designated paired capstone courses: GEOL 3355, GEOL 3360; GEOL 4355, GEOL 4381; COSC 4353, COSC 4354; COSC 4353, COSC 4355.
- An approved minor.
- Completion of Teach Houston requirements

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions will not be included in the minor grade point average.

Graduate Programs

The college offers both the Master of Science and Doctor of Philosophy degrees in all departments. Entry into any graduate program requires a bachelor's degree from a recognized institution and an adequate background in the subject to be studied.

Through reciprocal agreements, graduate students at certain components of the University of Texas System, Rice University, and Baylor College of Medicine may take courses for credit at the University of Houston. University of Houston graduate students may take courses for credit at any of these three institutions. Charges for enrollment (registration) and tuition are made by the parent institution.

For more information on graduate and professional programs and a listing of courses, refer to the Office of the Dean, the appropriate department, or the Graduate and Professional Studies catalog.
NSM Scholarships

The College of Natural Sciences and Mathematics has limited scholarships available to qualified first time in college freshmen and continuing students. For more information and for application forms, visit www.nsm.uh.edu/finaid.

General information about UH scholarships and financial aid.

Major

Mathematical Biology, B.S.

The Bachelor of Science in Mathematical Biology is an interdisciplinary degree program jointly administered by the College of Natural Sciences and Mathematics, the Department of Biology, and the Department of Mathematics at the University of Houston. In addition to general university and college requirements, the degree calls for 26 hours of biology/biochemistry, 27 hours of mathematics, 21 hours of chemistry and physics, and 6 hours of interdisciplinary biology/mathematics courses. Detailed requirements of the program are given in the College of Natural Sciences and Mathematics section of this catalog.

The general requirements, including university core curriculum and college requirements, shall apply. By virtue of the interdisciplinary nature of the program, students who complete the requirements for the B.S. degree in Mathematical Biology have satisfied the capstone requirement of the College of Natural Science and Mathematics. Academic advising for students pursuing the Bachelor of Science in Mathematical Biology is provided by the Office of the Dean.

Students who choose to major in Mathematical Biology must complete the following requirements in addition to the special requirements for the Bachelor of Science degree:

Requirements

Biology:

- BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
- BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
- BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
- BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0
- BIOL 3301 - Genetics Credit Hours: 3.0
- BIOL 3311 - Genetics Laboratory Credit Hours: 3.0
- BIOL 3306 - Evolutionary Biology Credit Hours: 3.0
- BIOL 3324 - Human Physiology Credit Hours: 3.0
- BIOL 4374 - Cell Biology Credit Hours: 3.0

Biochemical and Biophysical sciences:

- BCHS 3304 - General Biochemistry I Credit Hours: 3.0

Mathematics:

- MATH 1431 - Calculus I Credit Hours: 4.0
MATH 1432 - Calculus II Credit Hours: 4.0
MATH 2433 - Calculus III Credit Hours: 4.0
MATH 2331 - Linear Algebra Credit Hours: 3.0
MATH 3331 - Differential Equations Credit Hours: 3.0
MATH 3338 - Probability Credit Hours: 3.0
MATH 3339 - Statistics for the Sciences Credit Hours: 3.0
A minimum of 3 semester hours of 4000-level mathematics Cr. 3.

Interdisciplinary courses:

BIOL 4309 - Mathematical Biology Credit Hours: 3.0 or
MATH 4309 - Mathematical Biology Credit Hours: 3.0
and
BIOL 4310 - Biostatistics Credit Hours: 3.0 or
MATH 4310 - Biostatistics Credit Hours: 3.0

Chemistry:

CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0

Physics:

PHYS 1321 - University Physics I Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I Credit Hours: 1.0
PHYS 1322 - University Physics II Credit Hours: 3.0
PHYS 1122 - University Physics Laboratory II Credit Hours: 1.0

Suggested Program Plan

Mathematical Biology Degree Plan

Certificate

Teacher Certification

The college offers bachelor’s degree programs in various disciplines that meet the Texas State Board of Education requirements for the Provisional Teaching Certificate. Certification as a secondary school teacher is provided through professional education courses in the College of Education within degree programs in the College of Natural Sciences and Mathematics. Students seeking certification are provided academic advising, counseling and degree plans through the Office of the Dean of the College of Natural Sciences and Mathematics and/or Education.

Internship and Practical Training
College of Natural Sciences and Mathematics - Experience Track

The College of Natural Sciences and Mathematics recognizes the value of developing students’ professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship/Curricular Practical Training (CPT) experience by a transcript notation.

To satisfy the requirements for the Experience Track, students must declare their intention to pursue the track and complete an approved internship/CPT. One-credit academic courses (such as BIOL 4151, COSC 4151, etc.) exist for students who wish to receive academic credit for the internship experience. Zero-credit courses (such as COOP 0011, COOP 0017, etc.) are also available for this purpose.

Eligibility for Internship

NSM students with a UH grade point average 2.5 or greater, or permission of department chair or designee, are eligible for internship courses. Students are eligible for internships after completing at least one semester of study in the College of Natural Sciences and Mathematics. The work must be related to the students major. Internships must be approved by a Director of Undergraduate Studies or Department Chair of the student's major. Additional restrictions apply to CPT for F-1 students (see below).

Steps to Declare the Experience Track

NSM students must declare, by submitting a General Petition to their academic advisor, their intention to pursue this track prior to processing the paperwork for approval of the internship/CPT. The academic advisor will verify the student's academic eligibility for the internship/CPT. The student will be notified by email when the petition has either been approved or disapproved by the Director of Undergraduate Studies Department Chair. The department of the student's major will review the internship including the formal job offer on the hiring company's stationery, a description of the work to be performed, a beginning and ending date and the salary offered. The department will determine whether or not the internship/CPT will provide the student with appropriate experience relating to their major field of study.

If a positive determination is made, then:

- If the student wants to enroll for credit (such as BIOL 4151), then the department will enroll the student in the course, otherwise
- If the student wants to enroll for a zero-credit co-op internship/CPT, the student takes the approved petition and the internship approval from the department to the Co-op Office in the career center of the Cullen College of Engineering to complete the process.

F-1 students seeking CPT should visit the Office of International Student Scholar Services (ISSS) for special instructions prior to the steps above. For more information about Co-op Education and CPT, please visit the Co-operative Education (Co-op) and Curricular Practical Training (CPT) page.

Eligible Coursework

To satisfy the requirements for the Experience Track students must declare their intention to pursue the track and complete an approved internship/CPT. Zero-credit courses are available for this purpose. Courses for academic credit, while required for select majors, may be available for elective credits for other majors if approved by the academic advisor for the respective major.

Courses for Academic Credit

- BIOL 4151 - Biology Internship Credit Hours: 1.0
- CHEM 4151 - Chemistry Internship Credit Hours: 1.0
COSC 4151 - Computer Science Internship  Credit Hours: 1.0  
PHYS 4151 - Physics Internship  Credit Hours: 1.0

Zero-Credit Courses

COOP 0011 - COOP Education Work Period I  Credit Hours: 0.0
COOP 0012 - COOP Education Work Period II  Credit Hours: 0.0
COOP 0013 - COOP Education Work Period III  Credit Hours: 0.0
COOP 0014 - COOP Education Work Period IV  Credit Hours: 0.0
COOP 0015 - COOP Education Work Period V  Credit Hours: 0.0
COOP 0016 - COOP Education Work Period VI  Credit Hours: 0.0
COOP 0017 - COOP Education Work Period VII  Credit Hours: 0.0

Other Programs

Mathematical Biology Degree Plan

First Year

Fall Semester

MATH 1431 - Calculus I  Credit Hours: 4.0
ENGL 1303 - First Year Writing I  Credit Hours: 3.0 (Communications Core)

HIST 1376 - The United States To 1877  Credit Hours: 3.0 or
HIST 1377 - The U S To 1877  Credit Hours: 3.0

POLS 1336 - U.S. and Texas Constitution and Politics  Credit Hours: 3.0
BIOL 1361 - Introduction to Biological Science 1  Credit Hours: 3.0
BIOL 1161 - Introduction to Biological Science Laboratory 1  Credit Hours: 1.0

Total 17

Spring Semester

MATH 1432 - Calculus II  Credit Hours: 4.0
ENGL 1304 - First Year Writing II  Credit Hours: 3.0 (Communications Core)

HIST 1378 - The U S Since 1877  Credit Hours: 3.0 or
HIST 1379 - The United States Since 1877  Credit Hours: 3.0

POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0
BIOL 1362 - Introduction to Biological Science 2  Credit Hours: 3.0
BIOL 1162 - Introduction to Biological Science Laboratory 2  Credit Hours: 1.0

Total 17
Second Year

Fall Semester

MATH 2433 - Calculus III Credit Hours: 4.0
MATH 2331 - Linear Algebra Credit Hours: 3.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
PHYS 1321 - University Physics I Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I Credit Hours: 1.0

Total 15

Spring Semester

MATH 3331 - Differential Equations Credit Hours: 3.0
MATH 3338 - Probability Credit Hours: 3.0
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
PHYS 1322 - University Physics II Credit Hours: 3.0
PHYS 1122 - University Physics Laboratory II Credit Hours: 1.0

Total 14

Third Year

Fall Semester

MATH 3339 - Statistics for the Sciences Credit Hours: 3.0
BIOL 3301 - Genetics Credit Hours: 3.0
CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
BIOL 3311 - Genetics Laboratory Credit Hours: 3.0 *

Total 14

Note(s):

*BIOL 3311 meets the Writing in the Disciplines core requirement.

Spring Semester

BCHS 3304 - General Biochemistry I Credit Hours: 3.0
BIOL 3306 - Evolutionary Biology Credit Hours: 3.0
MATH Elective at the 4000-level Credit Hours: 3.0
Free Elective Credit Hours: 3.0 *
Language, Philosophy & Culture Core Credit Hours: 3.0

Total 15

Fourth Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3324 - Human Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 4309 - Mathematical Biology</td>
<td>3.0 or MATH 4309 - Mathematical Biology 3.0</td>
</tr>
<tr>
<td>BIOL 4374 - Cell Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>Social/Behavioral Sciences Core</td>
<td>3.0</td>
</tr>
<tr>
<td>Creative Arts Core</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total 15

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4310 - Biostatistics</td>
<td>3.0 or MATH 4310 - Biostatistics 3.0</td>
</tr>
<tr>
<td>Free Electives</td>
<td>10.0 *</td>
</tr>
</tbody>
</table>

Total 13

Total Semester Hours: 120

Note(s):

*Students who plan to apply for medical school should include CHEM 3332 and CHEM 3222 in their elective hours.

Department of Biology and Biochemistry

Who's Who in the Department of Biology and Biochemistry

Chair:

Dan E. Wells
Professors:

Blaine J. Cole, Anne Delcour, Stuart E. Dryer, Joseph Eichberg, Jr., Arnold Eskin, George E. Fox, Robert Fox, Xioalian Gao, Dan Graur, Jan-Ake Gustafsson, Peter Jurtshuk, Steven Pennings, Laurence Rapp (Instructional), Michael Rea, Robert Schwartz, Shiao-Chun Tu, Margaret Warner, Dan E. Wells, William R. Widger, Xiaoliu Zhang

Associate Professors:

Ricardo Azevedo, James M. Briggs, Tejendra Gill (Instructional), Kurt Krause, Gregg Roman, Amy K. Sater, Philip Snider, Diane C. Wiernasz, Lawrence Williams (Instructional)

Assistant Professors:

Tim Cooper, Brigitte Dauwalder, W. Anthony Frankino, Masaya Fujita, Preethi Gunaratne, Richard Knapp (Instructional), Anna Newman (Instructional), Donna Pattison (Instructional), Yuhong Wang, Chad Wayne (Instructional), Cecilia Williams, Hye-Jeong Yeo, Weihua Zhang, Jokubas Ziburkus, Rebecca Zufall

Overview

The Department of Biology and Biochemistry offers Bachelor of Science (B.S.) and Bachelor of Arts (B.A.) degrees in Biology and in Biochemical and Biophysical Sciences.

Students interested in a career in any aspect of the life sciences, including biomedical research, molecular and cellular biology, biotechnology, ecology and evolutionary biology, and field or conservation biology should consider a major in this department. Graduates with baccalaureate degrees may consider such careers as science journalism, pharmaceutical or scientific sales, laboratory management, or K-12 teaching. Teaching at the university level generally requires a doctorate.

A major in either biology or biochemical and biophysical sciences offers excellent preparation for medical, dental, optometry, or veterinary school as well as the allied health professions. Students who distinguish themselves in their undergraduate studies and earn a B.S. degree in biology or in biochemical and biophysical sciences are excellent candidates for graduate study in fields such as organismal biology, biochemistry, biophysics, cellular and molecular biology, neuroscience, pharmacology, physiology, developmental biology, immunology, microbiology, plant and animal sciences, public health, nutrition, and epidemiology.

Faculty research and teaching fields include biochemistry and biophysics; cell, molecular and developmental biology; neurobiology; and evolutionary biology and ecology. Undergraduate research opportunities are available in faculty laboratories and participation is encouraged for students interested in pursuing advanced degrees.

Major

Biochemical and Biophysical Sciences, B.A.

Biochemical and Biophysical Sciences Major

Students who major in biochemical and biophysical sciences must meet the general requirements in addition to the special requirements for a Bachelor of Arts or Bachelor of Science Degree.
Students who major in biochemical and biophysical sciences may not double major, double degree, or minor in biology.

**Requirements**

**Biology:**

- BIOL 1161 - Introduction to Biological Science Laboratory  
  **Credit Hours:** 1.0
- BIOL 1162 - Introduction to Biological Science Laboratory 2  
  **Credit Hours:** 1.0
- BIOL 1361 - Introduction to Biological Science 1  
  **Credit Hours:** 3.0
- BIOL 1362 - Introduction to Biological Science 2  
  **Credit Hours:** 3.0
- BIOL 3301 - Genetics  
  **Credit Hours:** 3.0

**Chemistry:**

- CHEM 1111 - Fundamentals of Chemistry Laboratory  
  **Credit Hours:** 1.0
- CHEM 1112 - Fundamentals of Chemistry Laboratory  
  **Credit Hours:** 1.0
- CHEM 1331 - Fundamentals of Chemistry  
  **Credit Hours:** 3.0
- CHEM 1332 - Fundamentals of Chemistry 2  
  **Credit Hours:** 3.0
- CHEM 3221 - Fundamentals of Organic Chemistry Laboratory  
  **Credit Hours:** 2.0
- CHEM 3222 - Fundamentals of Organic Chemistry Laboratory  
  **Credit Hours:** 2.0
- CHEM 3331 - Fundamentals of Organic Chemistry  
  **Credit Hours:** 3.0
- CHEM 3332 - Fundamentals of Organic Chemistry  
  **Credit Hours:** 3.0

**Mathematics/Statistics:**

- MATH 1431 - Calculus I  
  **Credit Hours:** 4.0
- MATH 1432 - Calculus II  
  **Credit Hours:** 4.0
- MATH 2433 - Calculus III  
  **Credit Hours:** 4.0  
  or  
  MATH 3338 - Probability  
  **Credit Hours:** 3.0  
  or  
  MATH 3339 - Statistics for the Sciences  
  **Credit Hours:** 3.0

**Physics:**

- PHYS 1101 - General Physics Laboratory I  
  **Credit Hours:** 1.0 and  
  PHYS 1102 - General Physics Laboratory II  
  **Credit Hours:** 1.0 and  
  PHYS 1301 - Introductory General Physics I  
  **Credit Hours:** 3.0 and  
  PHYS 1302 - Introductory General Physics II  
  **Credit Hours:** 3.0  
  or  
  PHYS 1321 - University Physics I  
  **Credit Hours:** 3.0 and  
  PHYS 1121 - University Physics Laboratory I  
  **Credit Hours:** 1.0 and  
  PHYS 1322 - University Physics II  
  **Credit Hours:** 3.0 and  
  PHYS 1122 - University Physics Laboratory II  
  **Credit Hours:** 1.0

**Physical Chemistry:**

- CHEM 4370 - Physical Chemistry I  
  **Credit Hours:** 3 or
CHEM 4373 - Survey of Physical Chemistry  

**Credit Hours:** 3

**Note(s):**

Completion of either CHEM 4370 or CHEM 4373 and the additional requirements in chemistry above may complete a minor in chemistry to meet the NSM Capstone requirements.

**Biochemical and Biophysical Sciences:**

Twenty-nine semester hours which must include:

- BCHS 3201 - Biochemistry I Laboratory  
  **Credit Hours:** 2.0
- BCHS 3304 - General Biochemistry I  
  **Credit Hours:** 3.0
- BCHS 3305 - General Biochemistry II  
  **Credit Hours:** 3.0
- BCHS 4304 - Biophysics  
  **Credit Hours:** 3.0
- BCHS 4306 - Nucleic Acids  
  **Credit Hours:** 3.0
- BCHS 4307 - Proteins  
  **Credit Hours:** 3.0
- BCHS 4311 - Biochemistry Lab II  
  **Credit Hours:** 3.0

Nine additional semester hours of 4000-level BCHS courses.

Students can also fulfill this requirement by taking one of the approved BIOL courses from the list below to serve as part of the advanced BCHS credit requirement. Students must petition for departmental approval in order to apply for more than one BIOL course from the list to fulfill this requirement.

- BIOL 4315 - Neuroscience  
  **Credit Hours:** 3.0
- BIOL 4320 - Molecular Biology  
  **Credit Hours:** 3.0
- BIOL 4330 - Molecular Basis of Infectious Disease  
  **Credit Hours:** 3.0
- BIOL 4384 - Developmental Biology  
  **Credit Hours:** 3.0
- BIOL 4355 - Human Virology  
  **Credit Hours:** 3.0
- BIOL 4356 - Genomics  
  **Credit Hours:** 3.0
- BIOL 4366 - Molecular and Genome Evolution  
  **Credit Hours:** 3.0
- BIOL 4354 - Endocrinology  
  **Credit Hours:** 3.0
- BIOL 4373 - Microbial Physiology  
  **Credit Hours:** 3.0
- BIOL 4323 - Immunology  
  **Credit Hours:** 3.0

**Note(s):**

Senior Honors Thesis and Special Problems courses ordinarily will not apply toward this total.

**Biochemical and Biophysical Sciences, B.S.**

**Biochemical and Biophysical Sciences Major**

Students who major in biochemical and biophysical sciences must meet the general requirements in addition to the special requirements for a Bachelor of Arts or Bachelor of Science Degree.

Students who major in biochemical and biophysical sciences may not double major, double degree, or minor in biology.
Requirements

Biology:

- BIOL 1161 - Introduction to Biological Science Laboratory 1 **Credit Hours: 1.0**
- BIOL 1162 - Introduction to Biological Science Laboratory 2 **Credit Hours: 1.0**
- BIOL 1361 - Introduction to Biological Science 1 **Credit Hours: 3.0**
- BIOL 1362 - Introduction to Biological Science 2 **Credit Hours: 3.0**
- BIOL 3301 - Genetics **Credit Hours: 3.0**

Chemistry:

- CHEM 1111 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
- CHEM 1112 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
- CHEM 1331 - Fundamentals of Chemistry **Credit Hours: 3.0**
- CHEM 1332 - Fundamentals of Chemistry 2 **Credit Hours: 3.0**
- CHEM 3221 - Fundamentals of Organic Chemistry Laboratory **Credit Hours: 2.0**
- CHEM 3222 - Fundamentals of Organic Chemistry Laboratory **Credit Hours: 2.0**
- CHEM 3331 - Fundamentals of Organic Chemistry **Credit Hours: 3.0**
- CHEM 3332 - Fundamentals of Organic Chemistry **Credit Hours: 3.0**

Mathematics/Statistics:

- MATH 1431 - Calculus I **Credit Hours: 4.0**
- MATH 1432 - Calculus II **Credit Hours: 4.0**
- MATH 2433 - Calculus III **Credit Hours: 4.0** or
- MATH 3338 - Probability **Credit Hours: 3.0** or
- MATH 3339 - Statistics for the Sciences **Credit Hours: 3.0**

Physics:

- PHYS 1101 - General Physics Laboratory I **Credit Hours: 1.0** and
- PHYS 1102 - General Physics Laboratory II **Credit Hours: 1.0** and
- PHYS 1301 - Introductory General Physics I **Credit Hours: 3.0** and
- PHYS 1302 - Introductory General Physics II **Credit Hours: 3.0** or
- PHYS 1321 - University Physics I **Credit Hours: 3.0** and
- PHYS 1121 - University Physics Laboratory I **Credit Hours: 1.0** and
- PHYS 1322 - University Physics II **Credit Hours: 3.0** and
- PHYS 1122 - University Physics Laboratory II **Credit Hours: 1.0**

Physical Chemistry:

- CHEM 4370 - Physical Chemistry I **Credit Hours: 3** or
- CHEM 4373 - Survey of Physical Chemistry **Credit Hours: 3**
Note(s):

Completion of either CHEM 4370 or CHEM 4373 and the additional requirements in chemistry above may complete a minor in chemistry to meet the NSM Capstone requirements.

Biochemical and Biophysical Sciences:

Twenty-nine semester hours which must include

- BCHS 3201 - Biochemistry I Laboratory Credit Hours: 2.0
- BCHS 3304 - General Biochemistry I Credit Hours: 3.0
- BCHS 3305 - General Biochemistry II Credit Hours: 3.0
- BCHS 4304 - Biophysics Credit Hours: 3.0
- BCHS 4306 - Nucleic Acids Credit Hours: 3.0
- BCHS 4307 - Proteins Credit Hours: 3.0
- BCHS 4311 - Biochemistry Lab II Credit Hours: 3.0

Nine additional semester hours of 4000-level BCHS courses.

Students can also fulfill this requirement by taking one of the approved BIOL courses from the list below to serve as part of the advanced BCHS credit requirement. Students must petition for departmental approval in order to apply for more than one BIOL course from the list to fulfill this requirement.

- BIOL 4315 - Neuroscience Credit Hours: 3.0
- BIOL 4320 - Molecular Biology Credit Hours: 3.0
- BIOL 4330 - Molecular Basis of Infectious Disease Credit Hours: 3.0
- BIOL 4384 - Developmental Biology Credit Hours: 3.0
- BIOL 4355 - Human Virology Credit Hours: 3.0
- BIOL 4356 - Genomics Credit Hours: 3.0
- BIOL 4366 - Molecular and Genome Evolution Credit Hours: 3.0
- BIOL 4354 - Endocrinology Credit Hours: 3.0
- BIOL 4373 - Microbial Physiology Credit Hours: 3.0
- BIOL 4323 - Immunology Credit Hours: 3.0

Note(s):

Senior Honors Thesis and Special Problems courses ordinarily will not apply toward this total.

Suggested Program Plan

Suggested Program - Bachelor of Science Biochemical and Biophysical Sciences

Biology, B.A.

Biology Major
Students who major in biology must meet the general degree requirements in addition to the special requirements for a Bachelor of Arts or Bachelor of Science degree.

Students who major in biology may not double major, double degree, or minor in biochemical and biophysical sciences.

Requirements

Chemistry:

CHEM 1111 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
CHEM 1112 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
CHEM 1331 - Fundamentals of Chemistry **Credit Hours: 3.0**
CHEM 1332 - Fundamentals of Chemistry 2 **Credit Hours: 3.0**
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory **Credit Hours: 2.0**
CHEM 3331 - Fundamentals of Organic Chemistry **Credit Hours: 3.0**

Mathematics:

MATH 1431 - Calculus I **Credit Hours: 4.0**
MATH 1432 - Calculus II **Credit Hours: 4.0**

MATH 2433 - Calculus III **Credit Hours: 4.0** or
MATH 3338 - Probability **Credit Hours: 3.0** or
MATH 3339 - Statistics for the Sciences **Credit Hours: 3.0**

Physics:

PHYS 1101 - General Physics Laboratory I **Credit Hours: 1.0** and
PHYS 1102 - General Physics Laboratory II **Credit Hours: 1.0** and
PHYS 1301 - Introductory General Physics I **Credit Hours: 3.0** and
PHYS 1302 - Introductory General Physics II **Credit Hours: 3.0**
or
PHYS 1321 - University Physics I **Credit Hours: 3.0** and
PHYS 1121 - University Physics Laboratory I **Credit Hours: 1.0** and
PHYS 1322 - University Physics II **Credit Hours: 3.0** and
PHYS 1122 - University Physics Laboratory II **Credit Hours: 1.0**

Biology:

38 hours (at least 27 advanced) which must include:

BIOL 1161 - Introduction to Biological Science Laboratory I **Credit Hours: 1.0**
BIOL 1162 - Introduction to Biological Science Laboratory II **Credit Hours: 1.0**
BIOL 1361 - Introduction to Biological Science 1 **Credit Hours: 3.0**
BIOL 1362 - Introduction to Biological Science 2 **Credit Hours: 3.0** or credit by examination.
BIOL 3301 - Genetics **Credit Hours: 3.0**
BIOL 3306 - Evolutionary Biology **Credit Hours: 3.0**
BIOL 4103 - Integration of Biological Knowledge **Credit Hours: 1.0**
BIOL 4374 - Cell Biology  Credit Hours: 3.0  
BCHS 3304 - General Biochemistry I  Credit Hours: 3.0

and the following laboratories:

BIOL 3311 - Genetics Laboratory  Credit Hours: 3.0

and one of

BIOL 4206 - Ecology and Evolution Laboratory  Credit Hours: 2.0  
BIOL 4272 - Cellular and Developmental Biology Laboratory  Credit Hours: 2.0  
BCHS 3201 - Biochemistry I Laboratory  Credit Hours: 2.0  
BIOL 3224 - Human Physiology Laboratory  Credit Hours: 2.0

Note(s):

BIOL 3311 must be completed before enrollment in the second laboratory.

Twelve hours of biology electives, at least nine of which must be advanced.

One three-hour BCHS course may be used as a biology elective for the biology degree in addition to the required BCHS 3304. Taking these courses does not preclude the use of BCHS 3201 as a choice for the required advanced laboratory for the biology degree.

Biology, B.S.

Biology Major

Students who major in biology must meet the general degree requirements in addition to the special requirements for a Bachelor of Arts or Bachelor of Science degree.

Students who major in biology may not double major, double degree, or minor in biochemical and biophysical sciences.

Requirements

Chemistry:

CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0  
CHEM 1112 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0  
CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0  
CHEM 1332 - Fundamentals of Chemistry  Credit Hours: 3.0  
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory  Credit Hours: 2.0  
CHEM 3331 - Fundamentals of Organic Chemistry  Credit Hours: 3.0

Mathematics:

MATH 1431 - Calculus I  Credit Hours: 4.0
MATH 1432 - Calculus II  Credit Hours: 4.0

MATH 2433 - Calculus III  Credit Hours: 4.0 or
MATH 3338 - Probability  Credit Hours: 3.0 or
MATH 3339 - Statistics for the Sciences  Credit Hours: 3.0

Physics:

PHYS 1101 - General Physics Laboratory I  Credit Hours: 1.0 and
PHYS 1102 - General Physics Laboratory II  Credit Hours: 1.0 and
PHYS 1301 - Introductory General Physics I  Credit Hours: 3.0 and
PHYS 1302 - Introductory General Physics II  Credit Hours: 3.0
or
PHYS 1321 - University Physics I  Credit Hours: 3.0 and
PHYS 1121 - University Physics Laboratory I  Credit Hours: 1.0 and
PHYS 1322 - University Physics II  Credit Hours: 3.0 and
PHYS 1122 - University Physics Laboratory II  Credit Hours: 1.0

Biology:

38 hours (at least 27 advanced) which must include:

BIOL 1161 - Introduction to Biological Science Laboratory I  Credit Hours: 1.0
BIOL 1162 - Introduction to Biological Science Laboratory II  Credit Hours: 1.0
BIOL 1361 - Introduction to Biological Science I  Credit Hours: 3.0
BIOL 1362 - Introduction to Biological Science II  Credit Hours: 3.0 or credit by examination.
BIOL 3301 - Genetics  Credit Hours: 3.0
BIOL 3306 - Evolutionary Biology  Credit Hours: 3.0
BIOL 4103 - Integration of Biological Knowledge  Credit Hours: 1.0
BIOL 4374 - Cell Biology  Credit Hours: 3.0
BCHS 3304 - General Biochemistry I  Credit Hours: 3.0

and the following laboratories:

BIOL 3311 - Genetics Laboratory  Credit Hours: 3.0

and one of

BIOL 4206 - Ecology and Evolution Laboratory  Credit Hours: 2.0
BIOL 4272 - Cellular and Developmental Biology Laboratory  Credit Hours: 2.0
BCHS 3201 - Biochemistry I Laboratory  Credit Hours: 2.0
BIOL 3224 - Human Physiology Laboratory  Credit Hours: 2.0

Note(s):

BIOL 3311 must be completed before enrollment in the second laboratory.

Twelve hours of biology electives, at least nine of which must be advanced.
One three-hour BCHS course may be used as a biology elective for the biology degree in addition to the required BCHS 3304. Taking these courses does not preclude the use of BCHS 3201 as a choice for the required advanced laboratory for the biology degree.

Suggested Program Plan

Suggested Program - Bachelor of Science in Biology

Minor

Biochemical and Biophysical Sciences Minor

Students who choose to minor in biochemical and biophysical sciences cannot be a biology major and must complete the general requirements for a minor as well as the following:

Requirements

Biochemical and Biophysical Sciences:

- BCHS 3201 - Biochemistry I Laboratory Credit Hours: 2.0
- BCHS 3304 - General Biochemistry I Credit Hours: 3.0
- BCHS 3305 - General Biochemistry II Credit Hours: 3.0
- Nine semester hours of 4000-level BCHS courses, excluding Senior Honors Thesis and Special Problems courses.

Note(s):

Student should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions, will not be included in the minor grade point average.

Biology Minor

Students who choose to minor in biology cannot major in biochemical and biophysical sciences and must complete the general requirements for a minor as well as the following:

Requirements

Biology:

- BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
- BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0
- BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
- BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
- BIOL 3301 - Genetics Credit Hours: 3.0
- Biology electives (six advanced hours)
Note(s):

Biochemical and Biophysical Sciences courses may not apply toward the minor.

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions, will not be included in the minor grade point average.

Other Programs

Suggested Program - Bachelor of Science Biochemical and Biophysical Sciences

First Year

Fall Semester

- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- MATH 1431 - Calculus I Credit Hours: 4.0
- BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
- BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0

Total 15

Spring Semester

- ENGL 1304 - First Year Writing II Credit Hours: 3.0
- CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
- CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- MATH 1432 - Calculus II Credit Hours: 4.0
- BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
- BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0

Total 15

Second Year

Fall Semester

- Creative Arts Core Course Credit Hours: 3.0
- CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
- CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
MATH 2433 - Calculus III  Credit Hours: 4.0 or
MATH 3338 - Probability  Credit Hours: 3.0 or
MATH 3339 - Statistics for the Sciences  Credit Hours: 3.0

BIOL 3301 - Genetics  Credit Hours: 3.0

Total 15

Spring Semester

CHEM 3332 - Fundamentals of Organic Chemistry  Credit Hours: 3.0
CHEM 3222 - Fundamentals of Organic Chemistry Laboratory  Credit Hours: 2.0
BCHS 3304 - General Biochemistry I  Credit Hours: 3.0
BCHS 3201 - Biochemistry I Laboratory  Credit Hours: 2.0
PHYS 1301 - Introductory General Physics I  Credit Hours: 3.0
PHYS 1101 - General Physics Laboratory I  Credit Hours: 1.0

Total 14

Third Year

Fall Semester

PHYS 1302 - Introductory General Physics II  Credit Hours: 3.0
PHYS 1102 - General Physics Laboratory II  Credit Hours: 1.0
BCHS 3305 - General Biochemistry II  Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics  Credit Hours: 3.0
HIST 1377 - The U S To 1877  Credit Hours: 3.0
Social/Behavioral Sciences Core Course  Credit Hours: 3.0

Total 16

Spring Semester

Language, Philosophy & Culture Core Course  Credit Hours: 3.0
Biochemical and Biophysical Sciences Elective  Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0
HIST 1378 - The U S Since 1877  Credit Hours: 3.0
Electives  Credit Hours: 3.0

Total 15

Fourth Year

Fall Semester


CHEM 4373 - Survey of Physical Chemistry  Credit Hours: 3 or CHEM 4370 - Physical Chemistry I  Credit Hours: 3

BCHS 4306 - Nucleic Acids  Credit Hours: 3.0 ³ Biochemical and Biophysical Sciences Electives  Credit Hours: 6.0
NSM Capstone Course  Credit Hours: 3.0

Total 15

Spring Semester

BCHS 4304 - Biophysics  Credit Hours: 3.0 ⁴
BCHS 4311 - Biochemistry Lab II  Credit Hours: 3.0 ⁴
Electives Cr. 3.
NSM Capstone Course Cr. 3.
BIOL 4307 - Proteins  Credit Hours: 3.0 ⁴

Total 15

Note(s):
All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

Suggested Program - Bachelor of Science in Biology

First Year

Fall Semester

ENGL 1303 - First Year Writing I  Credit Hours: 3.0 ¹
CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
MATH 1431 - Calculus I  Credit Hours: 4.0
BIOL 1361 - Introduction to Biological Science  Credit Hours: 3.0
BIOL 1161 - Introduction to Biological Science Laboratory  Credit Hours: 1.0

Total 15

Spring Semester

ENGL 1304 - First Year Writing II  Credit Hours: 3.0 ¹
CHEM 1332 - Fundamentals of Chemistry  Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
MATH 1432 - Calculus II  Credit Hours: 4.0
BIOL 1362 - Introduction to Biological Science  Credit Hours: 3.0
BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0

Total 15

Second Year

Fall Semester

CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
BIOL 3301 - Genetics Credit Hours: 3.0
BIOL 3311 - Genetics Laboratory Credit Hours: 3.0
MATH 2433 - Calculus III Credit Hours: 4.0 or
MATH 3338 - Probability Credit Hours: 3.0 or
MATH 3339 - Statistics for the Sciences Credit Hours: 3.0

Total 15

Spring Semester

Electives Cr. 6.
BCHS 3304 - General Biochemistry I Credit Hours: 3.0
BIOL 3306 - Evolutionary Biology Credit Hours: 3.0
HIST 1377 - The U S To 1877 Credit Hours: 3.0

Total 15

Third Year

Fall Semester

HIST 1378 - The U S Since 1877 Credit Hours: 3.0
BIOL 4206 - Ecology and Evolution Laboratory Credit Hours: 2.0 or
BIOL 4272 - Cellular and Developmental Biology Laboratory Credit Hours: 2.0 or
BCHS 3201 - Biochemistry I Laboratory Credit Hours: 2.0
BIOL 4374 - Cell Biology Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0 or equivalent
PHYS 1301 - Introductory General Physics I Credit Hours: 3.0
PHYS 1101 - General Physics Laboratory I Credit Hours: 1.0

Total 15
Spring Semester

Electives **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
- PHYS 1302 - Introductory General Physics II **Credit Hours: 3.0**
- PHYS 1102 - General Physics Laboratory II **Credit Hours: 1.0**
- Biology Electives **Credit Hours: 3.0**
- Social/Behavioral Sciences Core Course **Credit Hours: 3.0**

Total 16

Fourth Year

Fall Semester

- Biology Electives **Credit Hours: 6.0**
- Electives **Credit Hours: 3.0**
- Language, Philosophy & Culture Core Course **Credit Hours: 3.0**
- NSM Capstone Course **Credit Hours: 3.0**

Total 15

Spring Semester

- BIOL 4310 - Biostatistics **Credit Hours: 3.0**
- Biology Electives **Credit Hours: 3.0**
- NSM Capstone Course **Credit Hours: 3.0**
- Creative Arts Core Course **Credit Hours: 3.0**
- Electives **Credit Hours: 4.0**

Total 14

Note(s):

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree

Department of Chemistry

Who's Who in the Department of Chemistry

Chair:

David M. Hoffman
Professors:
Steven Baldelli, Mary Bean (Instructional), Eric R. Bittner, Maurice Brookhart, Chengzhi Cai, Olafs Daugulis, Scott Gilbertson, Arnold M. Guloy, P. Shiv Halasyamani, Eva Marie Harth, David M. Hoffman, Allan J. Jacobson, Karl M. Kadish, T. Randall Lee, Vassiliy Lubchenko, Ognjen Š. Miljanic, Mark Smith, Shoujun Xu

Associate Professors:
Edwin Carrasquillo, Don Coltart, Roman S. Czernuszewicz, Loi Do, Vassiliy Lubchenko, Jeremy May, Ding Shyue Yang, Vladimir Zaitsev (Instructional)

Assistant Professors:
Jakoah Brgoch, Tai-Yen Chen, Robert Comito, Arkadiusz Czader (Instructional), Thomas Teets, Judy Wu, Melissa Zastrow

Co-Chairs of Undergraduate Studies:
Arkadiusz Czader
Vladimir Zaitsev

Overview
Chemistry is the branch of the natural sciences dealing with the composition, structure, properties, and reactions of matter. Students majoring in chemistry pursue either a Bachelor of Science (B.S.) or a Bachelor of Arts (B.A.) degree in chemistry.

Students are strongly encouraged to take the B.S. option. The American Chemical Society has accredited the B.S. program at UH since 1954.

Students considering a major in chemistry should have a strong mathematics background and excellent critical thinking and problem-solving skills. Graduates with a chemistry degree typically find employment in the chemical, pharmaceutical, oil, and petrochemical industries. In addition, there are opportunities for chemists in law, library and information science, and publishing. Chemistry is also a well-regarded major for those wishing to pursue further education in the medical and related fields.

As preparation for joining the workforce or entering graduate school, chemistry majors are invited and strongly encouraged to participate in undergraduate research beginning in their sophomore year.

Major
Chemistry, B.A.

Chemistry Major
The Bachelor of Science degree program is rigorous; its certification by the American Chemical Society enhances the stature and usefulness of this degree. Students planning to continue into graduate work are encouraged to take the program.

The Bachelor of Science and Bachelor of Arts degree programs are described below. Detailed curricula are available from the department chair.
Requirements

Students who choose to major in chemistry must meet the following requirements in addition to the special requirements for a Bachelor of Arts degree:

32 hours of chemistry courses of which 21 hours must be advanced hours.

At least 8 credit hours must be hands-on laboratory experiences, that include a minimum of 250 contact hours in physical (i.e., not virtual or computer-based) laboratories.

Chemistry:

- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
- CHEM 3119 - Analytical Chemistry Laboratory Credit Hours: 1.0
- CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
- CHEM 3222 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
- CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
- CHEM 3332 - Fundamentals of Organic Chemistry Credit Hours: 3.0
- CHEM 3369 - Analytical Chemistry 1 Credit Hours: 3

7 hours approved advanced chemistry elective (which must include at least one lab course). Credit Hours: 7.0

Complete one of the following:
- CHEM 4370 - Physical Chemistry I Credit Hours: 3
- CHEM 4372 - Physical Chemistry II Credit Hours: 3

Mathematics:

- MATH 1431 - Calculus I Credit Hours: 4.0
- MATH 1432 - Calculus II Credit Hours: 4.0
- MATH 2433 - Calculus III Credit Hours: 4.0
- MATH 3321 - Engineering Mathematics Credit Hours: 3.0

Physics:

- PHYS 1321 - University Physics I Credit Hours: 3.0
- PHYS 1121 - University Physics Laboratory I Credit Hours: 1.0
- PHYS 1322 - University Physics II Credit Hours: 3.0
- PHYS 1122 - University Physics Laboratory II Credit Hours: 1.0

Suggested Program Plan

Suggested Program - Bachelor of Arts in Chemistry

Credit by Examination for Chemistry
Course | Course No. | Test Program | Test Subject | Minimum Score | Credit Hours |
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<td>See note below ²</td>
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</tbody>
</table>

Note:

¹ The Lab Departmental Assessment involves a review of the student’s Advanced Placement Lab Book.

² Completion of CHEM 1331H, CHEM 1332H, and CHEM 112H (all honors) with a grade of at least C- in each course.

For additional information regarding Credit by Examination, please go to the University of Houston’s University Testing Services (UTS) website.

Chemistry, B.S.

Chemistry Major

The Bachelor of Science degree program is rigorous; its certification by the American Chemical Society enhances the stature and usefulness of this degree. Students planning to continue into graduate work are encouraged to take the program.

The Bachelor of Science and Bachelor of Arts degree programs are described below. Detailed curricula are available from the department chair.

Chemistry Major - Bachelor of Science Degree

Students who choose to major in chemistry must meet the following requirements in addition to the special requirements for a Bachelor of Science degree:

50 credit hours of Chemistry courses of which at least 36 hours must be at the advanced (3000 or 4000) level.

At least 15 credit hours must be hands-on laboratory experiences, that include a minimum of 450 contact hours in physical (i.e., not virtual or computer-based) laboratories.

Requirements

Physics:

PHYS 1321 - University Physics I | Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I | Credit Hours: 1.0
PHYS 1322 - University Physics II | Credit Hours: 3.0
PHYS 1122 - University Physics Laboratory II | Credit Hours: 1.0

Mathematics:

MATH 1431 - Calculus I | Credit Hours: 4.0
MATH 1432 - Calculus II Credit Hours: 4.0
MATH 2433 - Calculus III Credit Hours: 4.0
MATH 3321 - Engineering Mathematics Credit Hours: 3.0

Chemistry:

CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0 (Honors section is recommended)
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0 (Honors section is recommended)
CHEM 2133 - Inorganic Chemistry Laboratory I Credit Hours: 1.0
CHEM 2233 - Inorganic Chemistry I Credit Hours: 2.0
CHEM 3119 - Analytical Chemistry Laboratory Credit Hours: 1.0
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
CHEM 3222 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0 (Honors section is recommended)
CHEM 3332 - Fundamentals of Organic Chemistry Credit Hours: 3.0 (Honors section is recommended)
CHEM 3369 - Analytical Chemistry 1 Credit Hours: 3
CHEM 4115 - Inorganic Chemistry Laboratory II Credit Hours: 1.0
CHEM 4229 - Instrumental Methods of Analysis Laboratory Credit Hours: 2.0
CHEM 4270 - Physical Chemistry Laboratory I Credit Hours: 2.0
CHEM 4272 - Physical Chemistry Laboratory II Credit Hours: 2.0
CHEM 4336 - Fundamental Biochemistry Credit Hours: 3.0
CHEM 4365 - Inorganic Chemistry II Credit Hours: 3.0
CHEM 4369 - Analytical Chemistry 2 Credit Hours: 3
CHEM 4370 - Physical Chemistry I Credit Hours: 3
CHEM 4372 - Physical Chemistry II Credit Hours: 3
3 hours approved advanced chemistry elective. Credit Hours: 3.0

See Suggest Program Plan – Bachelor of Science in Chemistry

Credit by Examination for Chemistry

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<th>Course</th>
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Note:

¹ The Lab Departmental Assessment involves a review of the student's Advanced Placement Lab Book.

² Completion of CHEM 1331H, CHEM 1332H, and CHEM 112H (all honors) with a grade of at least C- in each course.

For additional information regarding Credit by Examination, please go to the University of Houston’s University Testing Services (UTS) website.
Minor

Chemistry Minor

Students who choose to minor in chemistry must complete the general requirements for a minor as well as the following:

Requirements

Chemistry (19 semester hours minimum, 11 advanced)

- CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
- CHEM 1112 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0
- CHEM 1332 - Fundamentals of Chemistry 2  Credit Hours: 3.0
- CHEM 3221 - Fundamentals of Organic Chemistry Laboratory  Credit Hours: 2.0
- CHEM 3331 - Fundamentals of Organic Chemistry  Credit Hours: 3.0
- CHEM 4370 - Physical Chemistry I  or  Credit Hours: 3
- CHEM 4373 - Survey of Physical Chemistry  Credit Hours: 3

Three remaining semester hours must be advanced hours approved by the Department of Chemistry.

Note(s):

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions will not be included in the minor grade point average.

Other Programs

Suggested Program - Bachelor of Arts in Chemistry

First Year

Fall Semester

- ENGL 1303 - First Year Writing I  Credit Hours: 3.0
- CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
- MATH 1431 - Calculus I  Credit Hours: 4.0
- HIST 1377 - The U.S To 1877  Credit Hours: 3.0
- Social/Behavioral Sciences Core Course  Credit Hours: 3.0

Total 17
### Spring Semester

- **ENGL 1304 - First Year Writing II** | **Credit Hours: 3.0**
- **CHEM 1332 - Fundamentals of Chemistry 2** | **Credit Hours: 3.0**
- **CHEM 1112 - Fundamentals of Chemistry Laboratory** | **Credit Hours: 1.0**
- **MATH 1432 - Calculus II** | **Credit Hours: 4.0**
- **HIST 1378 - The U S Since 1877** | **Credit Hours: 3.0**

**Total 14**

### Second Year

#### Fall Semester

- **CHEM 3331 - Fundamentals of Organic Chemistry** | **Credit Hours: 3.0**
- **CHEM 3221 - Fundamentals of Organic Chemistry Laboratory** | **Credit Hours: 2.0**
- **MATH 2433 - Calculus III** | **Credit Hours: 4.0**
- **PHYS 1321 - University Physics I** | **Credit Hours: 3.0**
- **Writing in the Discipline Core Course** | **Credit Hours: 3.0**

**Total 15**

#### Spring Semester

- **CHEM 3332 - Fundamentals of Organic Chemistry** | **Credit Hours: 3.0**
- **CHEM 3222 - Fundamentals of Organic Chemistry Laboratory** | **Credit Hours: 2.0**
- **MATH 3321 - Engineering Mathematics** | **Credit Hours: 3.0**
- **PHYS 1322 - University Physics II** | **Credit Hours: 3.0**
- **PHYS 1121 - University Physics Laboratory I** | **Credit Hours: 1.0**
- **Elective** | **Credit Hours: 3.0**

**Total 15**

### Third Year

#### Fall Semester

- **CHEM 4370 - Physical Chemistry I** | **Credit Hours: 3 or**
- **CHEM 4372 - Physical Chemistry II** | **Credit Hours: 3**
- **PHYS 1122 - University Physics Laboratory II** | **Credit Hours: 1.0**
- **POLS 1336 - U.S. and Texas Constitution and Politics** | **Credit Hours: 3.0**
- **Foreign Language (2000-level)** | **Credit Hours: 3.0**
- **Creative Arts Core Course** | **Credit Hours: 3.0**
Total 13

Spring Semester

CHEM 3369 - Analytical Chemistry 1 Credit Hours: 3
CHEM 3119 - Analytical Chemistry Laboratory Credit Hours: 1.0
NSM Capstone, Minor or Elective Courses Credit Hours: 3.0
Foreign Language (2000-level) Credit Hours: 3.0
Language, Philosophy & Culture Core Course Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Total 16

Fourth Year

Fall Semester

Chemistry Electives Course Credit Hours: 4.0
NSM Capstone, Minor or Elective Courses Credit Hours: 11.0

Total 15

Spring Semester

Chemistry Electives Course Credit Hours: 3.0
NSM Capstone, Minor or Elective Courses Credit Hours: 12.0

Total 15

Note(s):

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

**Suggested Program - Bachelor of Science in Chemistry**

First Year

Fall Term

ENGL 1303 - First Year Writing I Credit Hours: 3.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0 (Honors section is recommended)
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
MATH 1431 - Calculus I Credit Hours: 4.0
Social/Behavioral Sciences Core Course Credit Hours: 3.0
HIST 1377 - The U S To 1877 Credit Hours: 3.0

Total 17

Spring Term

ENGL 1304 - First Year Writing II Credit Hours: 3.0
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0 (Honors section is recommended)
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
MATH 1432 - Calculus II Credit Hours: 4.0
HIST 1378 - The U S Since 1877 Credit Hours: 3.0

Total 14

Second Year

Fall Term

CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0 (Honors section is recommended)
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
MATH 2433 - Calculus III Credit Hours: 4.0
PHYS 1321 - University Physics I Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I Credit Hours: 1.0
Writing in the Disciplines Core Course Credit Hours: 3.0

Total 16

Spring Term

CHEM 2233 - Inorganic Chemistry I Credit Hours: 2.0
CHEM 2133 - Inorganic Chemistry Laboratory I Credit Hours: 1.0
CHEM 3222 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
CHEM 3332 - Fundamentals of Organic Chemistry Credit Hours: 3.0 (Honors section is recommended)
PHYS 1322 - University Physics II Credit Hours: 3.0
MATH 3321 - Engineering Mathematics Credit Hours: 3.0

Total 14

Third Year

Fall Term

CHEM 3369 - Analytical Chemistry I Credit Hours: 3
CHEM 3119 - Analytical Chemistry Laboratory Credit Hours: 1.0
CHEM 4372 - Physical Chemistry II Credit Hours: 3
CHEM 4272 - Physical Chemistry Laboratory II  
Credit Hours: 2.0

POLS 1336 - U.S. and Texas Constitution and Politics  
Credit Hours: 3.0

Creative Arts Core Course  
Credit Hours: 3.0

Total 15

Spring Term

CHEM 4370 - Physical Chemistry I  
Credit Hours: 3

CHEM 4270 - Physical Chemistry Laboratory I  
Credit Hours: 2.0

PHYS 1122 - University Physics Laboratory II  
Credit Hours: 1.0

NSM Capstone Course  
Credit Hours: 3.0

NSM Natural Sciences Approved Course  
Credit Hours: 3.0

POLS 1337 - U.S. Government: Congress, President, and Courts  
Credit Hours: 3.0

Total 15

Fourth Year

Fall Term

CHEM 4369 - Analytical Chemistry 2  
Credit Hours: 3

CHEM 4229 - Instrumental Methods of Analysis Laboratory  
Credit Hours: 2.0

CHEM 4365 - Inorganic Chemistry II  
Credit Hours: 3.0

CHEM 4115 - Inorganic Chemistry Laboratory II  
Credit Hours: 1.0

Chemistry Elective  
Credit Hours: 3.0

NSM Capstone Course/Electives  
Credit Hours: 3.0

Total 15

Spring Term

CHEM 4336 - Fundamental Biochemistry  
Credit Hours: 3.0

Language, Philosophy, and Culture Core Course  
Credit Hours: 3.0

NSM Natural Sciences Approved Course  
Credit Hours: 3.0

NSM Capstone Course/Electives  
Credit Hours: 5.0

Total 14

Note(s):

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

Department of Computer Science
Who's Who in the Department of Computer Science

Chair: Shishir Shah

Professors:


Associate Professors:

Guoning Chen, Kam-Hoi Cheng, Christoph Eick, Edgar Gabriel, Omprakash Gnawali, Carlos Ordonez, Weidong Larry Shi, Thamar Solorio, Ricardo Vilalta

Assistant Professor:

Mohammad Amin Alipour, Aron Laszka, Arjun Mukherjee, Panruo Wu

Instructional:

Victoria Hilford (Instructional Associate Professor), Carlos Rincon (Instructional Assistant Professor), Nouhad Rizk (Instructional Associate Professor), Venkat Subramaniam (Instructional Professor), Giulia Toti (Instructional Assistant Professor), Changhoon Yun (Instructional Associate Professor)

Other:

Kevin Long (Professor of Practice)

Overview

Computer science is the systematic study of the theory, design, development, and application of computers and computational systems. Professional opportunities exist for graduates with computer science degrees in industries related to software engineering, internet systems and technology, game design, computer graphics, animation, robotics, artificial intelligence, security, data analytics, medicine, biotechnology, business management and consulting, modeling, as well as graduate study in computing-related fields.

The department’s teaching and research specializations include artificial intelligence, biomedical computing, computer networks, computer vision, computer graphics, databases, high performance computing, machine learning, natural language processing, networking, operating systems, parallel and distributed computing, real-time systems, scientific visualization, software engineering, scientific computing, security and theory.

Explore the various undergraduate educational opportunities in computer science:

Major

Computer Science, B.S.
Computer science is the systematic study of computing systems and computation. Numerous professional opportunities exist for graduates with computer science degrees including jobs in industries related to software engineering, internet systems and technology, game design, computer graphics, animation, robotics, artificial intelligence, security, data analytics, medicine, biotechnology, business management and consulting, modeling, as well as graduate study in computing-related fields.

The computer science program at the University of Houston is rigorous. There is a strong correlation between logical thinking and computer science. Students considering a major in computer science should thus have shown considerable ability in logical reasoning and mastered the fundamentals of applied mathematics. Students majoring in computer science also receive extensive instruction in state-of-the-art computing architectures, operating systems, compilers, software engineering methods and practices. Therefore, they combine good mathematical background with the ability to design and develop quality software on a large scale.

The department’s teaching and research fields of specialization include biomedical image analysis, computer networks, computer vision, computer graphics, databases, high-performance computing, internet computing, operating systems, parallel and distributed computing, physics-based modeling and simulation, real-time systems, software engineering, scientific computing, security, and theory.

Several faculty members have interdisciplinary interests in chemistry and the biological/medical sciences.

Students who choose to major in computer science must meet the following requirements in addition to the special requirements for the Bachelor of Science degree:

**Major Requirements**

**Mathematics**

*14.0 credit hours*

- MATH 1431 - Calculus I **Credit Hours: 4.0**
- MATH 1432 - Calculus II **Credit Hours: 4.0**
- MATH 3339 - Statistics for the Sciences **Credit Hours: 3.0**

Complete 3.0 credit hours from the following:

- MATH 2331 - Linear Algebra **Credit Hours: 3.0**
- MATH 3321 - Engineering Mathematics **Credit Hours: 3.0**

**Computer Science**

*45.0 credit hours (advanced hours = 30.0)*

- COSC 1306 - Computer Science & Programming **Credit Hours: 3.0**
- COSC 1430 - Introduction to Programming **Credit Hours: 4.0**
- COSC 2430 - Programming and Data Structures **Credit Hours: 4.0**
- COSC 2440 - Computer Organization and Architecture **Credit Hours: 4.0**
- COSC 3320 - Algorithms and Data Structures **Credit Hours: 3.0**
- COSC 3340 - Introduction to Automata and Computability **Credit Hours: 3.0**
- COSC 3360 - Fundamentals of Operating Systems **Credit Hours: 3.0**
- COSC 3380 - Design of File and Database Systems **Credit Hours: 3.0**

Complete 3.0 credit hours from the following:

- COSC 3336 - Computing Structures **Credit Hours: 3.0** or
- MATH 3336 - Discrete Mathematics **Credit Hours: 3.0**
Software Engineering Elective:
COSC 4351 - Fundamentals of Software Engineering Credit Hours: 3.0 or
COSC 4353 - Software Design Credit Hours: 3.0

Advanced Electives: Complete 12.0 credit hours of approved advanced computer science electives

Accelerated Program

Accelerated B.S/M.S. in Computer Science

The accelerated B.S./M.S. program is open to qualified University of Houston undergraduate Computer Science students wishing to continue their education at the graduate level immediately upon completion of the B.S. degree. This program allows students to take up to six (6) graduate-level credit hours in Computer Science that can be applied to both the bachelor’s and master’s degrees. To take advantage of the accelerated program, a student will need to: 1) seek approval and take up to 6 credit hours of dual credit courses, and 2) apply and get admitted to the MS program.

Approval and completion of dual credit courses does not guarantee admission to the Computer Science Master’s program. The Bachelor/Master accelerated program is designed to reduce the total number of undergraduate/graduate credit hours required to complete both degrees.

Eligibility and Approval process for Dual Credit courses

An undergraduate student wishing to enroll in dual credit courses to count towards the accelerated BS/MS program should complete an application to the Computer Science department (see page 2). The application should normally be submitted during the student’s junior year and will be reviewed by the Computer Science Director of Undergraduate Studies. On approval, an undergraduate student can enroll in up to 6 graduate level credit hours. The minimum eligibility requirements to enroll in dual credit courses are shown below:

Junior standing and completion of 24 semester hours of Computer Science coursework with a minimum of 12 credit hours completed at the University of Houston
Minimum 3.0 GPA over all course work completed at the University of Houston
Minimum 3.0 GPA over all Computer Science course work completed at the University of Houston
Approval from the Computer Science Director of Undergraduate Studies

Deadlines to apply for approval of dual credit courses is June 1 for Fall semester and October 1 for Spring semester.

Eligibility to enroll in dual credit courses does not constitute automatic admission to the graduate program.

Process for Enrolling in Dual Credit Courses:

Once approved for dual credit courses, a student will need to submit a General Petition to enroll in a graduate level course at the NSM Undergraduate Advising Center. The petition should identify: 1) participation in the Accelerated program, and 2) the course (with number and title) and course ID. The courses eligible for dual credit are regular 6000-level Computer Science Courses with a number higher than COSC 6313, except for courses listed as PhD core courses. A list of eligible courses will be available from the department.

Admission to the Graduate Program

Students enrolled in the dual credit courses must complete the graduate application process before they will be formally admitted to graduate school. The admission committee reviews the entire application when making an admission decision. Students may apply in their final semester while completing the undergraduate degree; admission will be conditional pending conferral of bachelor’s degree.
To apply for graduate admission please follow instructions at: http://www.cs.uh.edu/graduate/admissions

First Year

Fall Semester

COSC 1306 - Computer Science & Programming  Credit Hours: 3.0
ENGL 1303 - First Year Writing I  Credit Hours: 3.0
HIST 1376 - The United States To 1877  Credit Hours: 3.0 or
HIST 1377 - The U S To 1877  Credit Hours: 3.0
MATH 1431 - Calculus I  Credit Hours: 4.0
POLS 1336 - U.S. and Texas Constitution and Politics  Credit Hours: 3.0

Total: 16

Spring Semester

COSC 1430 - Introduction to Programming  Credit Hours: 4.0
ENGL 1304 - First Year Writing II  Credit Hours: 3.0
HIST 1378 - The U S Since 1877  Credit Hours: 3.0 or
HIST 1379 - The United States Since 1877  Credit Hours: 3.0
MATH 1432 - Calculus II  Credit Hours: 4.0
POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0

Total: 17

Second Year

Fall Semester

COSC 2430 - Programming and Data Structures  Credit Hours: 4.0
COSC 2440 - Computer Organization and Architecture  Credit Hours: 4.0
MATH 2331 - Linear Algebra  Credit Hours: 3.0 or
MATH 3321 - Engineering Mathematics  Credit Hours: 3.0
Life and Physical Science Core & Lab**  Credit Hours: 4.0

Total: 15

Spring Semester

COSC 3320 - Algorithms and Data Structures  Credit Hours: 3.0
COSC 3360 - Fundamentals of Operating Systems  Credit Hours: 3.0
COSC 3336 - Computing Structures  Credit Hours: 3.0 or
MATH 3336 - Discrete Mathematics  Credit Hours: 3.0
Life and Physical Science Core & Lab**  Credit Hours: 4.0
Language, Philosophy & Culture Core*  Credit Hours: 3.0
Total: 16

Third Year

Fall Semester

COSC 33XX - WID Course **Credit Hours: 3.0**
COSC 3340 - Introduction to Automata and Computability **Credit Hours: 3.0**
MATH 3339 - Statistics for the Sciences **Credit Hours: 3.0**
Life and Physical Science Core** Credit Hours: 3.0**
Creative Arts Core* **Credit Hours: 3.0**
   Apply for Accelerated Program

Total: 15

Spring Semester

COSC 3380 - Design of File and Database Systems **Credit Hours: 3.0**
COSC 4351 - Fundamentals of Software Engineering **Credit Hours: 3.0** or
COSC 4353 - Software Design **Credit Hours: 3.0**
Social/Behavioral Sciences Core* **Credit Hours: 3.0**
Life & Physical Science Core ** Credit Hours: 3.0**
Minor/Free Elective **Credit Hours: 3.0**

Total: 15

Fourth Year

Fall Semester

COSC 43XX - COSC Advanced Elective (1) **Credit Hours: 3.0**
COSC 63XX - COSC Advanced Elective (2)* **Credit Hours: 3.0**
Minor/Free Elective **Credit Hours: 3.0**
Minor/Free Elective **Credit Hours: 3.0**
Minor Free Elective **Credit Hours: 1.0**

Total: 13

Spring Semester

COSC 43XX - COSC Advanced Elective (3) **Credit Hours: 3.0**
COSC 63XX - COSC Advanced Elective (4)* **Credit Hours: 3.0**
Minor/Free Elective **Credit Hours: 3.0**
Minor/Free Elective **Credit Hours: 3.0**
Minor Free Elective **Credit Hours: 1.0**
Total: 13

Total hours for degree: 120

Fifth Year

Based on choice of Core Track for the MS Program (Thesis Option)

Fall Semester

- COSC 6320 - Algorithms **Credit Hours: 3.0**
- COSC 6385 - Architecture **Credit Hours: 3.0**
- COSC 6335 - Data Mining **Credit Hours: 3.0**
- COSC 6399 - Thesis **Credit Hours: 3.0**
Total: 12

Spring Semester

- COSC 6364 - Numerical Methods **Credit Hours: 3.0**
- COSC 6380 - Operating Systems **Credit Hours: 3.0**
- COSC 6342 - Machine Learning **Credit Hours: 3.0**
- COSC 7399 - Thesis **Credit Hours: 3.0**
Total: 12

Note^:

This course would be a graduate level COSC course approved via general petition to be applied towards the BS/MS Accelerated program. Up to, but no more than 6 graduate level credits may be taken.

Minor

Computer Science Minor

Students who choose to minor in computer science must complete the general requirements for a minor as well as the following:

Requirements

Computer Science:

- COSC 1306 - Computer Science & Programming **Credit Hours: 3.0**
- COSC 1430 - Introduction to Programming **Credit Hours: 4.0**
- COSC 2430 - Programming and Data Structures **Credit Hours: 4.0**

Nine hours of approved COSC courses chosen from 3000- and 4000-level COSC courses. Note that the department enforces the prerequisites of all courses.
Data Science Minor

The purpose of the Data Science Minor is to infuse computational thinking into every discipline, going beyond technical skills, and using data science as a way to provide students with the knowledge of data analysis, critical thinking, and analytical solutions design.

The minor is not available to computer science majors.

Students who choose to minor in data science must complete the general requirements for a minor as well as the following:

Requirements

Data Science:

- COSC 1306 - Computer Science & Programming Credit Hours: 3.0
- COSC 2306 - Data Programming Credit Hours: 3.0
- COSC 3337 - Data Science I Credit Hours: 3.0
- COSC 4337 - Data Science II Credit Hours: 3.0
- Three hours of approved courses at the 3000- or 4000-level.

Note(s):

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors.

Other Programs

Suggested Program - Bachelor of Science in Computer Science

First Year

Fall Term

- COSC 1306 - Computer Science & Programming Credit Hours: 3.0
- ENGL 1303 - First Year Writing I Credit Hours: 3.0
- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- MATH 1431 - Calculus I Credit Hours: 4.0
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<th>Semester</th>
<th>Courses</th>
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<td>COSC 1430 - Introduction to Programming</td>
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<td>MATH 1432 - Calculus II</td>
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<td>COSC 2430 - Programming and Data Structures</td>
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<td>COSC 2440 - Computer Organization and Architecture</td>
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<td>Natural Science Approved Course</td>
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<td><strong>Spring Term</strong></td>
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<td>COSC 3320 - Algorithms and Data Structures</td>
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<td>COSC 3360 - Fundamentals of Operating Systems</td>
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<td>One of the following: COSC 3336 - Computing Structures or MATH 3336 - Discrete Mathematics</td>
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<td>Humanities Core Course</td>
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<td>Natural Sciences Approved Course</td>
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<td>Natural Science Laboratory</td>
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<td>Writing in the Discipline Core Course</td>
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<td><strong>Total</strong></td>
<td><strong>16</strong></td>
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</tbody>
</table>
Total 16

Spring Term

COSC 3380 - Design of File and Database Systems  Credit Hours: 3.0  
Computer Science Approved Electives (3000- or 4000-level)  Credit Hours: 3.0  
Natural Sciences Approved Course  Credit Hours: 3.0  
Social Sciences Core  Credit Hours: 3.0  
Minor/Elective Course  Credit Hours: 3.0

Total 15

Fourth Year

Fall Term

Software Engineering Elective: COSC 4351 - Fundamentals of Software Engineering  or  COSC 4353 - Software Design  Credit Hours: 3.0  
Computer Science Approved Electives (3000- or 4000-level)  Credit Hours: 3.0  
Minor/Elective Course  Credit Hours: 7.0

Total 13

Spring Term

Computer Science Approved Electives (3000- or 4000-level)  Credit Hours: 6.0  
Minor/Elective Course  Credit Hours: 7.0

Total 13

Note(s):

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

Department of Earth and Atmospheric Sciences

Who's Who in the Department Earth and Atmospheric Sciences

Chairman:

Thomas Lapen

Professors:
Alan Brandon, John F. Casey, John P. Castagna, Henry S. Chafetz, Evgeny Chesnokov, Peter Copeland, Xun Jiang, Shuhab Khan, Thomas Lapen, Aibing Li, Rosalie F. Maddocks, Paul Mann, Michael Murphy, Bernhard Rappenglueck, Will Sager, Robert R. Stewart, John Suppe, Robert Talbot, Guoquan Wang, Hua-Wei Zhou

Associate Professors:

Regina Capuano, Yunsoo Choi, Qi Fu, Alexander C. Robinson, Julia Wellner, Yingcai Zheng

Assistant Professors:

Emily Beverly, Lorenzo Colli, Jialia Sun, Yuxuan Wang, Jonathan Wu

Overview

The geosciences are concerned with how the Earth works, the processes that shape its internal and external structure, and the development of our planet and other bodies in our solar system through time. It includes the study of the solid earth as well as its fluid envelopes.

Geoscientists are charged with a wide variety of tasks, such as finding adequate supplies of natural resources, protecting our natural environment from environmental degradation, reducing the risks associated with geologic hazards, documenting and understanding the evolution of life through time and providing insights into past and future changes in global climate.

The Bachelor of Science (B.S.) degree is offered in geology, geophysics, and environmental sciences. The Bachelor of Arts (B.A.) degree is offered in earth science. Students may also choose an option in either environmental geosciences or atmospheric sciences for a B.S. in environmental sciences.

Most earth and atmospheric science graduates typically find careers with energy or environmental companies, either with a B.S. degree in geology, geophysics, or environmental sciences or after completing a graduate degree. Employment opportunities also exist with a variety of governmental agencies at the federal, state, and local level. Graduates with B.A. degrees in earth science are prepared for careers such as teaching (K-12) or may enter graduate programs such as law, business, environmental studies, or public policy.

Department of Earth and Atmospheric Sciences faculty members are geologists, geophysicists and atmospheric scientists. Their research and teaching encompasses a wide range of topics including sedimentology and stratigraphy, geochemistry, and petrology, structure and tectonics, environmental and atmospheric sciences, remote sensing and Geographic Information Systems (GIS), solid earth geophysics, and applied and fundamental seismology. Many faculty members have backgrounds in basic research or in applied industry and government service, and all bring their expertise to their research and teaching.

Undergraduate research opportunities exist with faculty members, and participation is strongly encouraged. Since Houston is home to numerous energy companies, there are plentiful opportunities for geosciences undergraduates to gain valuable experience prior to graduation and employment after graduation.

Departmental Requirements

The Bachelor of Science degree in geology, geophysics, and environmental sciences and the Bachelor of Arts degree in earth science, require that:

- no geoscience course with a grade below C- be used as a prerequisite for a more advanced geoscience course;
- students with more than six hours below C- in geoscience courses not be allowed to enroll in subsequent geoscience courses without written permission from the undergraduate advisor.

All undergraduate geology, geophysics, environmental sciences and earth science majors are encouraged to meet with the undergraduate advisor prior to enrollment (registration) each term.
Prerequisites for all geosciences courses are strictly enforced.

**Major**

**Earth Science, B.A.**

Students who choose to major in earth science must complete the following requirements in addition to the special requirements for the Bachelor of Arts degree:

**Requirements**

**Biology:**

- BIOL 1161 - Introduction to Biological Science Laboratory 1  **Credit Hours: 1.0**
- BIOL 1162 - Introduction to Biological Science Laboratory 2  **Credit Hours: 1.0**
- BIOL 1361 - Introduction to Biological Science 1  **Credit Hours: 3.0**
- BIOL 1362 - Introduction to Biological Science 2  **Credit Hours: 3.0**

**Chemistry:**

- CHEM 1111 - Fundamentals of Chemistry Laboratory  **Credit Hours: 1.0**
- CHEM 1112 - Fundamentals of Chemistry Laboratory  **Credit Hours: 1.0**
- CHEM 1331 - Fundamentals of Chemistry  **Credit Hours: 3.0**
- CHEM 1332 - Fundamentals of Chemistry  **Credit Hours: 3.0**

**Mathematics:**

- MATH 1431 - Calculus I  **Credit Hours: 4.0**
- MATH 1432 - Calculus II  **Credit Hours: 4.0**

**Physics:**

- PHYS 1101 - General Physics Laboratory I  **Credit Hours: 1.0**
- PHYS 1102 - General Physics Laboratory II  **Credit Hours: 1.0**
- PHYS 1301 - Introductory General Physics I  **Credit Hours: 3.0**
- PHYS 1302 - Introductory General Physics II  **Credit Hours: 3.0**

**Electives:**

Nineteen semester hours of approved electives, of which 15 must be advanced, and to include the NSM Capstone requirements.

**Geoscience:**

33 hours total, of which 21 hours must be advanced.
GEOL 1130 - Physical Geology Lab Credit Hours: 1.0
GEOL 1176 - Historical Geology Laboratory Credit Hours: 1.0
GEOL 1330 - Physical Geology Credit Hours: 3.0
GEOL 1376 - Historical Geology Credit Hours: 3.0

GEOL 1102 - Introduction to Climate Change Laboratory Credit Hours: 1.0
And
GEOL 1302 - Introduction to Global Climate Change Credit Hours: 3.0
Or
GEOL 1150 - Introductory Meteorology Laboratory Credit Hours: 1.0
And
GEOL 1350 - Introduction to Meteorology Credit Hours: 3.0

GEOL 3340 - Geologic Field Methods Credit Hours: 3.0
GEOL 3370 - Mineralogy Credit Hours: 3.0
GEOL 3372 - Petrography Credit Hours: 3.0
GEOL 3377 - Oceanography Credit Hours: 3.0
GEOL 3378 - Principles of Atmospheric Science Credit Hours: 3.0
9 additional hours, of which 6 must be advanced.

Suggested Program Plan

Suggested Program - Bachelor of Arts in Earth Science

Environmental Sciences, B.S.

The general requirements, including university core curriculum and college requirements, shall apply. In addition to the general requirements, students pursuing the Bachelor of Science in Environmental Sciences must complete the following:

Degree Requirements

Geology Requirements (8 hours):

GEOL 1330 - Physical Geology Credit Hours: 3.0
GEOL 1130 - Physical Geology Lab Credit Hours: 1.0

GEOL 1302 - Introduction to Global Climate Change Credit Hours: 3.0 and
GEOL 1102 - Introduction to Climate Change Laboratory Credit Hours: 1.0
or
GEOL 1350 - Introduction to Meteorology Credit Hours: 3.0 and
GEOL 1150 - Introductory Meteorology Laboratory Credit Hours: 1.0

Biology Requirements (8 hours):

BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
BIOL 1162 - Introduction to Biological Science Laboratory  
Credit Hours: 1.0

Chemistry Requirements (8 hours):

CHEM 1331 - Fundamentals of Chemistry  
Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory  
Credit Hours: 1.0
CHEM 1332 - Fundamentals of Chemistry 2  
Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory  
Credit Hours: 1.0

Mathematics Requirements (15 hours):

MATH 1431 - Calculus I  
Credit Hours: 4.0
MATH 1432 - Calculus II  
Credit Hours: 4.0
MATH 2433 - Calculus III  
Credit Hours: 4.0
MATH 3339 - Statistics for the Sciences  
Credit Hours: 3.0

Physics Requirements (8 hours):

PHYS 1321 - University Physics I  
Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I  
Credit Hours: 1.0
PHYS 1322 - University Physics II  
Credit Hours: 3.0
PHYS 1122 - University Physics Laboratory II  
Credit Hours: 1.0

At Least 39 Hours from One of the Following Options A or B:

Option A Environmental Geosciences:

Requirements (6 hours)

GEOL 3340 - Geologic Field Methods  
Credit Hours: 3.0
GEOL 3370 - Mineralogy  
Credit Hours: 3.0

Group 1 Electives (student must complete 15 hours selected from the following)

GEOL 3331 - Environmental Geology  
Credit Hours: 3.0
GEOL 3338 - Environmental Hydrogeology  
Credit Hours: 3.0
GEOL 4331 - Geospatial Analysis and Applications  
Credit Hours: 3.0
GEOL 4334 - Environmental Data Analysis  
Credit Hours: 3.0
GEOL 4365 - Environmental Geochemistry  
Credit Hours: 3.0
GEOL 4367 - Geochemical Reaction Modeling  
Credit Hours: 3.0
Approved electives

Group 2 Electives (student must complete an additional 18 hours of approved electives, see advisor for list)

Option B Atmospheric Science:
Requirements (6 hours)

GEOL 3342 - Principles of Air Pollution Credit Hours: 3.0
GEOL 3378 - Principles of Atmospheric Science Credit Hours: 3.0

Group 1 Electives (student must complete 15 hours selected from the following)

GEOL 3382 - Atmospheric Chemistry Credit Hours: 3.0
GEOL 4334 - Environmental Data Analysis Credit Hours: 3.0
GEOL 4346 - Air Pollution Meteorology Credit Hours: 3
GEOL 4336 - Atmospheric Radiation Credit Hours: 3.0
GEOL 4340 - Aerosols and Climate Credit Hours: 3.0
GEOL 4343 - Atmospheric Instrumentation Credit Hours: 3.0
Approved electives

Group 2 Electives (student must complete an additional 18 hours of approved electives, see advisor for list)

Other Core requirements, excluding capstone (30 hours):

Electives, including course(s) required for capstone (4 hours):

Total (minimum number of hours): 120

Geosciences courses are commonly offered on a one- or two-year cycle. Therefore, it is the student's responsibility to become familiar with course scheduling and the prerequisites for courses and to consult with the undergraduate advisor regularly.

The Bachelor of Science degree requires completion of a minimum of 120 hours, at least 36 of which are to be advanced hours. Students must earn a minimum 2.0 cumulative GPA in all courses attempted at the university. In addition, students must earn a minimum 2.00 cumulative GPA in all courses in the major attempted at the university. Students must have no more than 6 semester hours with grades below C- in all courses attempted in the major, which includes all the GEOL courses and Group 1 and Group 2 Electives. Any student exceeding that limit must retake sufficient courses and obtain acceptable grades so that they do not exceed the two-course limit.

Capstone Requirement

All students in NSM must complete the Capstone requirement. Students may satisfy the Capstone in a number of ways, e.g. by completing an approved minor, a double major, a senior research project, a senior honors thesis, or 6 hours of NSM-designated interdisciplinary capstone courses (e.g. GEOL 3355-GEOL 3360).

Departmental Requirements

No GEOL course with a grade below C- can be used as a prerequisite for a more advanced GEOL course.

Students with more than 6 hours in GEOL courses with grades below C- are not allowed to enroll in subsequent GEOL courses without written permission from the undergraduate advisor.

Note that all undergraduate majors should meet with the Faculty Advisor prior to registration each term.
## Suggested Program Plans

- Suggested Program Plan for Environmental Geosciences Option A
- Suggested Program Plan for Atmospheric Science Option B

## Geology, B.S.

Completion of the BS in Geology or Geophysics requires several extended off-campus field trips which involve moderate to strenuous outdoor activity (e.g., all-day field exercises and hiking), including a 5-week capstone field course in Montana for the Geology BS, and a 3-week capstone field course in Galveston for the Geophysics BS. Students who feel they may not be able to fulfill this requirement should talk with the Geology and Geophysics undergraduate advisor before declaring their major.

Students who choose to major in geology must complete the following requirements in addition to the special requirements for the Bachelor of Science degree:

### Requirements

#### Chemistry:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1111 - Fundamentals of Chemistry Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>CHEM 1112 - Fundamentals of Chemistry Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>CHEM 1331 - Fundamentals of Chemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 1332 - Fundamentals of Chemistry 2</td>
<td>3.0</td>
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#### Mathematics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1431 - Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 1432 - Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 2433 - Calculus III</td>
<td>4.0</td>
</tr>
</tbody>
</table>

#### Physics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1321 - University Physics I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 1121 - University Physics Laboratory I</td>
<td>1.0</td>
</tr>
<tr>
<td>PHYS 1322 - University Physics II</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 1122 - University Physics Laboratory II</td>
<td>1.0</td>
</tr>
</tbody>
</table>

#### Geology:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1130 - Physical Geology Lab</td>
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</tr>
<tr>
<td>GEOL 1330 - Physical Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 3130 - Paleobiology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL 3145 - Structural Geology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL 3150 - Principles of Stratigraphy Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL 3330 - Paleobiology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 3340 - Geologic Field Methods</td>
<td>3.0</td>
</tr>
</tbody>
</table>
GEOL 3345 - Structural Geology  Credit Hours: 3.0
GEOL 3350 - Stratigraphy  Credit Hours: 3.0
GEOL 3355 - Field Geology I  Credit Hours: 3.0
GEOL 3360 - Field Geology II  Credit Hours: 3.0
GEOL 3370 - Mineralogy  Credit Hours: 3.0
GEOL 3372 - Petrography  Credit Hours: 3.0
GEOL 3373 - Igneous and Metamorphic Petrogenesis  Credit Hours: 3.0
GEOL 3374 - Sedimentary Petrogenesis  Credit Hours: 3.0
GEOL 4330 - Introduction to Geophysics  Credit Hours: 3.0

Geology Electives:

Six credit hours of approved advanced GEOL electives  Credit Hours: 6.0

List of Approved Advanced Geoscience Electives (Cr: 6)

GEOL 3331 - Environmental Geology  Credit Hours: 3.0
GEOL 3338 - Environmental Hydrogeology  Credit Hours: 3.0
GEOL 3377 - Oceanography  Credit Hours: 3.0
GEOL 3383 - Remote Sensing  Credit Hours: 3.0
GEOL 4331 - Geospatial Analysis and Applications  Credit Hours: 3.0
GEOL 4358 - Introduction to Depositional Models  Credit Hours: 3.0
GEOL 4365 - Environmental Geochemistry  Credit Hours: 3.0
GEOL 4382 - Introduction to Petroleum Geology  Credit Hours: 3.0
GEOL 4397 - Selected Topics-Geology  Credit Hours: 3 by consent of advisor

Note(s):

Successful completion of GEOL 3355 and GEOL 3360 satisfies NSM Capstone Requirement

Suggested Program Plans

Suggested Program - Bachelor of Science in Geology

Geophysics, B.S.

Completion of the BS in Geology or Geophysics requires several extended off-campus field trips which involve moderate to strenuous outdoor activity (e.g. all-day field exercises and hiking), including a 5-week capstone field course in Montana for the Geology BS, and a 3-week capstone field course in Galveston for the Geophysics BS. Students who feel they may not be able to fulfill this requirement should talk with the Geology and Geophysics undergraduate advisor before declaring their major.

Students who choose to major in geophysics must complete the following requirements in addition to the special requirements for the Bachelor of Science degree:

Requirements
Chemistry:

CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
CHEM 1112 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0
CHEM 1332 - Fundamentals of Chemistry  Credit Hours: 3.0

Mathematics:

MATH 1431 - Calculus I  Credit Hours: 4.0
MATH 1432 - Calculus II  Credit Hours: 4.0
MATH 2433 - Calculus III  Credit Hours: 4.0
MATH 3321 - Engineering Mathematics  Credit Hours: 3.0
MATH 3363 - Introduction to Partial Differential Equations  Credit Hours: 3.0
MATH 3364 - Introduction to Complex Analysis  Credit Hours: 3.0

Physics:

PHYS 1321 - University Physics I  Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I  Credit Hours: 1.0
PHYS 1322 - University Physics II  Credit Hours: 3.0
PHYS 1122 - University Physics Laboratory II  Credit Hours: 1.0

Geology:

GEOL 1130 - Physical Geology Lab  Credit Hours: 1.0
GEOL 1330 - Physical Geology  Credit Hours: 3.0
GEOL 3145 - Structural Geology Laboratory  Credit Hours: 1.0
GEOL 3150 - Principles of Stratigraphy Laboratory  Credit Hours: 1.0
GEOL 3340 - Geologic Field Methods  Credit Hours: 3.0
GEOL 3345 - Structural Geology  Credit Hours: 3.0
GEOL 3350 - Stratigraphy  Credit Hours: 3.0
GEOL 3325 - Rocks and Minerals  Credit Hours: 3.0 or
GEOL 3370 - Mineralogy  Credit Hours: 3.0 + GEOL 3372 - Petrography  Credit Hours: 3.0

Geophysics:

GEOL 4330 - Introduction to Geophysics  Credit Hours: 3.0
GEOL 4355 - Geophysical Field Camp  Credit Hours: 3.0
GEOL 4381 - Geophysical Signals and Analysis  Credit Hours: 3.0
GEOL 4370 - Global Seismology  Credit Hours: 3.0

Advanced Electives

Approved advanced Geophysics electives  Credit Hours: 12.0
Approved advanced Geoscience electives  Credit Hours: 3.0
List of Approved Advanced Geophysics Electives (Cr: 12)

GEOL 3383 - Remote Sensing Credit Hours: 3.0
GEOL 4332 - Applications of GPS & LIDAR Credit Hours: 3.0
GEOL 4379 - Groundwater and Engineering Geophysics Credit Hours: 3.0
GEOL 4385 - Introduction to Marine Geophysics Credit Hours: 3.0

List of Approved Advanced Geoscience Electives (Cr: 3)

GEOL 3331 - Environmental Geology Credit Hours: 3.0
GEOL 3338 - Environmental Hydrogeology Credit Hours: 3.0
GEOL 3377 - Oceanography Credit Hours: 3.0
GEOL 3383 - Remote Sensing Credit Hours: 3.0
GEOL 4331 - Geospatial Analysis and Applications Credit Hours: 3.0
GEOL 4358 - Introduction to Depositional Models Credit Hours: 3.0
GEOL 4365 - Environmental Geochemistry Credit Hours: 3.0
GEOL 4382 - Introduction to Petroleum Geology Credit Hours: 3.0
GEOL 4397 - Selected Topics-Geology Credit Hours: 3 by consent of advisor

Notes:

Successful completion of GEOL 4355 and GEOL 4381 satisfies NSM Capstone Requirement.

Suggested Program Plan

Suggested Program - Bachelor of Science in Geophysics

Suggested Program - Bachelor of Science in Geology

First Year

Fall Term

ENGL 1303 - First Year Writing I Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
GEOL 1130 - Physical Geology Lab Credit Hours: 1.0
GEOL 1330 - Physical Geology Credit Hours: 3.0
MATH 1431 - Calculus I Credit Hours: 4.0

Total 15

Spring Term

ENGL 1304 - First Year Writing II Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0  
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0  
MATH 1432 - Calculus II Credit Hours: 4.0  
Elective (GEOL 1376, GEOL 1176: Historical Geology and Laboratory recommended) Credit Hours: 4.0

Total 15

Second Year

Fall Term

GEOL 3370 - Mineralogy Credit Hours: 3.0  
GEOL 3130 - Paleobiology Laboratory Credit Hours: 1.0  
GEOL 3330 - Paleobiology Credit Hours: 3.0  
MATH 2433 - Calculus III Credit Hours: 4.0  
PHYS 1321 - University Physics I Credit Hours: 3.0  
PHYS 1121 - University Physics Laboratory Credit Hours: 1.0

Total 15

Spring Term

GEOL 3340 - Geologic Field Methods Credit Hours: 3.0  
GEOL 3372 - Petrography Credit Hours: 3.0  
PHYS 1121 - University Physics Laboratory Credit Hours: 1.0  
PHYS 1322 - University Physics II Credit Hours: 3.0  
Core distribution elective Credit Hours: 3.0  
Core distribution elective Credit Hours: 3.0

Total 16

Third Year

Fall Term

GEOL 3150 - Principles of Stratigraphy Laboratory Credit Hours: 1.0  
GEOL 3350 - Stratigraphy Credit Hours: 3.0  
GEOL 3373 - Igneous and Metamorphic Petrogenesis Credit Hours: 3.0  
GEOL 4330 - Introduction to Geophysics Credit Hours: 3.0  
HIST 1377 - The U S To 1877 Credit Hours: 3.0 or equivalent  
Core distribution elective Credit Hours: 3.0

Total 16

Spring Term
GEOL 3145 - Structural Geology Laboratory Credit Hours: 1.0
GEOL 3345 - Structural Geology Credit Hours: 3.0
GEOL 3374 - Sedimentary Petrogenesis Credit Hours: 3.0
HIST 1378 - The U S Since 1877 Credit Hours: 3.0 or equivalent
Approved Elective Credit Hours: 3.0

Total 13

Summer Session

GEOL 3355 - Field Geology I Credit Hours: 3.0
GEOL 3360 - Field Geology II Credit Hours: 3.0

Total 6

Fourth Year

Fall Term

Geoscience Elective (3000- or 4000-level) Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0 or equivalent
Approved Elective Credit Hours: 6.0

Total 12

Spring Term

Geoscience Elective (3000- or 4000-level) Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0 or equivalent
Approved Elective Credit Hours: 6.0

Total 12

Note(s):

This suggested program is recommended for well-prepared, full-time, entering freshmen who are not working. Modifications to this sequence may be desirable for working, part-time, and transfer students.

Geosciences courses are commonly offered on a one or two year cycle. Therefore it is the student's responsibility to become familiar with course scheduling and the prerequisites for courses and to consult with the undergraduate advisor regularly.

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

Suggested Program - Bachelor of Science in Geophysics
First Year

Fall Semester

- ENGL 1303 - First Year Writing I  
  Credit Hours: 3.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory  
  Credit Hours: 1.0
- CHEM 1331 - Fundamentals of Chemistry  
  Credit Hours: 3.0
- GEOL 1130 - Physical Geology Lab  
  Credit Hours: 1.0
- GEOL 1330 - Physical Geology  
  Credit Hours: 3.0
- MATH 1431 - Calculus I  
  Credit Hours: 4.0

Total 15

Spring Semester

- ENGL 1304 - First Year Writing II  
  Credit Hours: 3.0
- CHEM 1112 - Fundamentals of Chemistry Laboratory  
  Credit Hours: 1.0
- CHEM 1332 - Fundamentals of Chemistry 2  
  Credit Hours: 3.0
- MATH 1432 - Calculus II  
  Credit Hours: 4.0
- Elective (GEOL 1376, GEOL 1176. Historical Geology and Lab recommended)  
  Credit Hours: 4.0

Total 15

Second Year

Fall Semester

- GEOL 3325 Rocks and Minerals  
  Credit Hours: 3.0
- GEOL 3370 - Mineralogy  
  Credit Hours: 3.0
- MATH 2433 - Calculus III  
  Credit Hours: 4.0
- PHYS 1321 - University Physics I  
  Credit Hours: 3.0
- PHYS 1121 - University Physics Laboratory I  
  Credit Hours: 1.0
- HIST 1377 - The U S To 1877  
  Credit Hours: 3.0
- Core Curriculum Elective  
  Credit Hours: 3.0

Total 17

Spring Semester

- GEOL 3340 - Geologic Field Methods  
  Credit Hours: 3.0
- MATH 3321 - Engineering Mathematics  
  Credit Hours: 3.0
- PHYS 1122 - University Physics Laboratory II  
  Credit Hours: 1.0
- PHYS 1322 - University Physics II  
  Credit Hours: 3.0
- HIST 1378 - The U S Since 1877  
  Credit Hours: 3.0
- Core Curriculum Elective  
  Credit Hours: 3.0
### Third Year

#### Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 3350</td>
<td>Stratigraphy</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 3150</td>
<td>Principles of Stratigraphy Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL 4330</td>
<td>Introduction to Geophysics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 3363</td>
<td>Introduction to Partial Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 1336</td>
<td>U.S. and Texas Constitution and Politics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total 13

#### Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 4370</td>
<td>Global Seismology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 3345</td>
<td>Structural Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 3145</td>
<td>Structural Geology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH 3364</td>
<td>Introduction to Complex Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 1337</td>
<td>U.S. Government: Congress, President, and Courts</td>
<td>3.0 or equivalent</td>
</tr>
</tbody>
</table>

Advanced Geophysics Elective | Credit Hours: 3.0 |

Total 16

#### Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 4355</td>
<td>Geophysical Field Camp</td>
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Total 3

### Fourth Year

#### Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 4381</td>
<td>Geophysical Signals and Analysis</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Advanced Geophysics Electives | Credit Hours: 6.0 |

Core Curriculum Elective | Credit Hours: 3.0 |

Total 12

#### Spring Semester

Advanced Geophysics Elective | Credit Hours: 3.0 |
Advanced Geoscience Elective **Credit Hours:** 3.0
Core Curriculum Elective **Credit Hours:** 3.0
Approved Elective **Credit Hours:** 4.0

Total 13

**Note(s):**

This suggested program is recommended for well-prepared, full-time, entering freshmen who are not working. Modifications to this sequence may be desirable for working, part-time, and transfer students.

Geosciences courses are commonly offered on a one or two year cycle. Therefore it is the student's responsibility to become familiar with course scheduling and the prerequisites for courses and to consult with the undergraduate advisor regularly.

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

**Minor**

**Atmospheric Science Minor**

Students who choose to minor in atmospheric science must complete the general requirements for a minor as well as the following:

**Requirements**

Geoscience:

GEOL 1302 - Introduction to Global Climate Change **Credit Hours:** 3.0
GEOL 1350 - Introduction to Meteorology **Credit Hours:** 3.0
GEOL 3378 - Principles of Atmospheric Science **Credit Hours:** 3.0
Six credit hours of approved advanced electives (see advisor for list)

**Note(s):**

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions will not be included in the minor grade point average.

This minor is not available for students pursuing a B.S. in Environmental Science (Option B. Atmospheric Sciences).

**Geology Minor**

Students who choose to minor in geology must complete the general requirements for a minor as well as the following:

**Requirements**
Geoscience:

- GEOL 1130 - Physical Geology Lab Credit Hours: 1.0
- GEOL 1330 - Physical Geology Credit Hours: 3.0
- GEOL 1176 - Historical Geology Laboratory Credit Hours: 1.0
- GEOL 1376 - Historical Geology Credit Hours: 3.0

Elective Course Options:

9 semester hours of approved advanced geoscience electives:

- GEOL 3130 - Paleobiology Laboratory Credit Hours: 1.0
- GEOL 3145 - Structural Geology Laboratory Credit Hours: 1.0
- GEOL 3330 - Paleobiology Credit Hours: 3.0
- GEOL 3331 - Environmental Geology Credit Hours: 3.0
- GEOL 3334 - Earthquakes Credit Hours: 3.0
- GEOL 3338 - Environmental Hydrogeology Credit Hours: 3.0
- GEOL 3340 - Geologic Field Methods Credit Hours: 3.0
- GEOL 3345 - Structural Geology Credit Hours: 3.0
- GEOL 3370 - Mineralogy Credit Hours: 3.0
- GEOL 3372 - Petrography Credit Hours: 3.0
- GEOL 3373 - Igneous and Metamorphic Petrogenesis Credit Hours: 3.0
- GEOL 3377 - Oceanography Credit Hours: 3.0
- GEOL 3383 - Remote Sensing Credit Hours: 3.0
- GEOL 4330 - Introduction to Geophysics Credit Hours: 3.0
- GEOL 4331 - Geospatial Analysis and Applications Credit Hours: 3.0
- GEOL 4365 - Environmental Geochemistry Credit Hours: 3.0
- GEOL 4397 - Selected Topics-Geology Credit Hours: 3 by consent of advisor

Note(s):

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions will not be included in the minor grade point average.

No course may count toward the minor in which a grade of less than C- is earned.

This minor is not available to earth science majors.

Geophysics Minor

Students who choose to minor in geophysics must complete the general requirements for a minor as well as the following:

Requirements

Geoscience:

- GEOL 1130 - Physical Geology Lab Credit Hours: 1.0
GEOL 1330 - Physical Geology Credit Hours: 3.0
GEOL 4330 - Introduction to Geophysics Credit Hours: 3.0

Elective Course Options:

12 hours of approved advanced geosciences electives including six semester hours of geophysics electives:

GEOL 3383 - Remote Sensing Credit Hours: 3.0
GEOL 4332 - Applications of GPS & LiDAR Credit Hours: 3.0
GEOL 4355 - Geophysical Field Camp Credit Hours: 3.0
GEOL 4370 - Global Seismology Credit Hours: 3.0
GEOL 4379 - Groundwater and Engineering Geophysics Credit Hours: 3.0
GEOL 4381 - Geophysical Signals and Analysis Credit Hours: 3.0
GEOL 4385 - Introduction to Marine Geophysics Credit Hours: 3.0

Note(s):

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions will not be included in the minor grade point average.

No course may count toward the minor in which a grade of less than C- is earned.

Certificate

Geographical Information Science Certificate

The certificate in Geographical Information Science (GIS) provides students with knowledge and experience to work in the field of GIS both in the public and private sectors. The combination of courses focuses on the acquisition, storing, visualization, modeling, and analysis of information on spatial phenomena with some emphasis on geospatial applications.

Students seeking this certificate must have an undergraduate degree and hold graduate or postbaccalaureate status at the University of Houston. With permission of the department chair, qualified undergraduates will be allowed to participate in the certificate program. Students must fulfill the prerequisite requirements for all courses required.

The GIS Certificate requires a total of 15 credit hours.

Requirements

Geoscience:

GEOL 4331 - Geospatial Analysis and Applications Credit Hours: 3.0
GEOL 6325
GEOL 6326

Electives:
GEOL 6389 or
CIVI 7897 or
3 hours of approved GIS courses from other departments

Individual Project:

To be supervised by instructor in the area of specialty. This may be represented by a Senior Research project course for qualified undergraduate, or Special Problems research hours for graduate students. Cr. 3.

Total 15

Other Programs

Suggested Program - Bachelor of Arts in Earth Science

First Year

Fall Semester

GEOL 1130 - Physical Geology Lab Credit Hours: 1.0
GEOL 1330 - Physical Geology Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
ENGL 1303 - First Year Writing I Credit Hours: 3.0
MATH 1431 - Calculus I Credit Hours: 4.0

Total 15

Spring Semester

GEOL 1176 - Historical Geology Laboratory Credit Hours: 1.0
GEOL 1376 - Historical Geology Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0
MATH 1432 - Calculus II Credit Hours: 4.0

Total 15

Second Year

Fall Semester

GEOL 3370 - Mineralogy Credit Hours: 3.0
GEOL 1102 - Introduction to Climate Change Laboratory **Credit Hours: 1.0**

And

GEOL 1302 - Introduction to Global Climate Change **Credit Hours: 3.0**

Or

GEOL 1150 - Introductory Meteorology Laboratory **Credit Hours: 1.0**

And

GEOL 1350 - Introduction to Meteorology **Credit Hours: 3.0**

HIST 1377 - The U.S. To 1877 **Credit Hours: 3.0**

Foreign Language at the 2000-level **Credit Hours: 3.0**

Creative Arts Core **Credit Hours: 3.0**

Total 16

**Spring Semester**

GEOL 3340 - Geologic Field Methods **Credit Hours: 3.0**

GEOL 3372 - Petrography **Credit Hours: 3.0**

HIST 1378 - The U.S. Since 1877 **Credit Hours: 3.0**

Social and Behavioral Sciences Core **Credit Hours: 3.0**

Foreign Language at the 2000-level **Credit Hours: 3.0**

Total 15

**Third Year**

**Fall Semester**

GEOL 3378 - Principles of Atmospheric Science **Credit Hours: 3.0**

PHYS 1101 - General Physics Laboratory I **Credit Hours: 1.0**

PHYS 1301 - Introductory General Physics I **Credit Hours: 3.0**

POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**

Language, Philosophy & Culture Core **Credit Hours: 3.0**

Approved Elective **Credit Hours: 3.0**

Total 16

**Spring Semester**

GEOL 3377 - Oceanography **Credit Hours: 3.0**

PHYS 1102 - General Physics Laboratory II **Credit Hours: 1.0**

PHYS 1302 - Introductory General Physics II **Credit Hours: 3.0**

POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Writing in the Disciplines Core **Credit Hours: 3.0**

Approved Elective **Credit Hours: 3.0**
Total 16

Fourth Year

Fall Semester

BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
Approved GEOL Elective (Advanced) Credit Hours: 3.0
Approved Elective (Advanced) (NSM Capstone Requirement) Credit Hours: 3.0
Approved Elective (Advanced) Credit Hours: 6.0

Total 16

Spring Semester

BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0
Approved GEOL Elective (Advanced) Credit Hours: 3.0
Approved Elective (Advanced) (NSM Capstone Requirement) Credit Hours: 3.0
Approved Elective (Advanced) Credit Hours: 3.0

Total 13

Note(s):

This suggested program is recommended for well-prepared, full-time, entering freshmen who are not working. Modification of this sequence may be desirable for working, part-time and transfer students.

Geosciences courses are commonly offered on a one or two year cycle. Therefore it is the student's responsibility to become familiar with course scheduling and the prerequisites for courses and to consult with the undergraduate advisor regularly.

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

Suggested Program Plan for Atmospheric Science Option B

First Year

Fall Semester

ENGL 1303 - First Year Writing I Credit Hours: 3.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0

GEOL 1350 - Introduction to Meteorology Credit Hours: 3.0 and
GEOL 1150 - Introductory Meteorology Laboratory  Credit Hours: 1.0  
or  
GEOL 1302 - Introduction to Global Climate Change  Credit Hours: 3.0 and  
GEOL 1102 - Introduction to Climate Change Laboratory  Credit Hours: 1.0  

MATH 1431 - Calculus I  Credit Hours: 4.0

Total 15

Spring Semester

CHEM 1332 - Fundamentals of Chemistry 2  Credit Hours: 3.0  
CHEM 1112 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0  
GEOL 1330 - Physical Geology  Credit Hours: 3.0  
GEOL 1130 - Physical Geology Lab  Credit Hours: 1.0  
MATH 1432 - Calculus II  Credit Hours: 4.0  
GEOL 3342 - Principles of Air Pollution  Credit Hours: 3.0

Total 15

Second Year

Fall Semester

PHYS 1321 - University Physics I  Credit Hours: 3.0  
PHYS 1121 - University Physics Laboratory I  Credit Hours: 1.0  
MATH 2433 - Calculus III  Credit Hours: 4.0  
GEOL 3378 - Principles of Atmospheric Science  Credit Hours: 3.0  
Group 1 elective (selected from Option B)  Credit Hours: 3.0

Total 14

Spring Semester

PHYS 1322 - University Physics II  Credit Hours: 3.0  
PHYS 1122 - University Physics Laboratory II  Credit Hours: 1.0  
MATH 3339 - Statistics for the Sciences  Credit Hours: 3.0  
Group 1 elective (selected from Option B)  Credit Hours: 3.0  
Group 2 elective (selected from Option B)  Credit Hours: 3.0  
ENGL 1304 - First Year Writing II  Credit Hours: 3.0

Total 16

Third Year
Fall Semester

- BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
- BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
- Group 1 elective (selected from Option B) Credit Hours: 3.0
- Group 1 elective (selected from Option B) Credit Hours: 3.0
- Social/Behavioral Sciences Core Credit Hours: 3.0
- HIST 1376 - The United States To 1877 Credit Hours: 3.0 or
- HIST 1377 - The U S To 1877 Credit Hours: 3.0

Total 16

Spring Semester

- BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
- BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0
- Group 1 elective (selected from Option B) Credit Hours: 3.0
- Group 2 elective (selected from Option B) Credit Hours: 3.0
- Writing in the Disciplines Core Course Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0 or
- HIST 1379 - The United States Since 1877 Credit Hours: 3.0

Total 16

Fourth Year

Fall Semester

- Group 2 elective (selected from Option B) Credit Hours: 3.0
- Group 2 elective (selected from Option B) Credit Hours: 3.0
- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- Language, Philosophy and Culture Core Course Credit Hours: 3.0
- Creative Arts Core Course Credit Hours: 3.0

Total 15

Spring Semester

- Group 2 elective (selected from Option B) Credit Hours: 3.0
- Group 2 elective (selected from Option B) Credit Hours: 3.0
- NSM Capstone Course or minor Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
- Elective Credit Hours: 1.0
Department of Mathematics

Who's Who in the Department of Mathematics

Chair: Matthew Nicol

Professors:


Associate Professors:


Assistant Professors:

Gabriela Jaramillo, Mehrdad Kalantar, Alexander V Mamonov, Andreas Mang, Anna Vershynina

Overview

Mathematics is the science dealing with data, measurement, and scientific observations; with inference, deduction and proof; and with the development of analytical models of biological, chemical, physical, and social systems.

Mathematics majors find employment in many different areas: biomedical research, financial institutions, actuarial firms, government agencies, and various groups related to the military. In industry, mathematicians are often important members of multidisciplinary teams working on complex projects and are part of operations and logistics groups.

Department research and teaching interests include applied mathematics, differential geometry, operator algebras and operator theory, nonlinear partial differential equations, partial differential equations, ordinary differential equations, dynamical systems, machine intelligence, scientific computation, bifurcation theory, symmetry, numerical analysis, complex analysis, computational fluid dynamics, and more.

The Department of Mathematics offers the Bachelors of Arts (B.A.) and the Bachelor of Science (B.S.) degrees. Under the B.S. degree, the Department offers an Option in Mathematical Finance.

Jointly with other departments in the College of Natural Science and Mathematics offers a Bachelor of Science in Mathematical Biology and Bachelor of Science in Environmental Science with an option in Environmental modeling.
Students in the B.A. and B.S. programs may obtain secondary certification to teach mathematics by applying to the TeachHOUSTON program and completing its requirements in mathematics and science education.

**Departmental Requirements**

The department offers two degree programs in mathematics, the Bachelor of Arts degree and the Bachelor of Science degree. The department offers an option in Mathematical Finance under the Bachelor of Science degree. The requirements for a major in mathematics are described below.

**teachHOUSTON**

In addition to the state requirements for the B.A. and B.S. degree, teachHOUSTON students are required to take 20 hours of specified courses in Education. TeachHOUSTON is designed to provide immediate classroom experience and takes a minimum of 5 terms to complete; thus, students should apply to teachHOUSTON no later than their sophomore year.

Mathematics majors are expected to exhibit progress toward a degree. Students with less than a 2.50 cumulative grade point average in mathematics courses taken at the University of Houston will be advised to discontinue as mathematics majors.

An official degree plan should be completed during the second term of the sophomore year or the first term of the junior year.

**Bachelor of Science in Mathematical Biology**

The Bachelor of Science in Mathematical Biology is an interdisciplinary degree program jointly administered by the College of Natural Sciences and Mathematics, the Department of Biology and Biochemistry, and the Department of Mathematics at the University of Houston. In addition to general university and college requirements, the degree calls for 26 hours of biology/biochemistry, 27 hours of mathematics, 21 hours of chemistry and physics, and 6 hours of interdisciplinary biology/mathematics courses. Detailed requirements of the program are given in the Mathematical Biology Major section of this catalog.

**Major**

**Mathematics, B.A.**

**Mathematics Major**

Students who choose to major in mathematics must complete the following requirements in addition to the special requirements for the Bachelor of Arts degree:

**Requirements**

At least 30 advanced semester hours of mathematics, including:

- **MATH 2131** - Linear Algebra Labs with MATLAB **Credit Hours: 1.0**
- At least 30 advanced semester hours in mathematics, which must include:
  - **MATH 3325** - Transition to Advanced Mathematics **Credit Hours: 3**
  - **MATH 3330** - Abstract Algebra **Credit Hours: 3.0**
  - **MATH 3331** - Differential Equations **Credit Hours: 3.0**
MATH 3333 - Intermediate Analysis **Credit Hours:** 3.0

MATH 3334 - Advanced Multivariable Calculus **Credit Hours:** 3.0 or
MATH 3335 - Vector Analysis **Credit Hours:** 3.0 or
MATH 3363 - Introduction to Partial Differential Equations **Credit Hours:** 3.0 or
MATH 3364 - Introduction to Complex Analysis **Credit Hours:** 3.0

MATH 4389 - Survey of Undergraduate Mathematics **Credit Hours:** 3.0
Additional 12 advanced Math elective hours with a minimum of 9 hours at the 4000-level, which includes a Math Senior Sequence

**Senior Sequence 1**

MATH 4309 - Mathematical Biology **Credit Hours:** 3.0
BIOL 4309 - Mathematical Biology **Credit Hours:** 3.0

MATH 4310 - Biostatistics **Credit Hours:** 3.0
BIOL 4310 - Biostatistics **Credit Hours:** 3.0

**Senior Sequence 2**

MATH 4331 - Introduction To Real Analysis I **Credit Hours:** 3.0
MATH 4332 - Introduction to Real Analysis II **Credit Hours:** 3.0

**Senior Sequence 3**

MATH 4335 - Partial Differential Equations I **Credit Hours:** 3.0

**Senior Sequence 4**

MATH 4335 - Partial Differential Equations I **Credit Hours:** 3.0
MATH 4362 - Theory of Differential Equations and Nonlinear Dynamics **Credit Hours:** 3.0

**Senior Sequence 5**

MATH 4350 - Differential Geometry I **Credit Hours:** 3.0
MATH 4351 - Differential Geometry II **Credit Hours:** 3.0

**Senior Sequence 6**

MATH 4364 - Introduction to Numerical Analysis in Scientific Computing **Credit Hours:** 3.0
MATH 4365 - Numerical Methods for Differential Equations **Credit Hours:** 3.0

**Senior Sequence 7**

MATH 4364 - Introduction to Numerical Analysis in Scientific Computing **Credit Hours:** 3.0
MATH 4366 - Numerical Linear Algebra **Credit Hours:** 3.0
Senior Sequence 8

MATH 4377 - Advanced Linear Algebra I  **Credit Hours: 3.0**
MATH 4378 - Advanced Linear Algebra II  **Credit Hours: 3.0**

Senior Sequence 9

MATH 4320 - Introduction to Stochastic Processes  **Credit Hours: 3.0**
MATH 4380 - A Mathematical Introduction to Options  **Credit Hours: 3.0**

Suggested Program Plans

Suggested Program - Bachelor of Arts in Mathematics
Suggested Program - Bachelor’s of Arts in Mathematics - teachHOUSTON

Mathematics, B.A. - teachHouston

Students who choose this option must complete the following requirements in addition to the special requirements for the Bachelor of Science or the Bachelor of Arts degree:

Mathematics Major - teachHOUSTON

In addition to general university and college requirements for the Bachelor of Arts or the Bachelor of Science degree, students majoring in Mathematics in the teachHOUSTON program must complete the following:

Math Requirements

MATH 2131 - Linear Algebra Labs with MATLAB  **Credit Hours: 1.0**

At least 30 advanced semester hours in mathematics, which must include:
MATH 3311 - Functions and Modeling  **Credit Hours: 3.0**
MATH 3325 - Transition to Advanced Mathematics  **Credit Hours: 3**
MATH 3330 - Abstract Algebra  **Credit Hours: 3.0**
MATH 3331 - Differential Equations  **Credit Hours: 3.0**
MATH 3333 - Intermediate Analysis  **Credit Hours: 3.0**
MATH 3379 - Introduction to Higher Geometry  **Credit Hours: 3.0**
MATH 4389 - Survey of Undergraduate Mathematics  **Credit Hours: 3.0**

Additional 9 semester hours of 4000-level Mathematics electives, which includes a Math Senior Sequences

One of the following Math Senior Sequences

**Senior Sequence 1**
MATH 4309 - Mathematical Biology  **Credit Hours: 3.0**
BIOL 4309 - Mathematical Biology  **Credit Hours: 3.0**

MATH 4310 - Biostatistics  **Credit Hours: 3.0**
BIOL 4310 - Biostatistics  **Credit Hours: 3.0**
### Senior Sequence 2
- MATH 4331 - Introduction To Real Analysis I  
  Credit Hours: 3.0
- MATH 4332 - Introduction to Real Analysis II  
  Credit Hours: 3.0

### Senior Sequence 3
- MATH 4335 - Partial Differential Equations I  
  Credit Hours: 3.0

### Senior Sequence 4
- MATH 4362 - Theory of Differential Equations and Nonlinear Dynamics  
  Credit Hours: 3.0
- MATH 4335 - Partial Differential Equations I  
  Credit Hours: 3.0

### Senior Sequence 5
- MATH 4350 - Differential Geometry I  
  Credit Hours: 3.0
- MATH 4351 - Differential Geometry II  
  Credit Hours: 3.0

### Senior Sequence 6
- MATH 4364 - Introduction to Numerical Analysis in Scientific Computing  
  Credit Hours: 3.0
- MATH 4365 - Numerical Methods for Differential Equations  
  Credit Hours: 3.0

### Senior Sequence 7
- MATH 4366 - Numerical Linear Algebra  
  Credit Hours: 3.0
- MATH 4364 - Introduction to Numerical Analysis in Scientific Computing  
  Credit Hours: 3.0

### Senior Sequence 8
- MATH 4377 - Advanced Linear Algebra I  
  Credit Hours: 3.0
- MATH 4378 - Advanced Linear Algebra II  
  Credit Hours: 3.0

### Senior Sequence 9
- MATH 4320 - Introduction to Stochastic Processes  
  Credit Hours: 3.0
- MATH 4380 - A Mathematical Introduction to Options  
  Credit Hours: 3.0

### Other Requirements
- CUIN 1101 - Step 1 - Teaching Science and Mathematics  
  Credit Hours: 1.0
- CUIN 1102 - Step 2 - Teaching Science and Mathematics  
  Credit Hours: 1.0
- CUIN 3350 - Knowing and Learning Science and Math  
  Credit Hours: 3.0
- CUIN 3351 - Classroom Interactions in Science and Mathematics  
  Credit Hours: 3.0
- CUIN 3352 - Perspectives Math and Science  
  Credit Hours: 3.0
- CUIN 4350 - Multiple Teaching Strategies for Math and Science  
  Credit Hours: 3.0
- EDUC 4314 - Student Teaching: Secondary  
  Credit Hours: 3.0
- EDUC 4315 - Student Teaching: Secondary  
  Credit Hours: 3.0
- BIOL 4340 - Research Methods  
  Credit Hours: 3.0 or
- CHEM 4340 - Research Methods  
  Credit Hours: 3.0 or
- PHYS 4340 - Research Methods  
  Credit Hours: 3.0

### Suggested Program Plan

Suggested Program - Bachelor's of Arts in Mathematics teachHOUSTON
Mathematics, B.S.

Students who choose to major in mathematics must complete the following requirements in addition to the Bachelor of Science Degree Special Requirements:

Mathematics Major

Requirements

At least 30 advanced semester hours in mathematics including:

- MATH 2131 - Linear Algebra Labs with MATLAB **Credit Hours: 1.0**
- MATH 3325 - Transition to Advanced Mathematics **Credit Hours: 3**
- MATH 3330 - Abstract Algebra **Credit Hours: 3.0**
- MATH 3331 - Differential Equations **Credit Hours: 3.0**
- MATH 3333 - Intermediate Analysis **Credit Hours: 3.0**

- MATH 3334 - Advanced Multivariable Calculus **Credit Hours: 3.0** or
- MATH 3335 - Vector Analysis **Credit Hours: 3.0** or
- MATH 3363 - Introduction to Partial Differential Equations **Credit Hours: 3.0** or
- MATH 3364 - Introduction to Complex Analysis **Credit Hours: 3.0**

- MATH 4389 - Survey of Undergraduate Mathematics **Credit Hours: 3.0**

Additional 12 advanced Math elective hours with a minimum of 9 hours at 4000-level, which includes a Math Senior Sequence

One of the following Math Senior Sequences:

Senior Sequence 1

- MATH 4309 - Mathematical Biology **Credit Hours: 3.0**
- BIOL 4309 - Mathematical Biology **Credit Hours: 3.0**

and

- MATH 4310 - Biostatistics **Credit Hours: 3.0**
- BIOL 4310 - Biostatistics **Credit Hours: 3.0**

Senior Sequence 2

- MATH 4331 - Introduction To Real Analysis I **Credit Hours: 3.0**
- MATH 4332 - Introduction to Real Analysis II **Credit Hours: 3.0**

Senior Sequence 3

- MATH 4335 - Partial Differential Equations I **Credit Hours: 3.0**
Senior Sequence 4

MATH 4335 - Partial Differential Equations I  Credit Hours: 3.0
MATH 4362 - Theory of Differential Equations and Nonlinear Dynamics  Credit Hours: 3.0

Senior Sequence 5

MATH 4350 - Differential Geometry I  Credit Hours: 3.0
MATH 4351 - Differential Geometry II  Credit Hours: 3.0

Senior Sequence 6

MATH 4364 - Introduction to Numerical Analysis in Scientific Computing  Credit Hours: 3.0
MATH 4365 - Numerical Methods for Differential Equations  Credit Hours: 3.0

Senior Sequence 7

MATH 4364 - Introduction to Numerical Analysis in Scientific Computing  Credit Hours: 3.0
MATH 4366 - Numerical Linear Algebra  Credit Hours: 3.0

Senior Sequence 8

MATH 4377 - Advanced Linear Algebra I  Credit Hours: 3.0
MATH 4378 - Advanced Linear Algebra II  Credit Hours: 3.0

Senior Sequence 9

MATH 4320 - Introduction to Stochastic Processes  Credit Hours: 3.0
MATH 4380 - A Mathematical Introduction to Options  Credit Hours: 3.0

Suggested Program Plans

- Suggested Program - Bachelor of Science in Mathematics
- Suggested Program - Bachelors of Science in Mathematics: Option in Mathematical Finance
- Suggested Program - Bachelor's of Science in Mathematics - teachHOUSTON

Mathematics, B.S. - Option in Data Science

In addition to general university and college requirements for the Bachelor of Science degree, students majoring in Mathematics with the option in Data Science must complete the following:

Requirements

At least 30.0 advanced credit hours of mathematics, including:
Linear Algebra

- MATH 2131 - Linear Algebra Labs with MATLAB  
  Credit Hours: 1.0
- MATH 2331 - Linear Algebra  
  Credit Hours: 3.0

Advanced Mathematics Courses

At least 30.0 advanced credit hours of mathematics, which must include:

- MATH 3325 - Transition to Advanced Mathematics  
  Credit Hours: 3
- MATH 3331 - Differential Equations  
  Credit Hours: 3.0
- MATH 3333 - Intermediate Analysis  
  Credit Hours: 3.0
- MATH 3338 - Probability  
  Credit Hours: 3.0
- MATH 3339 - Statistics for the Sciences  
  Credit Hours: 3.0

  OR

- MATH 3349 - Inferential Statistics  
  Credit Hours: 3
- MATH 4322 - Introduction to Data Science and Machine Learning  
  Credit Hours: 3.0 (Senior Sequence)
- MATH 4323 - Data Science and Statistical Learning  
  Credit Hours: 3.0 (Senior Sequence)
- MATH 4389 - Survey of Undergraduate Mathematics  
  Credit Hours: 3.0

Mathematics Elective

Three credit hours of an approved MATH elective of one of the following classes:

- MATH 3330 - Abstract Algebra  
  Credit Hours: 3.0
- MATH 3334 - Advanced Multivariable Calculus  
  Credit Hours: 3.0
- MATH 4339 - Multivariate Statistics  
  Credit Hours: 3.0
- MATH 4315 - Graph Theory with Applications  
  Credit Hours: 3.0
- MATH 4320 - Introduction to Stochastic Processes  
  Credit Hours: 3.0
- MATH 4331 - Introduction To Real Analysis I  
  Credit Hours: 3.0
- MATH 4335 - Partial Differential Equations I  
  Credit Hours: 3.0
- MATH 4364 - Introduction to Numerical Analysis in Scientific Computing  
  Credit Hours: 3.0
- MATH 4366 - Numerical Linear Algebra  
  Credit Hours: 3.0
- MATH 4377 - Advanced Linear Algebra I  
  Credit Hours: 3.0

4000-level Mathematics Elective

Three additional credit hours of a 4000-level Mathematics Elective  
Credit Hours: 3.0

Computer Science (required courses)

- COSC 1306 - Computer Science & Programming  
  Credit Hours: 3.0
- COSC 2306 - Data Programming  
  Credit Hours: 3.0

  OR

* COSC 2430 - Programming and Data Structures  
  Credit Hours: 4.0

Recommended Electives
** COSC 3337 - Data Science I  **Credit Hours: 3.0
** COSC 4337 - Data Science II  **Credit Hours: 3.0

Notes

*Students requesting COSC 2430 instead of COSC 2306 should contact their Academic Advisor for more information.

**COSC 3337 & 4337 are required courses for COSC Data Science Minor

Suggested Program Plans

Suggested Program - Bachelors of Science in Mathematics: Option in Data Science

**Mathematics, B.S. - Option in Mathematical Finance**

In addition to general university and college requirements for the Bachelor of Science degree, students majoring in Mathematics with the option in Mathematical Finance must complete the following:

Requirements

At least 30 advanced semester hours of mathematics, including:

- MATH 2131 - Linear Algebra Labs with MATLAB  **Credit Hours: 1.0
- MATH 3325 - Transition to Advanced Mathematics  **Credit Hours: 3
- MATH 3331 - Differential Equations  **Credit Hours: 3.0
- MATH 3333 - Intermediate Analysis  **Credit Hours: 3.0
- MATH 3338 - Probability  **Credit Hours: 3.0
- MATH 3339 - Statistics for the Sciences  **Credit Hours: 3.0
- MATH 3340 - Introduction to Fixed Income Mathematics  **Credit Hours: 3.0
- MATH 4320 - Introduction to Stochastic Processes  **Credit Hours: 3.0 (Senior Sequence)
- MATH 4380 - A Mathematical Introduction to Options  **Credit Hours: 3.0 (Senior Sequence)
- MATH 4389 - Survey of Undergraduate Mathematics  **Credit Hours: 3.0

Three additional semester hours of mathematics at the 4000-level Mathematics elective

Accounting

- ACCT 2301 - Principles of Financial Accounting  **Credit Hours: 3.0
- ACCT 2302 - Principles of Managerial Accounting  **Credit Hours: 3.0

Economics

- ECON 3332 - Intermed Microeconomics  **Credit Hours: 3.0
- ECON 3334 - Intermed Macroeconomics  **Credit Hours: 3.0

Suggested Progam Plans
Suggested Program - Bachelors of Science in Mathematics: Option in Mathematical Finance

Mathematics, B.S. - teachHouston

Students who choose this option must complete the following requirements in addition to the special requirements for the Bachelor of Science or the Bachelor of Arts degree:

Mathematics Major - teachHOUSTON

In addition to general university and college requirements for the Bachelor of Arts or the Bachelor of Science degree, students majoring in Mathematics in the teachHouston program must complete the following:

Math Requirements

- MATH 2131 - Linear Algebra Labs with MATLAB **Credit Hours: 1.0**
  At least 30 advanced semester hours in mathematics, which must include:
  - MATH 3311 - Functions and Modeling **Credit Hours: 3.0**
  - MATH 3325 - Transition to Advanced Mathematics **Credit Hours: 3**
  - MATH 3330 - Abstract Algebra **Credit Hours: 3.0**
  - MATH 3331 - Differential Equations **Credit Hours: 3.0**
  - MATH 3333 - Intermediate Analysis **Credit Hours: 3.0**
  - MATH 3379 - Introduction to Higher Geometry **Credit Hours: 3.0**
  - MATH 4389 - Survey of Undergraduate Mathematics **Credit Hours: 3.0**
  - Additional 9 semester hours of 4000-level Mathematics electives, which includes a Math Senior Sequences

One of the following Math Senior Sequences

**Senior Sequence 1**
- MATH 4309 - Mathematical Biology **Credit Hours: 3.0**
- BIOL 4309 - Mathematical Biology **Credit Hours: 3.0**
- MATH 4310 - Biostatistics **Credit Hours: 3.0**
- BIOL 4310 - Biostatistics **Credit Hours: 3.0**

**Senior Sequence 2**
- MATH 4311 - Introduction To Real Analysis I **Credit Hours: 3.0**
- MATH 4312 - Introduction to Real Analysis II **Credit Hours: 3.0**

**Senior Sequence 3**
- MATH 4350 - Partial Differential Equations I **Credit Hours: 3.0**
- MATH 4351 - Partial Differential Equations II **Credit Hours: 3.0**

**Senior Sequence 4**
- MATH 4362 - Theory of Differential Equations and Nonlinear Dynamics **Credit Hours: 3.0**
- MATH 4363 - Theory of Differential Equations and Nonlinear Dynamics **Credit Hours: 3.0**

**Senior Sequence 5**
- MATH 4355 - Differential Geometry I **Credit Hours: 3.0**
- MATH 4356 - Differential Geometry II **Credit Hours: 3.0**
Senior Sequence 6
MATH 4364 - Introduction to Numerical Analysis in Scientific Computing Credit Hours: 3.0
MATH 4365 - Numerical Methods for Differential Equations Credit Hours: 3.0

Senior Sequence 7
MATH 4366 - Numerical Linear Algebra Credit Hours: 3.0
MATH 4364 - Introduction to Numerical Analysis in Scientific Computing Credit Hours: 3.0

Senior Sequence 8
MATH 4377 - Advanced Linear Algebra I Credit Hours: 3.0
MATH 4378 - Advanced Linear Algebra II Credit Hours: 3.0

Senior Sequence 9
MATH 4320 - Introduction to Stochastic Processes Credit Hours: 3.0
MATH 4380 - A Mathematical Introduction to Options Credit Hours: 3.0

Other Requirements
CUIN 1101 - Step 1 - Teaching Science and Mathematics Credit Hours: 1.0
CUIN 1102 - Step 2 - Teaching Science and Mathematics Credit Hours: 1.0
CUIN 3350 - Knowing and Learning Science and Math Credit Hours: 3.0
CUIN 3351 - Classroom Interactions in Science and Mathematics Credit Hours: 3.0
CUIN 3352 - Perspectives Math and Science Credit Hours: 3.0
CUIN 4350 - Multiple Teaching Strategies for Math and Science Credit Hours: 3.0
EDUC 4314 - Student Teaching: Secondary Credit Hours: 3.0
EDUC 4315 - Student Teaching: Secondary Credit Hours: 3.0

Suggested Program Plan

Suggested Program - Bachelor's of Science in Mathematics - teachHOUSTON

Suggested Program - Bachelor of Arts in Mathematics

First Year

Fall Semester Suggested Program

ENGL 1303 - First Year Writing I Credit Hours: 3.0 (Communication Core)
MATH 1431 - Calculus I Credit Hours: 4.0  
Foreign Language Credit Hours: 5.0  
HIST 1377 - The U S To 1877 Credit Hours: 3.0
Total 15 hours

Spring Semester

ENGL 1304 - First Year Writing II  **Credit Hours: 3.0** (Communication Core)
MATH 1432 - Calculus II  **Credit Hours: 4.0**
Foreign Language  **Credit Hours: 5.0**
HIST 1378 - The U.S. Since 1877  **Credit Hours: 3.0**

Total 15 hours

Second Year

Fall Semester

MATH 2331 - Linear Algebra  **Credit Hours: 3.0**
MATH 2131 - Linear Algebra Labs with MATLAB  **Credit Hours: 1.0**
MATH 2433 - Calculus III  **Credit Hours: 4.0**
Life & Physical Sciences (Must be approved for majors in the discipline.)  **Credit Hours: 3.0**
Foreign Language  **Credit Hours: 3.0**
Social & Behavioral Sciences Core  **Credit Hours: 3.0**

Total 17 hours

Spring Semester

MATH 3325 - Transition to Advanced Mathematics  **Credit Hours: 3**
MATH 3331 - Differential Equations  **Credit Hours: 3.0**
Natural Science with lab (Must be approved for majors in the discipline.)  **Credit Hours: 4.0**
Foreign Language  **Credit Hours: 3.0**
Writing in the Discipline Core  **Credit Hours: 3.0**

Total 16 hours

Third Year

Fall Semester

MATH 3333 - Intermediate Analysis  **Credit Hours: 3.0**
MATH 3330 - Abstract Algebra  **Credit Hours: 3.0**
POLS 1336 - U.S. and Texas Constitution and Politics  **Credit Hours: 3.0**
Language, Philosophy & Culture  **Credit Hours: 3.0**
Free Electives  **Credit Hours: 3.0**

Total 15 hours
Spring Semester

MATH 3334 - Advanced Multivariable Calculus Credit Hours: 3.0 or
MATH 3335 - Vector Analysis Credit Hours: 3.0 or
MATH 3364 - Introduction to Complex Analysis Credit Hours: 3.0 or
MATH 3363 - Introduction to Partial Differential Equations Credit Hours: 3.0
MATH Elective (3000- or 4000-level) Credit Hours: 3.0
Free Elective Credit Hours: 9.0

Total 15 hours

Fourth Year

Fall Semester

Math Electives (4000-level) Credit Hours: 6.0
NSM Capstone Credit Hours: 3.0
Free Electives Credit Hours: 6.0

Total 15 hours

Spring Semester

MATH 4389 - Survey of Undergraduate Mathematics Credit Hours: 3.0
Math Elective (4000-level) Credit Hours: 3.0
NSM Capstone Credit Hours: 3.0
Free Elective Credit Hours: 3.0

Total 12 hours

Note(s):
All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

Suggested Program - Bachelor of Science in Mathematics

First Year

Fall Semester

MATH 1431 - Calculus I Credit Hours: 4.0
ENGL 1303 - First Year Writing I Credit Hours: 3.0 (Communication Core)
HIST 1377 - The U S To 1877 Credit Hours: 3.0
Natural Science with lab (Must be approved for majors in the discipline.) Credit Hours: 4.0

Total 14 hours

Spring Semester

MATH 1432 - Calculus II Credit Hours: 4.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0 (Communication Core)
HIST 1378 - The U S Since 1877 Credit Hours: 3.0
Natural Science with lab (Must be approved for majors in the discipline.) Credit Hours: 4.0
Social & Behavioral Sciences Core Credit Hours: 3.0

Total 17 hours

Second Year

Fall Semester

MATH 2331 - Linear Algebra Credit Hours: 3.0
MATH 2131 - Linear Algebra Labs with MATLAB Credit Hours: 1.0
MATH 2433 - Calculus III Credit Hours: 4.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0 or equivalent
Life and Physical Science (Must be approved for majors in the discipline.) Credit Hours: 3.0
Language, Philosophy & Culture Core Credit Hours: 3.0

Total 17 hours

Spring Semester

MATH 3325 - Transition to Advanced Mathematics Credit Hours: 3
MATH 3331 - Differential Equations Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
Natural Science (Must be approved for majors in the discipline.) Credit Hours: 3.0
Writing in the Disciplines Core Credit Hours: 3.0

Total 15 hours

Third Year

Fall Semester

MATH 3333 - Intermediate Analysis Credit Hours: 3.0
MATH 3330 - Abstract Algebra Credit Hours: 3.0
Creative Arts Core Credit Hours: 3.0
Free Electives **Credit Hours: 6.0**

Total 15 hours

**Spring Semester**

- MATH 3334 - Advanced Multivariable Calculus **Credit Hours: 3.0**
- MATH 3335 - Vector Analysis **Credit Hours: 3.0**
- MATH 3364 - Introduction to Complex Analysis **Credit Hours: 3.0**
- MATH 3363 - Introduction to Partial Differential Equations **Credit Hours: 3.0**
- Math Elective (3000- or 4000-level) **Credit Hours: 3.0**
- Free Electives **Credit Hours: 9.0**

Total 15 hours

**Fourth Year**

**Fall Semester**

- MATH Electives (4000-level) **Credit Hours: 6.0**
- NSM Capstone **Credit Hours: 3.0**
- Free Electives **Credit Hours: 6.0**

Total 15 hours

**Spring Semester**

- MATH 4389 - Survey of Undergraduate Mathematics **Credit Hours: 3.0**
- Math Elective (4000-level) **Credit Hours: 3.0**
- NSM Capstone **Credit Hours: 3.0**
- Free Elective **Credit Hours: 3.0**

Total 12 hours

**Note(s):**

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

**Suggested Program - Bachelor's of Arts in Mathematics teachHOUSTON**

**First Year**

**Fall Semester**
MATH 1431 - Calculus I Credit Hours: 4.0
ENGL 1303 - First Year Writing I Credit Hours: 3.0 (Communication Core)
HIST 1377 - The U S To 1877 Credit Hours: 3.0
Foreign Language Credit Hours: 3.0 ¹¹
CUIN 1101 - Step 1 - Teaching Science and Mathematics Credit Hours: 1.0

Total 14 hours

Spring Semester

MATH 1432 - Calculus II Credit Hours: 4.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0 (Communications Core)
HIST 1378 - The U S Since 1877 Credit Hours: 3.0
Foreign Language Credit Hours: 3.0 ¹¹
CUIN 1102 - Step 2 - Teaching Science and Mathematics Credit Hours: 1.0

Total 14 hours

Second Year

Fall Semester

MATH 2331 - Linear Algebra Credit Hours: 3.0
MATH 2131 - Linear Algebra Labs with MATLAB Credit Hours: 1.0
MATH 2433 - Calculus III Credit Hours: 4.0
CUIN 3350 - Knowing and Learning Science and Math Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0 or equivalent
Foreign Language Credit Hours: 3.0 ¹¹

Total 17 hours

Spring Semester

MATH 3325 - Transition to Advanced Mathematics Credit Hours: 3
MATH 3331 - Differential Equations Credit Hours: 3.0
Foreign Language Credit Hours: 3.0 ¹¹
CUIN 3352 - Perspectives Math and Science Credit Hours: 3.0
Free Elective Credit Hours: 1.0

Total 13 hours

Summer Semester

Natural Sciences with lab. (All Natural Science hours must be in the same discipline, and approved for majors in that discipline.) Credit Hours: 7.0
Total 7 hours

Third Year

Fall Semester

MATH 3333 - Intermediate Analysis **Credit Hours: 3.0**
MATH 3311 - Functions and Modeling **Credit Hours: 3.0**
CUIN 3351 - Classroom Interactions in Science and Mathematics **Credit Hours: 3.0**

Social & Behavioral Sciences Core **Credit Hours: 3.0**
POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Total 15 hours

Spring Semester

MATH 3330 - Abstract Algebra **Credit Hours: 3.0**
MATH 3379 - Introduction to Higher Geometry **Credit Hours: 3.0**
BIOL 4340 - Research Methods **Credit Hours: 3.0** (Approved Natural Sciences) or
CHEM 4340 - Research Methods **Credit Hours: 3.0** (Approved Natural Sciences) or
PHYS 4340 - Research Methods **Credit Hours: 3.0** (Approved Natural Sciences)

Visual and Performing Arts Core **Credit Hours: 3.0**
Free Elective **Credit Hours: 3.0**

Total 15 hours

Summer Semester

MATH 4377 - Advanced Linear Algebra I **Credit Hours: 3.0**
MATH 4378 - Advanced Linear Algebra II **Credit Hours: 3.0**

Visual and Performing Arts Core **Credit Hours: 3.0**

Total 9 hours

Fourth Year

Fall Semester

CUIN 4350 - Multiple Teaching Strategies for Math and Science **Credit Hours: 3.0**
Free Elective **Credit Hours: 3.0**
MATH Elective at the 4000 level **Credit Hours: 3.0**
MATH 4389 - Survey of Undergraduate Mathematics **Credit Hours: 3.0**

Total 12 hours
Spring Semester

EDUC 4314 - Student Teaching: Secondary  **Credit Hours: 3.0**
EDUC 4315 - Student Teaching: Secondary  **Credit Hours: 3.0**
Free Elective  **Credit Hours: 3.0**
Free Elective  **Credit Hours: 3.0**

Total 12 hours

**Suggested Program - Bachelor's of Science in Mathematics - teachHOUSTON**

First Year

Fall Semester

MATH 1431 - Calculus I  **Credit Hours: 4.0**
ENGL 1303 - First Year Writing I  **Credit Hours: 3.0** (Communication Core)
HIST 1377 - The U S To 1877  **Credit Hours: 3.0**
Natural Science with lab (Must be approved for majors in the discipline.)  **Credit Hours: 4.0**
CUIN 1101 - Step 1 - Teaching Science and Mathematics  **Credit Hours: 1.0**

Total 15 hours

Spring Semester

MATH 1432 - Calculus II  **Credit Hours: 4.0**
ENGL 1304 - First Year Writing II  **Credit Hours: 3.0** (Communications Core)
HIST 1378 - The U S Since 1877  **Credit Hours: 3.0**
Natural Science with lab (Must be approved for majors in the discipline.)  **Credit Hours: 4.0**
CUIN 1102 - Step 2 - Teaching Science and Mathematics  **Credit Hours: 1.0**

Total 15 hours

Second Year

Fall Semester

MATH 2331 - Linear Algebra  **Credit Hours: 3.0**
MATH 2131 - Linear Algebra Labs with MATLAB  **Credit Hours: 1.0**
MATH 2433 - Calculus III  **Credit Hours: 4.0**
CUIN 3350 - Knowing and Learning Science and Math  **Credit Hours: 3.0**
POLS 1336 - U.S. and Texas Constitution and Politics  **Credit Hours: 3.0** or equivalent
Language, Philosophy & Culture Core  **Credit Hours: 3.0**
Total 17 hours

Spring Semester

- MATH 3325 - Transition to Advanced Mathematics **Credit Hours: 3**
- MATH 3331 - Differential Equations **Credit Hours: 3.0**
- Natural Science (Must be approved for majors in the discipline.) **Credit Hours: 3.0**
- CUIN 3352 - Perspectives Math and Science **Credit Hours: 3.0**
- Free Elective **Credit Hours: 1.0**

Total 13 hours

Third Year

Fall Semester

- MATH 3333 - Intermediate Analysis **Credit Hours: 3.0**
- MATH 3311 - Functions and Modeling **Credit Hours: 3.0**
- CUIN 3351 - Classroom Interactions in Science and Mathematics **Credit Hours: 3.0**
- Visual and Performing Arts Core **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Total 15 hours

Spring Semester

- MATH 3330 - Abstract Algebra **Credit Hours: 3.0**
- MATH 3379 - Introduction to Higher Geometry **Credit Hours: 3.0**
- BIOL 4340 - Research Methods **Credit Hours: 3.0** (Approved Natural Science) or
  - CHEM 4340 - Research Methods **Credit Hours: 3.0** (Approved Natural Science) or
  - PHYS 4340 - Research Methods **Credit Hours: 3.0** (Approved Natural Science)
- Social & Behavioral Sciences Core **Credit Hours: 3.0**
- Free Elective **Credit Hours: 3.0**

Total 15 hours

Summer Semester

- MATH 4377 - Advanced Linear Algebra I **Credit Hours: 3.0**
- MATH 4378 - Advanced Linear Algebra II **Credit Hours: 3.0**

Total 6 hours

Fourth Year
Fall Semester

CUIN 4350 - Multiple Teaching Strategies for Math and Science Credit Hours: 3.0
Free Elective Credit Hours: 3.0
MATH Elective (4000 level) Credit Hours: 3.0
MATH 4389 - Survey of Undergraduate Mathematics Credit Hours: 3.0

Total 12 hours

Spring Semester

EDUC 4314 - Student Teaching: Secondary Credit Hours: 3.0
EDUC 4315 - Student Teaching: Secondary Credit Hours: 3.0
Free Elective Credit Hours: 3.0
Free Elective Credit Hours: 3.0

Total 12 hours

Suggested Program - Bachelors of Science in Mathematics: Option in Mathematical Finance

First Year

Fall Semester

MATH 1431 - Calculus I Credit Hours: 4.0
ENGL 1303 - First Year Writing I Credit Hours: 3.0 (Communications Core)
HIST 1377 - The U S To 1877 Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
Natural Science with lab (Must be approved for majors in the discipline.) Credit Hours: 4.0

Total 17 hours

Spring Semester

MATH 1432 - Calculus II Credit Hours: 4.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0 (Communications Core)
HIST 1378 - The U S Since 1877 Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0
Natural Science with lab (Must be approved for majors in the discipline.) Credit Hours: 4.0

Total 17 hours

Second Year
Fall Semester

MATH 2331 - Linear Algebra Credit Hours: 3.0
MATH 2131 - Linear Algebra Labs with MATLAB Credit Hours: 1.0
MATH 2433 - Calculus III Credit Hours: 4.0
ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
ECON 3332 - Intermed Microeconomics Credit Hours: 3.0
Life and Physical Science Core (Must be approved for majors in the discipline.) Credit Hours: 3.0

Total 17 hours

Spring Semester

MATH 3325 - Transition to Advanced Mathematics Credit Hours: 3
MATH 3331 - Differential Equations Credit Hours: 3.0
ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
ECON 3334 - Intermed Macroeconomics Credit Hours: 3.0
Natural Science (Must be approved for majors in the discipline.) Credit Hours: 3.0

Total 15 hours

Third Year

Fall Semester

MATH 3340 - Introduction to Fixed Income Mathematics Credit Hours: 3.0
MATH 3338 - Probability Credit Hours: 3.0
Free Electives Credit Hours: 6.0 13
Language, Philosophy & Culture Core Credit Hours: 3.0

Total 15 hours

Spring Semester

MATH 3339 - Statistics for the Sciences Credit Hours: 3.0
NSM Capstone (Students in the Finance Option are strongly encouraged to take a minor in Finance or Economics) Credit Hours: 3.0
MATH 3333 - Intermediate Analysis Credit Hours: 3.0
Free Electives Credit Hours: 3.0 13
Visual and Performing Arts Core Credit Hours: 3.0

Total 15 hours

Fourth Year

Fall Semester
MATH 4320 - Introduction to Stochastic Processes Credit Hours: 3.0
MATH Elective at the 4000-level Credit Hours: 3.0
Free Electives Credit Hours: 3.0
NSM Capstone (Students in the Finance Option are strongly encouraged to take a minor in Finance or Economics) Credit Hours: 3.0

Total 12 hours

Spring Semester

MATH 4380 - A Mathematical Introduction to Options Credit Hours: 3.0
MATH 4389 - Survey of Undergraduate Mathematics Credit Hours: 3.0
Free Elective Credit Hours: 6.0

Total 12 hours

Minor

Mathematics Minor

Students who choose to minor in mathematics must complete the general requirements for a minor as well as a minimum of 18 semester hours of mathematics courses, of which at least nine must be advanced (3000-4000 level). Of the nine or more advanced hours, at least three semester hours must be at the 4000-level and no special problems or selected topics courses are permitted.

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions will not be included in the minor grade point average.

Department of Physics

Who's Who in the Department of Physics

Chair:

Gemunu Gunaratne

Professors:


Associate Professors:
Overview

Physicists formulate mathematical descriptions of nature that constitute a set of theories to provide the best and most detailed predictive capability in all situations. Physicists also devise and carry out experiments designed to probe the unknown and test these theories. When confronted with experimental evidence that contradicts these theories or are beyond their reach, physicists either revise them to accommodate the new data or else abandon them in favor of better models. Students majoring in physics must have a strong foundation in mathematics and an overwhelming curiosity about how nature works. Generally, physicists tend either to be more primarily focused on doing experiments or to concentrate on making the mathematical models.

The Department of Physics offers the Bachelor of Science (B.S.) in physics and Bachelor of Arts (B.A.) in physics.

The demand for trained physicists is strong. Graduates with the B.S. in physics are prepared to enter physics graduate programs leading to the master’s or doctoral degrees in physics. They also find entry level positions in the aerospace industry, the high-tech materials and electronics industries, and in fields as diverse as commodities or stock brokerage, health care, and the energy industry. Graduates with a B.A. in physics are generally prepared to teach physics at the high school level once they have obtained appropriate teacher certification.

The department’s teaching and research fields of specialization include atmospheric and space physics, biological and medical physics, statistical physics, physics of finance, radiation science, superconductivity, surface physics, signal and image processing, high energy, medium energy, and heavy ion physics, high-performance distributed computing, and seismic physics. Research opportunities are available for highly motivated undergraduate students in faculty laboratories and such participation is strongly encouraged.

Major

Physics, B.A.

Students who choose to major in physics must meet the following requirements in addition to the special requirements for the Bachelor of Arts degree:

Suggested Program

Mathematics: 24 semester hours (nine advanced) which must include

- MATH 1431 - Calculus I Credit Hours: 4.0
- MATH 1432 - Calculus II Credit Hours: 4.0
- MATH 2331 - Linear Algebra Credit Hours: 3.0
- MATH 2433 - Calculus III Credit Hours: 4.0
- MATH 3331 - Differential Equations Credit Hours: 3.0

Chemistry:
CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
CHEM 1112 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0
CHEM 1332 - Fundamentals of Chemistry 2  Credit Hours: 3.0

Physics: 31 semester hours (23 advanced) which must include

PHYS 1321 - University Physics I  Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I  Credit Hours: 1.0
PHYS 1322 - University Physics II  Credit Hours: 3.0
PHYS 1122 - University Physics Laboratory II  Credit Hours: 1.0
PHYS 3110 - Seminar in Advanced Laboratory Analysis  Credit Hours: 1.0
PHYS 3315 - Modern Physics  Credit Hours: 3.0
PHYS 3313 - Advanced Laboratory I  Credit Hours: 3.0
PHYS 3312 - Modern Optics  Credit Hours: 3.0 and
PHYS 3112 - Modern Optics Laboratory  Credit Hours: 1.0

or

PHYS 4421 - Electronic Devices and Their Applications  Credit Hours: 4.0

Physics, B.S.

Students who choose to major in physics must complete the following requirements in addition to the special requirements for the Bachelor of Science degree:

Suggested Program

Mathematics: 24 semester hours:

MATH 1431 - Calculus I  Credit Hours: 4.0
MATH 1432 - Calculus II  Credit Hours: 4.0
MATH 2331 - Linear Algebra  Credit Hours: 3.0
MATH 2433 - Calculus III  Credit Hours: 4.0
MATH 3331 - Differential Equations  Credit Hours: 3.0
MATH 3363 - Introduction to Partial Differential Equations  Credit Hours: 3.0
MATH 3364 - Introduction to Complex Analysis  Credit Hours: 3.0

Chemistry:

CHEM 1111 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
CHEM 1112 - Fundamentals of Chemistry Laboratory  Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry  Credit Hours: 3.0
CHEM 1332 - Fundamentals of Chemistry 2  Credit Hours: 3.0

Physics: 42 semester hours (34 advanced) which must include

PHYS 1321 - University Physics I  Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I  Credit Hours: 1.0
PHYS 1322 - University Physics II **Credit Hours: 3.0**
PHYS 1122 - University Physics Laboratory II **Credit Hours: 1.0**
PHYS 3309 - Intermediate Mechanics **Credit Hours: 3.0**
PHYS 3110 - Seminar in Advanced Laboratory Analysis **Credit Hours: 1.0**
PHYS 3214 - Advanced Laboratory II **Credit Hours: 2.0**
PHYS 3313 - Advanced Laboratory I **Credit Hours: 3.0**
PHYS 3315 - Modern Physics **Credit Hours: 3.0**
PHYS 3316 - Quantum Mechanics **Credit Hours: 3.0**
PHYS 3327 - Thermal Physics **Credit Hours: 3.0**
PHYS 4321 - Intermediate Electromagnetic Theory I **Credit Hours: 3.0**
PHYS 4322 - Intermediate Electromagnetic Theory II **Credit Hours: 3.0**

PHYS 3312 - Modern Optics **Credit Hours: 3.0** and
PHYS 3112 - Modern Optics Laboratory **Credit Hours: 1.0**
or
PHYS 4421 - Electronic Devices and Their Applications **Credit Hours: 4.0**

6 hours approved advanced PHYS elective **Credit hours: 6.0**

**Suggested Program Plan for Bachelor of Arts in Physics**

**First Year**

**Fall Term**

ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
CHEM 1331 - Fundamentals of Chemistry **Credit Hours: 3.0**
CHEM 1111 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
MATH 1431 - Calculus I **Credit Hours: 4.0**
Social/Behavioral Sciences Core Courses **Credit Hours: 3.0**

Total 14

**Spring Term**

ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
CHEM 1332 - Fundamentals of Chemistry 2 **Credit Hours: 3.0**
CHEM 1112 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
MATH 1432 - Calculus II **Credit Hours: 4.0**
PHYS 1321 - University Physics I **Credit Hours: 3.0**
PHYS 1121 - University Physics Laboratory I **Credit Hours: 1.0**

Total 15

**Second Year**
Fall Term

MATH 2331 - Linear Algebra **Credit Hours: 3.0**
MATH 2433 - Calculus III **Credit Hours: 4.0**
PHYS 1322 - University Physics II **Credit Hours: 3.0**
PHYS 1122 - University Physics Laboratory II **Credit Hours: 1.0**
HIST 1377 - The U S To 1877 **Credit Hours: 3.0** or equivalent
Foreign Language (1000 level) **Credit Hours: 3.0**

Total 17

Spring Term

MATH 3331 - Differential Equations **Credit Hours: 3.0**
PHYS 3315 - Modern Physics **Credit Hours: 3.0**
PHYS 3110 - Seminar in Advanced Laboratory Analysis **Credit Hours: 1.0**
PHYS 3313 - Advanced Laboratory I **Credit Hours: 3.0**
Foreign Language (1000 level) **Credit Hours: 3.0**
HIST 1378 - The U S Since 1877 **Credit Hours: 3.0** or equivalent

Total 16

Third Year

Fall Term

Mathematics Elective (3000-or 4000-level) **Credit Hours: 3.0**
Life & Physical Sciences Core Course **Credit Hours: 3.0**
POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0** or equivalent
Physics Electives (3000- or 4000-level) **Credit Hours: 3.0**
Foreign Language (2000 level) **Credit Hours: 3.0**

Total 15

Spring Term

Mathematics Elective (3000- or 4000-level) **Credit Hours: 3.0**
Physics Electives (3000- or 4000-level) **Credit Hours: 3.0**
POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**
Creative Arts Core Course **Credit Hours: 3.0**
Foreign Language (2000 level) **Credit Hours: 3.0**

Total 15

Fourth Year
Fall Term

Physics Elective (3000- or 4000-level) **Credit Hours: 3.0**
NSM Capstone or Free elective **Credit Hours: 6.0**

PHYS 3312 - Modern Optics **Credit Hours: 3.0** and
PHYS 3112 - Modern Optics Laboratory **Credit Hours: 1.0**
or
PHYS 4421 - Electronic Devices and Their Applications **Credit Hours: 4.0**

Language, Philosophy & Culture **Credit Hours: 3.0**

Total 16

Spring Term

Physics Elective (3000- or 4000-level) **Credit Hours: 3.0**
NSM Capstone or Minor **Credit Hours: 3.0**
Free Electives **Credit Hours: 3.0**
Life & Physical Sciences Core Course **Credit Hours: 3.0**

Total 12

Note(s):

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

**Suggested Program Plan for Bachelor of Science in Physics**

First Year

Fall Semester

ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
CHEM 1331 - Fundamentals of Chemistry **Credit Hours: 3.0**
CHEM 1111 - Fundamentals of Chemistry Laboratory **Credit Hours: 1.0**
MATH 1431 - Calculus I **Credit Hours: 4.0**
Social/Behavioral Sciences Core Course **Credit Hours: 3.0**

Total 14

Spring Semester

ENGL 1304 - First Year Writing II **Credit Hours: 3.0**
CHEM 1332 - Fundamentals of Chemistry 2 **Credit Hours: 3.0**
CHEM 1112 - Fundamentals of Chemistry Laboratory  
Credit Hours: 1.0
MATH 1432 - Calculus II  
Credit Hours: 4.0
PHYS 1321 - University Physics I  
Credit Hours: 3.0
PHYS 1121 - University Physics Laboratory I  
Credit Hours: 1.0

Total 15

Second Year

Fall Semester

MATH 2331 - Linear Algebra  
Credit Hours: 3.0
MATH 2433 - Calculus III  
Credit Hours: 4.0
PHYS 1322 - University Physics II  
Credit Hours: 3.0
PHYS 1122 - University Physics Laboratory II  
Credit Hours: 1.0
HIST 1377 - The U.S To 1877  
Credit Hours: 3.0

Total 14

Spring Semester

MATH 3331 - Differential Equations  
Credit Hours: 3.0
PHYS 3315 - Modern Physics  
Credit Hours: 3.0
PHYS 3110 - Seminar in Advanced Laboratory Analysis  
Credit Hours: 1.0
PHYS 3313 - Advanced Laboratory I  
Credit Hours: 3.0
HIST 1378 - The U.S Since 1877  
Credit Hours: 3.0
Language, Philosophy & Culture Core Course  
Credit Hours: 3.0

Total 16

Third Year

Fall Semester

MATH 3364 - Introduction to Complex Analysis  
Credit Hours: 3.0
PHYS 3214 - Advanced Laboratory II  
Credit Hours: 2.0
PHYS 3316 - Quantum Mechanics  
Credit Hours: 3.0
PHYS 3309 - Intermediate Mechanics  
Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics  
Credit Hours: 3.0

Total 14

Spring Semester

MATH 3363 - Introduction to Partial Differential Equations  
Credit Hours: 3.0
Life & Physical Sciences Core Course **Credit Hours: 3.0**
PHYS 3327 - Thermal Physics **Credit Hours: 3.0**
POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0** or equivalent
Free Elective, Minor Course **Credit Hours: 3.0**
Creative Arts Core Course **Credit Hours: 3.0**

Total 18

Fourth Year

Fall Semester

PHYS 4321 - Intermediate Electromagnetic Theory I **Credit Hours: 3.0**
PHYS 3312 - Modern Optics **Credit Hours: 3.0** and
PHYS 3112 - Modern Optics Laboratory **Credit Hours: 1.0**
or
PHYS 4421 - Electronic Devices and Their Applications **Credit Hours: 4.0**

Physics Elective (3000- or 4000-level) **Credit Hours: 3.0**
NSM Capstone Course, Minor or Free Elective **Credit Hours: 3.0**
Natural Science Approved Course **Credit Hours: 3.0**

Total 16

Spring Semester

PHYS 4322 - Intermediate Electromagnetic Theory II **Credit Hours: 3.0**
Physics Elective (3000- or 4000-level) **Credit Hours: 3.0**
NSM Capstone Course or Minor or Free Elective **Credit Hours: 7.0**

Total 13

Note(s):

All students are responsible for the completion of 36 advanced semester hours required for a University of Houston degree.

**Minor**

**Physics Minor**

Students who choose to minor in physics must complete the general requirements for a minor as well as the following:

Requirements
Physics: 21 semester hours (13 advanced) which must include

- PHYS 1321 - University Physics I **Credit Hours: 3.0**
- PHYS 1121 - University Physics Laboratory I **Credit Hours: 1.0**
- PHYS 1322 - University Physics II **Credit Hours: 3.0**
- PHYS 1122 - University Physics Laboratory II **Credit Hours: 1.0**
- PHYS 3315 - Modern Physics **Credit Hours: 3.0**

**Note(s):**

No Selected Topics or Independent Study courses may be used to meet the 13 advanced hours requirement.

Students should consult the Academic Regulations and Degree Requirements section of this catalog for general information on the requirements for minors. Students must earn a 2.00 minimum cumulative grade point average on all courses attempted in the minor discipline at the University of Houston. Courses which by catalog statement cannot be applied toward a degree in Natural Sciences and Mathematics, or which have other relevant catalog restrictions will not be included in the minor grade point average.
NSM Footnotes

1 Qualified students are urged to take the advanced placement examinations.

2 Students should enter MATH 1431 if qualified to do so.

3 Only offered in the fall terms.

4 Only offered in the spring terms.

5 Only offered in the spring terms.

6 Students must have two labs in the same discipline. All natural science courses must be courses for science majors.

7 Three approved advanced hours from MIS 3360, and one of MIS 4374, or MIS 4379, or MIS 4378.

8 Students not qualified to enter MATH 1431 must complete MATH 1300, MATH 1310, and/or MATH 1330, as indicated by results of the Mathematics placement examination.

10 Placement into beginning Math Courses is determined by the math Placement Exam. Based on their math placement scores students may need to take a prerequisite course.

11 If 1000 level foreign language is not required as a prerequisite, foreign language at the 2000 level may be taken the first year. Electives may be chosen to fulfill the required number of hours.

12 The seven hours of Natural Science must include a laboratory course. Courses selected must be designated as approved for majors in the subject.

13 At least 36 advanced semester hours are required for graduation.

14 The fourteen hours of Natural Science must include 2 labs in a single discipline. Courses selected must be designated as approved for majors in that subject.

15 Students must complete at least 12 hours in Mathematics at the 4000-level, which must include MATH 4389 and 6 hours approved as a Senior sequence.

16 The NSM capstone requirement may be met by completing a minor in another discipline, completing a Senior Honors Thesis, completing MATH 3396 - Senior Research Project; MATH 4396 - Senior Research Project. Most students should plan on taking a minor.

17 Free electives must include six semester hours of 2000-level foreign language.

18 Mathematics majors are strongly encouraged to include Computer Science courses in their electives.
College of Nursing

Contact

<table>
<thead>
<tr>
<th>College of Nursing Administration Office</th>
<th>Address</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>University of Houston at Sugar Land&lt;br&gt;Brazos Hall Building (Third Floor)&lt;br&gt;14000 University Boulevard&lt;br&gt;Sugar Land, TX 77479</td>
<td>832 842-8200</td>
</tr>
</tbody>
</table>

Faculty Leadership

| Founding Dean and Professor / Humana Endowed Dean's Chair in Nursing | Kathryn Tart, EdD, MSN, RN; BA Luther College; MSN University of Texas Health Science Center at San Antonio; EdD University of Houston |
| Associate Dean / MSN Director / Clinical Professor | Kathleen Reeve DrPH, ANP-BC, FNP-C; BSN University of Texas Health Science Center at Houston; MSN University of Texas Health Science Center at Houston; Adult Nurse Practitioner (ANP) University of Texas Health Science Center at Houston; DrPH University of Texas Health Science Center at Houston; Family Nurse Practitioner (FNP) Prairie View A&M University |
| BSN Director / Clinical Assistant Professor | Patricia Schrader Ph.D., MSN, RN, CMSRN, Ph.D.; BSN Baylor University; MSN The University of Texas Health Science Center at Houston; Ph.D. Texas Woman’s University 2018 |
| Interim Second Degree BSN Track Manager / Clinical Assistant Professor | Danielle Quintana MSN, RN, CNOR; BSN Thomas Edison State University; MSN Thomas Edison State University; Post-Masters Nurse Educator Certificate Carey Edwards School of Nursing; Certification of Operating Room Nursing (Emeritus); Current student, Texas Woman’s University, Doctor of Philosophy in Nursing Program. |
| RN to BSN Track Manager / Clinical Assistant Professor | Andrea Brooks Ph.D., RN, PPCNP-BC; BSN University of Texas Medical Branch of Galveston; MS Texas Woman’s University; Post-Master’s Certificate in Nursing Education; Texas Woman’s University; Ph.D. Nursing Science, Texas Woman’s University. |

About the College

The University of Houston College of Nursing offers upper level and graduate nursing education primarily to Fort Bend County, Harris, and surrounding counties in Texas. Undergraduate tracks include the RN to BSN for registered nurses who wish to pursue a baccalaureate degree in nursing, the Second Degree BSN for individuals who have completed a university degree and wish to become a registered nurse, and the Traditional BSN track is designed for the University of Houston College of Nursing (CON) Pre-Nursing student who wants to pursue a Nursing major beginning the junior year.

The Master of Science in Nursing offers tracks in nursing education, nursing administration, and family nurse practitioner.
Accreditation

The College of Nursing has full approval from the Texas Board of Nursing. The RN-BSN program, Second Degree BSN program, and MSN program in Nurse Administration, Nurse Education, and Family Nurse Practitioner have approval from the Texas Higher Education Coordinating Board. The baccalaureate degree in nursing and master's degree in nursing program at the University of Houston are accredited by the Commission on Collegiate Nursing Education (CCNE), One Dupont Circle, NW, Suite 530, Washington, DC. 20036, Telephone 202-887-6791, www.aacn.nche.edu/ccne-accreditation.

Mission

The Mission of the University of Houston College Of Nursing is to provide innovative, dynamic, and nationally competitive nursing education to a diverse student population that builds professional leaders and clinical experts.

The University Of Houston College Of Nursing is committed to serving educational needs, supporting lifelong learning, advancing excellence in regional and global health care through strong inter-professional collaborations and partnerships while advancing scholarship, research, leadership and service.

Shared Values of the Mission

As its primary goal, the College of Nursing is dedicated to promoting nursing excellence. We uphold the values of nursing:

- Integrity
- Honesty
- Accountability
- Compassion
- Respect for all people

Vision

NURSING. EXCELLENCE. PERIOD.

Goals

College of Nursing Goals

Provide accessible student-centered educational programs that blend innovative technology and face-to-face support.
Prepare valued nurse leaders for the communities served.
Maintain excellence in baccalaureate and graduate nursing curricula.
Develop strong clinical and service liaisons and partnerships with community groups, health care agencies, alumni, and other interested individuals.
Advance the nursing profession through faculty scholarship and professional involvement.

Professional Affiliations, Honor Societies, and Student Organizations

Sigma Theta Tau International - Phi Chi Chapter

Programs
Nursing, B.S.N. (RN - BSN)
Nursing, B.S.N. (Second Degree)
Nursing, B.S.N. (Traditional)

Other

Nursing, B.S.N. (RN - BSN)

The Bachelor of Science in Nursing (BSN) has three tracks.

The RN to BSN Track is a completion program, specifically designed for registered nurses who have earned their associate degree and subsequent RN licensure.

The Second Degree BSN (Second Degree) Track is a twelve-month, intensive, full-time course of study for people holding bachelor's or master's degrees in other fields who want to become registered nurses (RNs). This accelerated track is designed to facilitate a career change for the more mature and experienced student.

The Nursing, B.S.N. (Traditional) Track is designed for incoming University of Houston freshmen with no college credits. Students are eligible to apply to the CON Traditional BSN Track once they have completed 45 SCH in residence at University of Houston.

RN - BSN (Track) Overview

The primary educational objective of the RN to BSN Track is to increase the career and educational opportunities available to registered nurses in the university's service region. Graduates of the program will have a broader understanding of the nursing profession and will bring that understanding to the practice of nursing in their places of employment. Graduates will be prepared to assume some leadership and management roles.

All applicants must satisfy university requirements for an undergraduate degree in addition to the RN to BSN Track requirements below:

Applicants to the RN to BSN Track must have graduated from an accredited associate degree or diploma program. Applicants who have completed an international nursing diploma program that is not affiliated to a university may not have satisfied the Associate Degree requirement for admission to the University of Houston College of Nursing undergraduate RN to BSN Track due to the non-academic nature of this type of coursework. Contact an International Student Advisor in the University of Houston Admissions Office for additional information.

Applicants must provide evidence of an unencumbered, current Texas Registered Nurse license.

Applicants must have completed all prerequisite course work prior to enrolling in the program.

Undergraduate Program Goals

At the end of the undergraduate educational program, the graduate will:

Synthesize knowledge from the biological sciences, social sciences, behavioral sciences, humanities and nursing to provide appropriate culturally sensitive care to individuals, families and communities.
Demonstrate effective interpersonal communication, collaboration with other professionals, and leadership and management skills.
Critically analyze and apply research finds to nursing practice related to disease prevention, health promotion, illness care and restoration of health.
Utilize critical thinking skills to evaluate the outcomes of nursing care.
Serve as client advocates by providing health education and in monitoring and promoting access to cost-effective care.
Encourage lifelong learning and create a foundation for graduate study.
Integrate professional values and ethical, moral and legal aspects of nursing into practice in a variety of structured and unstructured settings.
Course Requirements:

Applicants must satisfy all university core requirements for an undergraduate degree in addition to the track requirements below:

Lower Division:

- 3 credit hours of statistics
- 8 credit hours of human anatomy and physiology
- 4 credit hours of Microbiology
- 3 credit hours of Physical Science course (Chemistry preferred)
- RN-BSN applicants will be given 33 credit hours of advanced placement credit for successful completion of nursing courses and subsequent unencumbered, current Texas Registered Nurse license.
- 6 credit hours of Psychology:
  - PSYC 1300 - Introduction to Psychology  Credit Hours: 3.0
  - HDFS 2317 - Introduction to Human Development and Interventions  Credit Hours: 3.0

Upper Division:

Thirty (30) credit hours of Nursing courses:

- NURS 3310 - Professional Role Development and Practice Issues  Credit Hours: 3.0
- NURS 3311 - Health Assessment Across the Life Span  Credit Hours: 3.0
- NURS 3315 - Pathophysiology  Credit Hours: 3.0
- NURS 4212 - Informatics in Health Care  Credit Hours: 2.0
- NURS 4312 - Leadership and Management in Professional Nursing Practice  Credit Hours: 3.0
  Preferred Course to Satisfy Core Req. IX(b) Writing in the Disciplines
- NURS 4314 - Nursing Research  Credit Hours: 3.0
- NURS 4322 - Policy and Ethics in Professional Nursing Practice  Credit Hours: 3.0
- NURS 4520 - Concept Integration in Patient Care Management  Credit Hours: 5.0
- NURS 4521 - Community Health Nursing  Credit Hours: 5.0

Nursing, B.S.N. (Second Degree)

The Bachelors of Science in Nursing (BSN) has three tracks.

The Second Degree BSN Track is a twelve-month, intensive, full-time course of study for people holding bachelor’s or master’s degrees in other fields who want to become registered nurses (RNs). This accelerated track is designed to facilitate a career change for the more mature and experienced student.

The Nursing, B.S.N. (Traditional) Track is designed for incoming University of Houston freshmen with no college credits. Students are eligible to apply to the CON Traditional BSN Track once they have completed 45 SCH of the nursing degree plan in residence at University of Houston.

The RN to BSN Track is a completion program, specifically designed for registered nurses who have earned their associate degree and subsequent RN licensure.

Second Degree Bachelor of Science in Nursing Overview
The objective of the Second Degree BSN track is to produce graduates for professional nursing practice who can draw upon knowledge from the biological sciences, social sciences, humanities and nursing to critically analyze human responses to actual and potential health problems and provide appropriate nursing interventions. The Second Degree bachelors program is a twelve-month intensive full-time course of study for people holding bachelors or master's degrees in other fields who want to become registered nurses (RNs). This track is designed to facilitate a career change for the more mature and experienced student.

All applicants must satisfy university requirements for an undergraduate degree in addition to the Second Degree BSN track requirements below:

Applicants to the Second Degree BSN track must have graduated with an accredited Bachelor's degree. Applicants who completed an international Bachelor's degree may not have satisfied degree requirement for admission to the University of Houston College of Nursing undergraduate Second Degree BSN track. Contact an International Student Advisor in the University of Houston Admissions Office for additional information.

Applicants to the Second Degree BSN must submit a completed social security number form to UH College of Nursing by fax to 713-743-1164. The form is available on the College of Nursing website at uh.edu/nursing.

Applicants to the second degree BSN program must have a cumulative GPA of at least 3.0 and a GPA of 3.0 in natural and behavioral sciences is expected. (Science courses taken more than five years ago will be evaluated on an individual basis and may have to be repeated.) Applicants to the second degree BSN program must have completed all prerequisite course work prior to the deadline date. No "in progress" course work will be considered.

Applicants to the second degree BSN track must pass the College approved pre-admission test.

Upon successful completion of the program the graduate will write the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Satisfactory achievement on the examination will qualify the graduate for licensure as a Registered Nurse.

Program Goals

At the end of the undergraduate educational program, the graduate will:

- Synthesize knowledge from the biological sciences, social sciences, behavioral sciences, humanities and nursing to provide appropriate culturally sensitive care to individuals, families and communities.
- Demonstrate effective interpersonal communication, collaboration with other professionals, and leadership and management skills.
- Critically analyze and apply research finds to nursing practice related to disease prevention, health promotion, illness care and restoration of health.
- Utilize critical thinking skills to evaluate the outcomes of nursing care.
- Serve as client advocates by providing health education and in monitoring and promoting access to cost-effective care.
- Encourage lifelong learning and create a foundation for graduate study.
- Integrate professional values and ethical, moral and legal aspects of nursing into practice in a variety of structured and unstructured settings.

Course Requirements:

Applicants must satisfy all university core requirements for a second undergraduate degree in addition to the Second Degree BSN track requirements below:

Lower Division:

3 credit hours of statistics.
3 credit hours of nutrition.
8 credit hours of human anatomy and physiology.
4 credit hours of Chemistry (may take introductory chemistry or general chemistry).
4 credit hours of Microbiology
6 credit hours of Psychology:
PSYC 1300 - Introduction to Psychology  Credit Hours: 3.0
HDFS 2317 - Introduction to Human Development and Interventions  Credit Hours: 3.0
  3 semester hours of Sociology:
SOC 1300 - Introduction to Sociology  Credit Hours: 3.0

Upper Division:

60 credit hours of Nursing core:

NURS 3230 - Nursing Professional Role I  Credit Hours: 2.0
NURS 4312 - Leadership and Management in Professional Nursing Practice  Credit Hours: 3.0  Preferred Course to Satisfy Core Req. IX(b) Writing in the Disciplines
NURS 4322 - Policy and Ethics in Professional Nursing Practice  Credit Hours: 3.0
NURS 3337 - Reading and Interpreting Scientific Literature  Credit Hours: 3.0
NURS 3440 - Introduction to Evidence-Based Nursing Practice  Credit Hours: 4.0
NURS 3631 - Nursing Process for Symptom Management  Credit Hours: 6.0
NURS 3633 - Clinical Nursing Practice I  Credit Hours: 6.0
NURS 3634 - Clinical Nursing Practice II  Credit Hours: 6.0
NURS 3735 - Clinical Nursing Practice III  Credit Hours: 7.0
NURS 3636 - Nursing Process for Collaborative Practice I  Credit Hours: 6.0
NURS 3737 - Nursing Process for Collaborative Practice II  Credit Hours: 7.0
NURS 4314 - Nursing Research  Credit Hours: 3.0

Nursing Elective (complete 2.0 credit hours from the following)
NURS 4297 - Special Topic in Nursing  Credit Hours: 2.0
NURS 4212 - Informatics in Health Care  Credit Hours: 2.0
NURS 4216 - Perioperative Nursing Clinical Elective  Credit Hours: 2.0
NURS 4218 - Emergency Nursing  Credit Hours: 2.0
NURS 4220 - Clinical Decision Making  Credit Hours: 2.0

Nursing, B.S.N. (Traditional)

TRADITIONAL BSN TRACK ADMISSION

Application Criteria

The Traditional BSN track is designed for the University of Houston College of Nursing (CON) Pre-Nursing student who wants to pursue a Nursing major beginning the junior year. Pre-Nursing students are eligible to apply to the CON Traditional BSN track once they have completed or are enrolled to complete 60 semester credit hours (SCH) of the recommended course pathway for Nursing, of which 45 SCH must be in residence at UH. Students may be accepted conditionally, pending completion of UH core requirements*, all nursing program pre-requisites, a criminal background and a drug screen clearance. Students who entered UH as freshmen and have met the application criteria but are not Pre-Nursing students may be considered for admission into the Traditional BSN track by exception.

*Core Requirement IX(b) Writing in the Discipline may be satisfied by NURS 4312.
Applicants must complete the UH College of Nursing Application to Change Course of Study to Nursing Major. Admission applications are reviewed and decided upon by the College of Nursing Admission Committee. Admission to the CON Traditional BSN Track is not guaranteed and is highly competitive. The holistic admission process is based upon many factors which include, but are not limited to:

- Space availability in the Traditional BSN track.
- An interview process.
- Grades in courses for the Traditional BSN track. (See: Recommended Course Pathway)
- ATI TEAS score, maximum two (2) attempts, with results submitted by application deadline.
- Evidence of engagement in a healthcare setting with examples of work or volunteerism (recommended).

Applicants to the Traditional BSN Track must pass the college-approved pre-admission test. The UH College of Nursing is only accepting Test of Essential Academic Skills (TEAS VI) as the college approved pre-admission test.

Applicants to the Traditional BSN Track must complete a release of social security number form submitted to the UH College of Nursing office or faxed to 713-743-1164.

Applicants must satisfy the UH College of Nursing clinical readiness requirements. (See: Policy S101 Student Clinical Requirements Part One)

**Application Deadline: April 1 for Fall Semester Admissions**

**Admission Criteria**

Admission to the Traditional BSN Track is a highly competitive process. To be considered for admission, the following minimum requirements must be met:

- Current University of Houston Pre-Nursing student (other majors by exception).
- A minimum of 60 SCH of course requirements for Nursing, of which 45 SCH must be in residence at UH.
- A minimum of 3.0 cumulative GPA with a maximum of two attempts per course (will take the higher grade).
- A minimum of 2.75 GPA or higher in the natural sciences with a maximum of two attempts per course.
- Grade of B or higher (with a maximum of two attempts per course) required in
  - BIOL 1344 Human Anatomy and Physiology 2;
  - BIOL 1144 Human Anatomy and Physiology 2 Laboratory.
- Grade of B- or higher (with a maximum of two attempts per course) required in
  - NUTR 2332 Introduction to Human Nutrition;
  - BIOL 1334 Human Anatomy and Physiology 1;
  - BIOL 1134 Human Anatomy and Physiology 1 Laboratory;
  - BIOL 1353 Pre-nursing Microbiology;
  - BIOL 1153 Pre-nursing Microbiology Laboratory;
  - CHEM 1301 Foundations of Chemistry.
- Completion of the ATI TEAS Exam with a highly competitive score.
- Meet clinical readiness and be eligible for RN licensure upon graduation. Must receive drug screen clearance and criminal background clearance or a Board order by the Texas Board of Nursing before acceptance.

Students not admitted to the CON Traditional BSN track will be advised to an alternate major at the University of Houston. Applicants not admitted may reapply by the deadline date for the next term. Applications are not carried forward to the next deadline date and there are no waiting lists.

**Course Requirements:**

Applicants must satisfy all UH Core Curriculum 2020-2021 for a second undergraduate degree in addition to the Traditional BSN Track requirements below:

**Lower Division:**
3 credit hours of Statistics
3 credit hours of Nutrition
8 credit hours of Human Anatomy and Physiology
4 credit hours of Chemistry (may take introductory chemistry or general chemistry)
4 credit hours of Microbiology
6 semester hours of Psychology:
   PSYC 1300 - Introduction to Psychology Credit Hours: 3.0
   HDFS 2317 - Introduction to Human Development and Interventions Credit Hours: 3.0
3 credit hours of Sociology:
   SOC 1300 - Introduction to Sociology Credit Hours: 3.0

Upper Division:

60 credit hours of Nursing core:

   NURS 3310 - Professional Role Development and Practice Issues Credit Hours: 3.0
   NURS 3311 - Health Assessment Across the Life Span Credit Hours: 3.0
   NURS 3315 - Pathophysiology Credit Hours: 3.0
   NURS 4521 - Community Health Nursing Credit Hours: 5.0
   NURS 3312 - Fundamental Concepts of Care Credit Hours: 3.0
   NURS 3313 - Fundamental Clinical Credit Hours: 3.0
   NURS 4322 - Policy and Ethics in Professional Nursing Practice Credit Hours: 3.0
   NURS 4211 - Mental Health Concepts of Care Credit Hours: 2.0
   NURS 4213 - Mental Health Care Clinical Credit Hours: 2.0
   NURS 3314 - Pharmacology Credit Hours: 3.0
   NURS 4215 - Maternal, Newborn, and Women Credit Hours: 2.0
   NURS 4217 - Maternal, Newborn, and Women's Health Clinical Credit Hours: 2.0
   NURS 4316 - Medical Surgical Concepts of Care Credit Hours: 3.0
   NURS 4417 - Medical Surgical Clinical Credit Hours: 4.0
   NURS 4314 - Nursing Research Credit Hours: 3.0
   NURS 4318 - High Acuity Concepts of Care Credit Hours: 3.0
   NURS 4419 - High Acuity Clinical Credit Hours: 4.00
   NURS 4219 - Pediatric Concepts of Care Credit Hours: 2.0
   NURS 4221 - Pediatric Clinical Credit Hours: 2.0
   NURS 4312 - Leadership and Management in Professional Nursing Practice Credit Hours: 3.0 Preferred Course to Satisfy Core Req. IX(b) Writing in the Disciplines

   Nursing Elective (complete 2.0 credit hours from the following)
   NURS 4297 - Special Topic in Nursing Credit Hours: 2.0
   NURS 4212 - Informatics in Health Care Credit Hours: 2.0
   NURS 4216 - Perioperative Nursing Clinical Elective Credit Hours: 2.0
   NURS 4218 - Emergency Nursing Credit Hours: 2.0
   NURS 4220 - Clinical Decision Making Credit Hours: 2.0
College of Nursing - Admissions

Applicants to the RN to BSN Track and Second Degree BSN Track must complete and submit with payment the NursingCAS online application for admission at the following website: https://portal.nursingcas.org/.

An official transcript from EACH college or university attended, sent directly from each institution to NursingCAS at:

NursingCAS
P.O. Box 9201
Watertown, MA 02471

Applicants with international course work and transcripts must submit a course by course evaluation (original copy) performed by World Education Services (WES), Inc. submitted through NursingCAS.

PRE-NURSING UNDERGRADUATE ADMISSIONS REQUIREMENTS FOR THE TRADITIONAL BSN Track

First-time-in-college degree-seeking students are not directly admitted into Nursing as a major but must apply to the College of Nursing Pre-Nursing pathway as their intended course of study through the University of Houston undergraduate admissions application process. For admission rules and requirements applicable to all University of Houston applicants visit UH Admissions. The admission standards for Pre-Nursing are more rigorous than the general admission criteria for UH. Pre-Nursing UH Students who wish to apply to Nursing must meet additional criteria and be accepted through a highly competitive admission process: Traditional BSN Track Admission Requirements.

Acceptance as a Pre-Nursing student does not guarantee admission as a Nursing major in the UH.

To declare Pre-Nursing as an intended course of study, high school graduates must meet the following criteria.

<table>
<thead>
<tr>
<th>Class Rank</th>
<th>SAT Minimum SAT Score Total / Minimum SAT Evidence-Based Reading and Writing (ERW)</th>
<th>ACT OR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 25%</td>
<td>1220/630</td>
<td>25/24</td>
<td></td>
</tr>
<tr>
<td>26% - 50%</td>
<td>1270/630</td>
<td>26/24</td>
<td></td>
</tr>
<tr>
<td>All Others and Not Ranked</td>
<td>1300/630</td>
<td>27/24</td>
<td></td>
</tr>
</tbody>
</table>

In addition, applicants for Pre-Nursing must complete the following high school coursework:

- English: 4 units
- Biology, Chemistry, and 2 other advanced science courses requiring biology and chemistry as pre-requisites: 4 units
- Algebra: 2 units
- Geometry: 1 unit
- Pre-Calculus or other advanced math (i.e. statistics): 1 unit

COLLEGE OF NURSING ACADEMIC ADVISING
College of Nursing Academic Advising

Academic Advising begins at UH freshman orientation and continues throughout one’s college career. At orientation, students admitted as Pre-Nursing will meet for the first time with a College of Nursing academic advisor. This advisor will assist students with selecting courses for the first term and later with subsequent semesters. The advisor will keep students informed about special programs and opportunities, as well as the Nursing major application process.

Once students have completed or are enrolled to complete 60 credits (SCH) of the Pre-Nursing recommended course pathway (45 SCH in residence at the University of Houston), they are eligible to apply to the College of Nursing Traditional BSN major. Students may be accepted conditionally, pending completion of the UH core requirements*, all Nursing program pre-requisites, a criminal background and a drug screen clearance. Admission to the Traditional BSN major is a highly competitive process and is not guaranteed. The minimum criteria to be considered for admission can be found on the College of Nursing website.

Students not admitted to the CON Traditional BSN track will be advised to an alternate major at the University of Houston. Applicants not admitted may reapply by the deadline date for the next term. Applications are not carried forward to the next deadline date and there are no waiting lists.

*Core Requirement IX(b) Writing in the Discipline may be satisfied by NURS 4312.
College of Nursing Student Policies

For academic policy information, please visit: http://www.uh.edu/nursing/current-student/policy/.
College of Optometry

The College of Optometry, established at the University of Houston in 1952, has resided since 1976 in one of the most modern facilities designed for optometric education and vision science research in the country. The teaching and research activities of the college are facilitated by the year-round operation of an outpatient clinic, The University Eye Institute, up-to-date re-search laboratories, an extensive library collection, a computer center, and instructional services.

The educational missions of the University of Houston College of Optometry are to educate and train sufficient optometrists to serve the needs of Texas primarily, but also to provide education and training for residents of other states and nations; to educate and train qualified teachers and researchers in optometry and vision sciences; to provide post-doctoral education in advanced clinical areas (residencies); and to provide training for practitioners in new developments and the medical sciences. Our research mission is to add to the body of knowledge identified as vision science and to its effective application, and to extend the scope of practice and improve the quality of optometric care. The service missions of the College are to provide counsel and support to the profession in its quest to improve optometric services; to help provide appropriate health education to the public; to help extend care to those segments of society which are underserved; and to provide advice and counsel to the international optometric sector.

The College of Optometry's major responsibility is to educate and to train students who, upon graduation, are able to provide all of the diagnostic and treatment services that characterize the general practice of optometry. Educational objectives have been established for each course in the professional curriculum which support this broad purpose. The institutional objectives are to ensure that each student:

- acquires a sound foundation in basic and clinical sciences essential for the practice of optometry
- learns the technical, communicative, and interpersonal skills required to apply that knowledge
- develops an understanding of the forces—legislative, legal, ethical, technical and socioeconomic—which influence health care
- acquires ethical insights and moral attitudes required to insure that the best interests of the patients are served
- becomes involved in discovery, transmittal, and application of knowledge through participation in, or appreciation of, scientific inquiry
- develops self-confidence in decision-making, acceptance of responsibility and characteristics of a professional person
- becomes committed to keeping abreast of new knowledge and technology and their applications as a continuing obligation to patients.

For information regarding graduate and professional degree programs offered, please review the Graduate Catalog and College of Optometry page.

Courses

OPTO 1300 - Introduction to Health Professions

OPTO 1300 - Introduction to Health Professions
About the College of Optometry

Dean:

Michael D. Twa, O.D., University of California- Berkley; M.S., Ph.D., Ohio State University

Associate Dean for Graduate Studies and Research:

Laura J. Frishman, Ph.D., University of Pittsburgh

Associate Dean for Professional Studies:

Kimberly A. Lambreghts, R.N., Pace University, O.D., SUNY College of Optometry

Degrees Offered

The College of Optometry offers the Doctor of Optometry (O.D.) degree and the Master of Science and Doctor of Philosophy degrees in physiological optics.

Each year 100 students are admitted to the four-year professional program leading to the Doctor of Optometry degree. All applicants must have earned a baccalaureate degree prior to matriculation into the Doctor of Optometry program.

This section provides an overview of the profession and information on undergraduate preparation for admission to the professional (O.D.) program. The Graduate and Professional Studies catalog contains detailed information concerning the college's graduate and professional degree programs. The program of graduate study in physiological optics is designed for students who wish to pursue an academic career in teaching and vision research.

The Profession

Doctors of Optometry are independent primary health care providers who specialize in the examination, diagnosis, treatment and management of diseases and disorders of the visual system, the eye and associated structures as well as the diagnosis of related systemic conditions.

Graduates may enter private practice or serve in multidisciplinary primary care clinics. Graduates also find careers in public health, teaching and research, and health administration. Residencies/fellowships are available in pediatrics, primary care, contact lenses, rehabilitative optometry, hospital-based optometry, cornea and ocular disease, and neuro-ophthalmology. Special services for children, the elderly, and the partially-sighted can each be exclusively practiced. Helping to care for vision, our most treasured sense, makes optometry a rewarding profession for students interested in a health career.

Doctor of Optometry Program

The mission of the University of Houston College of Optometry is to lead in the discovery and dissemination of knowledge in optometry, vision science and clinical care, with unparalleled excellence, integrity and compassion; enhancing vision for life. Our educational goal is to educate leading professionals in eye care and vision science; optometrists, residents, teachers and researchers and to foster lifelong learning through scholarship, citizenship and knowledge. Our service goals are provide service to support research, optometric education, clinical care and the profession and to
provide advanced care to patients of all ages, without regard to socioeconomic background. Our research goals include conducting cutting-edge research to better understand the normal visual system, the mechanisms underlying, and the strategies to prevent, visual impairment and blindness and to apply this new knowledge to improve public health and patient care.

The College of Optometry’s major responsibility is to educate and train students who, upon graduation, are able to provide all of the diagnostic and treatment services that characterize the general practice of Optometry. The College is committed to providing comprehensive, evidence-based care using the latest technology and knowledge to improve the quality of life of our patients. To this end, educational objectives have been established for each course in the professional curriculum which supports this broad purpose. The institutional objectives are to ensure that each student, resident and graduate:

- is well-trained and mentored to maximize success in the classroom, laboratory and clinic.
- will adhere to a high standard of professionalism and excellence that fosters the conversion of student to Doctor of Optometry and/or Vision Scientist.
- will develop a sense of responsibility to their education, their patients and/or their research activities.

The College

The College of Optometry, established at the University of Houston in 1952, has resided since 1976 in one of the most modern facilities designed for optometric education and vision science research in the country. The teaching and research activities of the college are facilitated by the year-round operation of an outpatient clinic; The University Eye Institute, an ambulatory surgery center, a refractive surgery center, up-to-date research laboratories, a newly renovated library, and expanded computer and study spaces.

For more information, please visit https://www.opt.uh.edu/future-students-residents/programs/doctor-of-optometry/.
Academic Information - College of Optometry

Accreditation

The College of Optometry is fully accredited by the Council on Optometric Education of the American Optometric Association.
College of Pharmacy

The Profession

The College of Pharmacy, established in 1946, prepares students to enter into the practice of pharmacy in a changing health care system and to assume important roles as drug information specialists and primary care providers.

Upon graduation, the new professional utilizes a foundation of skills in administrative, biological, clinical, and pharmaceutical sciences to take an active role in contemporary pharmacy practice. Career options in pharmacy are virtually unlimited. From community to hospital practice, from home care to nuclear pharmacy, and from clinical practice to basic science research in the pharmaceutical industry, pharmacists participate in areas that provide patient care and unravel the mysteries of human health.

Pharmacists are responsible for supervising the drug distribution process, selecting appropriate drug therapies, determining drug dosages and routes of administration, and monitoring therapeutic outcomes. Working with other health care providers—physicians, nurses, veterinarians, and dentists—pharmacists complement the health care system by providing pharmaceutical care.

The College

Students at the College of Pharmacy have at their disposal virtually every resource and opportunity they need to acquire a first-class education in pharmacy.

In the college’s facility on the University of Houston campus, a dedicated Learning Resource Center and a computer lab provides advanced hardware and specialized software for class work and research needs.
In the college’s second facility in the world-renowned Texas Medical Center, the students have the opportunity to train with physicians, medical students and members of our clinical faculty.
In addition to faculty/staff offices, research laboratories, computer center, and classrooms, the building houses the Pharmacy Care lab. In this specialized learning laboratory, students learn techniques in pharmaceutical care by role-playing situations they would experience as pharmacists.
The Sterile Products Laboratory teaches students the latest aseptic methods of drug formulation and preparation, especially for use in hospitals and home care.

Programs and Courses

The University of Houston no longer admits students into the Pre-Pharmacy major effective for students entering Fall 2015. Students who wish to become a pharmacist may choose any major while completing PharmD pre-requisite courses for admission to the PharmD program at UH. Prospective PharmD (applicants) students are encouraged to attend regular advising sessions with PharmD Advisors at the College of Pharmacy see http://www.uh.edu/pharmacy/prospective-students/pharmd/advising.

For information regarding graduate and professional degree programs in the College of Pharmacy, students can refer to the Graduate Catalog.

Programs

Preparation for Pharmacy

Courses
PHAR 2362 - Principles of Drug Action

Other

Preparation for Pharmacy

The University of Houston no longer admits students into the Pre-Pharmacy major effective for students entering Fall 2015. Students who wish to become a pharmacist may choose any major while completing PharmD pre-requisite courses for admission to the PharmD program at UH. Prospective PharmD (applicants) students are encouraged to attend regular advising sessions with PharmD Advisors at the College of Pharmacy: Natasha Hindocha, Nekesa Sapp, and Ivy Bejarano or at http://www.uh.edu/pharmacy/prospective-students/pharmd/advising.

PharmD Prerequisite Curriculum

University Core Curriculum

All bachelor’s degrees require completion of a core curriculum. Further information on courses that satisfy core curriculum requirements can be obtained by consulting the current class listings, an academic advisor, or the core curriculum.

Requirements

Core Curriculum Requirements

- Communication Credit Hours: 6.0
- Mathematics Credit Hours: 3.0
- Component Area Option: Math/Reasoning Credit Hours: 3.0
- American History Credit Hours: 6.0
- Government/Political Science Credit Hours: 6.0
- Language, Philosophy & Culture Credit Hours: 3.0
- Creative Arts Credit Hours: 3.0
- Life & Physical Sciences Credit Hours: 6.0
- Social/Behavioral Sciences Credit Hours: 3.0
- Component Area Option: Writing in the Disciplines Credit Hours: 3.0

College of Pharmacy's Pharm.D. Pre-requisite Courses

Requirements:

- BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
- BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
- BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
- BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0
- BIOL 3332 - Elementary Microbiology Credit Hours: 3.0
- BIOL 3132 - Elementary Microbiology Laboratory Credit Hours: 1.0
- BIOL 3301 - Genetics Credit Hours: 3.0
- CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
- CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
CHEM 3332 - Fundamentals of Organic Chemistry Credit Hours: 3.0
CHEM 3222 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0

PHYS 1301 - Introductory General Physics I Credit Hours: 3.0 or
PHYS 1321 - University Physics I Credit Hours: 3.0 or
Two semesters of high school physics

MATH 1431 - Calculus I Credit Hours: 4.0
MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0
ENGL 1303 - First Year Writing I Credit Hours: 3.0
ENGL 1304 - First Year Writing II Credit Hours: 3.0
HIST 1377 - The U S To 1877 Credit Hours: 3.0
HIST 1378 - The U S Since 1877 Credit Hours: 3.0
POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

PSYC 1300 - Introduction to Psychology Credit Hours: 3.0 or
SOC 1300 - Introduction to Sociology Credit Hours: 3.0

Writing in the Disciplines Core Course 2
Language, Philosophy & Culture Core Course 1 . 2
Creative Arts Core Course 1 . 2

PHAR 2362 - Principles of Drug Action
Pharmacy Footnotes

Exempt if core complete when transferring to UH from another Texas college/university OR have earned a baccalaureate degree or higher from an accredited college/university in the U.S.A.
Refer to www.uh.edu/academics/corecurriculum for a listing of UH coursework.
Hobby School of Public Affairs

McElhinney Hall

3623 Cullen Boulevard Room 306
Houston, Texas 77204-5021
(713) 743-3970

Executive Director: Dr. Jim Granato

www.uh.edu/hobby

Mission

From a foundation of integrity, the Hobby School of Public Affairs prepares its graduates to make government, business and communities work more effectively by harnessing data and research to improve public policy.

About the Hobby School

Interdisciplinary expertise and community visibility constitute the foundation of the Hobby School of Public Affairs. The Hobby School of Public Affairs offers a Master of Public Policy (MPP) degree, as well as several dual degrees/accelerated pathway programs that are available via partnerships with other academic departments. The Hobby School’s research component is found within the Center for Public Policy, including programs and initiatives such as the Survey Research Institute, the Concept Visualization Lab, the Empirical Implications of Theoretical Models Summer Institute, and the Ethics Center. Public service and community engagement are also a vital component of the Hobby School as evidenced through Hobby Fellows, Leland Fellows, the Civic Houston Internship Program, the nationally-accredited Certified Public Manager program, the Civic Engagement Boot Camp, and various public events.

Led by executive director Dr. Jim Granato, the Hobby School is supported by an advisory board of Houstonians prominent in business and civic affairs, and maintains cooperative relationships with many educational and public service entities in the Houston area and the state of Texas.

The Hobby School is a Full Member of the Network of Schools of Public Policy, Affairs, and Administration (NASPAA) and Institutional Member of the Association for Public Policy Analysis & Management (APPAM). The Hobby School also maintains a Pi Alpha Alpha chapter, which is the global honors society for public affairs and administration.

Master of Public Policy

The Hobby School’s Master of Public Policy (MPP) program offers an interdisciplinary degree, which prepares students to conduct advanced quantitative and qualitative analyses. Drawing from political science, psychology, decision sciences and more, MPP graduates will be ready for analytic and decision-making positions in many fields within the public, private, and nonprofit sectors. In addition, MPP graduates will be prepared to enter a PhD program with a quantitative emphasis.

Center for Public Policy

Established in 1981, the Center for Public Policy (CPP) serves the Houston community as a non-partisan research organization within the Hobby School at the University of Houston.
The CPP is dedicated to providing scientific, non-biased data and analysis to public officials, business professionals, community leaders and others through an interdisciplinary approach with particular emphasis on unifying case-study, formal/mathematical modeling, and applied statistics and experiments. Research work teams include faculty from a variety of disciplines and universities as well as staff and students. These research teams focus on a diverse array of important public policy and academic issues while archiving data, conducting statistical analysis, using experiments and computer simulations, and developing working papers. The issue may be transportation, energy, elections, or a myriad of others but the approach will always use objective methods of analysis.

Survey Research Institute

The Hobby School's Survey Research Institute (SRI) conducts ongoing public opinion polling. Since its inception within the Center for Public Policy in 1981, SRI has provided polling data for local media such as the Houston Chronicle, KHOU, and KUHF as well as for local, regional, and state public and private sector entities. The SRI's telephone lab consists of twenty stations in the University of Houston's Leroy and Lucille Melcher Center for Public Broadcasting and also maintains online capacities.

The EITM Summer Institute

The Empirical Implications of Theoretical Models (EITM) Summer Institute at UH was established in 2012. The two-week institute teaches the three-step EITM framework inspired by the National Science Foundation to establish a transparent relation between theory and test.

The Ethics Center

The Ethics Center for the Interdisciplinary Study of Political Society and Civic Life links the analytical rigor of the social sciences with the philosophical, historical, and normative richness of the liberal arts to inform public understanding of the principles and policies of civic life. The Ethics Center restores the traditional role of the social sciences and liberal arts-the "human sciences"-as the source of moral, cultural, and political renewal and as the core of the education of citizens.

Concept Visualization Lab

The Concept Visualization Lab (CVL) creates multi-dimensional visualizations and proto-types to display research findings in dynamic and interactive graphics. Whether it is a state-wide study or an examination of a local issue, the CVL visualizations can make data come alive.

Public Service Internship Programs

In an effort to introduce students to the inner-workings of public service, the Hobby School manages various internship programs for undergraduates including Hobby Fellows-Austin, Leland Fellows-Washington, and the Civic Houston Internship Program (CHIP). Intern alumni are now working from Houston City Hall to Capitol Hill.

Certified Public Manager Program

The Hobby School's Certified Public Manager (CPM) program is designed for government and non-profit staff and managers who are interested in enhancing their skills and abilities needed to deal with "real-world" problems and situations. CPM graduates apply best practices and theory to their management behaviors and strategies using prescribed sets of professional standards.
Civic Engagement Boot Camp

The Hobby School’s Civic Engagement Boot Camp (CEBC) is a series of one day interactive sessions designed to teach the skills necessary to create positive change. Each workshop will develop and enhance the abilities required to lead effectively within any environment.

Community Outreach

The Hobby School partners with several Houston organizations including BakerRipley, the Greater Houston Partnership, Global Unisource, and the League of Women Voters to promote civic engagement, scientific policy analysis, and professional training.

Programs and Courses

The Hobby School does not currently have an undergraduate academic program, but does manage several undergraduate internships programs: Civic Houston Internship Program, Hobby Fellows, and Leland Fellows.

The Hobby School does have several accelerated pathway programs via partnerships with other College of Liberal Arts and Social Science departments.

Programs

Other Programs
  Accelerated BA/BS in Liberal Studies/Master of Public Policy
  Philosophy, BA/Master of Public Policy
  Psychology, BA or BS/Master of Public Policy

Internship and Practical Training
  Civic Houston Internship Program
  Hobby Fellows
  Leland Fellows
Graduate College of Social Work

The mission of the Graduate College of Social Work is to educate professionals for social work practice, research, and leadership. We advocate for innovative, collaborative, inclusive, and humane policies and solutions that promote social, economic, and political justice. Our College generates new knowledge through critical thinking that links rigorous scientific inquiry, ethical social work practice, and community engagement.

For information regarding graduate degree programs in the Graduate College of Social Work, please review the Graduate Catalog.

Courses

SOCW 3330 - Nonprofit Financial Management
SOCW 3354 - Nonprofit Management
SOCW 4301 - Internship in Human Services

SOCW 3330 - Nonprofit Financial Management

SOCW 3354 - Nonprofit Management

SOCW 4301 - Internship in Human Services
About the College

Dean of the Graduate College of Social Work and Maconda Brown O'Conner Endowed Dean's Chair:

Alan J. Dettlaff, Ph.D., University of Texas at Arlington

Associate Dean for Research and Strategic Partnerships:

Luis R. Torres, Ph.D., Fordham University

Graduate College of Social Work Mission Statement

The mission of the Graduate College of Social Work is to educate professionals for social work practice, research, and leadership. We advocate for innovative, collaborative, inclusive, and humane policies and solutions that promote social, economic, and political justice. Our College generates new knowledge through critical thinking that links rigorous scientific inquiry, ethical social work practice, and community engagement.
Academic Information - Graduate School of Social Work

Admissions Seminars for Prospective Applicants

Recognizing that many prospective applicants have questions about the M.S.W. program, its requirements, and curriculum, as well as about the social work profession, the GCSW offers a series of admissions seminars during the fall and spring semesters. Detailed information about admissions policies are also available at these seminars. Interested persons can go to www.sw.uh.edu for current information on the seminar dates.

Application Procedures

Brochures and application materials are mailed upon request. Please direct all inquiries to:

University of Houston
Graduate College of Social Work
Attn: Admissions
237 Social Work Building
Houston, TX 77204-4013

A non-refundable $50.00 application fee, payable by check, money order or credit card, must accompany the admissions application. Applications will not be processed until the fee and all other required materials have been received. Please note that students are admitted only in the fall and that early application is encouraged.

Postbaccalaureate (PB) students who later decide to apply for admission to the GCSW will be allowed no more than six (6) credit hours earned as a PB to be applied toward the M.S.W. degree. These six credit hours must be selected from the foundation courses, must be grades of B or above, and must have been completed within two years from the date of application to the GCSW.

Persons who hold the Master of Social Work degree or related master's degree and who wish to take courses in the Graduate College of Social Work for their own professional development are not limited in the number of credit hours that can be earned as a PB student.

Students from other graduate departments and postbaccalaureate students are welcome to take courses in the M.S.W. Program provided that (1) the prerequisites for the course are met or the instructor gives written approval, and (2) the college determines that there will be sufficient space in the course after M.S.W. Program students are enrolled. Please make requests to enroll in M.S.W. courses by contacting the Assistant Dean for Student Affairs office at 713-743-8082.
About the College of Technology

Contact Information

<table>
<thead>
<tr>
<th>Department</th>
<th>Phone</th>
</tr>
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<tbody>
<tr>
<td>Academic Services Center</td>
<td>713-743-4100</td>
</tr>
<tr>
<td>Dean's Office</td>
<td>713-743-4050</td>
</tr>
<tr>
<td>Department of Construction Management</td>
<td>713-743-4712</td>
</tr>
<tr>
<td>Department of Engineering Technology</td>
<td>713-743-4040</td>
</tr>
<tr>
<td>Department of Human Development and Consumer Sciences</td>
<td>713-743-4110</td>
</tr>
<tr>
<td>Department of Information and Logistics Technology</td>
<td>713-743-2994</td>
</tr>
<tr>
<td>Instructional Support</td>
<td>713-743-4055</td>
</tr>
</tbody>
</table>

College of Technology Web site: www.uh.edu/technology/

Dean:

Anthony P. Ambler, Ph.D., University of Manchester, UK

Associate Dean for Academic Affairs:

Heidar Malki, Ph.D., University of Wisconsin-Milwaukee

Associate Dean for Research and Graduate Studies:

George Zouridakis, Ph.D., University of Rome La Sapienza, Italy

Director of Assessment and Accreditation:

Huda Sarraj, Ph.D., Texas Tech University

Executive Director for Student Affairs:

Jagdeep Chadha, M.A., Ed.M. Columbia University

Executive Director of Business Operations:

David McMullen, M.B.A., University of Phoenix
College of Technology Mission Statement

The mission of the College of Technology is to prepare the technology leaders of tomorrow for global industry and commerce.

The college will achieve its mission through the following activities:

- Deliver high-quality education that leverages the intellectual curiosity of individuals to serve their chosen professions and society at large;
- Engage in research into new and innovative applications of existing and emerging technology;
- Function as a leading resource for the life-long learning needs of traditional and non-traditional students; and
- Enable underprivileged and underrepresented segments of society to fully participate in the rewards of technology.

The College of Technology is focused on key areas in technology and merchandising that have the power to improve products and operations, and that are in high demand by businesses and organizations around the world. These include construction, computer, mechanical, electrical power, logistics and computer information systems as well as consumer sciences, merchandising and organizational leadership.

Role of the College

The College of Technology has been part of the University of Houston for over 75 years and is well-known in the community for its contributions to the education of traditional and nontraditional students. The faculty play a leading role in providing and guiding the implementation of high quality, leading-edge technology education in Texas and in the nation. Our graduates are often leaders in their fields and are employed all over the world.

The College of Technology is organized as four departments: Construction Management (CM), Engineering Technology (ET), Human Development and Consumer Sciences (HDCS), and Information and Logistics Technology (ILT). The faculty of these departments are involved in a wide spectrum of scholarly activity. Research in the Department of Construction Management falls in the interdisciplinary areas of project management, supply chain, and construction management with a focus on developing advanced management models and technologies to improve operation efficiency, quality, and safety.

Research in the Department of Engineering Technology focuses on the management and conservation of energy sources, heat transfer, materials and manufacturing, computer-aided design, construction materials, surveying, environmental issues, neural networks, biotechnology, applications of fuzzy logic, control theory and applications, power quality, and high-frequency amplification, complex fluids and flows, tissue engineering, biological and medical imaging and image analysis. Faculty in the Department of Human Development and Consumer Sciences conduct research on individual and organizational performance factors in the areas of training and development, organizational development, change leadership, talent and career management, retailing, entrepreneurship and strategic foresight planning.

Faculty research in the Department of Information and Logistics Technology is concentrated on improving education in the areas of technology literacy, internet security, supply chain management, data warehousing, grid computing, project management, distance learning, and graphic communications education.

Computer Facilities
Students in the College of Technology are encouraged to have a suitable laptop which is in good working order with the latest software and antivirus updates for their entire period of undergraduate study.

Computer resources in the College of Technology support students and faculty in teaching/learning, research, development, and administration. Computer facilities housed in the college include:

- Connections to university computing resources and applications through the UH network.
- Windows, Macintosh, and LINUX/UNIX workstations with a variety of software applications.
- Special purpose computer-based facilities such as the computer-aided manufacturing laboratory, the PC networking laboratory, the Graphic Communication Technology Laboratory, and the Advanced Applications Development Laboratory.

**E-mail Policy**

The College of Technology will use your UH E-mail alias as the primary means to contact you and keep you informed on important university information and information from your faculty and department. For additional information on your UH E-mail alias, please contact the IT Support Center at 713-743-1411 or go online to www.uh.edu/infotech.

**Scholastic Organizations**

**Phi Upsilon Omicron**
is an honor society for students majoring in Human Development and Consumer Sciences. Prospective members must have earned 42 semester hours (12 semester hours in residence) with a minimum 3.00 cumulative grade point average.

**Sigma Lambda Chi**
is the honor society for students in the Construction Management major. Prospective members must have attained at least junior class standing and have completed at least 24 semester hours of credit at the University of Houston with a minimum 2.80 cumulative grade point average.

**Tau Alpha Pi**
is the honor society for engineering technology majors who have completed a minimum of 24 semester hours in the department of Engineering Technology. Students must have maintained a minimum 3.30-grade point average at this university.

**Student Organizations**

The College of Technology offers opportunities for participation in activities outside the formal classroom structure. Each organization has its own activities and requirements for membership.

Student organizations in the college include the following:

- American Society of Mechanical Engineers (ASME)
- American Society for Quality (ASQ)
- Associated Builders and Contractor Student Chapter (ABC)
- Associated General Contractors (AGC)
- Association of Information Technology Professionals (AITP)
- College of Technology Student Ambassadors
- Institute of Electrical and Electronics Engineers (IEEE)
- Instrument Society of America (ISA)
- International DECA (Delta Epsilon Chi)
- Graphic Communications Education Association (GCEAUH)
- Society for Biological Engineers (SBE)
Society of Manufacturing Engineers (SME)
Student Industrial Distribution Organization (SIDO)
Student Society of Human Resource Development (SSHRD)
Academic Information - Technology

Accreditation

The degrees in Computer Engineering Technology, Electrical Power Engineering and Mechanical Engineering Technology are accredited by the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, Maryland, 21202, 410-347-7700.

The degree in Computer Information Systems accredited by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, Maryland, 21202, 410-347-7700.

The Bachelor of Science degree in Construction Management is accredited by American Council for Construction Education, 1717 North Loop 1604 East, Suite 320, San Antonio, Texas, 78232-1570.

The degree in Digital Media is accredited by Accrediting Council for Collegiate Graphic Communications Incorporated, 200 Deer Run Road, Sewickey, PA, 15143-26000, 412-741-6860.

The degree in Retail and Consumer Science is accredited by American Association of Family and Consumer Sciences, 400 N. Columbus Street Suite 202, Alexandria, VA. 22314.

The Bachelor of Science degrees in Biotechnology, Technology Leadership and Innovation Management, and Supply Chain and Logistics Technology are accredited by The Association of Technology, Management and Applied Engineering, 275 N. York Street, Ste 401, Elmhurst, IL, 60126.

Graduate Program

For information on the Master of Science programs, refer to the Graduate and Professional Studies catalog and the College of Technology web page: www.uh.edu/technology/

Academic Advising

The goal of the academic advising in the College of Technology is to ensure that each student has access to accurate and consistent academic advising at all stages of the student's college career. All incoming freshmen and transfer students are required to attend orientation, where pertinent policies and procedures are introduced and plans for academic success are discussed.

Orientation for the college is handled in conjunction with the Office of Admissions and is required for all new technology students. Once the student has been given an overview of the university and college, the undergraduate advisor assists the student with initial schedule planning and enrollment (registration). Thereafter, advisors are available on an ongoing basis to answer questions and provide guidance.

To foster student academic success The College of Technology recommends students complete a math course towards their major and an English course required for their major until they have completed the appropriate sequence. In majors that specify natural science coursework, students are encouraged to complete these courses as early as possible in their academic career.

Academic advising is important:

- upon entering (freshman or transfer);
- to change a major;
- to declare a minor;
- to clarify any academic policy or procedure;
to file a degree plan;
to file petitions (Note: a petition is not considered valid until it is signed by the department chair and the college dean); and
at the beginning of the term before graduation, to verify all requirements for graduation.

Declaring of Major

Degree Plan

After selecting a major field of study, and not later than the beginning of the junior year (60 semester hours), students should request that a degree plan be prepared through the Academic Services Center. Students who are admitted to a major in the college must enroll in at least one course each semester in approved coursework for their declared major requirements.

Freshman students who are uncertain of their majors are encouraged to enroll first through Exploratory Studies and seek academic advising from the advisors for the major(s) they are considering. Before enrolling as sophomores (30 hours), students must petition for a change in major to one of the degree programs in the college.

Students declaring a minor must file a minor degree plan in the college of the minor. Students must meet all requirements of the catalog under which they are graduating. The official degree plan remains in effect unless a 13-month break in enrollment occurs.

Basic Degree Information: General Requirements for a Baccalaureate Degree

Change of Major

Students wishing to declare a major in the College of Technology must submit a change of major prior to the end of the 6th consecutive semester after admittance to the University of Houston, excluding summers. Change of major requests submitted after this time must undergo individual review. Students may be required to attend individual review interviews.

Requests may be submitted at www.uh.edu/technology/advising/advising-forms/change-of-major/

<table>
<thead>
<tr>
<th>Major</th>
<th>Minimum GPA</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>Digital Media</td>
<td>2.0</td>
<td>and C or better in DIGM 1300 starting Sp 2021</td>
</tr>
<tr>
<td>Human Resources Development</td>
<td>2.0</td>
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</tr>
<tr>
<td>Retailing and Consumer Science</td>
<td>2.0</td>
<td></td>
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<tr>
<td>Supply Chain and Logistics Technology</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Technology Leadership and Innovation Management</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Construction Management (Beginning Fall 2019)</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Biotechnology</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Major</td>
<td>Minimum GPA</td>
<td>Requirement</td>
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<tr>
<td>Computer Information Systems</td>
<td>2.50</td>
<td>calculated over all college-level coursework attempted</td>
</tr>
<tr>
<td>Computer Engineering Technology</td>
<td>2.50</td>
<td>2.0 or greater cumulative GPA in all major coursework attempted*</td>
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<td></td>
<td></td>
<td>2.0 or greater cumulative GPA in all PHYSICS courses</td>
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<tr>
<td></td>
<td></td>
<td>2.0 or greater cumulative GPA in all MATH courses</td>
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<tr>
<td></td>
<td></td>
<td>must have successfully completed at least one of the following college-level math courses MATH 1330, MATH 1431, or MATH 1432</td>
</tr>
<tr>
<td>Electrical Power Technology</td>
<td>2.50</td>
<td>2.0 or greater cumulative GPA in all major coursework attempted*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.0 or greater cumulative GPA in all PHYSICS courses</td>
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<tr>
<td></td>
<td></td>
<td>2.0 or greater cumulative GPA in all MATH courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>must have successfully completed at least one of the following college-level math courses MATH 1330, MATH 1431, or MATH 1432</td>
</tr>
<tr>
<td>Mechanical Engineering Technology</td>
<td>2.50</td>
<td>2.0 or greater cumulative GPA in all major coursework attempted*</td>
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<tr>
<td></td>
<td></td>
<td>2.0 or greater cumulative GPA in all PHYSICS courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.0 or greater cumulative GPA in all MATH courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>must have successfully completed at least one of the following college-level math courses MATH 1330, MATH 1431, or MATH 1432</td>
</tr>
</tbody>
</table>

*For current UH students wishing to declare a major

Students with less than the required cumulative grade point average for a particular major are encouraged to obtain academic advising in their intended major; however, they are not eligible for admission to the major until the required grade point average is attained. It is recommended that students who wish to change their major to any of the college’s degree programs enroll in at least one course each semester in approved coursework for their desired major requirements.

To apply for a change of major, consult the Academic Services Center web site: www.tech.uh.edu.

**Calculation of Major GPA**
The College of Technology will calculate major GPA based upon all grades earned in all UH courses attempted or completed to satisfy the major requirements section of each College of Technology degree plan in the undergraduate catalog. This will include, if applicable, any courses taken in a student's selected track or area of emphasis.

Prerequisites and Corequisites

Prerequisites and corequisites as specified under the course listings are strictly enforced by the College of Technology. For the most current listings of prerequisites and corequisites go to the online course catalog at: http://www.uh.edu/academics/catalog/colleges/tec/courses. Students who have taken prerequisites at other schools should make sure those courses are transferred and evaluated by the Office of Transfer Admissions, and if necessary, evaluation by petition by departments, before classes begin.

Students are responsible for taking prerequisites to courses in which they enroll. If course "A" is a prerequisite to course "B," it means that course "A" must be taken first. If course "A" is listed as a corequisite of course "B," courses "A" and "B" must be taken together. Students may be dropped regardless of drop deadline, from any class if the student lacks a prerequisite or corequisite. Students may not drop a course that is a corequisite for another course unless they also drop the corresponding course. Students should be aware that prerequisites are cumulative; if course "A" is listed as a prerequisite to course "B," then any course that is a prerequisite to course "A" also must be completed before the student enrolls in course "B."

Student Responsibility

A responsible student is a successful student. At the University of Houston, students are expected to conduct themselves in a mature and responsible manner, respect the opinions, rights, and personal property of others, and meet their financial obligations. Students are responsible for seeking help and guidance from all of the resources that the university makes available to them. They are expected to be proactive and remain informed about university dates and deadlines, and understand academic and disciplinary policies. They are responsible for communication with their professors, advisors, and university staff, and the commitment to being organized and prepared to learn. Above all, our students are expected to strive for honesty and academic integrity throughout their period of study at the University of Houston.

For more information on student responsibility see the Academic Regulations section of this catalog.

Re-apply as a Former Student

Effective for Fall 2011, if you are ready to return after an interruption of at least four terms or 13 consecutive months, you will need to apply for readmission as a former student. Regardless of academic standing, you will need to meet re-entry requirements and deadlines and pay readmission fee in order to be readmitted and enroll. For information please visit: http://www.uh.edu/undergraduate-admissions/apply/former-student-admissions/.

Dates and Deadlines: See the below deadlines to submit the application and all supporting materials.

Summer Term: May 1
Fall Term: June 1
Spring Term: November 1

Readmission from Suspension

Any student suspended from the college for academic or disciplinary reasons is ineligible to enroll in classes during the designated period of suspension. After that specified period, students may apply for readmission. Students who have been out for at least four terms or 13 consecutive
months, must apply for readmission as a former student. Please see the section on Re-apply as a Former Student for deadlines and requirements. Readmission from suspension is neither automatic nor guaranteed. The student must express the desire for readmission and request initiation of the readmission process by completing a "Readmission from Suspension Petition," which can be found at www.tech.uh.edu.

While on suspension at UH, a College of Technology student may not enroll in classes as follows:

First suspension: student must sit out at least the next full term, either the fall or the spring. (Summer does not count as a full term.)

Second suspension: student must sit out at least 1 full year (12 months).

Third suspension: student will not be readmitted to UH.

The College of Technology does not grant readmission for the summer terms.

It is the student’s responsibility to see that ALL college transcripts from ALL universities or colleges (UH and transfer schools) are included with the petition. If the student is in active enrollment at a community college or university, the student should request a progress report from the instructor and attach it to the petition.

**Deadline Dates for Submitting the Petition**

<table>
<thead>
<tr>
<th>Term</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Term</td>
<td>June 1</td>
</tr>
<tr>
<td>Spring Term</td>
<td>November 1</td>
</tr>
</tbody>
</table>

All application materials must be submitted to the Office of Admissions by the deadline.

A student readmitted from academic suspension enters on probation. The following requirements must be met to avoid further academic action:

- Students must meet with an advisor each term.
- Students may enroll in no more than 12 semester hours during the fall and spring terms, and no more than six semester hours during the summer term.
- Students must not earn any "I" or "F" grades.
- A minimum semester GPA (2.0) must be earned each semester while on academic probation.
- Additional conditions may be required.

**Academic Grievance Policy**

Students are encouraged to contact the instructor of record or submit written requests to the department chair whenever questions arise concerning a grade received in a course. Students have 90 days after the posting of a grade to appeal.

Issues of grievance regarding grades, course requirements and classroom procedures can occur. The first and best source for resolving the problem is with the professor. The university expects most issues to be resolved amicably and informally with the professor. In the event that an informal resolution is not possible, students may file a written grievance on a General Petition Form, available in department and college offices, and at the Office of the University Registrar, 128 Welcome Center. These forms must be filed with the professor within 90 calendar days of the posting of the final grades for the course. Appeals may be considered at the following levels, as necessary: professor, departmental chair, college dean, senior vice president for academic affairs (or designated representative at all levels). Faculty are required to retain all evaluated student material not previously returned for a six month period after the end of the last class of the term evaluated.

Because assigning a grade for evaluating a student’s work performance involves the faculty’s professional judgment and is an integral part of the faculty’s teaching responsibilities, disagreement with an instructor concerning a grade or evaluation is not a justifiable grievance to be considered under this policy unless a violation of university, college, or department academic policies or procedures can be shown to have affected that grade or evaluation.
Please note that appeals for decisions in the following areas are guided by separate appeal or grievance policies and procedures: Affirmative Action, Academic Honesty, Student Life, and Financial Responsibility.

**Other Programs**

**Technology Experience Track**

The College of Technology recognizes the value of developing students’ professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship and curricular practical training (CPT) experience by transcript notation. For more information refer to the College of Technology - Experience Track section of this catalog.
Technology Scholarships and Financial Aid

All undergraduate students are encouraged to apply for College of Technology scholarships. Some College of Technology scholarships are based on academic merit, some are based on financial need, and some are based on a combination of merit and financial need. The scholarship donor and the college establish the specific criteria for each scholarship. Students need only fill out one application to be considered for all College of Technology scholarships for which they are eligible. This application is available online at www.uh.edu/technology/.

In addition, College of Technology has relationships with many outside organizations who award scholarships to our students. All College of Technology students are provided application information and informed of these deadlines throughout the term. For more information, please visit the College of Technology Web site at www.uh.edu/technology/

General information about UH scholarships and financial aid.

Internship and Practical Training

College of Technology - Experience Track

The College of Technology recognizes the value of developing students' professional development as an integral part of their academic career. Students who select the Experience Track in their degree program and satisfy its requirements will receive recognition for internship and curricular practical training (CPT) experience by transcript notation.

Eligibility for Internship:

The work must be related to the student's major.
Internships must be approved by the Academic Department.
Additional restrictions apply to CPT for F-1 students (see below).

Steps to Declare the Experience Track:

Students must declare by submitting a General Petition to their Departmental Advisor their intention to pursue this track prior to processing the paperwork for approval of the internship/CPT.
The Academic Department will verify the student's academic eligibility for internship/CPT.
The Academic Department will review the internship, including the formal job offer on the hiring company's stationery a description of the work to be performed, a beginning and ending date, and the salary offered. The Academic department will determine whether or not the internship/CPT will provide the student with appropriate experience related to their major field of study. If a positive determination is made, then:
If the student wants to enroll for credit (CNST 3185, HDCS 4393, HRD 4396, DIGM 4396, CIS 4396) then the Academic Department will enroll the student in the course; otherwise
If the student wants to enroll for a zero-credit co-op internship/CPT, the approved petition and internship approval will be forwarded from the Academic Department to the Co-op office in the career center of the Cullen College of Engineering to complete the process. The student will be notified by the career center of the Cullen College of Engineering when the process is complete.
F-1 students seeking CPT should visit the International Student Scholar Services Office (ISSSO) for special instructions prior to the steps above.

For more information about Co-op Education and CPT, please visit the Co-operative Education (Co-op) and Curricular Practical Training (CPT) page.

Eligible Coursework
To satisfy the requirements for the Experience Track students must declare their intention to pursue the track and complete an approved internship/CPT, Zero-credit courses are available for this purpose. Courses for academic credit, while required for select majors, may be available for elective credits for other majors if approved by the academic advisor for the respective major.

Zero-Credit Courses

- COOP 0011 - COOP Education Work Period I  
  Credit Hours: 0.0
- COOP 0012 - COOP Education Work Period II  
  Credit Hours: 0.0
- COOP 0013 - COOP Education Work Period III  
  Credit Hours: 0.0
- COOP 0014 - COOP Education Work Period IV  
  Credit Hours: 0.0
- COOP 0015 - COOP Education Work Period V  
  Credit Hours: 0.0
- COOP 0016 - COOP Education Work Period VI  
  Credit Hours: 0.0
- COOP 0017 - COOP Education Work Period VII  
  Credit Hours: 0.0

Courses for Academic Credit

- CNST 3185 - Construction Experience  
  Credit Hours: 1.0 for students majoring in Construction Management
- HDCS 4393 - Internship in Retail and Consumer Sciences  
  Credit Hours: 3.0 for students majoring in Retail and Consumer Science
- HRD 4396 - Internship in Human Resource Development  
  Credit Hours: 3.0 for students majoring in Human Resource Development
- DIGM 4396 - Internship in Digital Media  
  Credit Hours: 3.0 for students majoring in Digital Media

Students in Computer Information Systems can take CIS 4396 if they wish to receive academic credit for the internship experience. Courses for academic credit, while required for select majors, may be available for elective credits for other majors if approved by the academic advisor for the respective major.

Other Programs

Basic Degree Information: General Requirements for a Baccalaureate Degree

Core Curriculum

All bachelor's degrees require completion of a core curriculum.

<table>
<thead>
<tr>
<th>Core Curriculum Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication: English rhetoric and composition</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics: College level algebra or approved equivalent</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics/Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Life &amp; Physical Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Language, Philosophy &amp; Culture</td>
<td>3</td>
</tr>
<tr>
<td>Creative Arts</td>
<td>3</td>
</tr>
</tbody>
</table>
Social & Behavioral Sciences | 3  
Writing in the Disciplines | 3  
American History | 6  
Government/Political Science | 6  
**Total** | **42**

Please note that some majors have specific requirements in the core curriculum. Refer to the specific major in the department section of this catalog for specific requirements.

For a baccalaureate degree in the College of Technology, requirements vary from major to major, but students must complete a minimum of 120 credit hours (36 advanced credit hours) including residency requirements and the university core curriculum requirements as stated in the Academic Regulations and Degree Requirements of this catalog. For specific degree requirements refer to the appropriate department section of this catalog.

Further information on core eligibility and on courses that satisfy core curriculum requirements can be obtained by consulting the core curriculum Web site www.uh.edu/academics/corecurriculum, the current class listings, or an academic advisor.

**Transfer Students**

To earn a baccalaureate degree from the College of Technology, students must complete a minimum of 15 advanced credit hours of courses in the department of their approved major at the University of Houston.

**Technology Minors Overview**

Students may not receive official university recognition in a single degree for having earned both a major and minor in the same field of study.

The minimum requirements for a minor in the College of Technology are:

- Fifteen to eighteen semester hours including nine advanced hours.
- Six of the nine advanced hours must be in residence.
- A 2.00 minimum cumulative grade point average in all courses attempted in the minor field at the University of Houston.

For additional requirements and other information regarding minor courses of study, refer to the specific department section of the catalog and consult the Academic Services Center, 108 T.

**Department of Construction Management**

**The Art and Science Necessary to Create Civilization**

**Who's Who in the Department**

Chair:
Department Overview

The Department of Construction Management offers undergraduate degree programs in Construction Management (CM) and Supply Chain & Logistics Technology (SCLT). Graduate degree programs are offered in CM, SCLT, and TPM (Technology Project Management).

Construction Management

The construction management program provides graduates with knowledge and skills necessary to join the construction industry. Such knowledge and skills include construction methods, structural systems, contract administration, specifications, planning, estimating, scheduling, and evaluating project performance. The 4-year program is accredited by the American Council for Construction Education (ACCE). The program objectives and outcomes are posted on our accreditation page for public information.

Supply Chain and Logistics Technology

Supply Chain and Logistics Technology is a technically-based program using information technology to optimize the global flow of industrial goods and services from manufacturers to industrial user. Supply Chain and Logistics Technology focuses on the international supply chain from the source of raw material through the final consumption of the products. Because supply-chain functions are part of all business activities, skills acquired with this degree offer unlimited employment opportunities.

Career Opportunities

The ever-growing construction industry has created a huge demand for dynamic individuals who can integrate construction science, engineering and business. The high demand is manifested in the starting salary of many of our graduates ($50,000 - $60,000) and the potential of earning $120,000 - $150,000 in 10 years.

Our graduates are hired as:

- Project Managers
- Construction Managers
- Field Engineers
- Construction Estimators
- Construction Planners
- Construction Superintendents
Supply Chain and Logistics Technology

Career options for SCLT graduates include supply-chain management with domestic and international manufacturing operations, service companies, third-party logistics providers, transportation companies, distribution centers, and other government and private businesses. Graduates are employed as industrial and transportation sales representatives; logistical analysts and consultants; operations managers; purchasing representatives; inventory control specialists; marketing directors; customer service representatives; and warehouse and distribution center managers.

Contact Information

Dr. Lingguang Song
Chair
Construction Management
Email: lsong5@uh.edu
Phone: 713-743-4377

Major

Construction Management, B.S.

The program offers two curricula: one desirable for Process and Industrial Construction and the other for Commercial Construction. Each provides a balanced mix of construction, engineering and business skills.

The objective of the Construction Management program is to provide graduates with knowledge and skills that are valued and sought by the construction industry profession. Commercial, industrial, and highway/heavy sectors of the construction industry need entry-level professional employees who are knowledgeable and skilled. Graduates must have knowledge of construction materials and methods, structural systems, soils site development, business, and contract administration; and have skills for planning, estimating, scheduling, and evaluating project performance. The curriculum provides fundamental and advanced coursework that incorporates current standards and technology for managing and providing quality construction. Software is applied in curriculum courses to prepare students for the utilization of computer applications in construction management.

Our Construction Management graduates should have knowledge and problem-solving skills to perform the following tasks:

- Determine costs for construction projects, and evaluate cost performance;
- Interpret construction documents and standards;
- Apply time value of money concepts for evaluation of alternatives;
- Prepare project schedules;
- Apply engineering design concepts for site development (soils and foundations, water distribution, waste-water collection, and storm-water drainage); and
- Perform general managerial functions.

The program is committed to attaining the following goals:

- Provide a career-oriented program that prepares students for productive and professional employment in the construction industry.
- Emphasize recent technological advancements in construction management.
- Prepare graduates to pursue graduate degrees and life-long learning. Provide students with an opportunity to prepare for entry into the graduate Construction Management program.

At the Masters level, students will receive advanced education, preparing them to be construction management leaders in industry or faculty members in academia. For more information on the graduate program, please refer to the Graduate and Professional Studies catalog.
Students pursuing a major in Construction Management must complete the following requirements in addition to the university core and general college requirements.

Construction Management

University Core

Core Communication (6 semester hours)

Core Communication I - ENGL 1303 - First Year Writing I  Credit Hours: 3.0
Core Communication II - ENGL 1304 - First Year Writing II  Credit Hours: 3.0

Core Mathematics (6 semester hours)

Core Mathematics - this program has specified math (see below)
Core Math/Reasoning (IDO) - this program has specified math (see below)

Core American History (6 semester hours)

HIST 1377 - The U.S. To 1877  Credit Hours: 3.0
HIST 1379 - The United States Since 1877  Credit Hours: 3.0

Core Government/Political Science (6 semester hours)

POLS 1336 - U.S. and Texas Constitution and Politics  Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0

Core Language, Philosophy & Culture (3 semester hours)

Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

Core Life & Physical Sciences - this program has specified science (see below)
Core Life & Physical Sciences - this program has specified science (see below)

Core Social and Behavioral Sciences (3 semester hours)

Core Social & Behavioral Sciences - this program has specified science (see below)

Core Writing in the Disciplines (IDO) (3 semester hours)
Core Writing in the Discipline (IDO) - this program has specified WID (see below)

Undergraduate Bachelor of Science Requirement

6 semester hours MATH courses
6 semester hours Formal Science

Courses required for program that also fulfill core categories:

Mathematics/Reasoning & BS Special Requirement

Core Mathematics - MATH 1431 - Calculus I Credit Hours: 4.0
Core Math/Reasoning - MATH 1330 - Precalculus Credit Hours: 3.0 (students who have completed Calculus may substitute higher level math for Precalculus)

Bachelor of Science - MATH 1313 - Finite Math with Applications Credit Hours: 3.0
Bachelor of Science - MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0 (student may apply previous credit for university recognized statistics including TMTH 3360 or INDE 2333)

Life & Physical Sciences

PHYS 1301 - Introductory General Physics I Credit Hours: 3.0
GEOL 1330 - Physical Geology Credit Hours: 3.0 OR
PHYS 1302 - Introductory General Physics II Credit Hours: 3.0

Social/Behavioral Sciences

ECON 2304 - Microeconomic Principles Credit Hours: 3.0 OR
ECON 2305 - Macroeconomic Principles Credit Hours: 3.0

Writing in the Disciplines

BUSI 4350 - Business Law and Ethics Credit Hours: 3.0

Departmental Requirements

ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0

Approved Business Electives (choose 6 semester hours)

MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0
MARK 3336 - Introduction to Marketing Credit Hours: 3.0
FINA 3332 - Principles of Financial Management Credit Hours: 3.0
SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0
ENTR 3310 - Entrepreneurship Credit Hours: 3.0
ENTR 3312 - Corporate Entrepreneurship Credit Hours: 3.0

Written or Verbal Communication (3 semester hours)

Recommended courses: Previously taken Speech or additional 3 hours from approved business electives above.

Construction Management Major Requirements

No grade lower than C will be accepted for CNST courses.

CNST 1361 - Construction Management I Credit Hours: 3.0
CNST 2351 - Construction Estimating I Credit Hours: 3.0
CNST 3185 - Construction Experience Credit Hours: 1.0
CNST 3265 - Construction Layout and Site Development Credit Hours: 2.0
CNST 3301 - Construction Equipment and Methods Credit Hours: 3
CNST 3331 - Construction Planning and Scheduling Credit Hours: 3.0
CNST 3355 - Strength of Construction Materials Credit Hours: 3.0
CNST 3155 - Construction Materials and Testing Credit Hours: 1.0
CNST 3372 - Soil Mechanics and Foundations Credit Hours: 3.0
CNST 4220 - Comprehensive Construction Management and Emerging Practices Credit Hours: 2
CNST 4302 - Construction Law and Ethics Credit Hours: 3.0

Students must choose either the Commercial Construction Track or the Process and Industrial Track

Commercial Construction Track

CNST 1301 - Construction Materials and Methods Credit Hours: 3.0
CNST 1330 - Graphics I Credit Hours: 3.0
CNST 2321 - Mechanical and Electrical Systems Credit Hours: 3.0
CNST 2341 - Construction Documents Credit Hours: 3.0
CNST 3205 - Construction Safety Management Credit Hours: 2.0
CNST 3351 - Construction Estimating II Credit Hours: 3.0
CNST 4311 - Structural Steel and Timber Construction Credit Hours: 3.0
CNST 4331 - Construction Management II Credit Hours: 3.0
CNST 4341 - Project Controls Credit Hours: 3.0
CNST 4381 - Reinforced Concrete and Building Codes Credit Hours: 3.0

Process and Industrial Track

CNST 1315 - Project Drawings & Graphics Credit Hours: 3.0
CNST 1325 - Process and Industrial Construction Credit Hours: 3.0
CNST 2325 - Process and Industrial Subsystems Credit Hours: 3.0
CNST 2345 - Contract Documents for Capital Projects Credit Hours: 3.0
CNST 3210 - Safety for Industrial Projects Credit Hours: 2.0
CNST 3365 - Cost Estimating Capital Projects Credit Hours: 3.0
CNST 4315 - Steel Construction Credit Hours: 3.0
CNST 4335 - Capital Projects Development Credit Hours: 3.0
CNST 4345 - Reinforced Concrete Structures Credit Hours: 3.0
CNST 4385 - Field Operations for Capital Projects **Credit Hours: 3.0**

Students must have minimum 2.00 in major

GPA for major will be calculated on the major requirements including the Commercial Construction or the Process and Industrial Track.

- 2.00 minimum cumulative grade point average in courses attempted at the University of Houston
- 36 of the credit hours must be advanced (junior or senior level)
- Final residency - The last 30 semester hours to be applied toward a bachelor's degree must be taken in residence at UH
- 120 hours required for this degree
- Limit of 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston
- Students may use no more than two semester hours in physical education activity courses
- Students must satisfy TSI to graduate

**Supply Chain and Logistics Technology, BS**

Supply Chain and Logistics Technology is a technically-based program using information technology to optimize the global flow of industrial goods and services from manufacturer to industrial user. Supply Chain and Logistics Technology focuses on the international supply chain from the source of raw material through the final consumption of the product.

Because supply-chain functions are part of all business activities, skills acquired with this degree offer unlimited employment opportunities.

Career options for SCLT graduates include supply-chain management with domestic and international manufacturing operations, service companies, third-party logistics providers, transportation companies, distribution centers, and other government and private businesses. Graduates are employed as industrial and transportation sales representatives; logistical analysts and consultants; operations managers; purchasing representatives; inventory control specialists; marketing directors; customer service representatives; and warehouse and distribution center managers.

The Supply Chain and Logistics Technology degree consists of 120 semester hours of university undergraduate academic credit.

**Supply Chain and Logistics Technology**

**University Core**

**Core Communication (6 semester hours)**

- Core Communication I - ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- Core Communication II - ENGL 1304 - First Year Writing II **Credit Hours: 3.0**

**Core Mathematics (6 semester hours)**

- Core Mathematics - this program has specified math (see below)
- Core Math/Reasoning (IDO) - this program has specified math (see below)

**Core American History (6 semester hours)**

- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
HIST 1379 - The United States Since 1877  **Credit Hours: 3.0**

Core Government/Political Science (6 semester hours)

- POLS 1336 - U.S. and Texas Constitution and Politics  **Credit Hours: 3.0**
- POLS 1337 - U.S. Government: Congress, President, and Courts  **Credit Hours: 3.0**

Core Language, Philosophy & Culture (3 semester hours)

Choose from approved list

Core Creative Arts (3 semester hours)

Choose from approved list

Core Life & Physical Sciences (6 semester hours)

Choose from approved list
Choose from approved list

Core Social and Behavioral Sciences (3 semester hours)

Core Social and Behavioral Sciences - this program has specified science (see below)

Core Writing in the Disciplines (IDO) (3 semester hours)

Core Writing in the Discipline - this program has specified WID (see below)

Undergraduate Bachelor of Science Requirement

- 6 semester hours MATH courses
- 6 semester hours Formals Science

Courses required for program that also fullfill core categories:

Mathematics and BS Special Requirements

Core Mathematics -  MATH 1311 - Elementary Mathematical Modeling  **Credit Hours: 3.0** OR
MATH 1310 - College Algebra  **Credit Hours: 3.0**
Core Math/Reasoning -  MATH 1314 - Calculus for Business and the Life Sciences  **Credit Hours: 3.0** (student may substitute MATH 1431 for MATH 1314)
Bachelor of Science -  MATH 1313 - Finite Math with Applications  **Credit Hours: 3.0** (student may substitute MATH 1330 or MATH 1432 for MATH 1313 if not pursing Operations track)
Bachelor of Science  TMTH 3360 - Applied Technical Statistics  **Credit Hours: 3.0** (student may apply previous credit for MATH 2311)
Social/Behavioral Sciences

ECON 2304 - Microeconomic Principles **Credit Hours: 3.0**

Writing in the Disciplines

TLIM 3363 - Technical Communications **Credit Hours: 3.0** (student may apply previous credit for ENGI 2304 Technical Communications)

Departmental Requirements

ECON 2305 - Macroeconomic Principles **Credit Hours: 3.0**
DIGM 3353 - Visual Communications Technology **Credit Hours: 3.0**
ITEC 1301 - Introduction to Computer Application Technology **Credit Hours: 3.0** (student may apply for previous credit for MIS 3300, COSC 1300)
TLIM 3360 - Law and Ethics in Technology & Innovation **Credit Hours: 3.0**
TLIM 3340 - Organizational Leadership and Supervision **Credit Hours: 3.0** OR
HDCS 3300 - Organizational Decisions in Technology **Credit Hours: 3.0** (student may apply previous credit for MANA 3335)

Supply Chain and Logistics Technology Major

No grade lower than C will be accepted on any courses applicable to the major. Students may petition one (1) grade of C- towards major.

SCLT 2362 - Intro To Logistics Technology **Credit Hours: 3.0**
SCLT 2380 - Distribution Channels **Credit Hours: 3.0** (student may apply previous credit for MARK 3336)
SCLT 3384 - Logistics Tech and Processes **Credit Hours: 3.0**
SCLT 3385 - Transport Economics and Policy **Credit Hours: 3.0**
SCLT 3387 - Procurement **Credit Hours: 3.0**
SCLT 3389 - Transportation Law **Credit Hours: 3.0**
SCLT 4312 - Inventory & Materials Handling **Credit Hours: 3.0**
SCLT 4375 - Global Supply Chain **Credit Hours: 3.0**
SCLT 4380 - Quality Systems **Credit Hours: 3.0**
SCLT 4387 - Financial Evaluation For Supply Chain Management **Credit Hours: 3.0**
SCLT 4389 - Practicum in Supply Chain and Logistics Technology **Credit Hours: 3.0**
ACCT 2301 - Principles of Financial Accounting **Credit Hours: 3.0**

Tracks

Operations Track (18 SH Minimum)

SCLT 3381 - Industrial and Consumer Sales **Credit Hours: 3.0** (students may apply previous credit for MARK 3337)
MECT 1365 - Elements of Materials and Processes **Credit Hours: 3.0**
TLIM 4341 - Production & Service Operation **Credit Hours: 3.0** (requires MATH 1313)
Approved Electives (9 SH) **

Systems Management Track (18 SH Minimum)

CIS 2332 - Information Technology Hardware and Systems Software **Credit Hours: 3.0**
CIS 2334 - Information Systems Applications **Credit Hours: 3.0**
CIS 3343 - Information Systems Analysis & Design **Credit Hours: 3.0**
CIS 3365 - Database Management  **Credit Hours: 3.0**
Approved Electives (6 SH) **

Global Logistics Track (18 SH Minimum)

SCLT 3340 - Geography for Global Supply Chain  **Credit Hours: 3.0**
   (student may apply previous credit for GEOG 2340)
SCLT 3375 - Maritime Operations  **Credit Hours: 3.0**
SCLT 3376 - Global Trade Intermediaries  **Credit Hours: 3.0**
Approved Electives (9 SH) **

Directed Emphasis Track (18 SH Minimum)

To be transferred from approved Community College programs.

** Electives to be chosen from College of Technology, Engineering, or Business (other choices must be preapproved).

Approved Electives

ACCT 2302 - Principles of Managerial Accounting  **Credit Hours: 3.0**
DIGM 3350 - Graphic Communication Production Processes  **Credit Hours: 3.0**
ENTR 3310 - Entrepreneurship  **Credit Hours: 3.0**
ENTR 3312 - Corporate Entrepreneurship  **Credit Hours: 3.0**
HDCS 4369 - Entrepreneurship  **Credit Hours: 3.0**
HDCS 4386 - Communication Strategies for Retailing and Supply Chain  **Credit Hours: 3.0**
BUSI 1301 - Business Principles  **Credit Hours: 3.0**
INTB 3355 - Global Environment of Business  **Credit Hours: 3.0**
MANA 4330 - Introduction to Strategic Human Resource Management  **Credit Hours: 3.0**
TLIM 3345 - Human Resources in Technology  **Credit Hours: 3.0**
TLIM 3350 - Emergency Management Principles  **Credit Hours: 3.0**
TLIM 4350 - Occupational Safety & Environmental Health  **Credit Hours: 3.0**
TLIM 4371 - Leading Change in the Workplace  **Credit Hours: 3.0**

Free electives (3 semester hours)

Students must have minimum 2.00 in major

Major GPA will be calculated based on the major requirements and the professional track.

- 2.00 minimum cumulative grade point average in courses attempted at the University of Houston
- 36 of the credit hours must be advanced (junior or senior level)
- Final residency - The last 30 semester hours to be applied toward a bachelor's degree must be taken in residence at UH
- 9 advanced credit hours in department of major in residence at UH
- 120 hours required for this degree
- Limit of 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston
- Students may use no more than two semester hours in physical education activity courses
- Students must satisfy TSI to graduate
Minor

Construction Management, Minor

College of Technology Minors

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

Construction Management Minor (15 Semester Hours)

Required Courses:

- CNST 2341 - Construction Documents Credit Hours: 3.0
- CNST 2351 - Construction Estimating I Credit Hours: 3.0
- CNST 3331 - Construction Planning and Scheduling Credit Hours: 3.0
- CNST 3351 - Construction Estimating II Credit Hours: 3.0
- CNST 4302 - Construction Law and Ethics Credit Hours: 3.0

Note(s):

Students from the College of Architecture have consent of instructor to take CNST 2341 and CNST 2351 once they have completed any of the following: ARCH 2325, ARCH 2326, ARCH 2327.

Purchasing Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

Minors must earn a grade of C or better in all minor courses.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

Purchasing Minor (15 credit hours)

Required courses:

- TLIM 3360 - Law and Ethics in Technology & Innovation Credit Hours: 3.0
- SCLT 3385 - Transport Economics and Policy Credit Hours: 3.0
- SCLT 3387 - Procurement Credit Hours: 3.0
- SCLT 4312 - Inventory & Materials Handling Credit Hours: 3.0
- SCLT 4387 - Financial Evaluation For Supply Chain Management Credit Hours: 3.0
Supply Chain and Logistics Technology Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

Minors must earn a grade of C or better in all minor courses.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

Supply Chain and Logistics Technology Minor (15 Credit Hours)

Required Courses:

- SCLT 2362 - Intro To Logistics Technology Credit Hours: 3.0

Twelve credit hours to be selected from the following:

- SCLT 2380 - Distribution Channels Credit Hours: 3.0
- SCLT 3381 - Industrial and Consumer Sales Credit Hours: 3.0
- SCLT 3384 - Logistics Tech and Processes Credit Hours: 3.0
- SCLT 3385 - Transport Economics and Policy Credit Hours: 3.0
- SCLT 4312 - Inventory & Materials Handling Credit Hours: 3.0
- SCLT 4389 - Practicum in Supply Chain and Logistics Technology Credit Hours: 3.0
- TLIM 4341 - Production & Service Operation Credit Hours: 3.0

Department of Engineering Technology

Who's Who in the Department

Chair:

Mequanint Moges

Professor:

Tony Ambler, Rupa Iyer, Heidar A. Malki, Mequanint Moges (Instructional), Wajiha Shireen, Ray Taylor (Research), George Zouradakis

Associate Professors:

Farrokh Attarzadeh, Farouk G. Attia, Driss Benhaddou, Amina Bose, Medhat El-Nahas (Instructional), Deniz Gürkan Ricardo Lent, Fatima Merchant, Francisco Robles Hernandez, Xiaojing Yuan, Weihang Zhu
Assistant Professor:

Ahmed Abdelhi, Kamran Alba, Venkatesh Balan, Burak Basaran (Instructional), Albert Flavier (Instructional), Lei Fan, Zheng Fan, Sivakumar Ganapathy, Parthiba Obulisamy (Research), Luca Pollonini, Jian Shi, Navdeep Singh (Instructional)

Department Overview

The Engineering Technology Council of the American Society of Engineering Education has provided the following definition of Engineering Technology:

Engineering Technology is the profession in which knowledge of the applied mathematical and natural sciences gained by higher education, experience, and practice is devoted to application of engineering principles and the implementation of technological advances for the benefit of humanity.

Engineering Technology education for the professional focuses primarily on analyzing, applying, implementing, and improving existing technologies and is aimed at preparing graduates for practice in that portion of the technological spectrum closest to the product improvement, manufacturing, and engineering operational functions.

The Department of Engineering Technology provides cutting-edge educational opportunities in Computer, Electrical, and Mechanical Engineering Technology programs and in Biotechnology, and Surveying Engineering in Technology.

To qualify for a Bachelor of Science in the College of Technology, students must complete university core curriculum requirements plus college and departmental requirements for a specific program as stated in this section of the catalog.

Curricula offered by the department emphasize the latest technological developments. Students perform meaningful, practical laboratory experiments to verify and reinforce their knowledge. Computer-related courses in all majors provide students with practical experience using computers and associated software. Upon graduation, students in the Engineering Technology department are ready for employment in their field and can continue to grow and advance in their field, because they have the skill to:

- Analyze and solve industrial problems;
- Communicate effectively, whether speaking or writing;
- Work effectively in a team setting using current leadership and business practices;
- Learn and apply new technology.

The department also has a research mission to discover new ways to apply basic science and technology discoveries to applications useful to business and industry.

Students pursuing a degree plan in the ET Department must complete university requirements

Accreditation

Computer Engineering Technology, Electrical Power Engineering Technology, and Mechanical Engineering Technology are accredited by

Technology Accreditation Commission of the Accreditation Board for Engineering and Technology
111 Market Place, Suite 1050
Baltimore, Maryland, 21202
410-347-7700

The Biotechnology program is accredited by

Association of Technology Management and Applied Engineering (ATMAE)
Major

Biotechnology, B.S.

The Bachelor of Science Program in Biotechnology is intended to provide students with strong core science concepts and an application-oriented undergraduate education. Strongly interdisciplinary, this innovative program strives to help students develop critical-thinking skills and increased interest and/or persistence in STEM-related courses. The program's objective is to prepare students for employment opportunities in the critically important and dynamic biotechnology industry. In addition, the curriculum will provide students with knowledge and core set of skills that span across basic sciences, technology, engineering, and mathematics (STEM) education. With an emphasis on environmental biotechnology, this is the first program in the state of Texas that integrates bioprocessing, nanobiotechnology, bioinformatics and environmental biotechnology into the undergraduate curriculum.

The program recognizes the need for cross-disciplinary training and fosters collaborative interactions that will strengthen undergraduate education.

The program is specifically designed to:

- Develop adaptable students with a strong foundation in skills that are relevant to the changing world of biotechnology.
- Provide students with practical training in the skills and techniques of biotechnology.
- Integrate the laboratory and lecture components of the program through the use of an experimental approach to learning.
- Uniquely combine practical, hands-on biotechnology training with cutting-edge biotechnology research and teaching.

Two curriculum tracks: 1) Bioprocessing, and 2) Bioinformatics give students the flexibility to tailor their degree based on their interest, educational background and career goals. These tracks, in combination with core courses, will provide our students with a broad exposure to the field of biotechnology. The presence of the Texas Medical Center in the greater Houston area and a growing biotechnology and pharmaceutical industry, places this program at the forefront of Biotechnology Education.

Students pursuing the Biotechnology major must complete the following requirements in addition to the university core and general college requirements.

Biotechnology

University Core

Core Communications (6 semester hours)

Core Communications - ENGL 1303 - First Year Writing I Credit Hours: 3.0
Core Communications II - ENGL 1304 - First Year Writing II Credit Hours: 3.0

Core Mathematics (6 semester hours)

Core Mathematics - this program has specified math (see below)
Core Math/Reasoning (IDO) - this program has specified math (see below)

Core American History (6 semester hours)

HIST 1377 - The U S To 1877 Credit Hours: 3.0
HIST 1379 - The United States Since 1877 Credit Hours: 3.0
Core Government/Political Science (6 semester hours)

POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Core Language, Philosophy & Culture (3 semester hours)

Core Language, Philosophy & Culture - this program has recommended course (see below)

Core Creative Arts (3 semester hours)

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

Core Life & Physical Sciences - this program has specified science (see below)
Core Life & Physical Sciences - this program has specified science (see below)

Core Social and Behavioral Sciences (3 semester hours)

Social and Behavioral Sciences: Approved Core Courses

Core Writing in the Disciplines (IDO) (3 semester hours)

Core Writing in the Disciplines - this program has specified WID (see below)

Undergraduate Bachelor of Science Requirement

- 6 semester hours MATH courses
- 6 semester hours Formal Science

Courses required for program that also fulfill core categories:

Language, Philosophy & Culture

PHIL 1305 - Introduction to Ethics **Credit Hours: 3.0** (recommended)

Mathematics and BS Special Requirements

Core Mathematics - MATH 1431 - Calculus **Credit Hours: 4.0**
Core Math/Reasoning - MATH 1330 - Precalculus **Credit Hours: 3.0** (students who have completed MATH 1431 may substitute higher level math for MATH 1330)

Bachelor of Science - MATH 2311 - Introduction to Probability and Statistics **Credit Hours: 3.0** OR
TMTH 3360 - Applied Technical Statistics **Credit Hours: 3.0** OR
PSYC 3301 - Introduction to Psychological Statistics Credit Hours: 3.0 OR
MATH 3339 - Statistics for the Sciences Credit Hours: 3.0

Bachelor of Science - ELET 2300 - Introduction to C++ Programming Credit Hours: 3.0 (student may apply previous credit for COSC 1410)

Life & Physical Sciences

BIOL 1361 - Introduction to Biological Science 1 Credit Hours: 3.0
BIOL 1161 - Introduction to Biological Science Laboratory 1 Credit Hours: 1.0
CHEM 1331 - Fundamentals of Chemistry Credit Hours: 3.0
CHEM 1111 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0

Writing in the Discipline

TLIM 3363 - Technical Communications Credit Hours: 3.0 (student may apply previous credit for ENGI 2304 Technical Communications)

Departmental Requirements

ELET 2300 - Introduction to C++ Programming Credit Hours: 3.0
CIS 2334 - Information Systems Applications Credit Hours: 3.0
PHYS 1301 - Introductory General Physics I Credit Hours: 3.0
PHYS 1101 - General Physics Laboratory I Credit Hours: 1.0

TLIM 3340 - Organizational Leadership and Supervision Credit Hours: 3.0 OR
HDCS 3300 - Organizational Decisions in Technology Credit Hours: 3.0 (student may apply previous credit for MANA 3335)

Biotechnology Major Requirements

Majors in Biotechnology may use no grade below C- on courses to satisfy major degree requirements.

BCHS 3304 - General Biochemistry I Credit Hours: 3.0
BCHS 3201 - Biochemistry I Laboratory Credit Hours: 2.0
BIOL 1362 - Introduction to Biological Science 2 Credit Hours: 3.0
BIOL 1162 - Introduction to Biological Science Laboratory 2 Credit Hours: 1.0
BIOL 3332 - Elementary Microbiology Credit Hours: 3.0
BIOL 3132 - Elementary Microbiology Laboratory Credit Hours: 1.0
BTEC 1322 - Introduction to Biotechnology Credit Hours: 3.0
BTEC 3100 - Biotechnology Research Methods & Applications Credit Hours: 1
BTEC 3301 - Principles of Genomics/Proteomics and Bioinformatics Credit Hours: 3
BTEC 3302 - Molecular Genetics and Biotechnology Credit Hours: 3
BTEC 3317 - Biotechnology Regulatory Environment Credit Hours: 3
BTEC 3321 - Current Good Manufacturing Practices in Biotechnology Credit Hours: 3
BTEC 4350 - Biotechnology Capstone Experience Credit Hours: 3
CHEM 1332 - Fundamentals of Chemistry 2 Credit Hours: 3.0
CHEM 1112 - Fundamentals of Chemistry Laboratory Credit Hours: 1.0
CHEM 3331 - Fundamentals of Organic Chemistry Credit Hours: 3.0
CHEM 3221 - Fundamentals of Organic Chemistry Laboratory Credit Hours: 2.0
Biotechnology students must complete either the Biomanufacturing track or the Bioinformatics track.

**Biomanufacturing Track**

- BTEC 3320 - Introduction to Quality Assurance and Quality Control in Biotechnology  **Credit Hours: 3.0**
- BTEC 4101 - Principles of Bioprocessing Laboratory  **Credit Hours: 1**
- BTEC 4301 - Principles of Bioprocessing  **Credit Hours: 3**
- BTEC 4319 - Microbial Biotechnology  **Credit Hours: 3.0**

Approved Electives  **Cr. 3.**

**Bioinformatics Track (12 SH Minimum)**

- BTEC 4300 - Principles of Bioinformatics  **Credit Hours: 3**
- CIS 3343 - Information Systems Analysis & Design  **Credit Hours: 3.0**
- CIS 3365 - Database Management  **Credit Hours: 3.0**

Approved Electives

- BCHS 4306 - Nucleic Acids  **Credit Hours: 3.0**
- BCHS 4324 - Bioinformatics  **Credit Hours: 3.0**
- BCHS 4325 - Molecular Microbiology  **Credit Hours: 3.0**
- BIOL 3306 - Evolutionary Biology  **Credit Hours: 3.0**
- BIOL 4310 - Biostatistics  **Credit Hours: 3.0**
- BIOL 4323 - Immunology  **Credit Hours: 3.0**
- BIOL 4365 - Applied Evolution  **Credit Hours: 3.0**
- BIOL 4366 - Molecular and Genome Evolution  **Credit Hours: 3.0**
- BIOL 4367 - Evolutionary Ecology  **Credit Hours: 3.0**
- BIOL 4374 - Cell Biology  **Credit Hours: 3.0**
- TLIM 4342 - Quality Improvement Methods  **Credit Hours: 3.0**
- TLIM 4350 - Occupational Safety & Environmental Health  **Credit Hours: 3.0**

**Free electives (6 semester hours)**

Students must have minimum 2.00 in major.

Major GPA will be calculated on the major requirements including Biomanufacturing or Bioinformatics track.

- 2.00 minimum cumulative grade point average in courses attempted at the University of Houston
- 36 of the credit hours must be advanced (junior or senior level)
- Final Residency - The last 30 semester hours to be applied toward a bachelor’s degree must be taken in residence at UH
- 9 advanced credit hours in department of major in residence at UH
- 120 hours required for this degree
- Limit of 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston
- Students may use no more than two semester hours in physical education activity courses
- Students must satisfy TSI to graduate

**Computer Engineering Technology, B.S.**
The goal of the Computer Engineering Technology program is to provide students with a high quality applications-oriented undergraduate education based on state-of-the-art technology as a preparation for productive employment in the broad field of computer applications. This goal is achieved through four objectives:

- Continuously updating courses in the program to ensure relevance to the latest industrial practices
- Provision of appropriate computing facilities,
- Integration of advanced computer technology in all courses, and
- Continuing professional growth and development of the students and faculty. The program is designed to satisfy the educational needs of the urban Houston community by providing an inclusive climate that fosters self-awareness, personal growth, and a desire for life-long learning.

Computers are used to control processes in manufacturing, chemical production, and oil & gas industry and energy systems. They are used to route data and conversations in telephone and wireless communication; provide the best shipping, billing, routing, and inventory information for the transportation industry; and online market place. Computers and appropriate software packages are also used to solve scientific and engineering problems, to aid in medical tests and diagnoses, and to help design structures and buildings.

With computers assisting nearly every professional and leisure activity of modern life, people who can design, develop, implement, install, configure, network, operate, and maintain computer systems can make a valuable contribution to business and industry. People familiar with both the hardware and software requirements of computers are especially valuable.

Computer Engineering Technology majors study the application of state-of-the-art hardware and software in contemporary computer systems. Students are given a solid foundation in mathematics, basic sciences, and electronics. A thorough study is made of digital circuits and embedded systems, and computer circuits and systems. Hardware and software aspects of computers are covered in detail. Graduates of Computer Engineering Technology are qualified for immediate employment in a variety of industries as sales representatives, field specialists, interface designers, software specialists, and digital applications specialists.

Students pursuing the Computer Engineering Technology major must complete the following requirements, in addition to university core and general college requirements.

### Computer Engineering Technology

#### University Core

**Core Communications (6 semester hours)**

- Core Communications I - ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- Core Communications II - ENGL 1304 - First Year Writing II **Credit Hours: 3.0**

**Core Mathematics (6 semester hours)**

- Core Mathematics - this program has specified math (see below)
- Core Math/Reasoning (IDO) - this program has specified math (see below)

**Core American History (6 semester hours)**

- HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
- HIST 1379 - The United States Since 1877 **Credit Hours: 3.0**

**Core Government/Political Science (6 semester hours)**
POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Core Language, Philosophy & Culture (3 semester hours)

Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts (3 semester hours)

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

Core Life & Physical Sciences - this program has specified science (see below)
Core Life & Physical Sciences - this program has specified science (see below)

Core Social and Behavioral Sciences (3 semester hours)

Social and Behavioral Sciences: Approved Core Courses

Core Writing in the Disciplines (IDO) (3 semester hours)

Core Writing in the Disciplines - this program has specified WID (see below)

Undergraduate Bachelor of Science Requirement

6 semester hours MATH course
6 semester hours Formal Science

Courses required for program that also fulfill core categories:

Mathematics and BS Special Requirements

Core Mathematics - MATH 1431 - Calculus I **Credit Hours: 4.0**
Core Math/Reasoning - MATH 1432 - Calculus II **Credit Hours: 4.0**
MATH 3307 - Statistical Applications **Credit Hours: 3 OR**
MATH 3321 - Engineering Mathematics **Credit Hours: 3.0**
Bachelor of Science - ELET 2300 - Introduction to C++ Programming **Credit Hours: 3.0**

Life & Physical Sciences

PHYS 1301 - Introductory General Physics I **Credit Hours: 3.0**
PHYS 1101 - General Physics Laboratory I **Credit Hours: 1.0**
PHYS 1302 - Introductory General Physics II **Credit Hours: 3.0**
PHYS 1102 - General Physics Laboratory II Credit Hours: 1.0

Writing in the Discipline

TLIM 3363 - Technical Communications Credit Hours: 3.0 (student may apply previous credit for ENGI 2304 Technical Communications)

Departmental Requirements

CHEM 1301 - Foundations of Chemistry Credit Hours: 3.0 (student may apply previous credit for CHEM 1331 or CHEM 1372 or CHEM 1332)

TLIM 3340 - Organizational Leadership and Supervision Credit Hours: 3.0 or
HDCS 3300 - Organizational Decisions in Technology Credit Hours: 3.0 (student may apply previous credit for MANA 3335)

MECT 4188 - Ethics in Engineering Technology Credit Hours: 1.0

MECT 3341 - Computer-Aided Drafting Credit Hours: 3.0 or
approved MECT elective

TECH 3366 - Applications of Numerical Methods in Technology Credit Hours: 3.0 (student may apply previous credit for ECE 2331)

Computer Engineering Technology Major Requirements

Majors in Computer Engineering Technology may use no grade below C- ELET courses to satisfy major degree requirements.

ELET 1400 - Circuit Theory and Lab I Credit Hours: 4.0 (student may apply previous credit for ECE 2300/2100)
ELET 1401 - Circuit Theory and Laboratory II Credit Hours: 4.0
ELET 2303 - Digital Systems Credit Hours: 3.0
ELET 2103 - Digital Systems Laboratory Credit Hours: 1.0
ELET 2305 - Semiconductor Devices and Circuits Credit Hours: 3.0
ELET 2105 - Semiconductor Devices and Circuits Laboratory Credit Hours: 1.0
ELET 3301 - Linear Systems Analysis Credit Hours: 3.0
ELET 3402 - Communications Circuits Credit Hours: 4.0
ELET 3403 - Sensor Applications Credit Hours: 4.0
ELET 3405 - Microprocessor Architecture Credit Hours: 4.0
ELET 3425 - Embedded Systems Credit Hours: 4.0
ELET 4308 - Senior Project Credit Hours: 3.0
ELET 4208 - Senior Project Laboratory Credit Hours: 2.0
ELET 4421 - Computer Networks Credit Hours: 4.0

Pre-Approved Electives

Select 12 semester hours from the following:

ELET 4300 - Unix Operating System Credit Hours: 3.0
ELET 4302 - Data Communication Systems Credit Hours: 3.0
ELET 4309 - Object-Oriented Applications Programming Credit Hours: 3.0
ELET 4315 - Telecommunications Credit Hours: 3.0
ELET 4325 - Advanced Microcomputer Networks Credit Hours: 3.0
ELET 4327 - Optical Circuits Credit Hours: 3.0
ELET 4332 - Physiological Systems Modeling and Simulation Credit Hours: 3.0
ELET 4350 - Overview of Computational Health Informatics Credit Hours: 3.0
ELET 4351 - Biomedical Data Mining Credit Hours: 3.0
ELET 4352 - Computational Tools for Technology Credit Hours: 3.0
ELET 4354 - Biomedical Image Analysis Credit Hours: 3.0
ELET 4355 - Biomedical Signal Analysis Credit Hours: 3.0
ELET 4360 - Sustainable and Resilient Technology Development Credit Hours: 3.0
Approved ELET elective (3 advanced semester hours)

Free electives (3 semester hours)

Students must have minimum 2.00 in major

Major GPA calculated on the major requirements and approved electives.

2.00 minimum cumulative grade point average in courses attempted at the University of Houston
36 of the credit hours must be advanced [junior or senior level]
Final residency - The last 30 semester hours to be applied toward a bachelor’s degree must be taken in residence at UH
9 advanced credit hours in department of major in residence at UH
124 hours required for this degree
Limit 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston
Students may use no more than two semester hours in physical education activity courses
Students must satisfy TSI to graduate

Electrical Power Engineering Technology, B.S.

The goal of the Electrical Power Engineering Technology program is to provide students with a high quality applications-oriented undergraduate education based on state-of-the-art technological equipment associated with electrical power engineering technology. This goal is achieved through several objectives including continued updating of specific courses in the program to ensure relevance to the latest industrial changes, supporting the development of appropriate computer facilities, promoting the integration of advanced technology in all courses, and encouraging professional growth and development of the faculty.

The program is designed to satisfy the educational needs of the Houston community by providing a climate that fosters intellectual and personal growth, and a desire for life-long learning.

Students completing a major in Electrical Power Engineering Technology receive a strong foundation in electrical power systems, analog and digital signal conditioning, microprocessor hardware and software, industrial electronics, electrical transmission and distribution and rotating machinery operation, application and control.

Students have the opportunity to select additional coursework in control systems, alternative energy sources, and other electrical power related topics.

One of the newest and fastest-growing areas is in the application of computers for electrical power system control; and power grid management.

The manufacturers of electrical systems and equipment need electrical power technologists who are familiar with both traditional and computer-controlled machines and electrical systems.

The electrical industry provides and controls the transformers, motors, generators, switch gear, and protection equipment required to power homes, businesses, and industries. Electrical power technologists plan electrical systems, modifications to existing electrical systems, and system protection for large electrical distribution and transmission networks to ensure that they are dependable, economical and safe.
Graduates of the Electrical Power Engineering Technology major understand, design, analyze, and work effectively in industrial settings utilizing product/process control systems and electrical power systems.

Graduates are working in petrochemical companies, electrical utilities, electrical equipment, manufacturing, sales, testing, and a host of other electrical power related industries.

Students pursuing a major in Electrical Power Engineering Technology must complete the following requirements, in addition to university core and general college requirements:

Electrical Power Engineering Technology

University Core

Core Communication (6 semester hours)

Core Communication I - ENGL 1303 - First Year Writing I Credit Hours: 3.0
Core Communication II - ENGL 1304 - First Year Writing II Credit Hours: 3.0

Core Mathematics (6 semester hours)

Core Mathematics - this program has specified math (see below)
Core Math/Reasoning (IDO) - this program has specified math (see below)

Core American History (6 semester hours)

HIST 1377 - The U.S. To 1877 Credit Hours: 3.0
HIST 1379 - The United States Since 1877 Credit Hours: 3.0

Core Government/Political Science (6 semester hours)

POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Core Language, Philosophy & Culture (3 semester hours)

Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts (3 semester hours)

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

Core Life & Physical Sciences - this program has specified science (see below)
Core Life & Physical Sciences - this program has specified science (see below)
Core Social and Behavioral Science (3 semester hours)

Social and Behavioral Sciences: Approved Core Courses

Core Writing in the Disciplines (IDO) (3 semester hours)

Core Writing in the Discipline - this program has specified WID (see below)

Undergraduate Bachelor of Science Requirement

6 semester hours MATH courses
6 semester hours Formal Science

Courses required for program that also fulfill core categories:

Mathematics and BS Special Requirements

Core Mathematics - MATH 1431 - Calculus I Credit Hours: 4.0
Core Math/Reasoning - MATH 1432 - Calculus II Credit Hours: 4.0
Bachelor of Science - ELET 2300 - Introduction to C++ Programming Credit Hours: 3.0 (student may apply previous credit for COSC 1410)
Bachelor of Science - MATH 3307 - Statistical Applications Credit Hours: 3 OR
MATH 3321 - Engineering Mathematics Credit Hours: 3.0

Life & Physical Sciences

PHYS 1301 - Introductory General Physics I Credit Hours: 3.0
PHYS 1101 - General Physics Laboratory I Credit Hours: 1.0
PHYS 1302 - Introductory General Physics II Credit Hours: 3.0
PHYS 1102 - General Physics Laboratory II Credit Hours: 1.0

Writing in the Disciplines

TLIM 3363 - Technical Communications Credit Hours: 3.0 (student may apply previous credit for ENGL 2304 Technical Communications)

Departmental Requirements

TLIM 3340 - Organizational Leadership and Supervision Credit Hours: 3.0 OR
HDCS 3300 - Organizational Decisions in Technology Credit Hours: 3.0 (student may apply previous credit for MANA 3335)

MECT 1365 - Elements of Materials and Processes Credit Hours: 3.0
MECT 3341 - Computer-Aided Drafting Credit Hours: 3.0 OR
Approved MECT elective

MECT 4188 - Ethics in Engineering Technology Credit Hours: 1.0

Electrical Power Engineering Technology Major Requirements
Majors in Electrical Power Engineering Technology may use no grade below C- in ELET courses to satisfy major degree requirements.

ELET 1400 - Circuit Theory and Lab I Credit Hours: 4.0 (students may apply previous credit for ECE 2300/2100)
ELET 1401 - Circuit Theory and Laboratory II Credit Hours: 4.0
ELET 2301 - Poly-phase Circuits and Transformers Credit Hours: 3.0 (students may apply previous credit for ECE 3364)
ELET 2101 - Poly-Phase Circuits and Transformers Laboratory Credit Hours: 1.0
ELET 2303 - Digital Systems Credit Hours: 3.0
ELET 2103 - Digital Systems Laboratory Credit Hours: 1.0
ELET 2305 - Semiconductor Devices and Circuits Credit Hours: 3.0
ELET 2105 - Semiconductor Devices and Circuits Laboratory Credit Hours: 1.0
ELET 3301 - Linear Systems Analysis Credit Hours: 3.0
ELET 3405 - Microprocessor Architecture Credit Hours: 4.0
ELET 3307 - Electrical Machines and Controls Credit Hours: 3.0
ELET 3107 - Electrical Machines and Controls Laboratory Credit Hours: 1.0
ELET 3312 - Programmable Logic Controllers & Motor Control Systems Credit Hours: 3.0
ELET 3112 - Rotating Machine Controls Laboratory Credit Hours: 1.0
ELET 4303 - Computer-Based Power Distribution and Transmission Credit Hours: 3.0
ELET 4103 - Power Distribution and Transmission Lab Credit Hours: 1.0
ELET 4305 - Senior Design in Electrical Power Engineering Technology Credit Hours: 3.0
ELET 4105 - Senior Design Lab in Electrical Power Engineering Technology Credit Hours: 1.0
ELET 4317 - Computer-Based Electrical System Protection and Safety Credit Hours: 3.0
ELET 4319 - Electrical Power Systems and Industry Practices Credit Hours: 3.0
ELET 4326 - Power Converter Circuits Credit Hours: 3.0
ELET 4126 - Power Converter Circuits Laboratory Credit Hours: 1.0

Approved Electives (6 semester hours)

ELET 4302 - Data Communication Systems Credit Hours: 3.0
ELET 4304 - Control Systems Credit Hours: 3.0
ELET 4310 - Alternative Electrical Energy Sources Credit Hours: 3.0

Free electives (3 semester hours)

Students must have minimum 2.00 in major

Major GPA is calculated based on courses listed in major requirement and approved electives.

2.00 minimum cumulative grade point average in courses attempted at the University of Houston
36 of the credit hours must be advanced (junior or senior level)
Final residency- The last 30 semester hours to be applied toward a bachelor's degree must be taken in residence at UH
9 advanced credit hours in department of major in residence at UH
124 hours required for this degree
Limit of 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston

Mechanical Engineering Technology, B.S.

Reflecting the broad area represented by the Mechanical Engineering Technology field, the program provides students with a solid foundation in basic engineering technology principles while allowing them to pursue cutting edge topics via senior-level electives. This program includes courses...
that are directed at computer-aided design, computer-aided manufacturing, and materials selection and management. The majority of the courses incorporate labs, focused on applied mechanical design concepts.

The goal of the Mechanical Engineering Technology major is to provide students with a well-rounded fundamental and application-oriented education focused on the knowledge of existing and new developments in Mechanical Engineering Technology. Graduates of the baccalaureate degree will develop the theoretical and practical knowledge and skills necessary for appropriate careers in local and national industries. To achieve this mission, the Mechanical Engineering Technology program is committed to attaining the following goals for all students:

- Provide a career-oriented program that prepares students for sustainable employment.
- Emphasize the latest technological advancements in computer-aided drafting, computer-aided design, and computer-aided manufacturing. Students should be able to apply problem-solving techniques and critical thinking skills at the level required for their professional practice.
- Provide a learning environment that will enable students to interact with state-of-the-art technological software. Students should gain experience in the application of computer software to analyze and design mechanical systems and automated manufacturing systems.
- Prepare students to pursue graduate degrees and lifelong learning.

The programs are designed to satisfy the educational needs of the urban Houston community by providing a climate that fosters self-awareness, personal growth, and a desire for lifelong learning.

Students in Mechanical Engineering Technology are encouraged to pursue the option to teach through the teachHOUSTON program at http://www.uh.edu/nsm/teachhouston/students/stem-acp/.

Students pursuing a major in Mechanical Engineering Technology must complete the following requirements, in addition to university core and general college requirements.

### Mechanical Engineering Technology

#### University Core

**Core Communication (6 semester hours)**

- Core Communication I - ENGL 1303 - First Year Writing I  
  **Credit Hours:** 3.0
- Core Communication II - ENGL 1304 - First Year Writing II  
  **Credit Hours:** 3.0

**Core Mathematics (6 semester hours)**

- Core Mathematics - this program has specified math (see below)
- Core Math/Reasoning (IDO) - this program has specified math (see below)

**Core American History (6 semester hours)**

- HIST 1377 - The U S To 1877  
  **Credit Hours:** 3.0
- HIST 1378 - The U S Since 1877  
  **Credit Hours:** 3.0

**Core Government/Political Science (6 semester hours)**

- POLS 1336 - U.S. and Texas Constitution and Politics  
  **Credit Hours:** 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts  
  **Credit Hours:** 3.0

**Core Language, Philosophy & Culture (3 semester hours)**
Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts (3 semester hours)

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

Core Life & Physical Sciences - this program has specified science (see below)
Core Life & Physical Sciences - this program has specified science (see below)

Core Social and Behavioral Sciences (3 semester hours)

Core Social & Behavioral Science - this program has recommended course (see below)

Core Writing in the Disciplines (IDO) (3 semester hours)

Core Writing in the Disciplines - this program as specified WID (see below)

Undergraduate Bachelor of Science Requirement

6 semester hours MATH courses
6 semester hours Formal Science

Courses required for program that also fullfill core categories:

Mathematics and BS Special Requirements

Core Mathematics - MATH 1431 - Calculus I Credit Hours: 4.0
Core Math/Reasoning - MATH 1432 - Calculus II Credit Hours: 4.0
Bachelor of Science - MATH 1330 - Precalculus Credit Hours: 3.0 (students who have completed Calculus 2 may substitute other math for precalculus including statistics or higher level math)

Bachelor of Science - ELET 2300 - Introduction to C++ Programming Credit Hours: 3.0 OR
COSC 1410 - Introduction to Computer Science I Credit Hours: 4.0

Life & Physical Sciences

PHYS 1301 - Introductory General Physics I Credit Hours: 3.0
PHYS 1101 - General Physics Laboratory I Credit Hours: 1.0
PHYS 1302 - Introductory General Physics II Credit Hours: 3.0
PHYS 1102 - General Physics Laboratory II Credit Hours: 1.0

Social and Behavioral Science

TECH 1313 - Impact of Modern Technology on Society Credit Hours: 3.0 (preferred)
Writing in the Discipline

TLIM 3363 - Technical Communications **Credit Hours: 3.0**
(student may apply previous credit for ENGI 2304 Technical Communications)

Departmental Requirements

CHEM 1301 - Foundations of Chemistry **Credit Hours: 3.0** (may substitute higher level Chemistry)
CHEM 1101 - Foundations of Chemistry Laboratory **Credit Hours: 1.0** (may substitute higher level chemistry lab)
ELET 2307 - Electrical-Electronic Circuits **Credit Hours: 3.0** (student may apply previous credit for ECE 3336)

TLIM 3340 - Organizational Leadership and Supervision **Credit Hours: 3.0** OR
HDCS 3300 - Organizational Decisions in Technology **Credit Hours: 3.0** (student may apply previous credit for MANA 3335)

Mechanical Engineering Technology Major Requirements

Majors in Mechanical Engineering Technology may use no grade below **C-** in MECT courses to satisfy major degree requirements.

MECT 1330 - Engineering Graphics **Credit Hours: 3.0**
MECT 1364 - Materials and Processes I **Credit Hours: 3.0**
MECT 2354 - Introduction to Mechanics **Credit Hours: 3.0** (student may apply previous credit for MECE 2336 or CIVE 2330)
MECT 3318 - Fluid Mechanics Applications **Credit Hours: 3.0** (student may apply previous credit for MECE 3363)
MECT 3118 - Fluid Mechanics Application Laboratory **Credit Hours: 1.0**
MECT 3331 - Applied Thermodynamics **Credit Hours: 3.0** (student may apply previous credit for MECE 2334)
MECT 3342 - Elements of Plant Design **Credit Hours: 3.0**
MECT 3355 - Strength of Materials **Credit Hours: 3.0** (student may apply previous credit for MECE 3369)
MECT 3155 - Strength of Materials Laboratory **Credit Hours: 1.0**
MECT 3358 - Dynamics of Mechanisms **Credit Hours: 3.0**
MECT 3360 - Automated Manufacturing Systems **Credit Hours: 3.0**
MECT 3365 - Computer-Aided Design I **Credit Hours: 3.0**
MECT 3367 - Quality Control Technology **Credit Hours: 3.0**
MECT 4188 - Ethics in Engineering Technology **Credit Hours: 1.0**
MECT 4331 - Heat Transfer Applications **Credit Hours: 3.0**
MECT 4372 - Materials Technology **Credit Hours: 3.0**
MECT 4172 - Materials Technology Laboratory **Credit Hours: 1.0**
MECT 4275 - Senior Design Project I **Credit Hours: 2.0**
MECT 4276 - Senior Design Project II **Credit Hours: 2.0**

Mechanical Engineering Technology students must complete 12 hours from Mechanical electives.

MECT 3330 - Advanced Engineering Graphics **Credit Hours: 3.0**
MECT 3341 - Computer-Aided Drafting **Credit Hours: 3.0**
MECT 3345 - Fundamentals of Power Generation Technology **Credit Hours: 3.0**
MECT 3362 - Industrial Work Measurement **Credit Hours: 3.0**
MECT 3364 - Materials and Processes II **Credit Hours: 3.0**
MECT 3366 - Lean Manufacturing **Credit Hours: 3.0**
MECT 3368 - Economic Analysis of Technology **Credit Hours: 3.0**
MECT 4323 - Applications in Stress Analysis **Credit Hours: 3.0**
MECT 4326 - Fundamentals of Offshore Systems **Credit Hours: 3.0**
MECT 4328 - Fundamentals of Pipeline Design  
Credit Hours: 3.0

MECT 4330 - Valve Design  
Credit Hours: 3.0

MECT 4332 - Fundamentals of Drilling Technology  
Credit Hours: 3.0

MECT 4337 - Downhole Drilling Tools & Technology  
Credit Hours: 3.0

MECT 4341 - Materials Selection & Management  
Credit Hours: 3.0

MECT 4345 - Fundamental & Applications of Fuel Cell  
Credit Hours: 3.0

MECT 4350 - Principles of Mechatronics  
Credit Hours: 3.0

MECT 4360 - Fundamentals of Biomechanics  
Credit Hours: 3.0

MECT 4364 - Smart Manufacturing Systems Design  
Credit Hours: 3.0

MECT 4365 - Computer-Aided Design II  
Credit Hours: 3.0

MECT 4367 - Industrial Maintenance and Reliability  
Credit Hours: 3.0

MECT 4368 - Simulation of Manufacturing Systems  
Credit Hours: 3.0

MECT 4384 - Manufacturing Systems Control  
Credit Hours: 3.0

Free electives (3 semester hours)

Major GPA calculated on the major requirements and approved electives

- 2.00 minimum cumulative grade point average in courses attempted at the University of Houston
- 36 of the credit hours must be advanced (junior or senior level)
- Final residency - The last 30 semester hours to be applied toward a bachelor’s degree must be taken in residence at UH
- 9 advanced credit hours in department of major in residence at UH
- 124 hours required for this degree
- Limit of 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston
- Students may use no more than two semester hours in physical education activity courses
- Students must satisfy TSI to graduate

Accelerated Program

Accelerated B.S./M.S. Degree Program in Biotechnology

The Accelerated B.S./M.S. degree program is open to qualified undergraduate Technology majors in Biotechnology with specializations in either Bioprocessing or Bioinformatics wishing to continue their education at the graduate level immediately upon completion of the B.S. degree. Students that are accepted in the accelerated program take up to eleven graduate credit hours that are applied to both the bachelors’ degree and master’s degree in Biotechnology. Students may pursue either the thesis or non-thesis master’s degree options. The B.S. degree will be conferred upon completion of the undergraduate curriculum requirements with appropriate graduate courses substituted for undergraduate courses. The graduate degree shall be awarded based on existing requirements for the graduate degree in the semester the student applies and is admitted to the graduate program. Admission is not guaranteed. Application for the accredited program is recommended for undergraduates during their junior year. Application and completion requirements are available from the Engineering Technology department in room 304 of the Technology Building.

Minor

Bioinformatics in Biotechnology and Biomedical Sciences Minor

College of Technology Minors
The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

Bioinformatics in Biotechnology and Biomedical Sciences Minor (15 Semester Hours)

Core Requirement:

- BTEC 1322 - Introduction to Biotechnology **Credit Hours: 3.0**
- MATH 2311 - Introduction to Probability and Statistics **Credit Hours: 3.0** OR
  - TMTH 3360 - Applied Technical Statistics **Credit Hours: 3.0** OR
  - MATH 3339 - Statistics for the Sciences **Credit Hours: 3.0**
- BTEC 3301 - Principles of Genomics/Proteomics and Bioinformatics **Credit Hours: 3**

Electives: Choose (2)

- ELET 2300 - Introduction to C++ Programming **Credit Hours: 3.0**
- BTEC 3317 - Biotechnology Regulatory Environment **Credit Hours: 3.0**
- BTEC 4300 - Principles of Bioinformatics **Credit Hours: 3**
  - Students who choose ELET 2300 as an elective must make sure they complete 9 advanced hours in minor.

Bioprocessing in Biomedical and Biopharmaceutical Sciences Minor

Bioprocessing in Biomedical and Biopharmaceutical Sciences Minor (15-16 Semester Hours)

Required Courses:

- BTEC 1322 - Introduction to Biotechnology **Credit Hours: 3.0**
- BTEC 3320 - Introduction to Quality Assurance and Quality Control in Biotechnology **Credit Hours: 3.0**
- BTEC 3321 - Current Good Manufacturing Practices in Biotechnology **Credit Hours: 3.0**
- BTEC 4301 - Principles of Bioprocessing **Credit Hours: 3**
- BTEC 4319 - Microbial Biotechnology **Credit Hours: 3.0**
- BTEC 3301 - Principles of Genomics/Proteomics and Bioinformatics **Credit Hours: 3**

Electives: (Choose 3-4 semester hours)

- BTEC 4301 - Principles of Bioprocessing **Credit Hours: 3 and**
- BTEC 4101 - Principles of Bioprocessing Laboratory **Credit Hours: 1**
- BTEC 4319 - Microbial Biotechnology **Credit Hours: 3.0**
- BTEC 3301 - Principles of Genomics/Proteomics and Bioinformatics **Credit Hours: 3**
Computer Engineering Technology Minor

College of Technology Minors

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

Computer Engineering Technology Minor (17-18 Semester Hours)

Required Courses:

- ELET 2307 - Electrical-Electronic Circuits Credit Hours: 3.0
- ELET 2303 - Digital Systems Credit Hours: 3.0
- ELET 2103 - Digital Systems Laboratory Credit Hours: 1.0
- ELET 3405 - Microprocessor Architecture Credit Hours: 4.0

Select any two of the following courses or sets of courses in consultation with a faculty advisor:

- ELET 3403 - Sensor Applications Credit Hours: 4.0
- ELET 3425 - Embedded Systems Credit Hours: 4.0
- ELET 4300 - Unix Operating System Credit Hours: 3.0
- ELET 4309 - Object-Oriented Applications Programming Credit Hours: 3.0

Drilling Technology Minor

Drilling Technology Minor (15 Semester Hours)

Prerequisites:

- MATH 1431 - Calculus I Credit Hours: 4.0
- MATH 1432 - Calculus II Credit Hours: 4.0
PHYS 1301 - Introductory General Physics I  
Credit Hours: 3.0

**Required Courses:**

- MECT 2354 - Introduction to Mechanics  
  Credit Hours: 3
- MECT 3318 - Fluid Mechanics Applications  
  Credit Hours: 3.0
- MECT 3355 - Strength of Materials  
  Credit Hours: 3.0
- MECT 4332 - Fundamentals of Drilling Technology  
  Credit Hours: 3.0
- MECT 4337 - Downhole Drilling Tools & Technology  
  Credit Hours: 3.0

**Electrical Power Engineering Technology Minor**

**College of Technology Minors**

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

**Electrical Power Engineering Technology Minor (17-18 Semester Hours)**

**Prerequisites:**

- MATH 1330 - Precalculus  
  Credit Hours: 3.0
- MATH 1431 - Calculus I  
  Credit Hours: 4.0

**Required Courses:**

- ELET 2307 - Electrical-Electronic Circuits  
  Credit Hours: 3.0
- ELET 2301 - Poly-phase Circuits and Transformers  
  Credit Hours: 3.0
- ELET 2101 - Poly-Phase Circuits and Transformers Laboratory  
  Credit Hours: 1.0
- ELET 3307 - Electrical Machines and Controls  
  Credit Hours: 3.0
- ELET 3107 - Electrical Machines and Controls Laboratory  
  Credit Hours: 1.0

Select two of the following courses or sets of courses, one of which must be from Group I.

Courses from Group I or Group II require approval of faculty advisor:

**Group I:**

- ELET 3312 - Programmable Logic Controllers & Motor Control Systems  
  Credit Hours: 3.0
- ELET 3112 - Rotating Machine Controls Laboratory  
  Credit Hours: 1.0
ELET 4303 - Computer-Based Power Distribution and Transmission Credit Hours: 3.0 or
ELET 4319 - Electrical Power Systems and Industry Practices Credit Hours: 3.0

Group II:

ELET 3301 - Linear Systems Analysis Credit Hours: 3.0
ELET 3403 - Sensor Applications Credit Hours: 4.0
ELET 4310 - Alternative Electrical Energy Sources Credit Hours: 3.0
ELET 4317 - Computer-Based Electrical System Protection and Safety Credit Hours: 3.0
ELET 4326 - Power Converter Circuits Credit Hours: 3.0

Manufacturing Systems Minor

College of Technology Minors

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

Manufacturing Systems Minor (15 Semester Hours)

Required courses:

MECT 1364 - Materials and Processes I Credit Hours: 3.0
MECT 3360 - Automated Manufacturing Systems Credit Hours: 3.0
MECT 3362 - Industrial Work Measurement Credit Hours: 3.0
MECT 3367 - Quality Control Technology Credit Hours: 3.0
MECT 4384 - Manufacturing Systems Control Credit Hours: 3.0

Department of Human Development and Consumer Sciences

Who's Who in the Department

Chair:

Holly M. Hutchins

Professors:

Holly M. Hutchins, Carole Goodson, Barbara L. Stewart
Associate Professors:

Shirley Ezell, Andrew Hines, Jamie Ortiz, Marcella M. Norwood, Consuelo Waight

Assistant Professors:

Tomika Greer, Olivia Johnson, Daiane Polesello (Instructional)

Department Overview

The Department of Human Development and Consumer Science (HDCS) produces a stream of well educated and dedicated professionals in the fields of retail management, human resource development, and foresight planning. Through its students, the department contributes to the economic growth and the quality of life by providing career oriented graduates who are trained to become innovators and global leaders.

The Retailing and Consumer Science bachelor’s degree develops professionals with a foundation in consumer-oriented business practices in the fields of retailing, e-tailing, fashion merchandising, customer service, and technology entrepreneurship.

The Human Resources Development degree develops professionals in organizational learning and development. Students help organizations manage change, develop leaders and build learning capacity through career development, instructional design and organizational development. Students learn useful tools to design and deliver workplace training, facilitate organizational change and increase productivity.

Both programs offer a Professional Studies Option that allows students to customize their choice of specialization to align with their career interests. For students interested in taking graduate courses, both programs also offer an Accelerated Program that allows qualified students to get dual credit while taking graduate courses during their program. The programs of study prepare students for career opportunities in business and industry, public service organizations, government and school systems. These undergraduate degree programs provide a pathway to Master’s degrees in Foresight, Human Resource Development, and Global Retailing.

Major

Human Resources Development, B.S.

The Human Resources Development program is designed to enable program graduates to:

- facilitate sustainable change in diverse organizations and
- to create individual and organizational transformations through training, organization development, and career development.

Students examine e-learning tools, adult learning theories, instructional strategies, and facilitation and evaluation techniques. Students completing the program will understand instructional design strategies, their application, and appropriate evaluation procedures.

Human Resources Development

University Core (Texas Common Course Number)

Core Communication (6 semester hours)

Core Communications I - ENGL 1303 - First Year Writing | Credit Hours: 3.0
Core Communications II - ENGL 1304 - First Year Writing II Credit Hours: 3.0

Core Mathematics (6 semester hours)

Core Mathematics - this program has specified math (see below)
Core Math/Reasoning (IDO) - this program has specified math (see below)

Core American History (6 semester hours)

HIST 1377 - The U S To 1877 Credit Hours: 3.0
HIST 1379 - The United States Since 1877 Credit Hours: 3.0

Core Government/Political Science (6 semester hours)

POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Core Language, Philosophy & Culture (3 semester hours)

Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts (3 semester hours)

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

Life and Physical Sciences: Approved Core Courses

Core Social and Behavioral Sciences (3 semester hours)

Core Social & Behavioral Sciences - this program has specified science (see below)

Core Writing in the Disciplines (IDO) (3 semester hours)

Core Writing in the Disciplines - this program has specified WID (see below)

Undergraduate Bachelor of Science Requirement

6 semester hours MATH courses
6 semester hours Formal Science

Courses required for program that also fulfill core categories:

Mathematics and BS Special Requirements:
Core Mathematics  -   MATH 1311 - Elementary Mathematical Modeling Credit Hours: 3.0
OR
MATH 1310 - College Algebra Credit Hours: 3.0
Course Math/Reasoning - see approved list
Bachelor of Science - see approved list
Bachelor of Science - TMTH 3360 - Applied Technical Statistics Credit Hours: 3.0

Social and Behavioral Sciences

PSYC 1300 - Introduction to Psychology Credit Hours: 3.0

Writing in the Disciplines

HDCS 1300 - Human Ecosystems and Technological Change Credit Hours: 3.0

Program Requirements:

Computer Literacy

ITEC 1301 - Introduction to Computer Application Technology Credit Hours: 3.0 (student may apply previous credit for MIS 3300, COSC 300)

Human Resources Development Major Requirements

CUIN 3313 - Learning and Development Technologies Credit Hours: 3.0
HDCS 3300 - Organizational Decisions in Technology Credit Hours: 3.0 (student may apply previous credit for MANA 3335)
HRD 3310 - Talent Management Credit Hours: 3.0
HRD 3340 - Principles of Human Resource Development Credit Hours: 3.0
HRD 3346 - Performance Assessment & Evaluation Credit Hours: 3.0
HRD 3350 - Workforce Diversity and Globalization Credit Hours: 3.0 (student may apply previous credit for INTB 3354 or INTB 3350)
HRD 3351 - Instructional Design for Human Resource Development Credit Hours: 3.0
HRD 4344 - Designing E-Learning Applications Credit Hours: 3.0
HRD 4350 - Organization Development & Consulting Credit Hours: 3.0
HRD 4352 - Facilitation Strategies Credit Hours: 3.0 (student may apply previous credit for HDCS 4386 or CUI 4375)
HRD 4396 - Internship in Human Resource Development Credit Hours: 3.0
TECH 3365 - Applications of Discrete Methods in Technology Credit Hours: 3.0
TLIM 3345 - Human Resources in Technology Credit Hours: 3.0 (student may apply previous credit for MANA 4330)
TLIM 4342 - Quality Improvement Methods Credit Hours: 3.0

Professional Studies Area of Specialization or Minor:

Minor approved course work (15 credit hours)

See academic advisor for approval of a 15 hour content block that addresses your career goals.

Electives: 12 SCH Minimum

Students must have minimum 2.00 in major.
Major GPA will be calculated based on the major requirements and the professional studies area or minor.

- 2.00 minimum cumulative grade point average in courses attempted at the University of Houston.
- 36 of the credit hours must be advanced (junior or senior level).
- Final residency - The last 30 semester hours to be applied toward a bachelor's degree must be taken in residence at UH.
- 9 advanced credit hours in department of major in residence at UH
- 120 credit hours required for this degree.
- Limit of 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston.
- Students may use no more than two credit hours in physical education activity courses.
- Students must satisfy TSI to graduate.

**Retailing and Consumer Science, B.S.**

Retailing and Consumer Science is designed to develop professionals who can integrate knowledge of consumers and merchandising processes and apply that knowledge to a broad spectrum of problems facing individual consumers, families, service agencies, and retail marketers of products and services. Retailing and Consumer Science focuses on analyzing the consumer as a social and economic unit of society and on the process of merchandising products to consumers.

Professional development in this program includes trend analysis, selling, merchandising experience, internship, self-assessment, professional goal setting, understanding owning and operating a small business, networking and portfolio development. Processes of retail marketing and consumer affairs are emphasized.

Graduates will:

- Apply retail management techniques and principles to the buying and selling of products and services: includes brick & mortar, e-Commerce, and other sites.
- Have the option to enhance their professional development through the Electronic Retailing and Consumer Science (online) courses (E-RCS), allowing students to earn income while acquiring skills from remote locations.
- Demonstrate the relationship between consumers and businesses through employment in the fields of retail marketing, fashion, sales, buying, public relations, and education.
- Display global technology expertise required for the retailing professional in today’s marketplace.

Students pursuing the Retailing and Consumer Science degree must complete the following requirements in addition to the university core requirements and general college requirements.

**Retailing and Consumer Science**

**University Core (Texas Common Course Number)**

**Core Communication (6 semester hours)**

- Core Communication I - ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
- Core Communication II - ENGL 1304 - First Year Writing II **Credit Hours: 3.0**

**Core Mathematics (6 semester hours)**

- Core Mathematics - this program has specified math (see below)
- Core Math/Reasoning (IDO) - this program has specified math (see below)
Core American History (6 semester hours)

HIST 1377 - The U S To 1877  Credit Hours: 3.0
HIST 1378 - The U S Since 1877  Credit Hours: 3.0

Core Government/Political Science (6 semester hours)

POLS 1336 - U.S. and Texas Constitution and Politics  Credit Hours: 3.0
POLS 1337 - U.S. Government: Congress, President, and Courts  Credit Hours: 3.0

Core Language, Philosophy & Culture (3 semester hours)

Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts (3 semester hours)

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

Life and Physical Sciences: Approved Core Courses

Core Social and Behavioral Sciences (3 semester hours)

Social and Behavioral Sciences: Approved Core Courses

Core Writing in the Disciplines (IDO) (3 semester hours)

Core Writing in the Disciplines - this program has specified WID (see below)
HDCS 1300 - Human Ecosystems and Technological Change  Credit Hours: 3.0

Undergraduate Bachelor of Science Requirement

6 semester hours MATH courses
6 semester hours Formal Science

Courses required for program that also fulfill core categories:

Mathematics and BS Special Requirements:

Core Mathematics -  MATH 1311 - Elementary Mathematical Modeling  Credit Hours: 3.0
OR
MATH 1310 - College Algebra  Credit Hours: 3.0
Core Math/Reasoning - see approved list
Bachelor of Science - see approved list
Bachelor of Science -  TMTH 3360 - Applied Technical Statistics  Credit Hours: 3.0
OR
MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0

Writing in the Disciplines

HDCS 1300 - Human Ecosystems and Technological Change Credit Hours: 3.0 (student may apply previous credit for approved WID course)

Program Requirements:

Computer Literacy

ITEC 1301 - Introduction to Computer Application Technology Credit Hours: 3.0 (student may apply previous credit for MIS 3300, COSC 1300)

Retailing and Consumer Science Major

HDCS 2301 - Consumer Science Credit Hours: 3.0
HDCS 3300 - Organizational Decisions in Technology Credit Hours: 3.0 (student may apply previous credit for MANA 3335) OR
TLIM 3340 - Organizational Leadership and Supervision Credit Hours: 3.0
HDCS 3303 - Retailing and Consumer Science Credit Hours: 3.0
HDCS 3304 - Visual Merchandising Credit Hours: 3.0
HDCS 3376 - Resources in Technology Entrepreneurship Credit Hours: 3.0
HDCS 4300 - Research Concepts in HDCS Credit Hours: 3.0
HDCS 4303 - Merchandising Systems Credit Hours: 3.0
HDCS 4369 - Entrepreneurship Credit Hours: 3.0 (student may apply previous credit for ENTR 3310)
HDCS 4372 - Forecasting for Technology Entrepreneurship Credit Hours: 3.0 (student may apply previous credit for MARK 3336) OR
SCLT 3381 - Industrial and Consumer Sales Credit Hours: 3.0 (student may apply previous credit for MARK 3337)
TECH 3365 - Applications of Discrete Methods in Technology Credit Hours: 3.0

Professional Studies Area of Specialization:

Choose one (1) 15 hour specialization or elective block from those listed below (15 SH)

Retailing and Consumer Science Electives (select 15 semester hours)

HDCS 3302 - Consumer Textiles Credit Hours: 3.0
HDCS 4302 - Apparel Analysis Credit Hours: 3.0
HDCS 4370 - Technology Entrepreneurship Credit Hours: 3.0
HDCS 4372 - Forecasting for Technology Entrepreneurship Credit Hours: 3.0
HDCS 4374 - Entrepreneurial E-Tailing Credit Hours: 3.0
HDCS 4375 - Strategies in E-Tailing Credit Hours: 3.0
HDCS 4394 - Internship in Retailing and Consumer Sciences Credit Hours: 3.0
HDCS 4396 - Selected Topics in Human Development and Consumer Sciences Credit Hours: 3.0
HRD 3310 - Talent Management Credit Hours: 3.0
Students are encouraged to pursue a minor in eTailing, Fashion Merchandising or Technology Entrepreneurship.

Professional Studies Specialization

Approved non-RCS content course work (15 semester hours)

See academic advisor for approval of a 15 hour content block in field other than Retailing and Consumer Science

Students must have minimum 2.00 in major.

Major GPA will be calculated based on major requirements and professional studies area or minor.

Electives: 12 SH minimum (or minor)

Electives or minor must be from approved technical area for students pursuing Technology Entrepreneurship specialization.

2.00 minimum cumulative grade point average in courses attempted at the University of Houston.

36 of credit hours must be advanced (junior or senior level).

Final residency - The last 30 semester hours to be applied toward a bachelor's degree must be taken in residence at UH

9 advanced credit hours in department of major in residence at UH

120 hours required for this degree

Limit 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston.

Students may use no more than two semester hours in physical education activity courses.

Students must satisfy TSI to graduate.

Accelerated Program

Accelerated Programs in Global Retailing, Retailing and Consumer Science and Human Resources Development

The accelerated BS/MS degree program is open to qualified undergraduate technology majors in Retailing and Consumer Science, Human Resource Development and other Technology majors planning to continue into graduate education immediately upon completion of the B.S. degree.

Undergraduate students that are accepted into the accelerated program take up to six graduate credit hours that are applied to both the bachelors' degree and the master's degree in Global Retailing or Human Resource Development. Undergraduate students should not take more than one graduate course per semester. All students may pursue either the thesis or non-thesis master's degree options.

The BS degree will be conferred to students in the accelerated program upon completion of the undergraduate curriculum requirements with appropriate graduate courses substituted for undergraduate courses.

The MS degree shall be awarded based upon existing requirements for the graduate degree in Global Retailing or Human Resource Development.

Application

Application for the program is recommended for undergraduate students during their junior year.
Application and completion requirements are available from the Department of Human Development and Consumer Sciences in room 110 of the Cameron Building or the College of Technology Academic Services Center in room 108 T.

Minor

E-Tailing Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

E-Tailing Minor (15 semester hours)

Required Courses:

- HDCS 4374 - Entrepreneurial E-Tailing Credit Hours: 3.0
- HDCS 4375 - Strategies in E-Tailing Credit Hours: 3.0

Electives:

Select 9 hours from:

- HDCS 3304 - Visual Merchandising Credit Hours: 3.0
- HDCS 4302 - Apparel Analysis Credit Hours: 3.0
- HDCS 4394 - Internship in Retailing and Consumer Sciences Credit Hours: 3.0
- SCLT 2362 - Intro To Logistics Technology Credit Hours: 3.0
- SCLT 4387 - Financial Evaluation For Supply Chain Management Credit Hours: 3.0

Fashion Merchandising Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

Fashion Merchandising Minor (15 semester hours)

Required Courses:

- HDCS 3302 - Consumer Textiles Credit Hours: 3.0
- HDCS 4302 - Apparel Analysis Credit Hours: 3.0
- HDCS 4304 - Fashion Brand Direction Credit Hours: 3.0
Human Development and Consumer Sciences Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

College of Technology Minors

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

Human Development and Consumer Sciences Minor (15 Semester Hours)

Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

Required Course:

HDCS 1300 - Human Ecosystems and Technological Change Credit Hours: 3.0

Electives:

Twelve semester hours in HDCS, including nine advanced semester hours.

Note(s):

A student completing a major in Retail and Consumer Science may not declare the above minor.

Human Resources Development Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours. Students in Human Resources Development cannot declare a minor in Human Resources Development.

Human Resources Development Minor (15 Credit Hours)

Required Courses

HRD 3340 - Principles of Human Resource Development Credit Hours: 3.0
HRD 3346 - Performance Assessment & Evaluation Credit Hours: 3.0
Six credit hours to be selected from the following:

HRD 3310 - Talent Management  \textit{Credit Hours: 3.0}
HRD 3350 - Workforce Diversity and Globalization  \textit{Credit Hours: 3.0}
HRD 3351 - Instructional Design for Human Resource Development  \textit{Credit Hours: 3.0}
HRD 4344 - Designing E-Learning Applications  \textit{Credit Hours: 3.0}
HRD 4352 - Facilitation Strategies  \textit{Credit Hours: 3.0}
TLIM 3345 - Human Resources in Technology  \textit{Credit Hours: 3.0}

\textbf{Retailing and Consumer Science Minor}

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

\textbf{Retailing and Consumer Science Minor (15 semester hours)}

\textbf{Required Courses:}

- HDCS 2301 - Consumer Science  \textit{Credit Hours: 3.0}
- HDCS 3303 - Retailing and Consumer Science  \textit{Credit Hours: 3.0}
- HDCS 4303 - Merchandising Systems  \textit{Credit Hours: 3.0}

\textbf{Electives:}

Six semester hours selected from the following, including at least three advanced hours:

- TLIM 3360 - Law and Ethics in Technology & Innovation  \textit{Credit Hours: 3.0}
- HDCS 3300 - Organizational Decisions in Technology  \textit{Credit Hours: 3.0}
- HDCS 3302 - Consumer Textiles  \textit{Credit Hours: 3.0}
- HDCS 3304 - Visual Merchandising  \textit{Credit Hours: 3.0}
- HDCS 4369 - Entrepreneurship  \textit{Credit Hours: 3.0}
- HDCS 4302 - Apparel Analysis  \textit{Credit Hours: 3.0}
- HDCS 4380 - Merchandising  \textit{Credit Hours: 3.0}
- HDCS 4386 - Communication Strategies for Retailing and Supply Chain  \textit{Credit Hours: 3.0}
- HDCS 4396 - Selected Topics in Human Development and Consumer Sciences  \textit{Credit Hours: 3.0}

\textbf{Technology Entrepreneurship Minor}

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.
Technology Entrepreneurship Minor (15 semester hours)

Required Courses:

- HDCS 4370 - Technology Entrepreneurship  
  Credit Hours: 3.0
- HDCS 4372 - Forecasting for Technology Entrepreneurship  
  Credit Hours: 3.0
- HDCS 4374 - Entrepreneurial E-Tailing  
  Credit Hours: 3.0
- HDCS 4375 - Strategies in E-Tailing  
  Credit Hours: 3.0

Electives:

Three semester hours selected from the following:

- HDCS 4394 - Internship in Retailing and Consumer Sciences  
  Credit Hours: 3.0
- SCLT 2362 - Intro To Logistics Technology  
  Credit Hours: 3.0

Department of Information and Logistics Technology

Who's Who in the Department

Chair:

Enrique Barbieri

Professors:

Enrique Barbieri, Art Conklin, Bret Detillier (Instructional), Jerry S. Evans (Instructional), Jerry J. Waite

Associate Professors:

Monica Alters (Instructional), Chris Bronk, Amaury Lendasse, Brian George Mehring (Instructional), Susan L. Miertschin, Philip Charles Snyder (Instructional)

Assistant Professors:

Jose Baez-Franceschi, Tracy Barnwell (Instructional), Peggy Lindner, Jose Martinez (Instructional), Liz Rodwell, Xuqing (Jason) Wu, Yunpeng (Jack) Zhang

Department Overview

The Department of Information and Logistics Technology (ILT) provides undergraduate educational opportunities designed to prepare students for careers in business, industry, and government; the programs are closely linked to workforce quality and productivity for the region, the state, and the
nation through its programs in Computer Information Systems, Digital Media, and Technology Leadership and Innovation Management. Graduates are leaders who bring high levels of technology expertise to the workplace and are prepared to guide technological change within the organization.

**Our Mission**

The mission of the Department of Information and Logistics Technology at the University of Houston is to produce new ideas and knowledge within the fields of: applied data science, cybersecurity, digital media, information systems, communications, and leadership, and innovative management technologies, and to educate highly capable and diverse technology leaders for the state of Texas, the nation, and the global community.

**Departmental Learning Objectives**

To achieve its educational mission, graduates from the ILT department’s programs will have acquired the six capabilities listed below.

Graduates will know how to:

- Acquire the basic and in-depth knowledge and skills required in their professions.
- Apply and refine their technological knowledge and skills in leadership, critical thinking, problem-solving, decision-making, teamwork processes, and project management to solve novel, ambiguous, and routine problems.
- Integrate their knowledge of technological, social, organizational, and value systems to improve the creation and application of technological solutions.
- Contribute to the improvement of their professions and society through the discovery, application, integration, and assessment of technological capability.
- Anticipate and fulfill their need for new knowledge and capabilities as their disciplines progress.
- Employ effective oral, written, graphic, and interpersonal modes of communication for expressing technical concepts to a diverse audience.

To qualify for a Bachelor of Science degree in the Department of Information and Logistics Technology, students must complete university requirements for a baccalaureate degree, including university core curriculum requirements and departmental requirements for a specific degree program as stated in this section of the catalog. The most current information is available at the College of Technology Web site, www.uh.edu/technology/.

All majors and minors in the Department of Information and Logistics Technology must earn a grade of C or better in all major/minor courses. No grade lower than C will be accepted on any courses applicable to the major transferred to the University of Houston. A grade point average of 2.00 or better both cumulatively and in major is required for graduation.

The Department of Information and Logistics Technology also offers a Master of Science degree in Cybersecurity. For more information about this graduate program, refer to the Graduate and Professional Studies catalog or to the College of Technology Web site at www.uh.edu/technology/.

**University Core Curriculum**

**42 Semester Hours**

About the UH Core Curriculum

Please note that some majors have specific requirements in the core curriculum. Refer to the specific degree plans in this catalog for specific requirements.
Computer Information Systems, B.S.

The Computer Information Systems program provides for the needs of a dynamic and integral part of business and industry—the information systems environment. The Computer Information Systems program consists of 121 hours of undergraduate academic credit. In addition to meeting 42 semester hour university core curriculum requirement, students must meet their major core requirements, CIS Environment, Technology and approved technical electives. Students will obtain a background in business applications, computer concepts, problem-solving, decision making, human relations, evaluation, analysis, and communications. Information systems technologists can be found in a broad spectrum of careers in the private and public sectors including the areas of end-user support, system analysis, telecommunications specialist, applications development, technology project management, database administration, training, and consulting.

Beginning in Spring 2020, students majoring in Computer Information Systems (CIS) within the College of Technology will be required to have a suitable laptop which is in good working order with the latest software and antivirus updates for their entire period of undergraduate study.

Classroom instruction, course assignments and research in and out of class will require the use of a personal computer. Some CIS instructors will also require that students bring their personal laptops to every class or lab. The minimum and recommended specifications for CIS students laptops are defined under "Laptop Recommendations" on the Computer Information Systems website: www.uh.edu/cot/cis.

Students wishing to change their major to Computer Information Systems must have at least an overall 2.75* or higher cumulative grade point average on all attempted courses, including any attempted transfer courses at other institutions. In addition, applicants who have attempted coursework at the University of Houston must have at least a 2.50* or higher cumulative grade point average at the University of Houston starting Spring 2021.

All majors and minors in the Department of Information and Logistics Technology must earn a grade of C or better in all major/minor courses. No grade lower than C will be accepted on any courses applicable to the major transferred to the University of Houston.

Students planning to complete the minor in Business Administration must meet College of Business minor requirements. MANA 3335, SCM 3301 (requires MATH 1313), ACCT 2301 & ACCT 2302 may be applied to the degree and the minor in Business Administration.

Computer Information Systems

University Core (Texas Common Course Number)

Core Communication (6 semester hours)

Core Communication I - ENGL 1303 - First Year Writing I Credit Hours: 3.0
Core Communication II - ENGL 1304 - First Year Writing II Credit Hours: 3.0

Core Mathematics (6 semester hours)

Core Mathematics - this program has specified math (see below)
Core Math/Reasoning (IDO) - this program has specified math (see below)

Core American History (6 semester hours)

HIST 1377 - The U S To 1877 Credit Hours: 3.0
HIST 1378 - The U S Since 1877 Credit Hours: 3.0

Core Government/Political Science (6 semester hours)
POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Core Language, Philosophy & Culture (3 semester hours)

Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts (3 semester hours)

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

Life and Physical Sciences: Approved Core Courses

Core Social and Behavioral Sciences (3 semester hours)

Core Social & Behavioral Sciences - this program has specified SS (see below)

Core Writing in the Disciplines (IDO) (3 semester hours)

Core Writing in the Discipline - this program has specified WID (see below)

Undergraduate Bachelor of Science Requirement

6 semester hours MATH courses
6 semester hours Formal Science

Courses required for program that also fullfill core categories:

Mathematics/Reasoning & BS Special Requirements

- Core Mathematics - MATH 1330 - Precalculus **Credit Hours: 3.0**
- Core Math/Reasoning - MATH 1431 - Calculus I **Credit Hours: 4.0**
- Bachelor of Science - MATH 2311 - Introduction to Probability and Statistics **Credit Hours: 3.0**
- Bachelor of Science - may be fulfilled by courses applied to degree in major or technical field

Social and Behavioral Sciences (3 semester hours)

- ECON 2304 - Microeconomic Principles **Credit Hours: 3.0** OR
- ECON 2305 - Macroeconomic Principles **Credit Hours: 3.0**

Writing in the Discipline

- TLIM 3363 - Technical Communications **Credit Hours: 3.0**
Departmental Requirements

Discrete Math or Finite Math

TECH 3365 - Applications of Discrete Methods in Technology Credit Hours: 3.0 OR
MATH 1313 - Finite Math with Applications Credit Hours: 3.0

CIS Environment

ACCT 2301 - Principles of Financial Accounting Credit Hours: 3.0
ACCT 2302 - Principles of Managerial Accounting Credit Hours: 3.0
SCLT 2362 - Intro To Logistics Technology Credit Hours: 3.0

TLIM 3340 - Organizational Leadership and Supervision Credit Hours: 3.0 OR
MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0

TLIM 4341 - Production & Service Operation Credit Hours: 3.0 OR
SCM 3301 - Supply Chain Management Fundamentals Credit Hours: 3.0

TLIM 4342 - Quality Improvement Methods Credit Hours: 3.0

Computer Information Systems Major Requirements

Students must earn a grade of C or better in all major courses. One (1) grade of C- may be accepted towards major.

COSC 1306 - Computer Science & Programming Credit Hours: 3.0
CIS 2322 - Information Technology Hardware and Systems Software Credit Hours: 3.0
CIS 2334 - Information Systems Applications Credit Hours: 3.0
CIS 2336 - Internet Application Development Credit Hours: 3.0
CIS 2337 - Fundamentals of Information Security Credit Hours: 3.0
CIS 2348 - Information Systems Application Development Credit Hours: 3.0
CIS 3343 - Information Systems Analysis & Design Credit Hours: 3.0
CIS 3347 - Information Systems Infrastructure and Networks Credit Hours: 3.0
CIS 3355 - Integrated Information Systems Credit Hours: 3.0
CIS 3365 - Database Management Credit Hours: 3.0
CIS 3368 - Advanced Information Systems Development Credit Hours: 3.0
CIS 4338 - Database Administration and Implementation Credit Hours: 3.0
CIS 4339 - Enterprise Applications Development Credit Hours: 3.0
CIS 4375 - Project Management and Practice Credit Hours: 3.0

Approved Technical electives (12 semester hours)

Six hours must be at the 3000 level or above.

Students must have minimum 2.00 in major

Major GPA is calculated on the major requirements and electives.
Digital Media, B.S.

LEADERSHIP
CREATIVITY
PRINT AND PACKAGING
COMPUTER GRAPHICS
WEB DESIGN AND eMEDIA
PHOTOGRAPHY MOTION MEDIA AND ANIMATION
SIMULATION AND GAMING

These are the areas that are explored in Digital Media in the College of Technology at the University of Houston.

Digital Media is the creative convergence of digital arts, science, technology and business for human expression, communication, social interaction and education. The Digital Media program is characterized by a curriculum which stresses the "producer" and "strategist" aspects of digital media and emphasizes the business aspect of the field along with its technical and aesthetic aspects. Digital Media, part of the Graphic Communications cluster of industries, is a dynamic and ever-changing field and is ranked among the largest industries in the United States.

By using your leadership and strategic talents, you can create a communications tapestry by weaving together people and the technologies of print, packaging, photography, motion media, social media, game app design, and web design. Effective contemporary visual communication requires a mix of communications technologies; still- and motion media, social media, and websites in addition to printed media.

Digital Media

The University of Houston Digital Media program prepares highly-qualified, sought-after, and technologically-savvy project managers who exceed the visual communication needs of their clients. Students who enroll in this program will gain competencies in various graphic-related technologies that support the digitization of graphic and text content as well as a broad background in leadership and supervision. Much of the curriculum is devoted to the utilization of digital-media-oriented information technology as it impacts the communication workflow. Graduates from this program move into positions of service support in businesses specializing in communication through print, internet, eMedia, social media, gaming, and motion-media technologies. Service support positions that graduates assume are typically part of the larger sales function of digital media firms and include titles such as customer service representative, estimator, planner, supervisor, and scheduler. For graduates to move into salesperson positions, they generally build upon the skills they have mastered in other service-support positions within digital media firms.

Digital Media (DIGM) courses are offered by the Information and Logistics Technology Department in the University of Houston's College of Technology. Classes are offered on the Sugar Land campus. DIGM courses cover bitmapped and vector computer graphics, digital photography, videography, animation, TransMedia Marketing®, visual design concepts, pre-media technologies, print technologies, game and app design, cost estimating, and portfolio development. Courses include theory-rich lectures as well as hands-on and enjoyable activities conducted in our state-of-
the-art laboratories on the latest equipment. Each student also completes a senior thesis or project and internships are encouraged. You can learn more about the digital-media-specific classes and assignments by browsing www.digitalmedia.tech.uh.edu.

Program Design

The Digital Media degree is designed to be completed in four years and consists of 120 semester hours of undergraduate credit. The freshman and sophomore years may be completed at our cooperating community college, Wharton County Junior College. The program requires 42 hours of university core courses. In addition to meeting the 42 semester hours of university core curriculum requirements, students must complete major core requirements, an emphasis area, and approved electives.

The Digital Media core covers:

- computer graphics
- user experience (UX) research
- digital photography
- page layout and design
- data mining and analysis
- print production
- videography
- content development and strategy
- cost estimating
- portfolio development
- TransMedia Marketing®
- project integration

The program also provides for fifteen hours of electives that includes courses related to:

- animation
- package design
- gaming app design
- print media
- packaging
- eCommerce
- programming and coding

Students are required to complete one of the following minors:

- Applied Innovation
- Technology Leadership and Innovation Management

Digital Media courses are taught primarily on the main campus’ satellite facility in Sugar Land. All the lower-division DIGM courses can be completed at Wharton County Junior College.

Digital-media-related courses completed at other community colleges may not be eligible for transfer. If you are a community college student, please refer to http://www.uh.edu/tech/digitalmedia/students/prospective-students/transfer/ before taking any courses you wish to transfer into the Digital Media Program.

Your Future

Through course content, assignments, and critiques, the Digital Media program prepares its students to excel in careers that require tight deadlines, attention to detail, adaptability to changing technology, multi-tasking, and practical research. Students are also prepared to give and receive constructive feedback.
The Digital Media program provides extensive internship opportunities for its students as well as opportunities to network with industry professionals. In particular, the Digital Media program provides its seniors with extensive career development support including DigiFests in both fall and spring semesters. In the fall, the DigiFest allows students to display their hard-copy and electronic portfolios to alumni so that the seniors can practice interviewing, giving their elevator pitches, and showing their work. The Spring DigiFest is a career placement event during which employers meet and interview students.

The Digital Media Program is committed to student success and works with students to graduate in no longer than six years from their initial college enrollment, to get good jobs, and to earn good salaries. In 2018, Digital Media students were most likely undergraduates to be employed on graduation day.

The Digital Media Program offers an annual RedFest, which is the awards gala for its students. Especially talented and industrious students can win trophies, certificates and cash prizes for entries in multiple fields of production from app design through videography.

Beginning in Fall 2021, declared Digital Media students and declared Graphic Communications Technology, Motion Media and Tech Package Design minors will be required to have a suitable laptop which is in good working order with the latest software and antivirus updates for their entire period of undergraduate study.

Notebook computer (PC or Mac) capable of handling the Adobe Creative Cloud-Graphic Design portion. An example of such requirements can be found at https://helpx.adobe.com/indesign/system-requirements.html.

DSLR camera capable of still and video capture. Student subscription to Adobe Creative Cloud.

Note that precise specifications, which will be updated as technology changes, will be provided on the program's website at http://www.uh.edu/tech/digitalmedia/students/prospective-students/.

Computer labs will continue to be available for courses that require specialized software and/or hardware: i.e., most junior and senior courses.

All majors and minors in the Department of Information and Logistics Technology must earn a grade of C or better in all major/minor courses. No grade lower than C will be accepted on any courses applicable to the major transferred to the University of Houston.

**Digital Media**

**University Core (Texas Common Course Number)**

**Core Communication (6 semester hours)**

- Core Communication I - ENGL 1303 - First Year Writing I Credit Hours: 3.0
- Core Communication II - ENGL 1304 - First Year Writing II Credit Hours: 3.0

**Core Mathematics (6 semester hours)**

- Core Mathematics - this program has specified math (see below)
- Core Math/Reasoning (IDO) - this program has specified math (see below)

**Core American History (6 semester hours)**

- HIST 1377 - The U S To 1877 Credit Hours: 3.0
- HIST 1378 - The U S Since 1877 Credit Hours: 3.0
Core Government/Political Science (6 semester hours)

- POLS 1336 - U.S. and Texas Constitution and Politics Credit Hours: 3.0
- POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Core Language, Philosophy & Culture (3 semester hours)

- Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts (3 semester hours)

- Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 semester hours)

- Life and Physical Sciences: Approved Core Courses

Core Social and Behavioral Sciences (3 semester hours)

- Social and Behavioral Sciences: Approved Core Courses

Core Writing in the Disciplines (IDO) (3 semester hours)

- Core Writing in the Discipline - this program has specified WID (see below)
- HDCS 1300 - Human Ecosystems and Technological Change Credit Hours: 3.0

Undergraduate Bachelor of Science Requirement

- 6 semester hours MATH courses
- 6 semester hours Formal Science

Courses required for program that also fulfill core categories:

Mathematics and BS Special Requirements

- Core Mathematics - MATH 1311 - Elementary Mathematical Modeling Credit Hours: 3.0 OR
  MATH 1310 - College Algebra Credit Hours: 3.0
  
- Core Math/Reasoning - MATH 1313 - Finite Math with Applications Credit Hours: 3.0

- Bachelor of Science - PHIL 1321 - Logic I Credit Hours: 3.0 OR
  MATH 1330 - Precalculus Credit Hours: 3.0
  (ELET 2300 requires precalculus as a prerequisite)

- Bachelor of Science - MATH 2311 - Introduction to Probability and Statistics Credit Hours: 3.0 OR
  TMTH 3360 - Applied Technical Statistics Credit Hours: 3.0
Writing in the Discipline

HDCS 1300 - Human Ecosystems and Technological Change  Credit Hours: 3.0

Digital Media Major Requirements

Students must earn grade C or better in all major courses. One (1) grade of C- may be accepted towards major.

DIGM 1300 - Introduction to Digital Media  Credit Hours: 3.0
DIGM 1350 - Graphics for Digital Media  Credit Hours: 3.0
DIGM 1376 - User Experience (UX) Principles  Credit Hours: 3.0
DIGM 2325 - Information Technology Applications for Digital Media  Credit Hours: 3.0
DIGM 2352 - Digital Photography  Credit Hours: 3.0
DIGM 2353 - Page Layout and Design  Credit Hours: 3.0
DIGM 2357 - Content Strategy & Development  Credit Hours: 3.0
DIGM 3326 - Big Data Analytics for Digital Media  Credit Hours: 3.0
or
CIS 3320 - Information Visualization  Credit Hours: 3.0
DIGM 3351 - Individualized Communication Processes  Credit Hours: 3.0
DIGM 3354 - Video Production 1  Credit Hours: 3.0
DIGM 4351 - Portfolio Development for Digital Media  Credit Hours: 3.0
DIGM 4372 - Costing in Digital Media  Credit Hours: 3.0
DIGM 4378 - Senior Project  Credit Hours: 3.0
or
DIGM 4399 - Senior Thesis  Credit Hours: 3.0
DIGM 4379 - Transmedia Marketing  Credit Hours: 3.0

Approved Technical Electives (15 semester hours)

DIGM 3252 - Graphic Communication Output  Credit Hours: 2.0
DIGM 3152 - Graphic Communication Output Lab  Credit Hours: 1.0
DIGM 3355 - Package Technology  Credit Hours: 3.0
DIGM 3356 - ePublishing  Credit Hours: 3.0
DIGM 3370 - Two Dimensional Computer Generated Imagery Animation  Credit Hours: 3.0
DIGM 4373 - Photographic Tone and Color Reproduction  Credit Hours: 3.0
DIGM 4375 - Package Design  Credit Hours: 3.0
DIGM 4381 - Mobile Application Design  Credit Hours: 3.0
DIGM 4390 - Current Issues in Digital Media  Credit Hours: 3.0
DIGM 4396 - Internship in Digital Media  Credit Hours: 3.0
DIGM 4397 - Selected Topics in Digital Media  Credit Hours: 3.0
HDCS 4369 - Entrepreneurship  Credit Hours: 3.0
HDCS 4374 - Entrepreneurial E-Tailing  Credit Hours: 3.0
HDCS 4375 - Strategies in E-Tailing  Credit Hours: 3.0
ELET 2300 - Introduction to C++ Programming  Credit Hours: 3.0
COSC 1306 - Computer Science & Programming  Credit Hours: 3.0
SCLT 2380 - Distribution Channels  Credit Hours: 3.0
SCLT 3381 - Industrial and Consumer Sales  Credit Hours: 3.0

By petition, up to 15 hrs Approved Digital Media related coursework from a Community College may fulfill approved electives.
By petition, a minor in Studio Arts (21 hrs) may fulfill approved electives.

Students Must choose a minor in either:

- Applied Innovations
- Technology Leadership and Innovation Management

Students must have minimum 2.00 in major

Major GPA will be calculated based on the major requirements.

- 2.00 minimum cumulative grade point average in courses attempted at the University of Houston
- 36 of the credit hours must be advanced (junior or senior level)
- Final residency - The last 30 semester hours to be applied toward a bachelor's degree must be taken in residence at UH
- 9 advanced credit hours in department of major in residence at UH
- 120 hours required for this degree
- Limit of 66 credit hours in lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston
- Students may us no more than two semester hours in physical education activity courses
- Students must satisfy TSI to graduate

Technology Leadership and Innovation Management, B.S.

The Technology Leadership and Innovation Management degree focuses on providing individuals with a competitive advantage when moving into leadership and supervisory roles in technology-based organizations. The program investigates the rapidly changing and complex nature of leadership in organizations that use and rely on technology.

The success of today’s businesses and organizations demand leadership that is informed, forward-thinking, and able to optimize the capabilities of knowledge-based workers and the solutions they create. The Leadership and Innovation degree develops exactly this set of skills. Students learn about leadership, the creation of organizational vision and value, and the development of human resources while leading technological change.

The Technology Leadership and Innovation Management degree provides a long term, empowering approach to the practice of leading people rather than the short term, command and control approach to utilizing human resources. Students learn about leadership, the importance of organizational vision and values, developing human resources, and managing technological resources in corporate, government, nonprofit, or community organizations. Leadership skills in goal setting, time management, verbal and visual communication, and leadership values and abilities are developed through relevant real-world applications.

The Technology Leadership and Innovation Management program consists of 120 credit hours of undergraduate academic credit. In addition to meeting the 42 credit hour university core curriculum requirement, students must complete major core courses, and directed emphasis coursework. Students must earn a 2.0 minimum GPA in all major and directed emphasis courses attempted at the university. Transfer students must have earned a 2.0 GPA or better in all major and directed emphasis courses to be transferred for credit.

The major areas of coursework within the Technology Leadership and Innovation Management program are (1) analysis and reasoning, (2) organizations, (3) human resources, (4) communications, (5) integration through an original senior project, and (6) directed technology emphasis.

All majors and minors in the Department of Information and Logistics Technology must earn a grade of C or better in all major/minor courses. No grade lower than C will be accepted on any courses applicable to the major transferred to the University of Houston.

Technology Leadership and Innovation Management
University Core (Texas Common Course Number)

Core Communication (6 credit hours)

Core Communication I - ENGL 1303 - First Year Writing I **Credit Hours: 3.0**
Core Communication II - ENGL 1304 - First Year Writing II **Credit Hours: 3.0**

Core Mathematics (6 credit hours)

Core Mathematics - this program has specified math (see below)
Core Math/Reasoning (IDO) - this program has specified math (see below)

Core American History (6 credit hours)

HIST 1377 - The U S To 1877 **Credit Hours: 3.0**
HIST 1378 - The U S Since 1877 **Credit Hours: 3.0**

Core Government/Political Science (6 credit hours)

POLS 1336 - U.S. and Texas Constitution and Politics **Credit Hours: 3.0**
POLS 1337 - U.S. Government: Congress, President, and Courts **Credit Hours: 3.0**

Core Language, Philosophy & Culture (3 credit hours)

Language, Philosophy & Culture: Approved Core Courses

Core Creative Arts (3 credit hours)

Creative Arts: Approved Core Courses

Core Life & Physical Sciences (6 credit hours)

Life and Physical Sciences: Approved Core Courses
Life and Physical Sciences: Approved Core Courses

Core Social and Behavioral Sciences (3 credit hours)

Social and Behavioral Sciences: Approved Core Courses

Core Writing in the Disciplines (IDO) (3 credit hours)

Core Writing in the Discipline-this program has specified WID (see below)

Undergraduate Bachelor of Science Requirement
6 credit hours MATH courses
6 credit hours Formal Science

Courses required for program that also fulfill core categories:

Mathematics and BS Special Requirements:

Core Mathematics

MATH 1311 - Elementary Mathematical Modeling **Credit Hours: 3.0** OR
MATH 1310 - College Algebra **Credit Hours: 3.0**

Core Math/Reasoning

MATH 1313 - Finite Math with Applications **Credit Hours: 3.0**
(minimum grade of C)

Bachelor of Science

PHIL 1321 - Logic I **Credit Hours: 3.0**

Bachelor of Science

MATH 2311 - Introduction to Probability and Statistics **Credit Hours: 3.0** OR
TMTH 3360 - Applied Technical Statistics **Credit Hours: 3.0**

Writing in the Discipline

TLIM 3363 - Technical Communications **Credit Hours: 3.0**

Leadership and Innovation Major

Students must earn a grade of C or better in all major courses. One (1) grade of C- may be accepted towards major.

TLIM 3300 - Leadership and Innovation Fundamentals **Credit Hours: 3.0**
TLIM 3330 - Innovation Principles **Credit Hours: 3.0**
TLIM 3340 - Organizational Leadership and Supervision **Credit Hours: 3.0**
TLIM 3345 - Human Resources in Technology **Credit Hours: 3.0**
TLIM 3350 - Emergency Management Principles **Credit Hours: 3.0**
TLIM 3355 - Project Management Principles **Credit Hours: 3.0**
TLIM 3360 - Law and Ethics in Technology & Innovation **Credit Hours: 3.0**
TLIM 3365 - Team Leadership **Credit Hours: 3.0**
TLIM 3371 - Budgeting and Financial Principles **Credit Hours: 3.0**
TLIM 4341 - Production & Service Operation **Credit Hours: 3.0**
TLIM 4342 - Quality Improvement Methods **Credit Hours: 3.0**
TLIM 4350 - Occupational Safety & Environmental Health **Credit Hours: 3.0**
TLIM 4371 - Leading Change in the Workplace **Credit Hours: 3.0**
TLIM 4372 - Proposal and Project Writing **Credit Hours: 3.0**
TLIM 4390 - Current Issues in Leadership and Innovation **Credit Hours: 3.0**
TLIM 4378 - Senior Project  **Credit Hours: 3.0**  
SCLT 2362 - Intro To Logistics Technology **Credit Hours: 3.0**

**Area of Specialization (21 credit hours)**

Students can fulfill area of specialization with a combination of minors or approved Community college transfer block or accelerated subplan plus minor or block of coursework approved by program coordinator (primarily veterans). Students are encouraged to complete an Applied Innovation minor. Students may not declare the Leadership and Innovation minor.

Students must have minimum 2.00 in major.

Major GPA will be calculated based on the major requirements and the professional studies area or minor.

- 2.00 minimum cumulative grade point average in courses attempted at the University of Houston
- 36 credit hours must be advanced (junior or senior level)
- Final residency - the last 30 credit hours to be applied toward a bachelor’s degree must be taken in residence at UH
- 9 advanced credit hours in department of major in residence at UH
- 120 credit hours required for this degree
- Limit of 66 credit hours of lower-level (1000 and 2000 level) transfer credit toward an undergraduate degree at the University of Houston
- Students may use no more than two credit hours in physical education activity courses
- Students must satisfy TSI to graduate

**Accelerated Program**

**Accelerated B.S./M.S. Degree Program in Computer Information Systems/Cybersecurity**

The Accelerated B.S./M.S. degree program is open to qualified undergraduate Technology majors in Computer Information Systems with a specialization in Information Security wishing to continue their education at the graduate level immediately upon completion of the B.S. degree.

Students that are accepted in the accelerated program take up to six graduate credit hours that are applied to both the bachelors' degree in CIS and master’s degree in Cybersecurity or Technology Project Management. Students may pursue either the thesis or non-thesis master's degree options. The B.S. degree will be conferred upon completion of the undergraduate curriculum requirements with appropriate graduate courses substituted for undergraduate courses. The graduate degree shall be awarded based on existing requirements for the graduate degree in the semester the student applies and is admitted to the graduate program. Admission is not guaranteed.

Application for the accredited program is recommended for undergraduates during their junior year.

Application and completion requirements are available from the Department of Information and Logistics Technology in room 309 of the Technology Building or the College of Technology Academic Services Center in room 108 T.

For more information on the Masters degree requirements, please refer to the Graduate Academic Catalog.

**Minor**

**Applied Innovation Minor**
Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

Minors in the department of Information and Logistic Technology must earn a grade of C or better in all minor courses.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

Applied Innovation Minor (15 Credit Hours)

Required Courses:

- TLIM 3363 - Technical Communications Credit Hours: 3.0
- TLIM 3330 - Innovation Principles Credit Hours: 3.0
- TLIM 3331 - Innovation Development Credit Hours: 3.0
- TLIM 4335 - Communicating Innovation Credit Hours: 3.0
- TLIM 4340 - Commercializing Innovation Credit Hours: 3.0

Graphic Communications Technology Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

Minors in the Department of Information and Logistics Technology must earn a grade of C or better in all minor courses.

College of Technology Minors

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

Graphic Communications Technology Minor (GCTMNR) (18 Semester Hours)

Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

This minor focuses on using technology to produce print media and is particularly useful for those majoring in related degrees in Communications (such as Advertising, Media Production, Media Studies, and Public Relations) as well as Studio Arts/Graphic Communications majors. Courses cover materials and processes, computer graphics, premedia/prepress, print output, binding/finishing, and costing.

Required courses:

- DIGM 1350 - Graphics for Digital Media Credit Hours: 3.0
- DIGM 2325 - Information Technology Applications for Digital Media Credit Hours: 3.0
- DIGM 2353 - Page Layout and Design Credit Hours: 3.0
- DIGM 3351 - Individualized Communication Processes Credit Hours: 3.0
- DIGM 3252 - Graphic Communication Output Credit Hours: 2.0
- DIGM 3152 - Graphic Communication Output Lab Credit Hours: 1.0
- DIGM 4373 - Photographic Tone and Color Reproduction Credit Hours: 3.0
Motion Media Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

Minors in the Department of Information and Logistics Technology must earn a grade of C or better in all minor courses.

College of Technology Minors

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

Motion Media Minor

Minor Total: 15.0 Credit Hours

Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

This minor focuses on producing computer-generated graphics and is particularly useful for those majoring in studio arts/graphic communications as well as selected majors in the School of Communications. This minor is not suggested for those majoring in media production in the School of Communications.

Courses cover pixel-and-vector based graphics, digital photography, web design, and videography. A suggested capstone integrated media course is also available to students.

Required Courses:

- DIGM 1350 - Graphics for Digital Media Credit Hours: 3.0
- DIGM 2352 - Digital Photography Credit Hours: 3.0
- DIGM 3354 - Video Production 1 Credit Hours: 3.0
- DIGM 3370 - Two Dimensional Computer Generated Imagery Animation Credit Hours: 3.0
- Choose 1:
  - DIGM 3374 - Video Production 2 Credit Hours: 3.0
  - DIGM 4371 - 3D Modeling and Animation Credit Hours: 3.0

Academic Policies

University Academic Policies
Academic Information - Technology

Package Design Minor
Students who select his minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

Minors in the Department of Information and Logistics Technology must earn a grade of C or better in all minor courses.

College of Technology Minors

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Minors in the Department of Construction Management must earn a grade of C or better in all minor courses.

Course Requirements

Minor Total: 15.0 Credit Hours

Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

This minor focuses on using technology to produce print media and is particularly useful for those majoring in related degrees in Communications (such as Advertising, Media Production, Media Studies, and Public Relations) as well as Studio Arts/Graphic Communications majors. Courses cover materials and processes, computer graphics, premedia/prepress, print output, binding/finishing, and costing.

DIGM 1350 - Graphics for Digital Media Credit Hours: 3.0
DIGM 2353 - Page Layout and Design Credit Hours: 3.0
DIGM 3152 - Graphic Communication Output Lab Credit Hours: 1.0
DIGM 3252 - Graphic Communication Output Credit Hours: 2.0
DIGM 3355 - Package Technology Credit Hours: 3.0
Choose 1 of the following:
DIGM 4373 - Photographic Tone and Color Reproduction Credit Hours: 3.0
DIGM 4375 - Package Design Credit Hours: 3.0

Technology Leadership and Innovation Management Minor

Students who select this minor must satisfy the general university requirements for a minor as well as the specific minor requirements below.

Minors in the department of Information and Logistics Technology must earn a grade of C or better in all minor courses.

The GPA for minors in the College of Technology will be calculated based upon all the grades earned in all courses attempted or completed for the minor as defined by the minor requirements listed in the undergraduate catalog. Prerequisites are strictly enforced for all minor courses and may not be listed in the required hours.

Students enrolled in Technology Leadership and Innovation Management or Organizational Leadership Supervision may not declare this minor.

Technology Leadership and Innovation Management Minor (15 Credit Hours)

Required Courses:

TLIM 3330 - Innovation Principles Credit Hours: 3.0
TLIM 3340 - Organizational Leadership and Supervision Credit Hours: 3.0
Nine credit hours to be selected from the following:

- TLIM 3345 - Human Resources in Technology **Credit Hours: 3.0**
- TLIM 3350 - Emergency Management Principles **Credit Hours: 3.0**
- TLIM 3355 - Project Management Principles **Credit Hours: 3.0**
- TLIM 3363 - Technical Communications **Credit Hours: 3.0**
- TLIM 3365 - Team Leadership **Credit Hours: 3.0**
- TLIM 3371 - Budgeting and Financial Principles **Credit Hours: 3.0**
- TLIM 4371 - Leading Change in the Workplace **Credit Hours: 3.0**
- TLIM 4390 - Current Issues in Leadership and Innovation **Credit Hours: 3.0**
- TLIM 4397 - Selected Topics in Organizational Leadership and Supervision **Credit Hours: 3.0**
Special Programs

AFROTC
Army ROTC
Cooperative Education
Global Citizens Credential
Language and Culture Center
Learning Abroad
Noncredit Programs and Courses
Non-Profit Leadership Alliance Program
Naval ROTC
Online & Special Programs
Phi Kappa Phi National Honor Society
PROMES
WeekendU
Air Force ROTC

The Air Force Reserve Officers Training Corps (AFROTC) program emphasizes the leadership and management skills that prepare cadets to earn a regular commission in the active United States Air Force. Courses and activities teach military customs and courtesies, core values, leadership and ethics, and policy formation.

Air Force ROTC offers a pathway from college to many exciting career possibilities as an Air Force officer: flying, engineering, intelligence, computer systems, aircraft maintenance, management, etc. Scholarships are available, and vary in size and length, and cover tuition, books, and fees.

The first two years of the Air Force ROTC program, the General Military Course, consist of one hour of classroom work and two hours of leadership laboratory each week.

Upon completion of the General Military Course requirements, cadets who wish to compete for entry into the last two years of the program, the Professional Officer Course, must do so under the requirements of the Professional Officer Course selection system. This system uses qualitative factors, such as grade point average, unit commander evaluation, aptitude test scores and physical fitness test scores to determine a student’s officer potential. After selection, students must successfully complete a summer field training encampment at an assigned Air Force base before entering the Professional Officer Course. Cadets enrolled in the Professional Officer Course attend class three hours a week and participate in a weekly leadership laboratory lasting two hours.

In the Professional Officer Course, cadets apply what they learned in the General Military Course and at field training. Professional Officer Course cadets conduct the leadership laboratories and manage the unit’s cadet wing. Professional Officer Course classes emphasize group discussions and cadet presentations. Classroom topics included leadership and management, communication skills, and national defense policy.

Once enrolled in the Professional Officer Course, all cadets are enlisted in the Air Force Reserve and assigned to the Obligated Reserve Section. This entitles them to a monthly nontaxable subsistence allowance during the academic year.

For further information, contact Air Force ROTC at 713-743-4932, e-mail us at afrotc@uh.edu, or visit our Web site at www.uh.edu/class/airforce.
Army ROTC

The US Army Reserve Officers Training Corps (ROTC) program is a college elective curriculum taken concurrently with required college classes. The objective of the ROTC program is to develop leadership, management and planning skills to help people succeed in any competitive environment. Upon completion of the ROTC program and earning a degree, students may be offered a Regular or Reserve commission in the US Army. The University of Houston offers a two, three and four-year ROTC program. The program is generally taken in two phases - the Basic Course and the Advanced Course.

The Basic Course takes place during your first two years in college as elective courses. It normally involves one elective class and lab each term along with the requisite physical training and field training exercises. You will learn basic military skills, the fundamentals of leadership and start the groundwork toward becoming an Army leader. You can take Army ROTC Basic Courses without a military commitment. Veterans and Reservist may be granted credit for the Basic Course.

The Advanced Course takes place during your last two years in college as elective courses. It normally includes one elective class and lab each term in addition to the requisite physical training and field training exercises, plus a summer leadership camp. You will learn advanced military tactics and gain experience in team organization, planning and decision-making. To benefit from the leadership training in the Advanced Course, all Cadets must have completed either the Basic Course or have attended the Cadet Initial Entry Training Course. Entering the Advanced Course requires a commitment to serve as an Officer in the US Army after you graduate. The curriculum generally aligns with the following course outline.

FRESHMAN YEAR: Preparing For Success as an Army Officer
- Introduction to Army Leadership
- Army Customs and Traditions
- Military Operations and Tactics
- Goal Setting and Accomplishment
- Health and Physical Fitness

SOPHOMORE YEAR: The Role of an Army Officer
- Applied Leadership Theory
- Communications
- Principles of War
- Military Operations and Tactics

JUNIOR YEAR: Leading Small Tactical Units
- Command and Staff Functions
- Law of War
- Unified Land Operations
- Project Management and Operational Planning
- Team Dynamics and Peer Leadership
- Military Operations and Tactics

SENIOR YEAR: Transition to Becoming an Officer
- Training the Force
- Uniform Code of Military Justice
- Ethical Decision Making
- Personnel Management
- Cultural Awareness
- Logistical Support and Sustainment
- Military Operations and Tactics

Army ROTC is one of the nation's top leadership programs with many benefits. For further information, please contact:

U.S. Army ROTC
Department of Military Science
University of Houston
3875 Holman St Rm. 28
Houston, TX 77204-6014
713-743-3875
Cooperative Education Program

The Cooperative Education Program (CO-OP) is a documented internship which appears on a currently enrolled student’s university transcript. CO-OP work experience enables students to receive valuable educational training with pay in the student’s major field of study either part-time (parallel) or full-time (rotational). Most undergraduate students participate in CO-OP at the beginning of their junior year but all student classifications are eligible to participate in CO-OP after completing a minimum of two semesters within their major field of study, including transfer, graduate and international students on F1-Visas. Students are required to submit a work report at the end of each CO-OP semester to document receiving work experience in their major field of study and to receive a non-credit grade on the official transcript. CO-OP opportunities are available in most college disciplines, especially engineering, business, natural science and mathematics, government and human services.

For further information, contact:

Engineering Career Service Center
Cooperative Education Program
University of Houston
Cullen College of Engineering, Room E312, Bldg.2
4726 Calhoun Road
Houston, TX 77204-4007
MC: 4007
713-743-4230

www.egr.uh.edu/coop
The Language and Culture Center (LCC), housed in the Department of English, is an intensive English program providing noncredit English language instruction to undergraduate and graduate international students who have not yet been admitted to degree programs because they need to improve their reading, writing, grammar, or spoken English skills to compete successfully in the university classroom.

International Graduate Teaching Assistants who score low on the Test of Spoken English (TSE), the Speaking Proficiency English Assessment Kit (SPEAK), or other nationally standardized tests may enroll for LCC 6034: English for International Teaching Assistants and Faculty, a noncredit course on English pronunciation and U.S. academic culture.

LCC courses do not count toward degrees, but do count toward full-time student status for immigration reporting purposes and for calculation of building use and student service fees.

For further information, contact:

University of Houston
Department of English
Language and Culture Center
116 Roy Cullen Building
Houston, TX 77204-3014
Learning Abroad

Contact Information

<table>
<thead>
<tr>
<th>713-743-9167</th>
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<tbody>
<tr>
<td>Internet:</td>
</tr>
<tr>
<td><a href="http://www.uh.edu/learningabroad">www.uh.edu/learningabroad</a></td>
</tr>
<tr>
<td>Interim Leadership:</td>
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<td>Maggie Mahoney, Master of Education</td>
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Learning Abroad (LA) facilitates opportunities for UH students to participate in a variety of academic and non-academic programs abroad. It is located in suite 105 of the Ezekiel W. Cullen Building. Learning Abroad is responsible for designing the policies and procedures for students participating in learning abroad programs and in assisting the colleges, departments, faculty and students in fulfilling academic requirements.

Undergraduate and graduate students interested in learning abroad have a wide variety of resources available. Students are able to enroll in any one of the following programs:

Faculty-Led Programs

Faculty-led programs are designed by UH faculty and approved by the Texas Higher Education Coordinating Board through UH and facilitated by LA. Students who wish to learn abroad under a faculty-led program must obtain permission from the department or college hosting the program. Students pay regular UH tuition and any additional fees associated with participating in the program. Tuition and fees are paid directly to UH and students are required to purchase the international travel insurance.

Reciprocal Educational Exchange Programs (REEP)

Through its various colleges and departments, UH has agreements with several universities around the world. Students who wish to apply to be a REEP student must initiate the process with LA and meet the major requirement specified in the agreement (if any). The student will pay tuition and fees at UH and not at the host institution according to the reciprocal exchange agreement. An advisor will guide students through the admission procedures and the payment of fees. (Student may be responsible for some fees at their host institutions.)

Affiliated Programs

UH manages affiliated agreements with various Learning Abroad program providers. LA will provide the necessary assistance to students who wish to participate in an affiliated learning abroad program. Students will be charged an affiliated studies fee by LA and are required to purchase international travel insurance if it is not provided by the program. All program tuition and fees will be paid directly to the affiliated provider.

Research Collaboratives

LA will assist students with resources to complete their research projects at a foreign university of higher education. Students seeking research collaboratives should contact their department for recommendations and contacts. Students who wish to undertake a research collaborative must obtain permission from the faculty member leading the program and the department or college supervising their research.
Internships

LA will assist students with resources to identify internship opportunities at a foreign university, company, firm or laboratory, among others. Students seeking internships should contact their department for recommendations and additional resources.

Service Learning Programs

Service Learning programs can apply to a number of scenarios wherein students participate in a learning abroad program or obtain overseas experience as part of a volunteer effort such as with an NGO, international organization, missionary or student organization, among others. A service-learning program is typically for purposes of obtaining additional experience in a particular area or professional development. In some instances, service-learning programs could be approved by UH departments as course credit which would be determined prior to participation and approved by the department and college hosting the course intended for credit.

Resources:

Advising

Learning Abroad advisors and support staff are available to assist students to find appropriate programs, equate foreign coursework to UH courses, evaluate foreign transcripts, and help promote students’ health and safety abroad

U.S. Passport Acceptance Facility

LA operates a U.S. Passport Acceptance Facility where U.S. students, faculty and staff can have their passport applications processed. LA staff have been trained as Acceptance Agents who meet all U.S. Department of State requirements for operating a Passport Acceptance Facility. The facility is open Monday through Friday from 8:30 a.m.-1:30 p.m.

Learning Abroad Scholarships

The International Education Scholarship (IES) is administered by LA. Scholarship applications are reviewed twice a year by a committee in the fall and spring terms.
Noncredit Programs and Courses

Moores School of Music Preparatory and Continuing Studies Department offers private music instruction and group classes to students of all ages. Professional Development workshops for music educators are offered on a variety of topics through the year. For more information, call 713-743-3398 or visit www.pcs.uh.edu.
Nonprofit Leadership Alliance

Undergraduate Opportunities

Baccalaureate and postbaccalaureate students interested in training for careers in nonprofit management and human services can pursue a certificate in nonprofit leadership and management with the Nonprofit Leadership Alliance (formerly American Humanics), described below.

The Nonprofit Leadership Alliance is a national alliance of colleges, universities and nonprofit organizations dedicated to strengthening the social sector with a talented, prepared workforce.

Overview Of Certification Requirements: Students enroll in courses that fit their individual degree plan for their major. The following courses and experiential activities are required to fulfill The Nonprofit Leadership Alliance nonprofit management competency areas and certification. (NOTE: Students with majors in Human Development and Family Studies and the Bauer College of Business should contact the program office at 713-743-8018 or room 405 SW for specific degree options. Also, see the Bauer College of Business section for more information.) Students will be assessed an annual fee of $100 each academic year they are enrolled in the program. National enrollment and credential fees may also be required. Scholarships are available for active students.

Courses:

Overview of Human Services:
SOC 3318: Introduction to Social Work and Social Services

Management of Human Services:
SOCW 3354: Nonprofit Management

Nonprofit Budgeting and Fiscal Management:
SOCW 3330: Nonprofit Financial Management

Marketing/Public Relations (choose one):
COMM 3356: Business and Professional Communications
COMM 3368: Principles of Public Relations
MARK 3336: Elements of Marketing Administration

Cultural Competency & Diversity (choose one or alternate course):
PSYC 2350: Child Development
PSYC 2351: Psychology of Adolescence
HDFS 2317: Intro to Human Development and Intervention

Principles of Fund Development:
(Noncredit Workshop Series)

Experiential:

Participation in Student Association
Leadership Activities
Attendance at national Management Institute
Professional internship with community nonprofit

Please contact the Program Coordinator for further information: 713-743-8137 or arrangel2@uh.edu.
Naval ROTC

Although the university does not have a Naval Reserve Officers Training Corps (NROTC) unit, qualified students may participate in the NROTC program at Rice University. The cross-enrollment program is an arrangement between the University of Houston, Rice, and the U.S. Navy & U.S. Marine Corps, represented by the Naval Science Department at Rice University.

There are three NROTC programs leading to a commission in the active duty components of the Navy or Marine Corps:

- A two-, three-, or four-year scholarship program leading to a commission in the Navy or Marine Corps. (This program provides all tuition, books, school fees, and uniforms plus $200-450 stipend per month.)
- A two-, three- or four-year college program that leads to a commission in the Naval or Marine Corps. (Uniforms and naval science course books are provided.)
- A two-year scholarship or college program for juniors and seniors (apply spring term sophomore year).

Interested students should contact the NROTC Rice University:

Commanding Officer
NROTC Unit Houston Consortium
Rice University, MS 556
6100 S. Main
Houston, Texas 77005
713-348-3940
E-mail: navy@rice.edu

See the course schedule for enrollment (registration) information.
Online & Special Programs

The University of Houston offers online undergraduate degree completion programs 100% online graduate programs for a true education without limits.

A complete list of undergraduate and graduate online programs can be found on our Online Degrees page.

In addition to online programs, the University of Houston also offers hybrid, short session, and non-credit courses.

Credit courses offered online include junior, senior, and graduate level courses from selected degree programs. Credit courses and programs offered online have the same prerequisites, content, and requirements as on-campus.

Non-credit courses offered online include areas emphasizing career training, skills building, and professional development. Many non-credit courses and programs offered online are self-paced and do not require admission to the University of Houston.

For further information about academic credit courses offered via UH Online & Special Programs, visit http://www.uh.edu/online/ or call 713-743-3327.
Phi Kappa Phi

Phi Kappa Phi is a national honor society that recognizes superior scholarship in all academic disciplines at the university.

Founded in 1897, Phi Kappa Phi has as its primary objective the recognition and encouragement of superior scholarship. The University of Houston chapter, chartered in November 1949, is the only honor society on campus that is wholly university-wide and includes faculty members, administrators, and undergraduate and graduate students in every division of the university.

Each year Phi Kappa Phi elects to membership a limited number of juniors, seniors, and graduate or professional students who are of good character and have attained outstanding records of academic excellence at the university.
PROMES

The Cullen College of Engineering seeks to provide increased opportunities for students with diverse backgrounds. To implement this policy, the college has established a special program called PROMES (pronounced “promise”), the Program for Mastery of Engineering Studies. This program provides support in the academic, social, and financial areas, with strong emphasis on making a student’s first year in college a success. Incoming PROMES students enroll in special courses and workshops designed to lead to that success as well as providing an informal setting for community. Academic monitoring, tutoring, general orientation, and where applicable, career and personal counseling are all part of the program.

Financial aid for PROMES students is available through normal scholarship and financial aid programs, grants, special PROMES scholarships, and after the freshman year the Cooperative Education Program. The program’s annual Holiday Networking Party and spring PROMES Awards Banquet enhance the campus social life of PROMES students.

PROMES is open to engineering students of all ethnicities and nationalities.

For information, call 832-842-7021.
Weekend U

Weekend U provides an opportunity to complete core curriculum courses on Saturdays during the fall and spring semesters. These courses allow more flexibility for a students’ class schedule. Weekend U is perfect for students with busy weekday schedules and is an opportunity to earn your degree faster.

Weekend U classes are held Saturdays on the UH campus. Classes are scheduled between 9:00 AM and 4:00 PM and are taught by qualified instructors.

Most classes meet face-to-face like any other traditional classes. Some courses are hybrids, which combine traditional classroom instruction with a significant amount (over 50%) of instruction delivered online (usually via Blackboard Learn).

For a complete list of courses and more information, go to https://www.uh.edu/online/weekend-u/.
Courses

Accounting

ACCT 2301 - Principles of Financial Accounting
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Formerly ACCT 2331
Prerequisite: None.
Description
Fundamentals of financial accounting.
Note: ACCT 2301 meets Business Administration and Management Field of Study requirement.
TCCNS Equivalent: ACCT 2301

ACCT 2302 - Principles of Managerial Accounting
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Formerly ACCT 2332
Prerequisite: ACCT 2301 (formerly ACCT 2331).
Description
Fundamentals of managerial accounting.
Note: ACCT 2302 meets Business Administration and Management Field of Study requirement.
TCCNS Equivalent: ACCT 2302

ACCT 3366 - Financial Reporting Frameworks
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0
Prerequisite: ACCT 2301 or equivalent with a grade of C or better; ACCT 2302 with a grade of C or better or concurrent enrollment in ACCT 2302; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Introduction to GAAP and IFRS standard setting processes and frameworks. Accounting process and its application.

ACCT 3367 - Intermediate Accounting I
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0
Prerequisite: ACCT 3366, or equivalent with a grade of C or better; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Accounting organizations, the conceptual framework of accounting, the accounting process, basic financial statements, and the time value of money. Financial theory and practice in accounting for assets.

ACCT 3368 - Intermediate Accounting II
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0
Prerequisite: ACCT 3367, with a minimum grade of C; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Financial theory and practice in accounting for liabilities, shareholders’ equity, earnings per share, and special disclosure topics.

ACCT 3371 - Accounting Information Systems
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0
Prerequisite: ACCT 3366, or equivalent with a grade of C or better and BCIS 1305 or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Accounting systems, including file, program, control, and system structures.

ACCT 3377 - Cost Accounting
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ACCT 2302 with a grade of C or better; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description  
A review and expansion on issues associated with traditional product-costing methods and recognize the need for changing existing management accounting systems to calculate more accurate product costs and better cost information.

ACCT 3378 - Management Accounting  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ACCT 3377 and ACCT 3367; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description  
Analysis and use of cost data in planning, controlling and decision-making.

ACCT 4105 - Professional Program in Accountancy Colloquium 1  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Prerequisite: admission to the professional program in accountancy (PPA).

Description  
Introduction to the business environment of professional accountants.

ACCT 4106 - Professional Program in Accountancy Colloquium 2  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Prerequisite: admission to the professional program in accountancy (PPA) and completion of ACCT 4105.

Description  
Professional responsibilities of CPAs.

ACCT 4107 - Oil and Gas Accounting Colloquium  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Prerequisite: A 2.5 GPA in accounting and completed certificate courses and concurrent enrollment in or completion of ACCT 4378.

Description  
Introduction to the business environment of oil and gas accountants.

ACCT 4108 - Internal Audit Colloquium  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Prerequisite: A 2.5 GPA in accounting and completed certificate courses and concurrent enrollment in or completion of ACCT 4375.

Description  
Introduction to the business environment of internal audit auditors.

ACCT 4198 - Independent Study  
Credit Hours: 1.0  
Prerequisite: junior standing and approval of department chair.

ACCT 4330 - Advanced Accounting  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ACCT 3368, with minimum grade of C; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description  
Investments and consolidations, foreign currency translation, branch accounting, segmental reporting, bankruptcy, and partnerships.
ACCT 4331 - Federal Income Tax - Individual
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Taxation of individuals and property transactions.

ACCT 4332 - Corporate Taxation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ACCT 4331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Taxation of corporations, partnerships, estates, and trusts.

ACCT 4335 - Financial Statement Auditing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ACCT 3367, with minimum grade of C, and ACCT 3371; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Financial statement auditing standards and procedures, internal control, working papers, and report writing.

ACCT 4337 - Introduction to Data Analytics in Accounting
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: STAT 3331 and ACCT3367, or equivalent with a grade of C or better; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
This course introduces data preparation and analysis, enabling the student to: (a) begin the understanding of data analytics and (b) develop data analytics skills useful in the field of accounting.
Additional Fee Y

ACCT 4375 - Internal Audit and Entity Control Environment
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ACCT 2301 or equivalent with a minimum grade of C, junior standing, good academic standing; pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Control and auditing procedures within companies.

ACCT 4378 - Oil and Gas Accounting I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ACCT 3367, with minimum grade of C; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Accounting for exploration, acquisition, drilling, production, and conveyances of oil and gas.

ACCT 4379 - Enterprise Risk Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ACCT 4375, with a minimum grade of C; good academic standing; and one or more of
Description
An examination of the risks, controls, and assurance services in business organizations.
Additional Fee Y

ACCT 4380 - Control & Security of Financial Information: Theory and Practice
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ACCT 4375, with a minimum grade of C; good academic standing; and one or more of
the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**
Policies, practices, and systems for security of financial information in business.

**Additional Fee** Y

**ACCT 4381 - Oil and Gas Accounting 2**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ACCT 4378; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**
Application of accounting systems for exploration, acquisition, drilling, production, and conveyances of oil and gas.

**ACCT 4382 - Oil and Gas Accounting 3**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ACCT 4378; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**
Regulatory environment of oil and gas, including international and tax applications.

**ACCT 4396 - Accounting Internship**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Formerly** ACCT 4341 Accounting Internship  
**Prerequisite:** junior standing and prior written approval of the program director.

**Description**
Enhancement of concepts and techniques learned in the classroom through work experience directly related to the auditing or accounting profession.

**Note:** Internship credit is limited to three credit hours and requires employer evaluation.

**ACCT 4397 - Selected Topics in Accounting**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Approval of chair or program director; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

May be repeated when topics vary.

**Note:** May be repeated when topics vary.

**ACCT 4398 - Independent Study**

**Credit Hours:** 3.0  
**Prerequisite:** junior standing and approval of department chair.

**ACCT 5330 - Advanced Accounting**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** a baccalaureate degree and ACCT 5368 or equivalent.

**Description**
Investments and consolidations, foreign currency translation, branch accounting, segmental reporting, bankruptcy, and partnerships.

**ACCT 5331 - Federal Income Tax - Individual**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** a baccalaureate degree.

**Description**
Taxation of individuals and property transactions.

**ACCT 5332 - Corporate Taxation**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** a baccalaureate degree and ACCT 5331 or equivalent.

**Description**
Taxation of corporations, partnerships, estates and trusts.
ACCT 5335 - Financial Statement Auditing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly ACCT 5335 Auditing
Prerequisite: a baccalaureate degree and ACCT 5367 and ACCT 5371.
Description
Financial statement auditing standards and procedures, internal control, working papers and report writing.

ACCT 5337 - Management Accounting
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree and ACCT 2302 or equivalent.
Description
Cost accounting, including standard costing, information for managerial planning and control, and information for special decisions.

ACCT 5336 - Intermediate Accounting 1
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree and ACCT 2301 or equivalent.
Description
Accounting organizations, the conceptual framework of accounting, the accounting process, basic financial statements, and the time value of money. Financial theory and practice in accounting for assets, liabilities and equity.

ACCT 5368 - Intermediate Accounting 2
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree and ACCT 5367 or equivalent.
Description
Financial theory and practice in accounting for earnings per share, investments, revenue, leases, pensions, deferred taxes and accounting changes.

ACCT 5371 - Accounting Information Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree and ACCT 2301 or equivalent.
Description
Accounting systems, including file, program, control, and system structures.

ACCT 5375 - Internal Auditing and the Entity Control Environment
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ACCT 2301 or equivalent with a minimum grade of C, a baccalaureate degree, good academic standing; pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Control and auditing procedures within companies.

ACCT 5376 - Advanced Financial Statement Auditing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree and ACCT 5335 or equivalent
Description
Current issues in auditing. Emphasis on practical applications

ACCT 5377 - Government and Nonprofit Accounting
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree and ACCT 2301 or equivalent.
Description
Principles of fund accounting, governmental budgets, program-planning-budget systems, hospital and not-for-profit accounting systems.

ACCT 5378 - Control & Security of Financial Information: Theory and Practice
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: A baccalaureate degree, and concurrent enrollment or completion of ACCT 5375.
Description
Policies, practices, and systems for security of financial information in business.
Additional Fee Y
ACCT 5379 - Enterprise Risk Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: A baccalaureate degree, and concurrent enrollment or completion of ACCT 5375.
Description
An examination of the risks, controls, and assurance services in business organizations.
Additional Fee Y

ACCT 5380 - Oil and Gas Accounting 1
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree, ACCT 5367 or equivalent.
Description
Accounting for exploration, acquisition, drilling, production, and conveyances of oil and gas.

ACCT 5381 - Oil and Gas Accounting 2
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree, ACCT 5380 or equivalent.
Description
Application of accounting systems for exploration, acquisition, drilling, production, and conveyances of oil and gas.

ACCT 5382 - Oil and Gas Accounting 3
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a baccalaureate degree, ACCT 5380 or equivalent.
Description
Regulatory environment of oil and gas, including international and tax applications.

ACCT 5397 - Selected Topics in Accounting
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: A baccalaureate degree and ACCT 2301 or equivalent.
May be repeated when topics vary.

African American Studies

AAS 2320 - Introduction to African American Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
An introductory analysis of the discipline of African American/Africana Studies, its mission, key theories and major concerns.
Core Category: [40] Language, Philosophy, & Culture

AAS 2330 - Black Liberation Theology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
This course will examine, compare and contrast the theologies and resulting programmatic actions taken by persons espousing Black Liberation Theology.
Core Category: [40] Language, Philosophy, & Culture

AAS 2396 - The History of Black Education
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: AAS 2320.
Description
This course is designed to study the impact of African Americans on the making of America and relevant contributions to black education, including essays, monographs, anthologies, journals and other writings of individuals such as Booker T. Washington, W.E.B. Du Bois and Carter G. Woodson. Additional focus on pivotal events that reshaped American society and African American education such as Brown vs. The Board of Education, Jim Crow Laws, No Child Left Behind and the School to Prison Pipeline.

AAS 3301 - Hip Hop History and Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

Description
Hip Hop as a cultural phenomena, expression, and experience for African American people.

AAS 3307 - African Spiritual Transformation in the Social Sciences
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: AAS 2320 and AAS 2322

Description
Cultural world views that shape perceptions, thoughts, feelings, behavior, and thus human experience of Africana phenomena. Emphasizing Africana culture, this course will use social science data to investigate the epistemological aspects of critical analysis, communal self-reflection and introspection of the human experience.

AAS 3310 - African American Experience through Theatre
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: AAS 2320 or consent of instructor

Description
Critical analysis and issues relevant to contemporary works of African-American playwrights in historical and sociological contexts.

AAS 3330 - African American Studies Oral History and Field Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: AAS 2320 and AAS 3379 or consent of instructor

Description
Development of oral history as a discipline and its use in developing sources for African American and Africans history. Practical training in oral interviewing techniques through field work.

AAS 3340 - Seminar in African American Sociolinguistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: AAS 2320 or consent of instructor

Description
Significant theories and arguments concerning the genesis, maintenance, and social function of African American English. Changing and diverse character of the African American speech community as described by dialectologists, sociolinguists, and Creolologists.

AAS 3348 - African Americans and the Law
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: AAS 2320

Description
Historical and contemporary analyses of American laws and constitutional decisions affecting African Americans from slavery to the present.

AAS 3350 - Slavery and Race Relations in the African Diaspora
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: AAS 2320 or consent of instructor

Description
The black experience in the Americas outside of the U.S. Historical and geographical aspects of black life and race relations, both during and after slavery, contrasted with European and Native American experiences. Common themes traced using the cross-cultural approach among Africana ethnic groups.

AAS 3354 - African Nationalist Thought and Ethics in the U.S.
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: AAS 2320

Description
Various intellectual traditions and historical developments that contribute to the quest by African people to build or recover cultural sovereignty within the U.S.

AAS 3356 - Africana Thought and Philosophy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: AAS 2320 or consent of instructor

Description
Political and social philosophies which have shaped the struggle for Black liberation in the United States; strategies and ideologies such as integration, cultural assimilation, nonviolence, passive resistance, direct action, and Pan-Africanism; thoughts and ideas of Africana leadership figures throughout the global diaspora.

**AAS 3366 - African American Studies Community Internship**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** AAS 2320.  
**Description**  
Provides minors in African American Studies with supervised practice and educational experiences to study, express, or resolve contemporary issues impacting African and African-descended communities.

**AAS 3379 - Africana Oratory**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** AAS 2320 or consent of instructor.  
**Description**  
Representative African and African American oratory throughout history.

**AAS 3394 - Selected Topics Afr Am Stdy**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*

**AAS 4300 - African Philosophy**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** AAS 2320 or consent of instructor.  
**Description**  
Historical and contemporary African philosophical/theological concepts: cosmological, metaphysical, ontological, and ethical world view.

**AAS 4330 - The Black Church in America**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** ENGL 1304, MATH 1310, and AAS 2320 or equivalent.  
**Description**  
The institutional church's role in the life of black Americans and influence in the black community.

**AAS 4370 - Seminar in African American Studies**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** AAS 2320 and AAS 2322  or consent of instructor.  
**Description**  
Historical, intellectual, and professional foundations of African American Studies.

**AAS 4373 - Black Leaders of the Twentieth Century**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** AAS 2320 or consent of instructor.  
**Description**  
Study of selected twentieth century African American leaders examining issues and schema of race, gender, and class. The leaders and their relationship in mass social movement.

**AAS 4377 - Seminar on W.E.B. DuBois**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** AAS 2320 or consent of instructor.  
**Description**  
Writings and ideas of W.E.B. DuBois from an interdisciplinary perspective.

**AAS 4440 - Model African Union Seminar**
Credit Hours: 4.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 1*  
**Prerequisite:** AAS 1310 , AAS 2320, and AAS 4370 or consent of instructor.  
**Description**
Historic and political process of the design and maintenance of the African Union. Requires travel to Washington, D.C. to participate in the Model African Union conference. Students to defray expenses for air travel and lodging.

### Air Force Science

**AFSC 1201 - Foundations of the USAF I**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 1  
**Description**  
Overall roles and missions of the USAF; career fields available. Emphasis on military customs and courtesies, appearance standards, core values, written and personal communication. Introduction to American military history.

**AFSC 1202 - Foundations of the USAF II**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 1  
**Description**  
Overall roles and missions of the USAF; career fields available. Emphasis on military customs and courtesies, appearance standards, core values, written and personal communication. Introduction to American military history.

**AFSC 2201 - Evolution of Air Power I**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 1  
**Description**  
Key historical events and milestones in the development of air power as a primary instrument of United States national security. Core values and competencies of leaders in the United States Air Force. Tenets of leadership and ethics.

**AFSC 2202 - Evolution of Air Power II**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 1  
**Description**  
Key historical events and milestones in the development of air power as a primary instrument of United States national security. Core values and competencies of leaders in the United States Air Force. Tenets of leadership and ethics.

**AFSC 3301 - Air Force Leadership Studies I**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 1  
**Description**  
Leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, and leadership ethics. Case studies of Air Force leadership and management situations.

**AFSC 3302 - Air Force Leadership Studies II**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 1  
**Description**  
Leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, and leadership ethics. Case studies of Air Force leadership and management situations.

**AFSC 3801 - Field Training**  
**Credit Hours:** 9.0  
**Prerequisite:** AFSC 2202 or consent of department chair.  
**Description**  
No military obligation is associated with this course. Four week off-campus field training practicum. Introduces student to Air Force leadership. Places student in demanding and stressful leadership situations.

**AFSC 4301 - National Security Affairs I**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 1  
**Description**  
Evolution of the role of national security in a democratic society with emphasis on policy formation, competing values, and organizations. Civilian control of the military; roles of the services; functions of the Air Force Commands.

**AFSC 4302 - National Security Affairs II**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 1  
**Description**
Evolution of the role of national security in a democratic society with emphasis on policy formation, competing values, and organizations. Civilian control of the military; roles of the services; functions of the Air Force Commands.

American Sign Language Interpretation

ASLI 1301 - Elementary American Sign Language I
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Introduction to American Sign Language (ASL); understanding and expression of basic vocabulary, basic grammar rules and non-manual aspects. Language lab access and community involvement required in addition to class meetings.
TCCNS Equivalent: SGNL 1301

ASLI 1302 - Elementary American Sign Language II
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly COMD 1302
Prerequisite: ASLI 1301 within the last 12 months, placement testing into ASLI 1302 or passing of Departmental exam.
Description
Continuation of Elementary ASL I (ASLI 1301); understanding and expression of broader lexicon, advanced grammar and non-manual aspects.
Note: Language lab access and community involvement required in addition to class meetings.
Typically Offered: Fall, Spring, Summer
TCCNS Equivalent: SGNL 1302

ASLI 2233 - History of Interpreting
Credit Hours: 2.0  
Lecture Contact Hours: 2.0  Lab Contact Hours: 0  Prerequisite: ASLI 1302, placement into ASLI 2301 or permission of the instructor.
Description
Overview of interpreting and translation discipline. Historical roots of interpreting for deaf community analyzed.

ASLI 2301 - Intermediate American Sign Language I
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly COMD 2301
Prerequisite: ASLI 1302 within the last 12 months, placement testing into ASLI 2301 or passing of Departmental exam.
Description
Expansion on ASLI 1302; understanding and expression of expanded lexicon, the use of classifiers and rules for categorization.
Note: Language lab access and community involvement required in addition to class meetings.
Typically Offered: Fall, Spring, Summer
TCCNS Equivalent: SGNL 2301

ASLI 2302 - Intermediate American Sign Language II
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly COMD 2302
Prerequisite: ASLI 2301 within the last 12 months, placement testing into ASLI 2302 or passing of Departmental exam.
Description
Continuation of ASLI 2301; understanding expression of a wide lexicon for story telling in ASL including the use of classifiers and non-manual expression.
Note: Language lab access and community involvement required in addition to class meetings.
Typically Offered: Fall, Spring, Summer
TCCNS Equivalent: SGNL 2302

ASLI 2335 - Multiculturalism & Diversity in ASL Interpreting
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ASLI 2301 or instructor approval.
Description
Analysis of cultural diversity and how it impacts the work of interpreters, both linguistically and paralinguistically. Emphasis will be placed on subcultures within the Deaf and hard-of-hearing communities.

**ASLI 3333 - Simultaneous Interpreting: Foundational Skills**
*Credit Hours: 3.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ASLI majors and ASLI 3430*

**Description**
Theoretical strategies for interpreting simultaneously between spoken English and American Sign Language will be introduced. Lab included for intensive interlingual practice.

**ASLI 3430 - Consecutive Interpreting and Translation**
*Credit Hours: 4.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 1  Formerly ASLI 3430.*
*Prerequisite: ASLI majors.*
*Corequisite: ASLI 3460.*

**Description**
Models of interpreting/translation theory and the process of consecutive interpreting will be explored. Laboratory time required for translation skill development.

**ASLI 3430 - Advanced American Sign Language**
*Credit Hours: 4.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 1  Formerly ASLI 3360.*
*Prerequisite: ASLI Majors, ASLI 2302 and COMD 3301. Concurrent enrollment in ASLI 3430 required unless instructor approval obtained.*

**Description**
Linguistic competence is emphasized by modeling, analyzing and dissecting complex language techniques of American Sign Language including classifiers, depiction, mouth morphemes, narration, idiomatic language and description ability.

**ASLI 4210 - Literature in American Sign Language**
*Credit Hours: 2.0*
*Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: ASLI 3333 and 3334.*

**Description**
Overview of literary works in American Sign Language. Emphasis on poetry, narratives, and dramatic productions.

**Note:** This course may be repeated for credit.

**ASLI 4335 - Advanced Interpreting Techniques and Skills in ASL/English**
*Credit Hours: 3.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ASLI 3333 and ASLI 3434. Builds on the ASL interpreting skills acquired in ASLI 3333 and ASLI 3434.*

**Description**
Increasing task demands and complex communication contexts are emphasized.

**ASLI 4346 - American Sign Language Transliteration and Educational Interpreting**
*Credit Hours: 3.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ASLI major and ASLI 3434 or permission of the instructor. Interpreting in classroom settings.*

**Description**
The interpreter’s role with educators, interpreting issues related to school-age students, and federal regulations related to interpreting.

**ASLI 4368 - Comparative study of ASL and English Linguistics**
*Credit Hours: 3.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ASLI 3430 or permission of instructor.*

**Description**
Linguistic analysis between spoken/written English and American Sign Language. Syntax, grammar, and other linguistic elements will be explored.

**ASLI 4397 - Selected Topics in American Sign Language Interpreting**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ASLI 3333 and ASLI 3434.

Description
Theoretical and practical issues as well as intense practice for skill development in emerging ASL topic areas. This course may be repeated for credit.

ASLI 4398 - Independent Study: Tri-lingual Interpreting
Credit Hours: 3.0
Prerequisite: ASLI 3333 and ASLI 3434.

Description
This course presents the theoretical and practical considerations when interpreting between individuals whose native languages differ. This course may be repeated for credit.

ASLI 4489 - Service Learning - Internship
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 1  Prerequisite: ASLI major, ASLI 3434, and 4346, within the last twelve months.

Description
Provides majors in ASLI with supervised practicum and educational experiences in an approved internship program under supervision of a faculty member. May be repeated multiple times.

Anthropology

ANTH 1300 - Introduction to Anthropology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in ENGL 1303 or equivalent.

Description
Nature and principles of anthropology, discussion of variation in culture, language, and human biology in time and space.
Core Category: [80] Social & Behavioral Sciences
TCCNS Equivalent: ANTH 2346

ANTH 2301 - Introduction to Physical Anthropology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: concurrent enrollment in or completion of ENGL 1303 or equivalent.

Description
Physical anthropology emphasizing origins and biological diversity of human populations.
Core Category: [80] Social & Behavioral Sciences
TCCNS Equivalent: ANTH 2301

ANTH 2302 - Introduction to Cultural Anthropology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: concurrent enrollment in or completion of ENGL 1303 or equivalent.

Description
Survey of basic concepts and data in cultural anthropology, focusing on contemporary and recent human groups.
Core Category: [80] Social & Behavioral Sciences
TCCNS Equivalent: ANTH 2351

ANTH 2303 - Introduction to Archaeology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: concurrent enrollment in or completion of ENGL 1303 or equivalent.

Description
An introduction to the history, methods, and theory within modern archaeology, including discussion of data collection, analysis, dating techniques, and interpretation.
Core Category: [80] Social & Behavioral Sciences
TCCNS Equivalent: ANTH 2302

ANTH 2304 - Introduction to Language and Culture
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: concurrent enrollment in or completion of ENGL 1303 or equivalent.

Description
Anthropological perspectives on the relation of language and culture including social use of language, language as behavior, and non-verbal communication.

Core Category: [81] Writing in the Disciplines

ANTH 2395 - Selected Topics in Cultural Anthropology
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304.

May be repeated for credit when topic varies.

ANTH 3304 - Demographic Anthropology
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Description
Demographic methods as applied to small populations. Contributions of anthropologists to general theoretical questions about human populations.

ANTH 3305 - Psychological Anthropology
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ANTH 1300 or ANTH 2302 or consent of instructor.

Description
Concepts and methods in Cross-cultural study of personality. Topics include mental illness in comparative perspective.

ANTH 3306 - Sex and Culture
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ANTH 2302 or consent of instructor.

Description
Anthropological view of nature, culture, and gender. Topics include sociobiology, primate sexuality, and cultural diversity of human sexuality.

ANTH 3312 - Mexican-American Culture
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ANTH 2302.

Description
Society and culture of Mexican-Americans.

ANTH 3313 - Brown Girls, Brown Stories: Black Female Protagonists in Novels & Films
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Any 2000 level CCS or WGSS course.

Description
Course focuses on novels and films centered on the lives of adolescent girls and young women of African descent taking a cultural studies approach to literature and film, emphasizing issues of intersectional identity that are key to contemporary women of color feminist theory.

ANTH 3316 - Society and Culture of India
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: three semester hours in anthropology or consent of instructor.

Description
Basic social units of Indian life; traditional Indian values.

ANTH 3320 - Ritual and Performance
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304 and ANTH 2302.

Description
Introduction to the anthropology of ritual and performance theory in comparative cultural and historical perspectives through a series of concrete ethnographic case studies focusing on ritual in religious experience.
ANTH 3324 - Peoples and Culture of Latin America  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2302 or consent of instructor.  
Description  
Societies and cultures of the peoples of Central America today.

ANTH 3334 - Us and Them: Ethical Decision-Making in Complex Cultures  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and ANTH 1300.  
Description  
Examine how diverse religions and other cultural belief systems create structures of exclusion and inclusion, tolerance and intolerance, obligation and responsibility.

ANTH 3335 - Black Atlantic Religions  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and ANTH 2302.  
Description  
African religious traditions and rituals in the Americas, considering the role and legacy of slavery, as well as the challenges of freedom. Genesis and transformation of Afro-American cultural forms.  
Typically Offered: Fall

ANTH 3336 - Caribbean Societies and Cultures  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and ANTH 2302.  
Description  
Caribbean societies and cultures in historical and anthropological perspectives on the bonds that unite and distinguish these island and mainland peoples.  
Typically Offered: Fall

ANTH 3338 - Peoples of Africa  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2302 or consent of instructor.  
Description  
An introduction to African cultures and societies. Emphasis on anthropological contributions to African Studies and the wider historical and political context in which this continent has been studied. Demography and languages, religions, healing and health care, the arts, kinship and marriage, politics, social differentiation and ethnicity, gender, and economics in cultural encounters and globalization.

ANTH 3341 - Cultural Ecology  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2301, ANTH 2302, or ANTH 2303.  
Description  
A survey of the method and theory involved in the study of the relationship of culture and environment, stressing long-term evolutionary change within cultural systems.

ANTH 3342 - Food and Culture  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 1300 or ANTH 2302 or consent of instructor.  
Description  
Role and importance of food in different cultures: nutrition, social use of food, and symbolic significance.

ANTH 3347 - Anthropology of Women  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2302 or consent of instructor.  
Description  
The status of women in cross-cultural perspectives.

ANTH 3348 - Anthropology of Religion
ANTH 3350 - Women and Health: Anthropological Perspectives
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 1300, ANTH 2302 or consent of instructor.
Description
Cross-cultural survey of religious beliefs and practices.
Core Category: [81] Writing in the Disciplines

ANTH 3351 - Politics of Healthcare and the Latino Community
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2302.
Description
Cultural foundations contributing to women's health status in industrial and developing societies.

ANTH 3360 - Human Variation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 1300 or ANTH 2301 or consent of instructor.
Description
Survey of human biological diversity arising from genetic evolution and responses to diverse environmental conditions.

ANTH 3361 - Human Origins
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 1300, ANTH 2301 or consent of instructor.
Description
Core Category: [81] Writing in the Disciplines

ANTH 3362 - Monkeys, Apes, and Humans
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 1300 or ANTH 2301 or consent of instructor.
Description
Natural history, social life, and organization of nonhuman primates, stressing studies of free-ranging animals and primate origins of certain human behaviors.

ANTH 3364 - Disease in Antiquity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: concurrent enrollment or completion of ENGL 1303.
Description
Effects of disease and health on past populations. Includes the origin of syphilis and the impact of new diseases on Native Americans.

ANTH 3365 - Principles and Practices of Global Engagement
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or consent of instructor.

ANTH 3375 - North American Archaeology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2303 or consent of instructor.
Description
Synthesis of current data and hypotheses concerning cultural development within America north of Mexico prior to European contact.

ANTH 3378 - Archaeology of Historic North America
**ANTH 3379 - Methods in Historical Archaeology**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ANTH 2303 or equivalent or consent of instructor.  

Description  
Results of the archaeological investigation of historically known locations in North America, including colonial settlements, plantations, factory sites, and battle fields.

**ANTH 3380 - Archaeological Method and Theory**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly ANTH 4378  
Prerequisite: ANTH 1300 or ANTH 2303, or consent of instructor.  

Description  
Survey of methods and techniques in historical archaeology.

**ANTH 3381 - Global Hinduism**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Cross-Listed As: RELS 3381  
Prerequisite: ENGL 1304 or ENGL 1310  

Description  
Examine diversity of Hindu practices outside India; compare Hindu practices /beliefs around world; introduce paradigms, theories in religious studies, anthropology, sociology to understand how local /global cultures shape communities and religious practices.  
Core Category: [81] Writing in the Disciplines

**ANTH 3396 - Selected Topics in Cultural Anthropology**

Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Junior standing or consent of instructor.  
Note: Can be repeated for credit when topic varies.

**ANTH 3399 - Senior Honors Thesis**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: approval of the program chair.

**ANTH 4192 - Research Practicum I**

Credit Hours: 1.0  
Prerequisite: six semester hours in anthropology and consent of instructor.  
Description  
Practical training and experience in anthropological analysis procedures and write-up of primary data.

**ANTH 4193 - Research Practicum**

Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 1  
Prerequisite: six semester hours in anthropology and consent of instructor.  
Description  
Practical training and experience in anthropological analysis procedures and write-up of primary data.  
Note: No more than three hours of research practicum may be applied to the major or the minor.

**ANTH 4198 - Independent Study**

Credit Hours: 1.0  
Prerequisite: six semester hours in anthropology or consent of instructor.

**ANTH 4292 - Research Practicum I**
ANTH 4293 - Research Practicum
Credit Hours: 2.0
Prerequisite: Not more than 12 semester hours from ARCH 4353, ANTH 4342, ANTH 4391, 4395, 4396, and consent of instructor.
Description
Practical training and experience in anthropological analysis procedures and write-up of primary data.

ANTH 4299 - Independent Study
Credit Hours: 2.0
Prerequisite: six semester hours in anthropology or consent of instructor.

ANTH 4301 - Language and Cultural Cognition
Credit Hours: 3.0
Prerequisite: ANTH 2304 or consent of instructor.
Description
Explores key issues and debates in classic and contemporary works in anthropological linguistics, as well as ethnographic approaches derived from linguistics and literary criticism. Chomskyan "revolution", semantics, structuralism, post-structuralism and postmodernism, semiotics, discourse analysis, ethnography of speaking, verbal art performance, metaphor and other symbolism, and connections between myth, history, and memory.

ANTH 4310 - Theories of Culture
Credit Hours: 3.0
Prerequisite: ANTH 2302.
Description
Historical development of anthropological thought, with emphasis on contemporary theoretical systems.

ANTH 4325 - Data Analysis in Archaeology
Credit Hours: 3.0
Prerequisite: ANTH 2302 and consent of instructor.
Description
Artifact processing, cataloging, classifying, entering variables into computer databases, and computer based statistical analysis of artifacts to determine behavioral patterns.
Typically Offered: Fall

ANTH 4330 - Applied Anthropology
Credit Hours: 3.0
Prerequisite: ANTH 2302 or consent of instructor.
Description
Overview of the development of theory and methodology in applied anthropology.

ANTH 4331 - Medical Anthropology
Credit Hours: 3.0
Prerequisite: ANTH 2302 or consent of instructor.
Description
Relationship between health and culture including aspects of human culture that affect acceptance of health care and adaptation to disease.

ANTH 4337 - Anthropology of the Life Cycle
Credit Hours: 3.0
Prerequisite: ANTH 2302 or consent of the instructor.
Description
Cross-cultural analysis of the life cycle, including household cycle, health, gender issues, and aging.
ANTH 4338 - Visual Anthropology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2302.
Description
Visual anthropology uses theories of ethnography to understand human behavior and meaning through visual media.

ANTH 4340 - Anthropology Through Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 1300 or ANTH 2302 or consent of instructor.
Description
Discusses a selection of well-known novels as reflections of the cultural contexts of the authors and compares their uses and meanings as cultural documents for modern readers.

ANTH 4342 - Anthropology of Wine
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 1300, ANTH 2302, and ANTH 2303 or consent of instructor.
Description
Cross-cultural study of the origin and development of wine and its nutritional, economic, social, and ideological uses.

ANTH 4351 - Human Osteology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2301 or ANTH 3361 or Anatomy or Physiology.
Description
Use of the human skeleton in anthropological research.

ANTH 4360 - Citizenship and Political Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 1300 and ANTH 2302
Description
This course examines the history and anthropology of citizenship in comparative perspective, with special attention to globalization and the changing terrain of contemporary politics and debates.

ANTH 4361 - Migration / Borders / Citizenship
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 2302 or consent of instruction.
Description
Empirical and theoretical investigation of migration, borders, and citizenship as urgent contemporary political and social concerns on a global scale, from an anthropological perspective.

ANTH 4363 - Race, Racialization and the Politics of Culture
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior or Senior standing, OR consent of instructor.
Description
Examines the social processes by which distinctions and differences of "race" are produced, reproduced, and transformed, and will do so in relation to the related concepts of "ethnicity", "culture", and "nation".

ANTH 4372 - Maya Archaeology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly NTH 3372
Prerequisite: ANTH 2303 or consent of instructor.
Description
Current data and hypotheses concerning the evolution of human behavior within the "Maya Area" of southern Mexico, Honduras, Belize, and Guatemala prior to Spanish contact.

ANTH 4373 - Archaeology of the Aztecs and Their Neighbors
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly NTH 3373
**Prerequisite:** ANTH 2303 or consent of instructor.

**Description**
Current data and hypotheses concerning the evolution of culture within Mexico north of the Maya area prior to Spanish contact.

**ANTH 4376 - Archaeology of Texas**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Formerly** NTH 3376
**Prerequisite:** ANTH 2303 or consent of instructor.

**Description**
Prehistoric cultures and lifestyles of Texas Indian groups.

**ANTH 4377 - Archaeology of the African Diaspora**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** ANTH 2303 or consent of instructor.

**Description**
Survey of archaeological research conducted on sites occupied by Africans and African Americans in the New World since 1600. Origins and evolution of the cultures constructed by enslaved and free people of African descent from 1600 to 1900.

**ANTH 4380 - Field Methods in Anthropology**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** six semester hours in anthropology or consent of instructor.

**Description**
Methods applied by the anthropologist living among primitive and peasant peoples.

**ANTH 4382 - Laboratory Methods in Archaeology**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** ANTH 2303 or consent of instructor.

**Description**
Techniques of classification, taxonomy, functional analysis, processing, and curation of artifacts recovered from archaeological sites.

**ANTH 4383 - Applied Archaeology**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** ANTH 2303, and completion of, or concurrent enrollment in ANTH 3379 or ANTH 3380

**Description**
An examination of state and federal historic preservation regulations as they relate to applied archeology and the various private, public, and energy industry sectors.

**ANTH 4388 - Anthropology Internship Practicum**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 0  **Lab Contact Hours:** 3  **Prerequisite:** ENGL 1304 and consent of instructor.

**Description**
Independent study option to document acquired experience in an approved internship program under the supervision of a faculty member. Typically Offered: Fall

**ANTH 4389 - Ethnographic Field Work I**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** Not more than twelve semester hours from ARCH 4353, ANTH 4342, ANTH 4391, 4395, 4396, and consent of instructor.

**Description**
Practical field training and experience in ethnographic research procedures.

**ANTH 4390 - Ethnographic Field Work II**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** Not more than twelve semester hours from ARCH 4353, ANTH 4342, ANTH 4391, 4395, 4396, and consent of instructor.

**Description**
Practical field training and experience in ethnographic research procedures.
ANTH 4391 - Archaeological Field Work I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Not more than twelve semester hours from ARCH 4353 , ANTH 4342, ANTH 4391, 4395, 4396, and consent of instructor.
Description
Practical field training and experience in archeological research procedures.

ANTH 4392 - Archaeological Field Work II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: six semester hours in anthropology and consent of instructor.
Description
Practical field training and experience in anthropological research procedures.

ANTH 4393 - Research Practicum
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: six semester hours in anthropology and consent of instructor.
Description
Practical training and experience in anthropological analysis procedures and write-up of primary data. No more than three hours of research practicum may be applied to the major or minor.

ANTH 4394 - Selected Topics in Anthropology
Credit Hours: 3.0
May be repeated for credit when topics vary.

ANTH 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: six semester hours in anthropology or consent of instructor.
Description
Prerequisite: six semester hours in anthropology or consent of instructor.

ANTH 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ANTH 3399 and approval of the chair.

ANTH 4498 - Independent Study
Credit Hours: 4.0
Prerequisite: six semester hours in anthropology or consent of instructor.

Applied Music

MUSA 1160 - Applied Music
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 1172 - Applied Jazz Bass
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 1  Prerequisite: Admission as music major by audition.
Description
Private instruction including technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 1176 - Applied Jazz Percussion
Course: Applied Voice
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

Course: Applied Piano
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

Course: Applied Organ
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

Course: Applied Harpsichord
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

Course: Applied Violin
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1222 - Applied Viola**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 1228 - Applied Harp**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 1230 - Applied Flute**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 1232 - Applied Oboe**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 1233 - Applied Piccolo**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 1234 - Applied Clarinet**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 1238 - Applied Saxophone**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee: Y

MUSA 1244 - Applied Trombone
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 1246 - Applied Tuba
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 1248 - Applied Euphonium
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 1250 - Applied Percussion
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 1260 - Applied Music
Credit Hours: 2.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 1270 - Applied Jazz Saxophone
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on
MUSA 1272 - Applied Jazz Bass
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 1276 - Applied Jazz Percussion
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 1278 - Applied Jazz Guitar
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Note: May be repeated for credit.
Additional Fee Y

MUSA 1300 - Applied Voice
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1310 - Applied Piano
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1312 - Applied Organ
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 1314 - Applied Harpsichord
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 1320 - Applied Violin
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1322 - Applied Viola
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1324 - Applied Violoncello
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1326 - Applied Double Bass
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 1328 - Applied Harp
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 1330 - Applied Flute
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

**MUSA 1332 - Applied Oboe**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1333 - Applied Piccolo**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1334 - Applied Clarinet**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1336 - Applied Bassoon**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1338 - Saxophone**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1340 - Applied Trumpet**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1342 - Applied French Horn**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1344 - Applied Trombone

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1346 - Applied Tuba

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1348 - Applied Euphonium

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1350 - Applied Percussion

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

Additional Fee Y  Fee Type Applied Music Supplemental Mus

MUSA 1370 - Applied Jazz Saxophone

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

Additional Fee Y

MUSA 1372 - Applied Jazz Bass

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on
technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1376 - Applied Jazz Percussion**

Credit Hours: 3.0  
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 1378 - Applied Jazz Guitar**

Credit Hours: 3.0  
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 2102 - Applied Composition**

Credit Hours: 1.0  
**Lecture Contact Hours:** 0  **Lab Contact Hours:** 1  **Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 2160 - Applied Music**

Credit Hours: 1.0  
**Lecture Contact Hours:** 0  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 2200 - Applied Voice**

Credit Hours: 2.0  
**Lecture Contact Hours:** 1.5  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y**
MUSA 2202 - Applied Composition
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

MUSA 2203 - Applied Composition
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

MUSA 2210 - Applied Piano
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

MUSA 2212 - Applied Organ
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

MUSA 2214 - Applied Harpsichord
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
**MUSA 2220 - Applied Violin**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 2226 - Applied Double Bass**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 2229 - Applied Harp**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 2230 - Applied Flute**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 2233 - Applied Piccolo**
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y**
MUSA 2234 - Applied Clarinet
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 2236 - Applied Bassoon
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 2239 - Applied Saxophone
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 2242 - Applied French Horn
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 2245 - Applied Trombone
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
MUSA 2248 - Applied Euphonium
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
May be repeated for credit.

Note: May be repeated for credit.
Additional Fee Y

MUSA 2250 - Applied Percussion
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
May be repeated for credit.

Note: May be repeated for credit.
Additional Fee Y

MUSA 2260 - Applied Music
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
May be repeated for credit.

Note: May be repeated for credit.
Additional Fee Y

MUSA 2270 - Applied Jazz Saxophone
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
May be repeated for credit.

Note: May be repeated for credit.
Additional Fee Y

MUSA 2276 - Applied Jazz Percussion
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
MUSA 2278 - Applied Jazz Guitar
Credit Hours: 2.0
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 2282 - Applied Jazz Trombone
Credit Hours: 2.0
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 2300 - Applied Voice
Credit Hours: 3.0
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 2310 - Applied Piano
Credit Hours: 3.0
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 2312 - Applied Organ
Credit Hours: 3.0
Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**MUSA 2314 - Applied Harpsichord**

Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 2320 - Applied Violin**

Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y Fee Type Applied Music Supplemental Mus**

**MUSA 2322 - Applied Viola**

Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y Fee Type Applied Music Supplemental Mus**

**MUSA 2324 - Applied Violoncello**

Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee Y Fee Type Applied Music Supplemental Mus**

**MUSA 2326 - Applied Double Bass**

Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level
Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y **Fee Type** Applied Music Supplemental Mus

**MUSA 2328 - Applied Harp**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

**MUSA 2330 - Applied Flute**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

**MUSA 2332 - Applied Oboe**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

**MUSA 2333 - Applied Piccolo**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

**MUSA 2334 - Applied Clarinet**
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee: Y  Fee Type: Applied Music Supplemental Music

MUSA 2336 - Applied Bassoon
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee: Y  Fee Type: Applied Music Supplemental Music

MUSA 2338 - Applied Saxophone
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee: Y  Fee Type: Applied Music Supplemental Music

MUSA 2340 - Applied Trumpet
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee: Y  Fee Type: Applied Music Supplemental Music

MUSA 2342 - Applied French Horn
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee: Y  Fee Type: Applied Music Supplemental Music
MUSA 2344 - Applied Trombone
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee Y Fee Type Applied Music Supplemental Mus

MUSA 2346 - Applied Tuba
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee Y Fee Type Applied Music Supplemental Mus

MUSA 2348 - Applied Euphonium
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee Y Fee Type Applied Music Supplemental Mus

MUSA 2350 - Applied Percussion
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee Y Fee Type Applied Music Supplemental Mus

MUSA 2370 - Applied Jazz Saxophone
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.

Additional Fee Y

**MUSA 2372 - Applied Jazz Bass**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

**MUSA 2376 - Applied Jazz Percussion**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

**MUSA 2378 - Applied Jazz Guitar**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 1000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

**MUSA 3102 - Applied Composition**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 1  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

**MUSA 3160 - Applied Music**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
MUSA 3189 - Junior Recital
Credit Hours: 1.0
Lecture Contact Hours: 1   Lab Contact Hours: 0
Prerequisite: None.
Corequisite: 3000-level Applied lessons in major instrument, voice, or concentration.
Description
Preparation and performance of degree recital. May not serve as an advanced music elective.
Additional Fee Y

MUSA 3200 - Applied Voice
Credit Hours: 2.0
Lecture Contact Hours: 1.5   Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 3202 - Applied Composition
Credit Hours: 2.0
Lecture Contact Hours: 1.5   Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 3203 - Applied Composition
Credit Hours: 2.0
Lecture Contact Hours: 1.5   Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 3210 - Applied Piano
Credit Hours: 2.0
Lecture Contact Hours: 1.5   Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.

Additional Fee Y

**MUSA 3211 - Applied Piano**

Credit Hours: 2.0
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**MUSA 3212 - Applied Organ**

Credit Hours: 2.0
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**MUSA 3214 - Applied Harpsichord**

Credit Hours: 2.0
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**MUSA 3220 - Applied Violin**

Credit Hours: 2.0
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**MUSA 3222 - Applied Viola**

Credit Hours: 2.0
Lecture Contact Hours: 1.5  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
MUSA 3226 - Applied Double Bass
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 3231 - Applied Flute
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 3232 - Applied Oboe
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 3233 - Applied Piccolo
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

MUSA 3236 - Applied Bassoon
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee Y

MUSA 3239 - Applied Saxophone
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

MUSA 3242 - Applied French Horn
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

MUSA 3244 - Applied Trombone
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

MUSA 3245 - Applied Trombone
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

MUSA 3248 - Applied Euphonium
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level
Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

### MUSA 3250 - Applied Percussion

**Credit Hours:** 2.0

*Lecture Contact Hours:* 1.5  
*Lab Contact Hours:* 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

### MUSA 3260 - Applied Music

**Credit Hours:** 2.0

*Lecture Contact Hours:* 0  
*Lab Contact Hours:* 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

### MUSA 3270 - Applied Jazz Saxophone

**Credit Hours:** 2.0

*Lecture Contact Hours:* 1.5  
*Lab Contact Hours:* 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

### MUSA 3272 - Applied Jazz Bass

**Credit Hours:** 2.0

*Lecture Contact Hours:* 1.5  
*Lab Contact Hours:* 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

### MUSA 3276 - Applied Jazz Percussion
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee Y

MUSA 3278 - Applied Jazz Guitar
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee Y

MUSA 3300 - Applied Voice
Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. 

Note: May be repeated for credit.

MUSA 3302 - Applied Composition
Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3310 - Applied Piano
Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3312 - Applied Organ
Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.
MUSA 3314 - Applied Harpsichord
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 3320 - Applied Violin
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 3322 - Applied Viola
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 3324 - Applied Violoncello
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 3326 - Applied Double Bass
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 3328 - Applied Harp
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 3330 - Applied Flute
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3332 - Applied Oboe
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3333 - Applied Piccolo
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3334 - Applied Clarinet
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3336 - Applied Bassoon
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3338 - Applied Saxophone
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3340 - Applied Trumpet
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on
technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 3342 - Applied French Horn**

**Credit Hours:** 3  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 3344 - Applied Trombone**

**Credit Hours:** 3  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 3346 - Applied Tuba**

**Credit Hours:** 3  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 3348 - Applied Euphonium**

**Credit Hours:** 3  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 3350 - Applied Percussion**

**Credit Hours:** 3  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 3370 - Applied Jazz Saxophone**

**Credit Hours:** 3  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 3372 - Applied Jazz Bass**
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3376 - Applied Jazz Percussion
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3378 - Applied Jazz Guitar
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 3400 - Applied Voice
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee  Y  Fee Type  Applied Music Supplemental Mus

MUSA 3402 - Applied Composition
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee  Y  Fee Type  Applied Music Supplemental Mus

MUSA 3410 - Applied Piano
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
MUSA 3412 - Applied Organ
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee  Y

MUSA 3414 - Applied Harpsichord
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee  Y

MUSA 3420 - Applied Violin
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee  Y

MUSA 3422 - Applied Viola
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.
Additional Fee  Y

MUSA 3424 - Applied Violoncello
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on
technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y  
**Fee Type** Applied Music Supplemental Mus

**MUSA 3426 - Applied Double Bass**  
**Credit Hours:** 4.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.  
**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

**MUSA 3428 - Applied Harp**  
**Credit Hours:** 4.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.  
**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y

**MUSA 3430 - Applied Flute**  
**Credit Hours:** 4.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.  
**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y  
**Fee Type** Applied Music Supplemental Mus

**MUSA 3432 - Applied Oboe**  
**Credit Hours:** 4.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.  
**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

**Note:** May be repeated for credit.

**Additional Fee** Y  
**Fee Type** Applied Music Supplemental Mus

**MUSA 3433 - Applied Piccolo**  
**Credit Hours:** 4.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee Y

MUSA 3434 - Applied Clarinet
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee Y

MUSA 3436 - Applied Bassoon
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee Y

MUSA 3438 - Applied Saxophone
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee Y

MUSA 3440 - Applied Trumpet
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee Y

MUSA 3442 - Applied French Horn
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee  Y  Fee Type  Applied Music Supplemental Music

MUSA 3444 - Applied Trombone
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee  Y  Fee Type  Applied Music Supplemental Music

MUSA 3446 - Applied Tuba
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee  Y  Fee Type  Applied Music Supplemental Music

MUSA 3448 - Applied Euphonium
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee  Y  Fee Type  Applied Music Supplemental Music

MUSA 3450 - Applied Percussion
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.

Note: May be repeated for credit.

Additional Fee  Y  Fee Type  Applied Music Supplemental Music
MUSA 3470 - Applied Jazz Saxophone
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 3472 - Applied Jazz Bass
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 3476 - Applied Jazz Percussion
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 3478 - Applied Jazz Guitar
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 2000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
Note: May be repeated for credit.
Additional Fee Y

MUSA 4102 - Applied Composition
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 1  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues. May be repeated for credit.
MUSA 4120 - Applied Violin
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 1  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 4122 - Applied Viola
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 1  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 4124 - Applied Violoncello
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 1  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 4130 - Applied Flute
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 4132 - Applied Oboe
Credit Hours: 1.0
Lecture Contact Hours: 0.4  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 4134 - Applied Clarinet
Credit Hours: 1.0
Lecture Contact Hours: 0.4  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

Additional Fee Y

MUSA 4136 - Applied Bassoon
Credit Hours: 1.0
Lecture Contact Hours: 0.4  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4142 - Applied French Horn
Credit Hours: 1.0
Lecture Contact Hours: 0.4  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4144 - Applied Trombone
Credit Hours: 1.0
Lecture Contact Hours: 0.4  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4146 - Applied Tuba
Credit Hours: 1.0
Lecture Contact Hours: 0.4  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4150 - Applied Percussion
Credit Hours: 1.0
Lecture Contact Hours: 0.4  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4160 - Applied Music
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 1  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.  
Note: May be repeated for credit.

**Additional Fee Y**

**MUSA 4189 - Senior Recital**  
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 1  
Prerequisite: None.  
Corequisite: Co-enrollment in 4000-level Applied lessons in major instrument, voice, or concentration.  
Description  
Preparation and performance of degree recital.  
Note: May not serve as an advanced music elective.

**MUSA 4200 - Applied Voice**  
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.  
Description  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.  
Note: May be repeated for credit.

**MUSA 4202 - Applied Composition**  
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.  
Description  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.  
Note: May be repeated for credit.

**MUSA 4203 - Applied Composition**  
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.  
Description  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.  
Note: May be repeated for credit.

**MUSA 4210 - Applied Piano**  
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.  
Description  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.  
Note: May be repeated for credit.

**MUSA 4214 - Applied Harpsichord**  
Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 4220 - Applied Violin
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 4222 - Applied Viola
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 4224 - Applied Violoncello
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 4230 - Applied Flute
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 4231 - Applied Flute
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 4233 - Applied Piccolo
**MUSA 4234 - Applied Clarinet**

Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

**MUSA 4236 - Applied Bassoon**

Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

**MUSA 4238 - Applied Saxophone**

Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

**MUSA 4245 - Applied Trombone**

Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

**MUSA 4248 - Applied Euphonium**

Credit Hours: 2.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y
MUSA 4250 - Applied Percussion
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

Additional Fee Y

MUSA 4260 - Applied Music
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 2  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4270 - Applied Jazz Saxophone
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4272 - Applied Jazz Bass
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4276 - Applied Jazz Percussion
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4278 - Applied Jazz Guitar
Credit Hours: 2.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y

MUSA 4300 - Applied Voice
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4302 - Applied Composition
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4310 - Applied Piano
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4312 - Applied Organ
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4314 - Applied Harpsichord
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4320 - Applied Violin
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4322 - Applied Viola
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4324 - Applied Violoncello
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4326 - Applied Double Bass
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4328 - Applied Harp
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4330 - Applied Flute
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4332 - Applied Oboe
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

Note: May be repeated for credit.

MUSA 4333 - Applied Piccolo
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 4334 - Applied Clarinet**

Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**

Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 4336 - Applied Bassoon**

Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**

Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 4338 - Applied Saxophone**

Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**

Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 4340 - Applied Trumpet**

Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**

Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 4342 - Applied French Horn**

Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**

Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 4344 - Applied Trombone**

Credit Hours: 3  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**

Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.
MUSA 4346 - Applied Tuba
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4348 - Applied Euphonium
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4350 - Applied Percussion
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4370 - Applied Jazz Saxophone
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4372 - Applied Jazz Bass
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4376 - Applied Jazz Percussion
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4378 - Applied Jazz Guitar
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Music major by audition. Completion of two semesters of 3000-level
Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrating on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**MUSA 4400 - Applied Voice**
Credit Hours: 4.0
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.
**Additional Fee Y Fee Type Applied Music Supplemental Mus**

**MUSA 4402 - Applied Composition**
Credit Hours: 4.0
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.
**Additional Fee Y Fee Type Applied Music Supplemental Mus**

**MUSA 4410 - Applied Piano**
Credit Hours: 4.0
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.
**Additional Fee Y Fee Type Applied Music Supplemental Mus**

**MUSA 4412 - Applied Organ**
Credit Hours: 4.0
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.
**Additional Fee Y**

**MUSA 4414 - Applied Harpsichord**
Credit Hours: 4.0
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 0  **Prerequisite:** Admission as music major by audition.Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.
**Additional Fee Y**

**MUSA 4420 - Applied Violin**
MUSA 4422 - Applied Viola
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y  Fee Type Applied Music Supplemental Mus
MUSA 4424 - Applied Violoncello
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y
MUSA 4426 - Applied Double Bass
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y
MUSA 4428 - Applied Harp
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y
MUSA 4430 - Applied Flute
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.
Additional Fee Y  Fee Type Applied Music Supplemental Mus
MUSA 4432 - Applied Oboe
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4433 - Applied Piccolo
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4434 - Applied Clarinet
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4436 - Applied Bassoon
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4438 - Applied Saxophone
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4440 - Applied Trumpet
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.
Note: May be repeated for credit.

MUSA 4442 - Applied French Horn
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

Description
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

MUSA 4444 - Applied Trombone
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

MUSA 4446 - Applied Tuba
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

MUSA 4448 - Applied Euphonium
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

MUSA 4450 - Applied Percussion
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

MUSA 4470 - Applied Jazz Saxophone
Credit Hours: 4.0
Lecture Contact Hours: 2  Lab Contact Hours: 0
Prerequisite: Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 4472 - Applied Jazz Bass**

Credit Hours: 4.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 4476 - Applied Jazz Percussion**

Credit Hours: 4.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**MUSA 4478 - Applied Jazz Guitar**

Credit Hours: 4.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission as music major by audition. Completion of two semesters of 3000-level Applied lessons or equivalent in major instrument, voice, or concentration.

**Description**  
Private instruction in voice, keyboard instruments, band and orchestra instruments, and composition at undergraduate levels, concentrates on technical studies, building a fundamental knowledge of repertoire, development of musicianship, musical interpretation, and performance issues.

**Note:** May be repeated for credit.

**Additional Fee Y**

**Arabic**

**ARAB 1501 - Beginning Arabic I**

Credit Hours: 5.0  
**Lecture Contact Hours:** 5  
**Lab Contact Hours:** 0  
**Description**  
Restricted to nonnative speakers of Arabic. Introduction to modern spoken and written Arabic. Listening comprehension, oral communication, reading and writing.

**ARAB 1502 - Beginning Arabic II**

Credit Hours: 5.0  
**Lecture Contact Hours:** 5  
**Lab Contact Hours:** 0  
**Prerequisite:** successful completion of ARAB 1501 with a minimum grade of C- in the twelve months immediately prior to enrollment or by placement exam immediately prior to enrollment.

**Description**  
Expansion of the listening and oral skills previously acquired. Listening comprehension, oral communication, reading and writing.

**ARAB 2301 - Intermediate Arabic I**

Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** successful completion of ARAB 1502 with a minimum grade of C- in the twelve months immediately prior to enrollment or by placement exam immediately prior to enrollment.

**Description**  
Listening comprehension, oral communication, reading and writing.
ARAB 2302 - Intermediate Arabic II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: successful completion of ARAB 2301 with a minimum grade of C- in the twelve months immediately prior to enrollment or by placement exam immediately prior to enrollment.
Description
Listening comprehension, oral communication, reading and writing.

ARAB 3301 - Advanced Modern Standard Arabic I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARAB 2302 or ARAB 2308 or placement by examination.
Description
Readings of Arabic materials, including poems, short stories, plays, and newspaper articles dealing with social, political, and cultural issues, and the development of writing skills through free composition exercises.

ARAB 3302 - Advanced Modern Standard Arabic II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARAB 3301 or placement by examination.
Description
Advanced readings of Arabic materials, including poems, short stories, plays, and newspaper articles dealing with social, political, and cultural issues, and continued development of writing skills through free composition exercises.

ARAB 3312 - Introduction to Arabic Literature in Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Arabic literary culture from the earliest recorded sources to the present; essentials of the history and culture of the Arabs.

ARAB 3313 - Qur'an as Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Literary and historical study of the Qur'an in the context of late antique religious literature (ca. 180-632 CE), including texts from the Jewish, Christian, Zoroastrian and pagan spheres. Taught in English.

ARAB 3314 - Women and Gender in Arabic Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Critical survey of literature by and about Arab women focusing on a particular theme. Taught in English.
Core Category: [81] Writing in the Disciplines

ARAB 3340 - Modernity and Rationalism in Islamic Tradition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Systematic analysis of classical Islamic philosophical discourse and its contribution to the development of Islamic Modernism and Arab Enlightenment; including the Qur'an, Ghazali, Averroes, Muhammad Abduh, and Nasr Abu Zayd. Taught in English.
Core Category: [40] Language, Philosophy, & Culture

ARAB 3377 - Energy, Society and the Middle East
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Examination of energy, culture and sustainability in Middle East and North Africa (MENA). Surveys literature and theories on oil curse, energy security, youth bulge, gender gap, renewables and sustainability projects.
Additional Fee N

ARAB 3397 - Selected Topics in Arab Studies
Architecture

ARCH 1198 - Special Problems
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
Topics vary depending on needs of Department and students. May be repeated for credit when topics vary.

ARCH 1200 - Introduction to Architecture Design, Industrial Design, & Interior Arch
Credit Hours: 2.0
Lecture Contact Hours: 2 Lab Contact Hours: 0 Prerequisite: ARCH 1200.
Description
Introduction to architecture, industrial design, and interior architecture theory, history, technology, and practice.

ARCH 1210 - History and Theory of Design Media
Credit Hours: 2.0
Lecture Contact Hours: 2 Lab Contact Hours: 0 Prerequisite: Major in the College of Architecture and Design.
Description
Tools, techniques, and theories of media and visualization across the design disciplines. An introduction to the history and methods of design drawings, ways of making, analog and digital media, and other forms of design communication that have been crucial to design processes across scales.
Additional Fee N

ARCH 1358 - Introduction to Design Culture
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: Major in the College of Architecture and Design.
Description
Introduction to concepts, events, and figures across the design disciplines, including architecture, interior architecture, and industrial design. Lectures and readings address the history and culture of design, its major texts and arguments, and how these have shaped design discourse and design thinking.
Additional Fee N

ARCH 1359 - Design Since 1945
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: ARCH 1200.
Description
Interdisciplinary history of modern and contemporary design, concentration on 1945 to the present. Reading and writing based on primary and secondary sources.
Core Category: [81] Writing in the Disciplines

ARCH 1360 - Architectural Sketching I
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: major in the College of Architecture and credit for or concurrent enrollment in ARCH 1200.
Description
Architectural sketching. Representing and interpreting architecture and entourage using conventional techniques and skills.

ARCH 1500 - Design Studio I
Credit Hours: 5.0
Lecture Contact Hours: 2 Lab Contact Hours: 9 Prerequisite: Major in the College of Architecture and Design and credit for or concurrent enrollment in ARCH 1210.
Description
Foundational principles of spatial design and design communication. Introduction to digital media.

Additional Fee Y Fee Type Lab Fee

**ARCH 1501 - Architecture and Interior Architecture Design Studio II**
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: None.

Description
Analysis of spatial strategies, systems, scale, the design process, and design communication through analog and digital means.

Additional Fee Y

**ARCH 2327 - Technology I**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: MATH 1330 and ARCH 1501 and credit for or concurrent enrollment in ARCH 2500.

Description
Introductory survey of site, structural, and environmental systems (including mechanical, electrical and plumbing), including site visits, simulations and constructing analytical models and drawings.

Additional Fee Y Fee Type Lab Fee

**ARCH 2328 - Technology 2**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: ARCH 2327 and credit for or concurrent enrollment in ARCH 2501 or INAR 2501.

Description
Introductory investigation and analysis of structural systems and their materials, climate/human environment responsive systems selection, and life safety systems.

Additional Fee Y

**ARCH 2331 - Digital Vocabularies**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Major in the College of Architecture and Design, or permission from advisor.

Description
Introduction to basic and intermediate concepts of digital drafting and modeling using parametric software, as well as exploring methods of digital fabrication and production.

Additional Fee N

**ARCH 2350 - Survey of Architectural History I**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in ENGL 1304.

Description
History of eastern and western architecture and art from ancient Egypt through 1750 with attention to cultural, philosophical and technical influences.

Core Category: [50] Creative Arts
Additional Fee $2.00 Fee Type Lab Fee

**ARCH 2351 - Survey of Architectural History II**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Credit for or concurrent enrollment in ENGL 1304.

Corequisite: Credit for or concurrent enrollment in ENGL 1304.

Description
History of eastern and western architecture and art from 1750 to the present with attention to cultural, philosophical and technical influences.

Additional Fee Y

**ARCH 2397 - Selected Topics**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of college advisor.

Note: May be repeated for credit when topics vary.

Additional Fee Y
ARCH 2500 - Architecture and Interior Architecture Design Studio III
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 1501 and 1358 and credit for or concurrent enrollment in ARCH 2327.
Description
Introduction to architectural design strategies through a series of small scale design problems. Students must pass a portfolio review to continue the design studio sequence.
Additional Fee Y  Fee Type Lab Fee

ARCH 2501 - Architecture Design Studio IV
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 2500 and credit for or concurrent enrollment in ARCH 2328 and passing portfolio review.
Description
Development of design processes including organizational strategies for program distribution, spatial and circulation definition, structural systems, and site integration.
Additional Fee Y

ARCH 3198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of college advisor and instructor.
Description
Independent Study

ARCH 3230 - Programming and Building Regulations
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Formerly ARCH 2230.
Prerequisite: Credit for or concurrent enrollment in ARCH 3500.
Description
Preparation of a program for an architectural project, including client and user needs, space and equipment requirements, site conditions, relevant laws and standards, and site selection and design assessment criteria.
Additional Fee N

ARCH 3327 - Technology 3
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: ARCH 2328 and PHYS 1301 and credit for or concurrent enrollment in ARCH 3500.
Description
Intermediate level building science focusing on site scale issues.
Additional Fee $2.00  Fee Type Lab Fee

ARCH 3328 - Technology 4
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: ARCH 3327 and credit for or concurrent enrollment in ARCH 3501 and PHYS 1302.
Description
Advanced level building science focusing on quantitative measures. Case studies of integrated building systems: site, climate, structures, envelope, and materials.
Additional Fee Y

ARCH 3329 - Architecture of the Three Faiths of Abraham: Synagogues, Churches and Mosques
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0.0  Prerequisite: ARCH 2350 and ARCH 2351.
Description
Exploration of the variety of design approaches of religious sanctuaries and prayer halls of the different sects of Jews, Christians, and Muslims.

ARCH 3332 - Advanced Digital Vocabularies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2331 or permission of advisor.
Description
Exploration, experimentation, prototyping, and research in advanced and emerging concepts in digital and interactive design.

Additional Fee Y

ARCH 3335 - Digital Fabrication
Credit Hours: 3.0
*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 2500. Exploration of parametric design and digital fabrication.

Description
Exploration of parametric design and digital fabrication. Through the process of making, students realize complex geometries which may be applied to any scale from cities to objects.

ARCH 3341 - Contemporary Japanese Architecture
Credit Hours: 3.0
*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 2350 and ARCH 2351.

Description
Investigation of the roots of new Japanese architecture, looking beyond the nostalgic argument that Japan's success is based on its respect towards tradition.

Additional Fee N

ARCH 3342 - Shape of the City
Credit Hours: 3.0
*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 2350 and 2351.

Description
Readings from Henry James, Jane Jacobs, J. B. Jackson, Reyner Banham, and others about American cities as topographical, cultural, and social phenomena, with analytical writing projects about Houston.

ARCH 3343 - Latin American Architecture
Credit Hours: 3.0
*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 2350 and 2351 or equivalent.

Description
Development and significance of Latin American architecture. Pre-Hispanic, colonial, and modern built environments with an emphasis on mapping the creation and transfer of culture.

ARCH 3347 - Evolution of Arch Interiors
Credit Hours: 3.0
*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 2350 and ARCH 2351 or consent of instructor.

Description
The evolution of interior architectural spaces through the contributions of architects, designers, decorators, industrial designers, and editors. The house as a design laboratory and the integrated interior.

ARCH 3353 - Architecture of Middle Ages
Credit Hours: 3.0
*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 2350 and ARCH 2351 or consent of instructor.

Description
Western European architecture of the Middle Ages (ca. 300-1500), investigated through the medium of the built environment and through texts that reveal aspects of medieval culture, aesthetics, philosophy, and building techniques.

ARCH 3354 - The Culture of Architecture
Credit Hours: 3.0
*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 2350 and 2351.

Description
An investigation of how architects learn, think, and work in our own time and times past. Special emphasis is given to the Modern Movement and its critics and to the thought and production of influential architects and theories including Alberti, Palladio, Ruskin, Viollet-le-Duc, Guadet, Loos, Le Corbusier and Venturi and Scott Brown.

ARCH 3356 - City As Palimpsest: Paris
Credit Hours: 3.0
*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 2350 and ARCH 2351 or consent of instructor.
Description
Seminar investigating Parisian architecture and urban development from the Roman period to the present via the metaphor of the palimpsest.

ARCH 3358 - History of Asian Arch and Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350, ARCH 2351, or consent of instructor.
Description
Architectural history, methodology, art, and the cultural forces that shaped the Eastern tradition.

ARCH 3365 - Architectural Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350, and ARCH 2351.
Description
Methods of research in architecture adapted to individual student-generated topics.

ARCH 3368 - Sustainable Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing.
Description
New perspectives in development: overview of environmental and ecological systems, land use, smart growth, new organisms, traffic and transportation, brownfield development and mitigation, site development, and marketing.

ARCH 3369 - Architecture of the Chapel
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350 and ARCH 2351.
Description
Architectural history of the chapel building type from its origins to the present.

ARCH 3371 - Landscape, Ecology, Urbanism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350 and ARCH 2351.
Description
Exploration of historical and contemporary ideas about architecture and urbanism through the lens of landscape, ecology, infrastructure, and energy.

ARCH 3375 - Arch Design for Non-Majors
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Open to non-architecture majors only
Description
May be used toward satisfying architecture minor requirements. Introduction to architectural design, theory, and practice. Students outside the College of Architecture work in a design studio setting on a variety of architecture and urban design problems. Project work supplemented by lectures, readings, field trips, and discussions.

ARCH 3380 - Architecture Plus Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Concurrent enrollment in or completion of ARCH 3500.
Description
An exploration of the cross-fertilization between architecture and film by examining how architecture is represented in film; the narrative aspect of architecture, film as a mirror of the present and as anticipation of the future of architecture, auteur cinema/director vs. architecture/architect, and the idea of gesamtkunstwerk.

ARCH 3391 - Introduction to the Preservation of 20th Century Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 3501 or approval by advisor.
Description
Exploration of the origins and theory of the historic preservation movement in the United States with emphasis on 20th century architecture from the turn of the 19th century to end of the Mid Century Modern period in the late 1960's.

Additional Fee N
ARCH 3392 - Research and Documentation of 20th Century Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 3391 or approval by advisor.
Description
Introduction to the various techniques employed for recording and documenting historic resources, including an overview of basic guidelines and standards of documentation with emphasis on new ways of observing and thinking about the built historic environment.
Additional Fee N

ARCH 3393 - Thesis Preparation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: approval of the Director of Thesis Program.
Description
Thesis topic development and written project proposal.

ARCH 3397 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0 Prerequisite: Consent of college advisor.
May be repeated for credit when topics vary.

ARCH 3398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: approval of college advisor and instructor.

ARCH 3500 - Architecture Design Studio V
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9 Prerequisite: ARCH 2501 and credit for or concurrent enrollment in ARCH 3230 and ARCH 3327.
Description
Developing methodologies to establish critical positions and iterative design processes at successive stages of project development. Investigations of the relationship of architecture and urban design through exploring more complex site criteria and the creation of public space.
Additional Fee Y Fee Type Lab Fee

ARCH 3501 - Architecture Design Studio VI
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9 Prerequisite: ARCH 3500 and credit for or concurrent enrollment in ARCH 3230 and ARCH 3328.
Description
Emphasis on the development of more complex building programs and expanded student understanding of criteria affecting the design and performance of building envelopes in relation to structure, environmental performance and materiality.
Additional Fee Y

ARCH 4321 - Design of Construction Details
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 3500
Description
The theory and practice of developing architectural details.

ARCH 4324 - High-Rise Structures
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 3328.
Description
Structural design concepts and building systems in tall buildings.

ARCH 4325 - Building Systems Integration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ARCH 3328 and ARCH 3501.
Description
Case study analyses of contemporary architecture with an emphasis on tracing the original work’s design processes through a technical systems approach.
ARCH 4327 - Technology 5
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly ARCH 4427 Technology 5
Prerequisite: ARCH 3328.
Description
Advanced building science focusing on integrative design process, materials, and delivery process.

ARCH 4328 - Technology 6 Practice of Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 3501 and ARCH 3328.
Description
Office operations and project administration in the practice of architecture.

ARCH 4336 - Graphic Realization in Design
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2501 and ARCH 3331 or consent of instructor.
Description
Integration of digital and manual graphic tools with verbal presentation to communicate design.

ARCH 4351 - Readings & Criticism in Arch
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350; ARCH 2351 or consent of instructor.
Description
Critical writing based on selected reading in architecture.

ARCH 4352 - Wright Mies Corbusier
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350: ARCH 2351 or consent of instructor.
Description
Search for the truth studying Wright, Mies, and Corbusier in the perspective of historic precedents, as well as observing the effect of their work on architecture.

ARCH 4353 - Postmodern: Arch Since 1950
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350: ARCH 2351 or consent of instructor.
Description
The theory and development of architectural design of the most recent times. Studies in architectural pluralism in the 1960s and 1980s.

ARCH 4354 - Ideas and Buildings
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350 and ARCH 2351.
Description
History and theory of ideas and buildings of important living architects, including: architectural detail; tectonics; design relationships between inside and outside; well-tempered building environment; and the architect/engineer relationship.

ARCH 4355 - Houston Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350 and ARCH 2351 or consent of instructor
Description
Survey of Houston architecture, past and present.

ARCH 4367 - Case Studies: Sustainable Arch
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 3365, ARCH 3366, and ARCH 3501.
Description
Green Revolution, sustainability, and ecological restoration. Sustainability measurements including biomimcyr, ecological footprint, embodied energy, and full cost accounting. Building components sustainability by CSI division. LEED certification overview.
ARCH 4373 - Urban Environments  
Credit Hours: 3.0  
Lecture Contact Hours: 3 Lab Contact Hours: 0  
Prerequisite: ARCH 2350 and 2351 or SOC 1300 or PSYC 1300.  
Description  
History of eastern and western architecture and art from 1750 to the present with attention to cultural, philosophical and technical influences.

ARCH 4374 - World Cities  
Credit Hours: 3.0  
Lecture Contact Hours: 3 Lab Contact Hours: 0  
Prerequisite: ENGL 1304.  
Description  
Critical exploration of cities of the world from different geographical, chronological and disciplinary perspectives. Development of analytical tools for understanding complex urban phenomena.

ARCH 4375 - Capitalism, Arch and the City  
Credit Hours: 3.0  
Lecture Contact Hours: 3 Lab Contact Hours: 0  
Prerequisite: ARCH 2350, ARCH 2351 and ARCH 2501.  
Description  
Seminar exploring determinants of urban form throughout history.

ARCH 4376 - Community Design Workshop  
Credit Hours: 3.0  
Lecture Contact Hours: 3 Lab Contact Hours: 0  
Prerequisite: ARCH 3501.  
Description  
Introduction to participatory and democratic community design and planning strategies, including skills such as mapping, demographic analysis, information gathering, visioning, implementation and policy.

ARCH 4390 - Landscape Architecture  
Credit Hours: 3.0  
Lecture Contact Hours: 3 Lab Contact Hours: 0  
Prerequisite: ARCH 2350, ARCH 2351 and ARCH 2501.  
Description  
Landscape as the bridge between the man-made and natural.

ARCH 4391 - Techniques for Preservation of 20th Century Architecture  
Credit Hours: 3.0  
Lecture Contact Hours: 3 Lab Contact Hours: 0  
Prerequisite: ARCH 3501 or approval by advisor or director.  
Description  
Examination of current materials and methods of rehabilitation for building and site preservation.  
Additional Fee

ARCH 4393 - Thesis Publication  
Credit Hours: 3.0  
Lecture Contact Hours: 3 Lab Contact Hours: 0  
Prerequisite: ARCH 3395 and concurrent enrollment ARCH 5595; Documentation of ARCH 3395: Thesis Preparation and ARCH 5595:  
Description  

ARCH 4397 - Selected Topics  
Credit Hours: 3.0  
Lecture Contact Hours: 3 Lab Contact Hours: 0  
Prerequisite: consent of college advisor.  
May be repeated for credit when topics vary.

ARCH 4398 - Independent Study  
Credit Hours: 3.0  
Lecture Contact Hours: 0 Lab Contact Hours: 0  
Prerequisite: approval of college advisor and instructor.

ARCH 4510 - Integrated Architectural Solutions
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 2350, 2351, 3501, and 3328, and successful Sixth Studio Review.

Description
Integrating an architectural idea, building systems, and material selections, from concept through detailed development.

Additional Fee  Y Fee Type  Lab Fee

ARCH 5500 - Architecture Design Studio IX
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 4510

Description
Design studio: advanced architectural ideas.
May be repeated for credit.

Note: May be repeated for credit.
Additional Fee  $2.00  Fee Type  Lab Fee

ARCH 5501 - Architecture Design Studio X
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 3428 and ARCH 3501.

Description
Design studio: comprehensive development of architectural design and building systems from schematic design through detailed development.

ARCH 5502 - Architecture Design Studio-Traveling
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 2350, 2351, 3501 and successful Sixth Studio Review.

Description
Design studio: advanced architectural ideas. All, or part, of the classes are offered outside of Houston.

Note: May be repeated for credit.

ARCH 5508 - Design Studio: Historic Structures and Sites
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 4510.

Description
Exploration of design strategies for the adaptive use of historic 20th century structures and for new buildings on sites located in historic districts and contexts.

Additional Fee  N

ARCH 5593 - Thesis Project
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 3393 and concurrent enrollment in ARCH 4393.

Description
Execution and defense of thesis project proposal.

Art

ART 1301 - Fundamentals of Drawing
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Description
The use of graphic media to explore fundamental visual relationships.
TCCNS Equivalent: ARTS 1316

ART 1304 - Fundamentals-Painting
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Description
An introduction to the basic perceptual and technical problems involved in various painting media.

ART 1310 - Fundamentals-Printmaking
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Description
Fine art printing through basic techniques of relief printing, etching, and lithography.

ART 1330 - Fundamentals of Graphic Design
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Description
Principles of design and problem solving skills through basic form, structure and compositional studies.

ART 1350 - Fundamentals of Ceramics
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Description
Ceramic design and basic forming and firing techniques.

ART 1360 - Fundamentals of Sculpture
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Prerequisite: None. Description
Sculptural media, processes, and concepts. Elements and principles that form the basis of 3D Design and Sculpture, tools and techniques to make unique objects.

ART 1371 - Fundamentals of Photography/Digital Media
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Description
Basic perceptual and technical issues of lens-generated imagery.

ART 1372 - Fundamentals of Video Art
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Description
Exploration of basic technical and perceptual aspects of video in a fine art context.

ART 1382 - Fundamental of Digital Tools
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Description
Introduction to working with pixel and vector based images at a digital workstation.

ART 1383 - Introduction to New Media
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Description
Introduction to multimedia programming for use with audio, video and interactive environments.

ART 1397 - Sel Topic Fund Studio Art
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 May be repeated for credit when topics vary.

ART 3300 - Intermediate Drawing
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Prerequisite: twelve semester hours in foundation program studio courses (1000-level), including ART 1301, or equivalent. Description
Organizational and technical considerations of composition in various disciplines of drawing. May be repeated for credit with consent of instructor.

ART 3301 - Life Drawing
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 6 Prerequisite: twelve semester hours in foundation program studio courses (1000-level), including ART 1301, or equivalent.
Description
Drawing of the human figure employing studies of the life model in various media. May be repeated for credit with consent of instructor.

ART 3303 - Color, Materials and Methods
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: twelve semester hours in foundation program studio courses (1000-level) or consent of instructor.

Description
This course introduces color theory, media processes and materials, and approaches to synthesizing analog and digital methods as a means of critical form production.
Course Notes: May be repeated for credit with instructor consent.

ART 3304 - Intermediate Painting
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: twelve semester hours in foundation program studio courses (1000-level), including ART 1304, or equivalent.

Description
Organizational and technical considerations of composition in various disciplines of painting.
May be repeated for credit with consent of instructor.

ART 3306 - Watercolor
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: twelve semester hours in foundation program studio courses (1000-level).

Description
Investigation of technical processes and aesthetic considerations of the watercolor medium.
Course Notes: May be repeated for credit with consent of instructor.

ART 3309 - Jr Painting Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: Cr. 3 per course (0-6 each), concurrent enrollment in ART 3309, 3310, and 3311 required. Completion of premajor courses and approval of major faculty.

Description
Advanced work in drawing: analytical and conceptual projects; emphasis on the development of individually creative modes. Concentrated work in the major disciplines; oriented to the discovery of problem-solving strategies to serve personal and pictorial goals.
ART 3309, 3310, and 3311 must be satisfied in order for any to apply to a degree.

ART 3310 - Jr Painting Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: Cr. 3 per course (0-6 each), concurrent enrollment in ART 3309, 3310, and 3311 required. Completion of premajor courses and approval of major faculty.

Description
Advanced work in drawing: analytical and conceptual projects; emphasis on the development of individually creative modes. Concentrated work in the major disciplines; oriented to the discovery of problem-solving strategies to serve personal and pictorial goals.
ART 3309, 3310, and 3311 must be satisfied in order for any to apply to a degree.

ART 3311 - Jr Painting Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: Cr. 3 per course (0-6 each), concurrent enrollment in ART 3309, 3310, and 3311 required. Completion of premajor courses and approval of major faculty.

Description
Advanced work in drawing: analytical and conceptual projects; emphasis on the development of individually creative modes. Concentrated work in the major disciplines; oriented to the discovery of problem-solving strategies to serve personal and pictorial goals.
ART 3309, 3310, and 3311 must be satisfied in order for any to apply to a degree.

ART 3312 - Intaglio
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: twelve semester hours in foundation program studio courses, or equivalent.
Description
Fine art printing in intaglio, including etching, drypoint, aquatint, photo, and experimental techniques. May be repeated for credit with consent of instructor.

ART 3313 - Silkscreen
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: twelve semester hours in foundation program studio courses (1000-level), or equivalent.
Description
Fine art printing in silkscreen. May be repeated for credit with consent of instructor.

ART 3314 - Lithography
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: twelve semester hours in foundation program studio courses, or equivalent.
Description
Fine art printing in stone and metal plate lithography. May be repeated for credit with consent of instructor.

ART 3315 - Monoprint/Monotype Printmaking
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: twelve semester hours in foundation program studio courses or equivalent.
Description
Techniques to create one-of-a-kind fine art prints. May be repeated for credit with the consent of the instructor.

ART 3316 - Relief Printmaking
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: twelve semester hours in foundation program studio courses or equivalent.
Description
Fine art printing in woodcut, linocut, and experimental relief techniques. May be repeated for credit with consent of instructor.

ART 3318 - Book Arts
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: twelve semester hours in foundation program studio courses or equivalent.
Description
Techniques and conceptual considerations for the production of artist's books. May be repeated for credit with consent of instructor.

ART 3321 - Perspective Drawing
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: twelve semester hours in foundation program studio courses or equivalent.
Description
Perspective drawing of spaces, products, and objects. Exploration of line weight, hierarchy, texture, and value to emphasize form. May be repeated for credit with consent of instructor.

ART 3328 - Rendering and Sketching
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 3321 or equivalent.
Description
Advanced perspective drawing incorporating value and color to emphasize form. Exploration of several color media combinations of linear and aerial perspective. May be repeated for credit with consent of instructor.

ART 3330 - Intermediate Graphic Design
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6
Prerequisite: twelve semester hours in foundation program studio courses (1000-level), including ART 1330, or consent of instructor.

Description
Message and meaning in imagery, through media exploration, image stylization, visualizing skills, and basic typography.
May be repeated for credit with consent of instructor.

ART 3331 - Graphic Design Software
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6
Prerequisite: credit for or concurrent enrollment in ART 3330.

Description
Software applications on Macintosh platform used by graphic designers to include photo imagery, vector graphics, and typography.
May be repeated for credit with consent of instructor.

ART 3334 - Introduction to Typography
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6
Prerequisite: twelve semester hours in foundation program studio courses (1000-level), including ART 1330, or consent of instructor.

Description
This course builds knowledge of typographic vocabulary and typeface classifications, and emphasizes fundamental typographic compositions through form, syntax and hierarchy.
May be repeated for credit with instructor consent.

ART 3335 - Junior Graphic Design Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6
Corequisite: Concurrent enrollment in Art 3335, Art 3336, and Art 3337 required completion of premajor courses and review of portfolio and approval by major faculty.

Description
Graphic design with emphasis on advanced typography and systems, design history in context, print production, web, app, motion design, user experience and exhibition design.
May be repeated for credit with instructor consent.

Note: Art 3335, 3336, and 3337 must be satisfied in order for any to apply to a degree.

ART 3336 - Junior Graphic Design Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6
Prerequisite: Concurrent enrollment in ART 3335, 3336, and ART 3337 required. Completion of premajor courses and review of portfolio and approval by major faculty.

Description
Graphic design with emphasis on typography, design history and computer software and technical processes used in design.
May be repeated for credit with instructor consent.

Note: ART 3335, 3336, and 3337 must be satisfied in order for any to apply to a degree.

ART 3337 - Junior Graphic Design Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6
Prerequisite: Concurrent enrollment in ART 3335, ART 3336, and 3337 required. completion of premajor courses and review of portfolio and approval by major faculty.

Description
Graphic design with emphasis on typography, design history and computer software and technical processes used in design.
May be repeated for credit with instructor consent.

Note: ART 3335, 3336, and 3337 must be satisfied in order for any to apply to a degree.

ART 3350 - Intermediate Ceramics
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6
Prerequisite: ART 1350 and nine semester hours in foundation program studio courses, or consent of instructor.
Description
Processes in designing with clay: hand, wheel, and mold forming; applied decoration; glaze mixing; and firing techniques. May be repeated for credit with consent of instructor.

ART 3353 - Glaze and Clay Formulations
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 3350 or consent instructor.
Description
Exploration of glaze technology and clay composition for expressive purposes. May be repeated for credit with consent of instructor.

ART 3358 - Clay Processes
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 1350 and nine semester hours in foundation program studio courses or consent of instructor.
Description
Examination of sculptural form through the use of a variety of glazed and unglazed elements. May be repeated for credit with consent of instructor.

ART 3360 - Intermediate Sculpture
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 1360 and nine semester hours in foundation program studio courses or consent of instructor.
Description
Exploration of conceptual process of sculpture. Creation of objects incorporating light, sound, and movement. May be repeated for credit with consent of instructor.

ART 3361 - Wood and Metal Fabrication
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Formerly Sculptural Processes
Prerequisite: ART 1360 and nine semester hours in foundation program studio courses or consent of instructor.
Description
Various Sculptural processes: may include casting, metal fabrication, and wood sculpture techniques. May be repeated for credit with consent of instructor.

ART 3362 - Advanced Sculpture
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 3360 or consent of instructor.
Description
Advanced conceptual and expressive problems in a variety of sculptural media. May be repeated for credit with consent of instructor.

ART 3364 - Plastics Fabrication
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 1360 and nine semester hours in foundation program studio courses or consent of instructor.
Description
Exploration of plastics as a medium for sculpture, including mold making, vacuum forming, and casting. May be repeated for credit with consent of instructor.

ART 3365 - Junior Sculpture Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 3365, ART 3366, and ART 3367 required. completion of premajor courses and approval of major faculty.
Description
Investigation of sculptural problems related to various media. Sculpture studio emphasizes individual problem solution and expression. ART 3365, ART 3366, and ART 3367 must be satisfied in order for any to apply to a degree.
ART 3366 - Junior Sculpture Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 3365, 3366, and ART 3367 required. Completion of premajor courses and approval of major faculty.
Description
Investigation of sculptural problems related to various media. Sculpture studio emphasizes individual problem solution and expression. ART 3365, 3366, and ART 3367 must be satisfied in order for any to apply to a degree.

ART 3367 - Junior Sculpture Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 3365, ART 3366, and 3367 required. Completion of premajor courses and approval of major faculty. Investigation of sculptural problems related to various media.
Description
Sculpture studio emphasizes individual problem solution and expression. ART 3365, ART 3366, and 3367 must be satisfied in order for any to apply to a degree.

ART 3370 - Traditional Photography
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Twelve semester hours in fundamental studio courses to include ART 1371.
Description
Exploration of black and white chemical photographic techniques. May be repeated for credit with instructor consent.

ART 3371 - Photography/Digital Media Portfolio Development
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Twelve semester hours in fundamental studio courses to include ART 1371 plus ART 3374, or consent of instructor.
Description
Advanced conceptual and technical skills culminating in portfolio creation for major concentration review. May be repeated for credit with major faculty consent.

ART 3372 - Intermediate Video Art
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Twelve semester hours in fundamental studio courses to include ART 1371 and ART 1372.
Description
Technical skills in video recording and editing, and development of creative means of expression in this time-based media art form. May be repeated for credit with major faculty consent.

ART 3374 - Computer Imaging
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Twelve semester hours in fundamental studio courses.
Description
Development of digital photography skills including scanning, layering and printing, and creative use of computer imaging through collage and other techniques. May be repeated for credit with major faculty consent.

ART 3375 - Junior Photography/Digital Media Major
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 3375, ART 3376, and ART 3377 completion of pre-major courses and portfolio review, and approval by major faculty.
Description
Chemical and digital photography, single and multiple imagery, Web art and video art. May be repeated for credit with faculty permission. ART 3375, 3376, and 3377 must be satisfied in order for any to apply to a degree.

ART 3376 - Junior Photography/Digital Media Major
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: concurrent enrollment in ART 3375, 3376, and ART 3377 completion of pre-major courses and portfolio review, and approval by major faculty.

Description
Chemical and digital photography, single and multiple imagery, Web art and video art.
May be repeated for credit with faculty permission. ART 3375, 3376, and 3377 must be satisfied in order for any to apply to a degree.

ART 3377 - Junior Photography/Digital Media Major
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: concurrent enrollment in ART 3375, ART 3376, and 3377 completion of pre-major courses and portfolio review, and approval by major faculty.

Description
Chemical and digital photography, single and multiple imagery, Web art and video art.
May be repeated for credit with faculty permission. ART 3375, 3376, and 3377 must be satisfied in order for any to apply to a degree.

ART 3383 - Digital Fabrication
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: ART 1382 or consent of instructor.

Description
Introduction to 3D modeling and visualization on digital workstation, to include output processes, 3D prototyping and fabrication.
May be repeated for credit with consent of instructor.

ART 3384 - Sound Art
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: Twelve hours in foundation program studio courses or consent of instructor.

Description
Creative inquiry and experimentation with sound as the central component.
May be repeated for credit with consent of instructor.

ART 3396 - Selected Topics in Studio Practice
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: Twelve semester hours in foundation program studio courses or consent of instructor.

Description
Will be identified by a specific title each time it is offered.
May be repeated for credit when topics vary.

ART 3397 - Sel Tops in Fine Arts
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 9  
Prerequisite: Twelve semester hours in Foundation Program studio courses (1000-level).
May be repeated for credit with consent of instructor.

ART 3399 - Senior Honors Thesis
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Prerequisite: approval of department chair.

ART 4198 - Independent Study
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: twelve semester hours of foundation program studio courses and consent of instructor and director.

Description
Independent study.
May be repeated for a maximum of six semester hours.

ART 4298 - Independent Study
Credit Hours: 2.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 2  
Prerequisite: twelve semester hours of foundation program studio courses and consent of instructor and director.
Description
Independent study.
May be repeated for a maximum of six semester hours.

ART 4300 - Senior Painting Major I
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 3309-ART 3310-ART 3311 and review of portfolio by major faculty.
Corequisite: Concurrent enrollment in ART 4300, ART 4301, and ART 4302 required.
Description
Development of analytical, conceptual, and critical skills through intensive studio work, critical studies, faculty mentoring, critiques, and visiting artists.
Note: ART 4300, ART 4301, and ART 4302 must be satisfied in order for any to apply to a degree; ART 4300-ART 4301-ART 4302 must be completed prior to ART 4303-ART 4304-ART 4305.

ART 4301 - Senior Painting Major I
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 4300, ART 4301, and ART 4302 required. ART 3309-ART 3310-ART 3311 and review of portfolio by major faculty. ART 4300-ART 4301-ART 4302 must be completed prior to ART 4303-ART 4304-ART 4305.
Description
Development of analytical, conceptual, and critical skills through intensive studio work, critical studies, faculty mentoring, critiques, and visiting artists. ART 4300, ART 4301, and ART 4302 must be satisfied in order for any to apply to a degree.

ART 4302 - Senior Painting Major I
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 4300, ART 4301, and ART 4302 required. ART 3309-ART 3310-ART 3311 and review of portfolio by major faculty. ART 4300-ART 4301-ART 4302 must be completed prior to ART 4303-ART 4304-ART 4305.
Description
Development of analytical, conceptual, and critical skills through intensive studio work, critical studies, faculty mentoring, critiques, and visiting artists. ART 4300, ART 4301, and ART 4302 must be satisfied in order for any to apply to a degree.

ART 4303 - Senior Painting Major II
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 4303, ART 4304, ART 4305 required. ART 4300-ART 4301-ART 4302 and review of portfolio by major faculty.
Description
Continued concentrated studio immersion emphasizing conceptual and critical skills to develop a unique, cohesive, pertinent, and timely body of work. Ongoing critical studies, faculty mentoring, critiques, and visiting artists. ART 4303, ART 4304, ART 4305 must be satisfied in order for any to apply to a degree.

ART 4304 - Senior Painting Major II
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 4303, 4304, ART 4305 required. ART 4300-ART 4301-ART 4302 and review of portfolio by major faculty.
Description
Continued concentrated studio immersion emphasizing conceptual and critical skills to develop a unique, cohesive, pertinent, and timely body of work. Ongoing critical studies, faculty mentoring, critiques, and visiting artists. ART 4303, 4304, and ART 4305 must be satisfied in order for any to apply to a degree.

ART 4305 - Senior Painting Major II
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: Concurrent enrollment in ART 4303, ART 4304, 4305 required. ART 4300-ART 4301-ART 4302 and review of portfolio by major faculty.
Description
Continued concentrated studio immersion emphasizing conceptual and critical skills to develop a unique, cohesive, pertinent, and timely body of work. Ongoing critical studies, faculty mentoring, critiques, and visiting artists. ART 4303, ART 4304, and 4305 must be satisfied in order for any to apply to a degree.

ART 4330 - Senior Graphic Design Major I
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: Senior graphic design major courses Art 4330-Art 4331-Art 4332 and Art 4333-Art 4334-Art 4335 must be taken in consecutive semesters.

Corequisite: Concurrent enrollment in ART 4330 , ART 4331, and ART 4332 required. ART 3335 - ART 3336 - ART 3337 and review of portfolio by major faculty.

Description
Advanced studies in graphic design, including design theory and critical thinking, complex problem solving, and concept development skills, identify and branding, infographics, environmental graphic design and user interface solutions.

Note: Art 4330, Art 4331, and Art 4332 must be satisfied in order for any to apply to a degree.

ART 4331 - Senior Graphic Design Major I
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: Concurrent enrollment in ART 4330, 4331, and ART 4332 required. ART 3335 -ART 3336-ART 3337 and review of portfolio by major faculty.

Description
Senior graphic design major courses ART 4330 -ART 4331-ART 4332 and ART 4333-ART 4334-ART 4335 must be taken in consecutive semesters. Advanced studies in graphic design, including semantics, design theory and issues, critical thinking, complex problem solving, and concept development skills.

Note: ART 4330, ART 4331, and ART 4332 must be satisfied in order for any to apply to a degree.

ART 4332 - Senior Graphic Design Major I
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: Concurrent enrollment in ART 4330, 4331, and 4332 required. ART 3335 -ART 4336-ART 4337 and review of portfolio by major faculty.

Description
Senior graphic design major courses ART 4330 -ART 4331-ART 4332 and ART 4333-ART 4334-ART 4335 must be taken in consecutive semesters. Advanced studies in graphic design, including design theory and issues, critical thinking, complex problem solving, and concept development skills.

Note: ART 4330, ART 4331, and ART 4332 must be satisfied in order for any to apply to a degree.

ART 4333 - Senior Graphic Design Major II
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: Concurrent enrollment in ART 4333, ART 4334, and ART 4335 required. ART 4330 -ART 4331-ART 4332 must be completed in preceding semester and review of portfolio by major faculty.

Description
Senior graphic design major courses ART 4330 -ART 4331-ART 4332 and ART 4333-ART 4334-ART 4335 must be taken in consecutive semesters. Advanced studies in graphic design, including semantics, design theory and issues, critical thinking, complex problem solving, and concept development skills.

Note: ART 4330, ART 4331, and ART 4332 must be satisfied in order for any to apply to a degree.

ART 4334 - Senior Graphic Design Major II
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: Concurrent enrollment in ART 4333, 4334, and ART 4335 required. ART 4330 -ART 4331-ART 4332 must be completed in preceding semester and review of portfolio by major faculty.

Description
Senior students are responsible for the organization and presentation of their work in the annual Graphic Design Senior Exhibit.

Note: ART 4333, ART 4334, and ART 4335 must be satisfied in order for any to apply to a degree.

ART 4335 - Senior Graphic Design Major II
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: Concurrent enrollment in ART 4333, 4334, and ART 4335 required. ART 4330 -ART 4331-ART 4332 must be completed in preceding semester and review of portfolio by major faculty.

Description
Senior students are responsible for the organization and presentation of their work in the annual Graphic Design Senior Exhibit.

Note: ART 4333, ART 4334, and ART 4335 must be satisfied in order for any to apply to a degree.

ART 4360 - Senior Sculpture Major I
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: ART 3365-ART 3366-ART 3367 and review of portfolio by major faculty. ART 4360-ART
4361-ART 4362 must be completed prior to ART 4363-4364-4365.

**Description**
Concentrated studio work involving creative expression, investigation of structure and media, critiques, visiting artists, and interdisciplinary study. ART 4360, ART 4361, and ART 4362 must be satisfied in order for any to apply to a degree.

**ART 4361 - Senior Sculpture Major I**

Credit Hours: 3.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 6*  
**Prerequisite:** ART 3365-ART 3366-ART 3367 and review of portfolio by major faculty. ART 4360-ART 4361-ART 4362 must be completed prior to ART 4363-4364-4365.

**Description**
Concentrated studio work involving creative expression, investigation of structure and media, critiques, visiting artists, and interdisciplinary study. ART 4360, ART 4361, and ART 4362 must be satisfied in order for any to apply to a degree.

**ART 4362 - Senior Sculpture Major I**

Credit Hours: 3.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 6*  
**Prerequisite:** ART 3365-ART 3366-ART 3367 and review of portfolio by major faculty. ART 4360-ART 4361-ART 4362 must be completed prior to ART 4363-4364-4365.

**Description**
Concentrated studio work involving creative expression, investigation of structure and media, critiques, visiting artists, and interdisciplinary study. ART 4360, ART 4361, and ART 4362 must be satisfied in order for any to apply to a degree.

**ART 4363 - Senior Sculpture Major II**

Credit Hours: 3.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 6*

**ART 4364 - Senior Sculpture Major II**

Credit Hours: 3.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 6 Typically Offered: Fall, Spring*

**ART 4365 - Senior Sculpture Major II**

Credit Hours: 3.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 6 Typically Offered: Fall, Spring*

**ART 4370 - Senior Photography/Digital Media Major I**

Credit Hours: 3.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 6*  
**Prerequisite:** ART 3375, ART 3376, ART 3377, portfolio review, approval by major faculty and concurrent enrollment in ART 4370, ART 4371, and ART 4372 required.

**Description**
Video, multi-media, and advanced chemical and digital photography. ART 4370, ART 4371, and ART 4372 must be satisfied in order for any to apply to a degree.

**ART 4371 - Senior Photography/Digital Media Major I**

Credit Hours: 3.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 6*  
**Prerequisite:** ART 3375, ART 3376, ART 3377, portfolio review, approval by major faculty and concurrent enrollment in ART 4370 and ART 4372 required.

**Description**
Video, multi-media, and advanced chemical and digital photography. ART 4370, ART 4371, and ART 4372 must be satisfied in order for any to apply to a degree.

**ART 4372 - Senior Photography/Digital Media Major I**

Credit Hours: 3.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 6*  
**Prerequisite:** ART 3375, ART 3376, ART 3377, portfolio review, approval by major faculty, and concurrent enrollment in ART 4370 and ART 4371 required.

**Description**
Video, multi-media, and advanced chemical and digital photography. ART 4370, ART 4371, and ART 4372 must be satisfied in order for any to apply to a degree.
ART 4373 - Senior Photography/Digital Media Major II
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 4370, ART 4371, and ART 4372 in preceding semester, portfolio review/approval by major faculty, and concurrent enrollment in ART 4374 and ART 4375 required.

Description
Individual work on senior thesis project resulting in a coherent body of artwork demonstrating creative and technical command of various photography and digital media. ART 4374, ART 4375, and ART 4376 must be satisfied in order for any to apply to a degree.

ART 4374 - Senior Photography/Digital Media Major II
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 4370, ART 4371, and ART 4372 in preceding semester, portfolio review/approval by major faculty, and concurrent enrollment in ART 4373 and ART 4375 required.

Description
Individual work on senior thesis project resulting in a coherent body of artwork demonstrating creative and technical command of various photography and digital media. ART 4373, ART 4374, and ART 4375 must be satisfied in order for any to apply to a degree.

ART 4375 - Senior Photography/Digital Media Major II
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ART 4370, ART 4371, and ART 4372 in preceding semester, portfolio review/approval by major faculty, and concurrent enrollment in ART 4373 and ART 4374 required.

Description
Individual work on senior thesis project resulting in a coherent body of artwork demonstrating creative and technical command of various photography and digital media. ART 4373, ART 4374, and ART 4375 must be satisfied in order for any to apply to a degree.

ART 4380 - Professional Practices
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: completion of, or enrollment in, junior Major courses, or consent of instructor.

Description
Business practices, grant applications, and residency and exhibition opportunities for the working artist including strategies for Curriculum Vitae, proposal and portfolio presentation.

ART 4381 - Pursuing Utopia
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: twelve hours in foundation program studio courses, or consent of instructor.

Description
Examination of artistic and creative strategies having a direct, conscious and often catalytic relationship to place and community in which they exist, with focus on sustainability.

ART 4390 - Museum Internship at Blaffer Art Museum
Credit Hours: 3
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: Consent of instructor.

Description
The internship gives student an active, involved role in learning about practices of Blaffer Art Museum. Students with an interest in pursuing careers in the art museum field complete projects that teach them about contemporary art and art history while providing practicum. Each student is assigned to one or more department (such as curatorial, education). A series of assignments concludes with a final written assignment and presentation.

ART 4392 - Sel Top in Contemporary Art
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: 12 semester hours in Foundation Program studio courses or consent of instructor.

Description
Will be identified by a specific title each time it is offered. May be repeated for credit when topics vary.

ART 4394 - Sel Tops in Art History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
ART 4395 - Selected Topics in Design
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: twelve semester hours in foundation program studio courses or consent of instructor.
Description
Various special topics.
May be repeated for credit when topics vary.

ART 4396 - Selected Topics in Studio Practice
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: twelve semester hours in foundation program studio courses or consent of instructor.
Description
Will be identified by a specific title each time it is offered.
May be repeated for credit when topics vary.

ART 4397 - Sel Topics in Fine Arts
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: 12 semester hours in Foundation Program studio courses (1000 level).
May be repeated for credit with consent of instructor.

ART 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 3 Prerequisite: twelve semester hours of foundation program studio courses and consent of instructor and director. Independent study.
May be repeated for a maximum of six semester hours.

ART 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.
Note: ART 3399 and ART 4399 must be taken before credit is received in either, and the courses must be taken in sequence.

ART 4498 - Independent Study
Credit Hours: 4.0
Lecture Contact Hours: 0  Lab Contact Hours: 4 Prerequisite: twelve semester hours of foundation program studio courses and consent of instructor and director.
Description
Independent study.
May be repeated for a maximum of six semester hours.

Art Education

ARED 3305 - Art in Elementary Schools
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 9 Description
Provides elementary classroom teachers with the basic concepts of current art education theory and practice. Emphasis is placed on the creation of interdisciplinary curricula and the integration of art-making, art criticism, aesthetics, and art history in successful ways for elementary school students.

ARED 4345 - Art in the Elementary and Secondary Schools
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: Admission to the Teacher Education Program.
Description
Field-based course that introduces curriculum planning and organization, instructional methods, and management strategies for teaching art in the elementary and secondary schools.

ARED 4365 - Integrative Art Teaching
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 3 Prerequisite: Admission to the Teacher Education program.
Description
Methods of integrating art criticism, art history, aesthetics, studio art, museum practices, and contemporary issues into K-12 art curricula.

Arts Leadership

ARLD 3300 - Introduction to Arts Administration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing, Major or minor in COTA, or permission of instructor.
Description
This overview course will introduce students to the practical skills required for the successful management of arts organizations. Areas covered will include fundraising, budgeting, marketing/publicity, audience development, community engagement, board governance, and issues associated with the founding of a nonprofit organization. Students will engage in discussions with a number of professionals in the field of arts administration and will analyze working methodologies used by arts administrators.
Additional Fee N

ARLD 4397 - Special Topics in Arts Leadership
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Permission of instructor.
Description
Selected topics in the theory and practice of arts leadership.
Additional Fee N

Art History

ARTH 1300 - Ways of Seeing: Art and Our Visual World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
Examination of our visual world and the various ways in which that world has been analyzed and valued.
Note: May not be applied to a major or minor in art history or art.
Core Category: [40] Language, Philosophy, & Culture

ARTH 1380 - Art and Society: Prehistoric to Gothic
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
Art and its relationships to society in and for which it was made from the ancient world to the Gothic period.
Note: Required for art and art history majors.
Core Category: [40] Language, Philosophy, & Culture
TCCNS Equivalent: ARTS 1303

ARTH 1381 - Art and Society: Renaissance to Modern
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
Art and its relationship to society in and for which it was made from the Renaissance to the present.
Note: Required for art and art history majors.
Core Category: [50] Creative Arts
TCCNS Equivalent: ARTS 1304

ARTH 2381 - Classical Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Minoan, Mycenaean, Greek, and Roman art.

ARTH 2382 - Medieval Art and Society
ARTH 2384 - Baroque Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or equivalent background in Medieval Studies or consent of instructor.
Description
Art and architecture from Late Antiquity through the Gothic period in the context of the politics, art patronage and religions of the societies in which for which they were created.

ARTH 2386 - Nineteenth Century Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly ARTH 3383
Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Romanticism through Post-Impressionism in Europe and America.

ARTH 2388 - Survey of the Art of Africa, Oceania and the Americas
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
Arts of Africa, Oceania, and the Americas in their historical context.

ARTH 2389 - Modern and Contemporary Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Avant-Garde art from 1863 through the 20th Century.

ARTH 2394 - Selected Topics in Art History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
May be repeated for credit when topics vary.

ARTH 3301 - Critical Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Readings and discussion of the major concepts and methods employed in the analysis of art practice.

ARTH 3302 - Contemporary Art Criticism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Reading, writing, and analysis of contemporary art criticism.

ARTH 3303 - After Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 3301 or consent of instructor.
Description
Exploration of discourses that can inform contemporary artistic practice from political critique to literature, music and films.

ARTH 3304 - Virtual Curating
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 3301 or consent of instructor.
Description
Working in collaboration, students will develop a concept for a large-scale exhibition.

ARTH 3311 - Greek Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
The art and architecture of Ancient Greece and the Aegean World.

ARTH 3312 - Pre-Columbian Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
Art and architecture of the Aztec, Maya and their predecessors.
Core Category: [B1] Writing in the Disciplines

ARTH 3313 - Roman Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Art and architecture of Rome through the Republic and Empire periods.

ARTH 3314 - Latin American Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Art and architecture of Latin America from the appearance of the Spanish to the present.

ARTH 3315 - History of Prints in the West
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
History of prints, major printmakers and various functions of prints in the West from the Late Middle Ages to the present.

ARTH 3317 - Ancient Near Eastern Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Art and architecture of Mesopotamia from its beginnings to the Persian period.

ARTH 3318 - Art and Architecture of India
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or ENGL 1310.
Description
Survey of visual art and architecture on the Indian subcontinent from antiquity to the present.

ARTH 3325 - 18th Century European Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and 1381, or consent of instructor.
Description
Painting, sculpture, architecture, decorative and graphic arts of the 1700's in relation to important social and ideological developments of the period.

ARTH 3326 - European Romanticism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and 1381, or consent of instructor.
**Description**  
French, Spanish, British and German Romanticism with special attention on the political context including the rise of the Napoleonic Empire, the conservation Restorations after its fall and resistance to both.

**ARTH 3327 - Visual Culture of the French Revolution**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** ARTH 1380 and 1381 or consent of instructor.  

**Description**  
Visual culture of the period of the French Revolution (1789-1799) including popular and ephemeral phenomena, traditional art forms, and their social and political aims.

**ARTH 3328 - Late 19th Century Art and Culture**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** ARTH 1380 and 1381 or consent of instructor.  

**Description**  
Late 19th Century European art from the vantage point of the collaborations of writers, artists, musicians and critics.

**ARTH 3330 - Impressionism: The Painters of Modern Life**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** ARTH 1380 and 1381 or consent of instructor.  

**Description**  
Themes from everyday life painted by the Impressionists and the various factors that affected their art and their perception of the world around them.

**ARTH 3332 - 20th Century Design**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** ARTH 1380 and 1381 or consent of instructor.  

**Description**  
History, development and key innovators of design of the 20th Century, and assessment of the era's burgeoning culture of design.

**ARTH 3333 - Issues in Contemporary Design**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** ARTH 1380 and 1381, or consent of instructor.  

**Description**  
Issues facing design in the 21st Century, including issues of sustainability and environmental design, exposure in museums and galleries, global design and national identity, impact of technology and conceptual design.

**ARTH 3334 - History of Graphic Design**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Formerly ARTH 3394 Topic: A History of Graphic Design**  
**Prerequisite:** ARTH 1380 and 1381 or consent of the instructor.  

**Description**  
Development of graphic design within the historical context of the late nineteenth century through contemporary developments in this field.  
**Typically Offered:** Fall, Spring

**ARTH 3335 - Surrealism and Its Legacies**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** ARTH 1380 and ARTH 1381, or consent of instructor.  

**Description**  
Surrealism and its influence on American art and mass culture.

**ARTH 3336 - Contemporary Art, 1960s-1980s: The Postmodern Turn**  
Credit Hours: 3  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
**Prerequisite:** ARTH 1381 or ARTH 2389, or consent of instructor.  

**Description**  
Survey of contemporary art history and theory from the 1960s into the 1980s.
ARTH 3337 - Contemporary Art, 1980s-Present: Democracy, Identity, Globalization  
Credit Hours: 3  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1381 or ARTH 2389, or consent of instructor.  
Description  
Survey of contemporary art history and theory from the 1980s to the present.

ARTH 3376 - Representations of Gender  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.  
Description  
Analysis of the shifting conventions and iconography of representing gender, from early pre-Greek ART through contemporary late 20th century art.

ARTH 3378 - History of Nineteenth Century Photography  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381 or consent of instructor.  
Description  
From the invention of photography to 1900.

ARTH 3379 - History of Twentieth- and Twenty-First Century Photography  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.  
Description  
History of photography from 1900 to the present.

ARTH 3380 - 17th Century Dutch Art  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.  
Description  
The rich artistic production of Holland's "Golden Age of art", including history, painting, genre, portraiture, landscape, and still life. Rembrandt, Vermeer, and many other artists.

ARTH 3382 - Northern Renaissance  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380: ARTH 1381, or consent of instructor.  
Description  
German and Netherlandish art of the fifteenth and sixteenth centuries.

ARTH 3389 - Italian Gothic Art and Patronage  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.  
Description  
Italian art of the 13th and 14th centuries and the role of the art patron.

ARTH 3394 - Selected Topics in Art History  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.  
May be repeated when topics vary.

ARTH 3395 - Selected Topics in Critical Theory and Criticism  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 3301 or ARTH 3302, or consent of instructor.  
Description  
Readings and discussion of topics in theory and criticism from modernism to the present.  
May be repeated for credit when topics vary.

ARTH 3396 - Selected Topics in Critical Studies in Film and Video
ARTH 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.

ARTH 4310 - The Human Body in Non-Western Art
Credit Hours: 3.0
Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Representation of the human body in the artistic traditions of Africa, Oceania and the Pre-Columbian Americas.

ARTH 4311 - Artists, Art-Making and Patronage in Medieval Europe
Credit Hours: 3.0
Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
European Arts in the Middle Ages: professional lives of artists, art-making and art patronage.

ARTH 4314 - Medieval Illuminated Manuscripts
Credit Hours: 3.0
Prerequisite: ARTH 1380 and ARTH 1381 and six additional hours of art history or equivalent background in Medieval Studies.
Description
Medieval illuminated manuscripts with emphasis on book types and their audiences.

ARTH 4315 - Reading Medieval Art
Credit Hours: 3.0
Prerequisite: ARTH 1380 and ARTH 1381 and six additional hours of art history or equivalent background in Medieval Studies.
Description
Current strategies in Medieval art history scholarship.

ARTH 4319 - Readings in Nineteenth Century Photography
Credit Hours: 3.0
Prerequisite: credit for or concurrent enrollment in ART 3375, ART 3376, and ART 3377, or consent of instructor.
Description
Practice and theory of nineteenth century photography.

ARTH 4320 - Readings in Twentieth- and Twenty-First Century Photography
Credit Hours: 3.0
Prerequisite: credit for or concurrent enrollment in ART 3375, ART 3376, and ART 3377, or consent of instructor.
Description
Practice and theory of twentieth century and twenty-first century photography.

ARTH 4379 - Art Since 1945
Credit Hours: 3.0
Prerequisite: ARTH 1380: ARTH 1381.
Description
Examination of the visual arts since World War II.

ARTH 4380 - Museums and the Problem of Display
Credit Hours: 3.0
Prerequisite: ARTH 1380 and 1381 and six additional hours of art history, or consent of instructor.
Description
Development of the culture of display and the impact of art institutions, curator and exhibitions on the understanding of artworks and their history.

ARTH 4381 - Seminar on Rembrandt
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, and six additional hours of art history or consent of instructor.
Description
The work and legacy of the most important artist in 17th century Holland, Rembrandt van Rijn, through readings, class discussion, and research.

ARTH 4383 - Contemporary Painting
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and ARTH 1381, or consent of instructor.
Description
Painting since 1945 with an emphasis on the past two decades.

ARTH 4385 - Senior Seminar in Art History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: major in art history and twenty-four semester hours in art history, which must include ARTH 4388 or consent of instructor.
Description
Extensive readings, class discussion and research on a specific art historical subject. Topics may vary.
May be repeated for credit with consent of instructor.

ARTH 4388 - Methods of Art History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: major in art history, ARTH 1380, ARTH 1381, and six additional hours of art history, or consent of instructor.
Description
Readings, class discussions, and research on methodological issues in art history and the historical development of the discipline.

ARTH 4394 - Sel Tops in Art History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 1380 and 1381, or consent of instructor.
Description
Sel Tops in Art History

ARTH 4395 - Selected Topics in Contemporary Theory and Practice
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARTH 3301 or ARTH 3302, or consent of instructor.
Description
Readings and discussion of topics in theory and criticism from modernism to the present.
May be repeated for credit when topics vary.

ARTH 4398 - Independent Study
Credit Hours: 3.0
Prerequisite: ARTH 1380 and ARTH 1381, and consent of instructor.

ARTH 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.

Asian American Studies

AAMS 2300 - Introduction to Asian American Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CUST 2300.
Prerequisite: ENGL 1304.

Description
Introduces students to interdisciplinary analyses of Asian peoples as a "race" and multi-ethnicities in the US. Examines some of the dominant historical experiences and issues that shape Asian American. Explores the diversity and complexity of Asian American histories and experiences within the context of US race and ethnic relations.

Core Category: [80] Social & Behavioral Sciences

Additional Fee Y

AAMS 3310 - Asian American in Popular Culture

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CUST 3310.
Prerequisite: CUST 2300 or ANTH 2302 or consent of instructor.

Description
An interdisciplinary approach analyzing the social and political implications in the representation of Asian Americans through film, newspapers, and other media. Emphasis on concrete applications of theoretical models from the social and human services.

Additional Fee Y

AAMS 3315 - Asian American Migration and Transnationalism

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CUST 3315.
Prerequisite: CUST 2300 or ANTH 2302 or consent of instructor.

Description
Various aspects of migration, including adaptation, community formation, activism, and transitional links. Emphasis on the strategies and interactions in the shaping of U.S. society.

Additional Fee Y

AAMS 3325 - Asian American Cinema

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
Using film as a platform of social and artistic expression, exploring sociopolitical and cultural issues relevant to the Asian American experience. Drawing on important race/ethnic theories and prominent movies on Asian America. Asian immigrants and Asian Americans negotiate stereotypes and discrimination to assert a distinctive identity in the United States.

Additional Fee N

AAMS 3390 - Vietnamese American Experience

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CUST 3390.
Prerequisite: ENGL 1304.

Description
Analysis of the history, settlement issues, and contributions of Vietnamese Americans in the United States.

Additional Fee Y

AAMS 4300 - Asian American Cultures and Communities

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CUST 4300.
Prerequisite: Junior or senior standing.

Description
US history of racial formation and social structures to understand the Asian American identity. Social cultural components that shape the experience and mark the distinctive cultures and communities of Asian immigrants to the US and Americans of Asian descent.

Additional Fee Y

AAMS 4320 - Asian American Literature

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CUST 4320.
Prerequisite: AAMS 2300.

Description
Variety of works by Asian American/immigrant writers to probe the formation of Asian American identities and the making of Asian American arts.
and letters. Production and the reception of Asian American literary texts and the aesthetic forms of representation explored by Asian
American/immigrant authors.

Additional Fee Y

AAMS 4321 - Vietnamese American Community and Ethnography
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Blends ethnography as a research methodology and the history of Vietnamese American communities across the country to examine the formation
of these distinct ethnic enclaves as well as their evolution, convergences, and divergences in contemporary America. Various critical ethnographies
that embrace Vietnamese America as productive lines of inquiry in politics, immigration, economy, globalization, and transnationalism. Ethnographic
frameworks combined with community-based research as a constructive approach for engaging and supporting the development of the local
Vietnamese community.

Additional Fee Y

AAMS 4397 - Selected Topics in Asian American Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.
Description
Selected topics in Asian American Studies; topics vary.
Note: May be repeated for credit when topics vary.

Biochemistry

BCHS 1197 - Selected Topics in Biochemistry
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.

Additional Fee N

BCHS 1297 - Selected Topics in Biochemistry
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: None.

Additional Fee N

BCHS 1397 - Selected Topics in Biochemistry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.

Additional Fee N

BCHS 2197 - Selected Topics in Biochemistry
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.

Additional Fee N

BCHS 3197 - Selected Topics in Biochemistry
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.

Additional Fee N

BCHS 3201 - Biochemistry | Laboratory
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Prerequisite(s): BIOL 1161 , BIOL 1162 .
Corequisite: Co-Requisite(s): Credit for or concurrent enrollment in BCHS 3304 or equivalent.
Description
Experimental study of basic principles and methods of biochemistry.
BCHS 3297 - Selected Topics in Biochemistry
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: None.  
Additional Fee N

BCHS 3304 - General Biochemistry I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 3331.
Description
Nature of the chemical constituents of living organisms, including carbohydrates, lipids, nucleic acids, and enzymes.
Note: Credit may not be received for both BCHS 3304 and CHEM 4336.
Additional Fee Y

BCHS 3305 - General Biochemistry II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BCHS 3304.
Description
Credit may not be received for both BCHS 3305 and CHEM 4336. The integration and control of the metabolism of cellular constituents.

BCHS 3307 - Biochemistry for Nutrition Majors
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 1332.
Description
The biological and metabolic functions of nutrients.
Note: Biology and Biochemistry majors or minors may not receive for this course.
Additional Fee N

BCHS 3396 - Senior Research Project
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of the chair.
Description
Directed research project culminating in a departmentally approved report. BCHS 3396 and BCHS 4396 must be satisfied in order for any to apply to a degree.

BCHS 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.
Description
BCHS 3399 and BCHS 4399 must be satisfied in order for any to apply to a degree.

BCHS 4197 - Selected Topics in Biochemistry
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.
Additional Fee Y

BCHS 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Senior standing and approval of chair.
Description
May be taken for a maximum of four semester hours.

BCHS 4298 - Independent Study
Credit Hours: 2.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Senior standing and approval of chair.
Description
May be taken for a maximum of four semester hours.
BCHS 4304 - Biophysics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHYS 1302 or PHYS 1322, MATH 1432, BCHS 3304, and CHEM 4370 or CHEM 4373.
Description
Theoretical aspects and applications of physics and physical chemistry for the study of biological macromolecules.

BCHS 4306 - Nucleic Acids
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BCHS 3304.
Description
Structure, metabolism, and functions of nucleotides and nucleic acids.

BCHS 4307 - Proteins
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BCHS 3304.
Description
Structure and functions of proteins.

BCHS 4311 - Biochemistry Lab II
Credit Hours: 3.0
Lecture Contact Hours: 1  Lab Contact Hours: 6  Prerequisite: BCHS 3201.
Description
Contemporary experimental techniques in biochemistry and molecular biology. Cloning, expression and purification of recombinant proteins, applications of the polymerase chain reaction, and generation of genomic libraries.
Core Category: [81] Writing in the Disciplines

BCHS 4312 - Molecular Modeling of Biological Macromolecules
Credit Hours: 3.0
Lecture Contact Hours: 2.0  Lab Contact Hours: 3.0  Prerequisite: BCHS 3304 and CHEM 4370 or CHEM 4373 or equivalent.
Description
Computer-based molecular modeling methods, with emphasis on their practical aspects and limitations. Individual research projects using UNIX-based Silicon Graphics computers.

BCHS 4313 - Cell Biochemistry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 1362, BIOL 3301, and BIOL 3304.
Description
Cellular organization of biochemical mechanisms. Composition and function of cells at the molecular level.
Additional Fee Y

BCHS 4314 - Lipids and Carbohydrates
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BCHS 3305.
Description
Structure, metabolism and function of carbohydrates, glycoconjugates and simple and complex lipids.
Additional Fee Y

BCHS 4321 - Genomics and Proteomics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BCHS 3304.
Description
Genomics and proteomics methods for biological studies.

BCHS 4322 - Biochemistry of Organelles
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BCHS 3305.
Description
Biochemistry of mitochondria and chloroplasts including electron transport, oxidative phosphorylation, chemiosmotic theory. Includes mitochondrial theory of aging and apoptosis.

**Additional Fee Y**

**BCHS 4323 - Protein Biosynthesis**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BCHS 3305.  
**Description**  
Structure, function, and evolution of the ribosome.

**Additional Fee Y**

**BCHS 4324 - Bioinformatics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** BIOL 3301.  
**Description**  
Computer-assisted analyses of molecular data including data retrieval, database usage, sequence alignment, gene identification, phylogenetics, genomics, and proteomics. Final project uses bioinformatic packages.

**BCHS 4325 - Molecular Microbiology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BCHS 3304.  
**Description**  
Molecular basis of cellular processes in microbes.

**BCHS 4355 - Eukaryotic Gene Regulation**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301  
**Description**  
Mechanisms of gene regulation in eukaryotes. Topics include transcriptional initiation and elongation, chromatin modifications, RNA splicing and editing, post-transcriptional regulation, and translational control.

**BCHS 4361 - Clinical Biochemistry**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BCHS 3304.  
**Description**  
Etiology, diagnosis, and treatment of metabolic disorders.

**BCHS 4370 - Frontiers in Nano-Biotechnology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BCHS 3304.  
**Description**  
An introduction to the science of nanoscale interactions in biological systems and the technologies in development to study those interactions and create solutions to medical issues.

**Additional Fee N**

**BCHS 4396 - Senior Research Project**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BCHS 3396 and approval of the chair.  
**Description**  
Directed research project culminating in a departmentally approved report. BCHS 3396 and 4396 must be satisfied in order for any to apply to a degree.

**BCHS 4397 - Topics-Biochem & Biophys Sci**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Consent of instructor.  
**Note:** May be repeated for credit when topics vary.  
**Additional Fee Y**
BCHS 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Senior standing and approval of chair.
Description
Cr. 3 per semester. May be taken for a maximum of four semester hours.

BCHS 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: BCHS 3399 and approval of department chair.
Description
BCHS 3399 and 4399 must be satisfied in order for any to apply to a degree.

BCHS 4498 - Independent Study
Credit Hours: 4.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Senior standing and approval of chair.
Description
May be taken for a maximum of four semester hours.

Biology

BIOL 1134 - Human Anatomy and Physiology Laboratory I
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in BIOL 1334.
Description
Structure and function of the human body including anatomical terminology, cells, tissues, integumentary, skeletal, muscular, nervous, and sensory organ systems.
Note: May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics. Typically Offered: Fall, Spring, Summer
TCCNS Equivalent: BIOL 2101

BIOL 1144 - Hum Anat Physiol Lab II
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Credit for or concurrent enrollment in BIOL 1344.
Description
Structure and function of the human body including digestive, respiratory, cardiovascular, endocrine, immune, renal, and reproductive systems.
Note: May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics. TCCNS Equivalent: BIOL 2102

BIOL 1153 - Pre-Nursing Microbiology Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Credit for or concurrent enrollment in BIOL 1353.
Description
Fundamental principles of microbiology; survey of pathogenic microorganisms and the diseases they cause.
Note: May not apply to course GPA requirements for a major or minor in natural sciences and mathematics.

BIOL 1161 - Introduction to Biological Science Laboratory 1
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Credit for or concurrent enrollment in BIOL 1361.
Description
Laboratory experience in introductory biological science, including cell structure and function, respiration, photosynthesis, and circulatory, urinary, and reproductive systems.
Note: Designed for science majors and preprofessional students. TCCNS Equivalent: BIOL 1106

BIOL 1162 - Introduction to Biological Science Laboratory 2
BIOL 1197 - Selected Topics in Biology
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.
Description
Introduction to modern principles of human genetics and the impact of their application on society. Includes fetal development and prenatal screening, mutations, cloning, human origins, gene therapy, and biotechnology.
Note: May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics.
Core Category: [30] Life & Physical Sciences
TCCNS Equivalent: BIOL 1107

BIOL 1297 - Selected Topics in Biology
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: None.
Additional Fee N

BIOL 1305 - Human Biology for the Informed Citizen
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or MATH 1311 or equivalent.
Description
The goal of this course is to introduce students to basic concepts in human biology so that they can apply their knowledge in their everyday lives as informed consumers and users of scientific information. The format of the course is inquiry based within the context of important cultural and social issues. This course will give students a greater appreciation for the sciences and enhance the student's ability to make informed and ethical decisions about human biological issues that affect the global community.
Note: This course will not count toward Biology major requirements.
Core Category: [30] Life & Physical Sciences

BIOL 1309 - Human Genetics and Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or MATH 1311 or equivalent.
Description
Introduction to modern principles of human genetics and the impact of their application on society. Includes fetal development and prenatal screening, mutations, cloning, human origins, gene therapy, and biotechnology.
Note: May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics.
Core Category: [30] Life & Physical Sciences

BIOL 1310 - General Biology 1
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or 1311.
Description
How science is conducted, basic chemistry and organic molecules, cellular structure and biochemistry, transmission, molecular, and population genetics, evolution.
Note: Designed for nonscience majors; does not satisfy requirements for biology majors and preprofessional students. Credit may not be received for both BIOL 1361-1362 & 1310-1320.
Core Category: [30] Life & Physical Sciences
TCCNS Equivalent: BIOL 1308

BIOL 1320 - General Biology 2
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or MATH 1311.
Description
How science is conducted, structure and function of organ systems, ecological principles, human ecology.
Note: Designed for nonscience majors; does not satisfy requirements for biology majors and preprofessional students.
Core Category: [30] Life & Physical Sciences
TCCNS Equivalent: BIOL 1309

BIOL 1334 - Human Anatomy and Physiology 1
BIOL 1344 - Human Anatomy and Physiology 2
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
An applied systematic study of the structure and function of the human body designed for students considering a career in the health professions. Anatomical terminology and the structure and function of cells, tissues, and the body systems such as integumentary, skeletal, muscular, nervous and sensory organs in covered.
Note: Does not fulfill the UH Core requirement for Life and Physical Sciences.
TCCNS Equivalent: BIOL 2301

BIOL 1353 - Prenursing Microbiology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Description
May not apply to a degree until BIOL 1153 is successfully completed. May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics. Fundamental principles of microbiology; survey of pathogenic microorganisms and the diseases they cause.

BIOL 1361 - Introduction to Biological Science 1
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or equivalent.
Description
BIOL 1361 is the first semester of a two-part Introduction to Biological Science course and focuses on biochemistry, cell biology and physiology.
Core Category: [30] Life & Physical Sciences
TCCNS Equivalent: BIOL 1306

BIOL 1362 - Introduction to Biological Science 2
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or equivalent.
Description
BIOL 1362 is the second semester of a two-part Introduction to Biological Science course and focuses on genetics, biotechnology, evolution and ecology.
Core Category: [30] Life & Physical Sciences
TCCNS Equivalent: BIOL 1307

BIOL 1397 - Selected Topics in Biology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Additional Fee N

BIOL 2197 - Selected Topics in Biology
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.
Additional Fee N

BIOL 2297 - Selected Topics in Biology
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: None.
Additional Fee N

BIOL 2315 - Biology of Food
Credit Hours: 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** None.  

**Description**  
An exploration of the biological diversity, physiology, cell biology, genetics, and evolution of the organisms (plants, animals, fungi, and bacteria) we eat and their relation to human biology. Modification of food organisms through domestication and genetic engineering and the role of modern agriculture in food production and sustainability will be explored. Designed for non-science majors; does not satisfy requirements for biology majors and preprofessional students.  

**Core Category:** [30] Life & Physical Sciences

**BIOL 2397 - Selected Topics in Biology**  
Credit Hours: 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** Consent of instructor.  
May be repeated for credit when topics vary.

**BIOL 3132 - Elementary Microbiology Laboratory**  
Credit Hours: 1.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Formerly BIOL 2133**  
**Prerequisite:** Credit for or concurrent enrollment in BIOL 3332.  

**Description**  
Physiological, molecular, and staining techniques used in the identification and characterization of bacteria. Microbiological analysis of water, food, and soil.

**BIOL 3197 - Selected Topics in Biology**  
Credit Hours: 1.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 0  
**Prerequisite:** None.  
**Additional Fee** N

**BIOL 3224 - Human Physiology Laboratory**  
Credit Hours: 2.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Prerequisite:** BIOL 1161, BIOL 1162.  
**Corequisite:** Credit for or concurrent enrollment in BIOL 3324.  

**Description**  
Demonstrations and experiments in organismal bodily function.

**BIOL 3297 - Selected Topics in Biology**  
Credit Hours: 2.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** None.  
**Additional Fee** N

**BIOL 3301 - Genetics**  
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 1361, BIOL 1362, CHEM 1331, and CHEM 1332.  

**Description**  
Basic concepts of Mendelian, molecular, and population genetics.  
**Additional Fee** Y

**BIOL 3304 - The Biology of Social Behavior**  
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 1361 and BIOL 1362.  

**Description**  
Biological prerequisites and consequences of the evolution of social behavior in animals. Kinship, predator defense, foraging, and other problems of group living.

**BIOL 3305 - Biodiversity**  
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 1361, BIOL 1362, and three hours in biology at the 200-level or higher.  

**Description**
Causes, consequences, importance, and preservation of biological diversity.

Additional Fee Y

BIOL 3306 - Evolutionary Biology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 3301.
Description
Origins and maintenance of biological diversity and the mechanisms of phenotypic change.

BIOL 3307 - Introduction to Scientific Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 3301.
Description
This class will give students a foundation in research, including: scientific method, experimental design and analysis, and scientific writing. Lecture and research components are interrelated so students are presented with scientific method theory in step with decisions made in their own research projects.

BIOL 3311 - Genetics Laboratory
Credit Hours: 3.0
Lecture Contact Hours: 1  Lab Contact Hours: 6  Prerequisite: BIOL 1161, BIOL 1162.
Corequisite: Credit for or concurrent enrollment in BIOL 3301.
Description
Experimental aspects of Mendelian and molecular genetics. A semester-long independent research project emphasizes scientific method and writing conventions.
Core Category: [81] Writing in the Disciplines
Additional Fee Y

BIOL 3324 - Human Physiology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Eleven semester hours in biology, including BIOL 1361 and BIOL 1362 and CHEM 3331.
Description
Integrated treatment of bodily function from molecular to organismic levels.
Additional Fee Y

BIOL 3326 - History and Philosophy of Biology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 1361 and BIOL 1362.
Description
Important events in the development of biology as a science: a historical and philosophical perspective.

BIOL 3330 - Biological Field Research
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: BIOL 1361, BIOL 1161, BIOL 1362, BIOL 1162.
Description
Field exercises to develop animal and plants identification, density estimation, and diversity quantification skills in natural environments. Two independent research projects emphasize scientific method and communication conventions.

BIOL 3332 - Elementary Microbiology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 1361, BIOL 1362.
Description
Basic concepts in microbiology with focus on microbial diversity and pathogenesis. Includes survey of infectious diseases.
Additional Fee Y

BIOL 3341 - Human Genetics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 1361, BIOL 1362, CHEM 1331, and CHEM 1332.
Description
Clinical and applied aspects of human genetics. Common and severe hereditary diseases: prevention, diagnosis, and therapy, including molecular aspects.

Additional Fee Y

BIOL 3345 - Plant Physiology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 1361, BIOL 1362, and CHEM 3331.

Description
Respiration, photosynthesis, nutrition, transport, and development of flowering plants.

Additional Fee Y

BIOL 3359 - Environmental Biology of Texas
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 1361 and BIOL 1362.

Description
Effect of humans on the environment through scientific discovery; understanding the ecological, financial, and political factors influencing how humans change their world.

BIOL 3365 - Sex and Gender in Biology and Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Concurrent enrollment or prior credit for BIOL 3301.

Description
This course covers the intersection of the biology of sex and the sociology of gender. Biology topics include the genetics and molecular biology of sex differences, the evolution of sex, and sexually dimorphic behavior, physiology, and development.

Additional Fee N

BIOL 3368 - Ecology
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Formerly BIOL 4368 Ecology
Prerequisite: BIOL 1361 and BIOL 1362.

Description
Current concepts of the interrelationships between organisms and the environment.

BIOL 3396 - Senior Research Project
Credit Hours: 3.0
Prerequisite: approval of department chair.

Description
Directed research culminating in a departmentally approved report. BIOL 3396 and BIOL 4396 must be satisfied in order for any to apply to a degree.

BIOL 3397 - Selected Topics in Biology
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.

Note: May be repeated for credit when topics vary.

BIOL 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.

Description
BIOL 3399 and BIOL 4399 must be satisfied in order for any to apply to a degree.

BIOL 4103 - Integration of Biological Knowledge
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: Senior standing and credit for or concurrent enrollment in BIOL 3306 and BIOL 4374. Student must have a declared major in biology.

Description
Integration Biol Knowledge
BIOL 4151 - Biology Internship  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Prerequisite: BIOL major with junior standing or higher and prior written permission of the Department Chair or designee.  
Description  
Enhancement of concepts and techniques learned in the classroom and laboratory through work experience directly related to the biology profession.  
Note: Employer evaluation and written report required.

BIOL 4197 - Selected Topics in Biology  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Prerequisite: None.  
Additional Fee Y

BIOL 4198 - Independent Study  
Credit Hours: 1.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 0.0  
Prerequisite: Senior standing, major in biology with honor average in science, consent of special problems committee and approval of an advisor and chair.  
Description  
May be taken for a maximum of four semester hours.

BIOL 4206 - Ecology and Evolution Laboratory  
Credit Hours: 2.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Prerequisite: BIOL 1161, BIOL 1162.  
Corequisite: Credit for or concurrent enrollment in BIOL 3306.  
Description  
Field and laboratory exercises illustrating concepts in evolution, ecology, and animal behavior.  
Additional Fee Y

BIOL 4272 - Cellular and Developmental Biology Laboratory  
Credit Hours: 2.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Prerequisite: BIOL 1161, BIOL 1162.  
Corequisite: Credit for or concurrent enrollment in BIOL 4374 or BCHS 4313  
Description  
Experimental aspects of cellular and developmental biology, using techniques at both the molecular and cellular levels.  
Additional Fee Y

BIOL 4298 - Independent Study  
Credit Hours: 2.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 0.0  
Prerequisite: Senior standing, major in biology with honor average in science, consent of special problems committee and approval of an advisor and chair.  
Description  
May be taken for a maximum of four semester hours.

BIOL 4301 - Conservation Biology  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: BIOL 1361, BIOL 1362. Recommended: BIOL 3301, BIOL 3368.  
Description  
Introduction to the fundamentals and practice of conservation biology, including the value of biodiversity, threats to biodiversity, conversation genetics, and applications in conservation biology at the genetic, population, community, and ecosystem levels.

BIOL 4302 - Galapagos Research-based Learning Abroad  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: Permission of the instructor and the ability to conduct physically demanding field work.  
Description
The Galapagos Islands are used as a model to explore several topics in geology, evolutionary biology, history and conservation in a one semester course. Additionally, students spend approximately one month in the Galapagos conducting research projects that touch on these topics.

**BIOL 4309 - Mathematical Biology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301 and MATH 3331.  
**Description**  
Topics in mathematical biology, epidemiology, population models, models of genetics and evolution, network theory, pattern formation, and neuroscience.  
**Note:** Students may not receive credit for both MATH 4309 and BIOL 4309  
**Additional Fee** Y

**BIOL 4310 - Biostatistics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** MATH 3339 and BIOL 3306, or consent instructor.  
**Description**  
Statistics for biological and biomedical data, exploratory methods, generalized linear models, analysis of variance, cross-sectional studies, and nonparametric methods. Students may not receive credit for both MATH 4310 and BIOL 4310.

**BIOL 4311 - Genomic Data Analysis**  
**Credit Hours:** 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301.  
**Description**  
The course provides a hands-on introduction to analyzing genomic data to answer biological questions.

**BIOL 4312 - Interpreting Experimental Biology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301 with a grade of B+ or better or consent of instructor.  
**Description**  
Reading, discussion, oral presentation, and written analysis of original scientific papers.

**BIOL 4315 - Neuroscience**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 1361, BIOL 1362, and BCHS 3304.  
**Description**  
Molecular, cellular, and behavioral principles of nervous system function, including aspects of development, learning and memory, and evolution.  
**Additional Fee** Y

**BIOL 4320 - Molecular Biology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301.  
**Description**  
Molecular processes involved in biological systems and methods for their study, including recombinant DNA techniques and other modern research applications.

**BIOL 4323 - Immunology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly BIOL 4423 Prerequisite:** BIOL 3301.  
**Description**  
Structural and functional aspects of the immune system. Antigens, antibodies, and antigen-antibody and cellular reactions.

**BIOL 4324 - Bioinformatics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** BIOL 3301.  
**Description**
Computer-assisted analyses of molecular data including data retrieval, database usage, sequence alignment, gene identification, phylogenetics, genomics, and proteomics. Final project uses bioinformatic packages.

**BIOL 4330 - Molecular Basis of Infectious Disease**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  |  **Lab Contact Hours:** 0  
**Prerequisite:** BIOL 1361, BIOL 1362, BCHS 3304.  
**Description**  
Molecular mechanisms of pathogenesis by selected bacterial and viral pathogens, with emphasis on basic concepts in microbial physiology and biochemistry.  
**Additional Fee** N

**BIOL 4340 - Research Methods**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  |  **Lab Contact Hours:** 0  
**Prerequisite:** CUIN 3351 and one of CHEM 1111, CHEM 1117; BIOL 1161, BIOL 1162; PHYS 1101, PHYS 1121 or equivalent, or consent of instructor.  
**Description**  
Students perform four independent inquiries, combing skills from mathematics and science to solve research problems. Credit may not be received for BIOL 4340 and CHEM 4340 or PHYS 4340.

**BIOL 4347 - Animal Behavior**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  |  **Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301.  
**Description**  
Ecology, evolution, and mechanisms animal behavior.

**BIOL 4351 - Current Topics in Reproductive Biology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  |  **Lab Contact Hours:** 0  
**Prerequisite:** BIOL 1361, BIOL 1362, and BCHS 3304 or consent of instructor.  
**Description**  
Molecular and cellular principles of reproductive system function, including gametogenesis, fertilization, and reproductive development.

**BIOL 4354 - Endocrinology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  |  **Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301 Genetics or BCHS 3304 Biochemistry I.  
**Description**  
Regulation and integration of bodily functions by hormones in normal and diseased animal.

**BIOL 4355 - Human Virology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  |  **Lab Contact Hours:** 0  
**Prerequisite:** BIOL 1361, BIOL 1362, and BCHS 3304.  
**Description**  
Principles and pathogeneses of viral infection and immune responses in humans.  
**Additional Fee** Y

**BIOL 4356 - Genomics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  |  **Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301 Genetics  
**Description**  
Survey of genomics, including the organization and structure of genomes; genome sequencing, assembly, and annotation; global gene expression profiling; and comparative and functional genomics.

**BIOL 4365 - Applied Evolution**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  |  **Lab Contact Hours:** 0  
**Prerequisite:** BIOL 3301.  
**Description**  
Applications of evolutionary principles to everyday problems including public health, food production, forensics, and conservation.
BIOL 4366 - Molecular and Genome Evolution
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 3301.
Description
The evolution of genes, gene-products, genomes, and inter-genomic regions. Methodology of molecular evolutionary analysis. Identification of the evolutionary forces operating at the molecular level.

BIOL 4367 - Evolutionary Ecology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 3306.
Description
Evolution of ecologically relevant characters. The ecological implications of evolutionary processes.

BIOL 4370 - Ecology and Development
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: BIOL 3301; Recommended: BIOL 3306.
Description
An exploration of the impact of the environmental ecology on adaptation and evolution of organisms through phenotypic plasticity, genetic changes in gene regulation, epigenetics, and variations in developmental pathways.

BIOL 4373 - Microbial Physiology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BCHS 3304.
Description
Structure, growth, metabolic activities, and morphogenesis of microorganisms.

BIOL 4374 - Cell Biology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly BCHS 4313
Prerequisite: BIOL 3301 and BCHS 3304.
Description
Composition, organization, and function of cells at the molecular level.

BIOL 4384 - Developmental Biology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Formerly ANTH 4484
Prerequisite: BIOL 3301.
Description
Cellular differentiation, growth, and morphogenesis of developing biological systems.

BIOL 4396 - Senior Research Project
Credit Hours: 3.0
Prerequisite: BIOL 3396 and approval of department chair.
Description
Directed research culminating in a departmentally approved report. BIOL 3396 and 4396 must be satisfied in order for any to apply to a degree.

BIOL 4397 - Selected Topics in Biology
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.
May be repeated for credit when topics vary.

Note: May be repeated for credit when topics vary.

BIOL 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Senior standing, major in biology with honor average in science, consent of special
problems committee and approval of an advisor and chair.

**Description**
May be taken for a maximum of four semester hours.

**BIOL 4399 - Senior Honors Thesis**
Credit Hours: 3.0
Prerequisite: BIOL 3399 and approval of department chair.

**Description**
BIOL 3399 and 4399 must be satisfied in order for any to apply to a degree.

**BIOL 4498 - Independent Study**
Credit Hours: 4.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0
Prerequisite: Senior standing, major in biology with honor average in science, consent of special problems committee and approval of an advisor and chair.

**Description**
May be taken for a maximum of four semester hours.

### Biomedical Engineering

**BIOE 1331 - Computing for Biomedical Engineering**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Formerly BIOE 1397 Computing for Biomedical Engineering
Prerequisite: MATH 1431 and credit for or concurrent enrollment in BIOE 2100.

**Description**
Introduction to computing, data types and operations; Matlab-based programming constructs, algorithms, and biomedical applications; computing tools for biomedical engineering problem-solving.

**BIOE 2100 - Introduction To Biomedical Engineering**
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0
Prerequisite: ENGI 1100, 1331.

**Description**
Key topics in biomedical engineering, including lectures from professors, engineers, and physicians active in the field.

**Note:** On- and off-campus visits to biomedical engineering laboratories.

**BIOE 2331 - Biomedical Processes**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: ENGI 1331, PHYS 1322, CHEM 1332, & MATH 2433.
Corequisite: Credit for or concurrent enrollment in MATH 3321.

**Description**
Introduction to fundamental calculations, measurements, and processes encountered across the field of biomedical engineering.

**BIOE 2397 - Selected Topics**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
May be repeated for credit when topics vary.

**BIOE 3140 - Quantitative Physiology Laboratory**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3
Prerequisite: credit for or concurrent enrollment in BIOE 3340.

**Description**
Fundamental quantitative principles of physiology at both the molecular and systems level.

**BIOE 3340 - Quantitative Physiology**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: BCHS 3304, BIOL 1161, BIOL 1162, BIOL 1361, BIOL 1362, BIOE 2331, ECE 2201, ENGI 1331, MATH 3321, and PHYS 1322.

**Description**
Fundamental quantitative principles of physiology at both the molecular and systems level.

**Additional Fee Y**

**BIOE 3341 - Biothermodynamics**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3   Lab Contact Hours: 0*  
**Prerequisite:** Credit for or concurrent enrollment in BIOE 3340.

**Description**

Biological thermodynamic systems; heat and work; properties of pure substances; and first, second, and third thermodynamic laws.

**BIOE 3351 - Introduction to Diseases**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3   Lab Contact Hours: 0*  
**Prerequisite:** Credit for or concurrent enrollment in BIOE 3340, or consent of instructor.

**Description**

A comprehensive first look at human diseases, including relevant engineering applications.

**BIOE 4115 - Introduction to Bioinstrumentation Lab**

*Credit Hours: 1.0*

*Lecture Contact Hours: 0   Lab Contact Hours: 2*  
**Prerequisite:** credit for or concurrent enrollment in BIOE 4315.

**Description**

Principles of electrical phenomena and instrumentation relevant to biomedical engineering.

**BIOE 4150 - Genomic and Proteomic Engineering Laboratory**

*Credit Hours: 1.0*

*Lecture Contact Hours: 0   Lab Contact Hours: 3*  
**Prerequisite:** Credit for or concurrent enrollment in BIOE 4350.

**Description**

Application of laboratory methods and techniques related to genomic and proteomic technologies in the field of biomedical engineering.

**BIOE 4197 - Selected Topics**

*Credit Hours: 1.0*

*Lecture Contact Hours: 0   Lab Contact Hours: 3*  
**Prerequisite:** Biomedical Engineering Undergraduate Majors only.

May be repeated for credit when topics vary.

**BIOE 4302 - Numerical Analysis for Biomedical Engineering**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3   Lab Contact Hours: 0*  
**Prerequisite:** BIOE 2100 and MATH 2433. Credit for or concurrent enrollment in BIOE 3340 and BIOE 3140.

**Description**

Numerical algorithms and skills to implement algorithms for solving mathematical problems in biomedical engineering.

**BIOE 4303 - Biomaterials**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3   Lab Contact Hours: 0*  
**Prerequisite:** BIOE 3340 & BIOE 3140

**Description**

Design and application of materials in hard and soft tissue replacement as well as other applications such as drug delivery systems and tissue engineering.

**BIOE 4305 - Brain Machine Interfacing**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3   Lab Contact Hours: 0*  
**Prerequisite:** ENGI 1331 and INDE 2333.

**Corequisite:** Credit for or concurrent enrollment in BIOE 4315 and BIOE 4115.

**Description**

Principles of neuroscience, machine learning, statistics and probability theory, electrical systems, and chemistry as related to brain-machine interfacing.

**BIOE 4307 - Optical Imaging**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3   Lab Contact Hours: 0*  
**Prerequisite:** BIOE 2331 and MATH 3321.
Description
Fundamentals and frontier topics of optics and biophotonics. Principles of optics, diffraction and interference, how light propagates in scattering and absorbing media, such as biological tissue.

BIOE 4309 - Neural Technology Interfaces
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOE 3340, BIOE 3140.
Description
Topics will include the basics of artificial neural networks to recent cutting edge deep convolutional and reinforcement learning based networks.

BIOE 4310 - Drug Design and Delivery
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOE 3340, BIOE 3140.
Description
Engineering of controlled drug delivery system; concepts and challenges associated with drug discovery and development.
Additional Fee N

BIOE 4311 - Advances in Vision Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BCHS 3304
Corequisite: BIOE 3340, BIOE 3140.
Description
Eye anatomy and development, cellular composition, phototransduction, and diseases that affect the visual system and therapeutic approaches.
Additional Fee N

BIOE 4313 - Introduction to Neural Computation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 2333, MATH 2433 and MATH 3321.
Description
Connection between artificial neural networks and biological neural networks; neuroscience, artificial intelligence; machine learning.
Additional Fee N

BIOE 4315 - Bioinstrumentation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 2201, MATH 2433, MATH 3321, PHYS 1322 and credit for or concurrent enrollment in BIOE 4115.
Description
Principles of electrical phenomena and instrumentation relevant to biomedical engineering.

BIOE 4319 - Mass Transport Phenomena in Biological Systems
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOE 3340.
Description
Comprehensively covers the diffusion of gases, electrolytes and non-electrolytes in biomedical engineering applications.

BIOE 4335 - Capstone Design I
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: ENGI 2304, INDE 2333, MECE 3400, all required BIOE 3000 level courses in the degree plan, and credit for or concurrent enrollment in BIOE 4115 and BIOE 4315.
Description
Propose and begin team projects involving open-ended design problems supplied by industry and faculty. Professionalism, research methodologies, design tools, and technical communication.

BIOE 4336 - Capstone Design II
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: BIOE 4335 in prior semester.
**BIOE 4342 - Biomedical Signal Processing**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
Prerequisite: BIOE 4115, BIOE 4315, and ECE 3337.  
**Description**  
Principles and applications of digital signal processing to the analysis of biomedical signals such as EEG (electroencephalogram), ECG (electrocardiogram), and EMG (electromyography).

**BIOE 4347 - Cellular and Molecular Biology for BME**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
Prerequisite: BIOE 3340, BIOE 3140.  
**Description**  
Comprehensive overview of the science of cell and molecular biology with emphasis on its relationship to biomedical engineering.

**BIOE 4348 - Tissue Engineering: Principles & Practice**
Credit Hours: 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
Prerequisite: BIOE 4303, BIOE 4347.  
**Description**  
Interdisciplinary tissue engineering concepts.

**BIOE 4349 - Biomedical Microdevices**
Credit Hours: 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
Prerequisite: BIOE 3340.  
**Description**  
Design and fabrication of biomedical microdevices for clinical diagnostics in resource-limited settings.

**BIOE 4350 - Genomic and Proteomic Engineering**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
Prerequisite: BCHS 3304 and credit for or concurrent enrollment in BIOE 4150.  
Corequisite: BIOE 3140, BIOE 3340.  
**Description**  
Fundamental knowledge of genomics and proteomics, as well as the principles, development and application of genomic and proteomic technologies in the field of biomedical engineering.

**BIOE 4366 - Biomolecular Engr Fundamentals**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
Prerequisite: Credit for or concurrent enrollment in BIOE 4350/BIOE 4150.  
**Description**  
Analysis and design fundamentals for biochemical processes: introductory biochemistry, microbiology, biological kinetics, reactor design, transport phenomena. Applications of enzymes and single and mixed microbial populations.

**BIOE 4397 - Selected Topics**
Credit Hours: 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
Prerequisite: Cr. 3 or more by concurrent enrollment.  
**Note:** May be repeated for credit when topics vary.

**BIOE 5317 - Introduction to Biomedical Imaging**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
Prerequisite: BIOE 3340, BIOE 4302 and INDE 2333.  
**Description**  
Basic principles of image formation, reconstruction and processing in medical imaging.
BIOE 5318 - Introduction to Biomedical Informatics  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOE 3341 or BIOE 3440 or consent of instructor  
**Description**  
Theoretical foundations and the current applications of biomedical informatics in health sciences and health care delivery systems.

BIOE 5319 - Introduction to Global Healthcare  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOE 3440 or consent of instructor.  
**Description**  
Overview of the global healthcare systems, advances and applications in information technologies in biomedicine, development of new drugs, technology regulation, and ethical issues using novel technologies.

BIOE 5320 - Introduction to Electromagnetic Imaging  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOE 3340, BIOE 4302, INDE 2333 and PHYS 1322.  
**Description**  
Introduction to the principles and methods related to functional bioelectromagnetic imaging and MRI (magnetic resonance imaging).

BIOE 5323 - Introduction to Regenerative Medicine and Stem Cell Engineering  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOE 3340 and MATH 3321, or consent of instructor.  
**Description**  
Fundamental principles as applied to tissue and organ fabrication, including cell sourcing, biomaterial synthesis, tissue fabrication technology, bioreactor design and vascularization.

BIOE 5341 - Advanced Biofluid Dynamics  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BIOE 3340, and BIOE 4302.  
**Description**  
Mathematical modeling, computational methods and simulation of fluid flow and mass transport in biological context, with applications in human physiology.

Biotechnology  

BTEC 1322 - Introduction to Biotechnology  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Description**  
Review of techniques used in food, agricultural, pharmaceutical, industrial, and environmental biotechnology; guest presentations in biotechnology.

BTEC 3100 - Biotechnology Research Methods & Applications  
**Credit Hours:** 1  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Prerequisite:** (C- or better in BTEC 1322, BIOL 3132 and 3332) and (credit for or concurrent enrollment in BTEC 3302) and declared as Biotechnology major.  
**Description**  
Interdisciplinary research-based and hands-on experiences with techniques used in modern biotechnology labs.

BTEC 3301 - Principles of Genomics/Proteomics and Bioinformatics  
**Credit Hours:** 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** (C- or better in BTEC 1322 & MATH 2311 or equivalent) and credit for or concurrent enrollment in BTEC 3302.  
**Description**  
Overview of the fields of bioinformatics and genomics. Topics, tools, issues and current trends in these and related fields.

BTEC 3302 - Molecular Genetics and Biotechnology
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C- or better in BIOL 1361 / BIOL 1161, BIOL 1362 / BIOL 1162, CHEM 1332, and BTEC 1322.

Description
Overview of molecular genetics and biology as applicable to biotechnology. Discussion includes industrially relevant organisms, synthetic biology, and the impact of bioengineering solutions in economic, environmental, and societal contexts.

BTEC 3317 - Biotechnology Regulatory Environment
Credit Hours: 3.0
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Minimum grade of C- in BTEC 1322.

Description
Role of regulatory agencies during the discovery, development, and manufacture of new medical devices, biotechnology, biomedical, and pharmaceutical products.

BTEC 3320 - Introduction to Quality Assurance and Quality Control in Biotechnology
Credit Hours: 3.0
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C- or better in BTEC 3317.

Description
Quality control techniques, assurance issues, and management methods. Quality in design and planning in the constructed project, and in production of goods and services.

BTEC 3321 - Current Good Manufacturing Practices in Biotechnology
Credit Hours: 3.0
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C- or better in BTEC 3317.

Description
Current good manufacturing practices (cGMP) in the biotechnology workplace. History, rationale, purpose, and GMP requirements applicable to the manufacturing, packaging, labeling, testing, and control of pharmaceutical products; and consequences of inaction.

BTEC 4101 - Principles of Bioprocessing Laboratory
Credit Hours: 1
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Prerequisite: C- or better in BTEC 3100.

Corequisite: BTEC 4301.

Description
Cell culture techniques, purification techniques, principles of bioreactor operations and calibration, and environmental monitoring.

BTEC 4198 - Independent Study in Biotechnology
Credit Hours: 1.0
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Prerequisite: approval of department chair.

May be repeated for credit when topics vary.

BTEC 4300 - Principles of Bioinformatics
Credit Hours: 3
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C- or better in BTEC 3301.

Description
Principles and practical application of bioinformatics tools in molecular biology and genetics.

BTEC 4301 - Principles of Bioprocessing
Credit Hours: 3
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C- or better in BTEC 3321, BCHS 3304, BCHS 3201, BIOL 3332, and BIOL 3132.

Corequisite: BTEC 4101.

Description
Cell culture techniques, principles of bioreactor operation and purification, documentation procedures, important tasks for clean room operations, including sanitization, sterilization, cleaning procedures, calibration, and environmental monitoring.

BTEC 4319 - Microbial Biotechnology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C- or better in BTEC 3100 and credit for or concurrent enrollment in BTEC 3302.

Description
Traditional and modern biotechnology processes including strain selection and development of recombinant microbes for industrial, commercial, medical, environmental, and pharmaceutical applications.

Additional Fee  Y

BTEC 4350 - Biotechnology Capstone Experience
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C- or better in BTEC 3100, BTEC 3301, BTEC 3321; Senior standing, and credit for or concurrent enrollment in BTEC 4300 or BTEC 4301.

Description
Supervised internship at a biotech company or an independent thesis or honor’s thesis with Honors College.

BTEC 4397 - Selected Topics in Biotechnology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair.

May be repeated for credit when topics vary.

BTEC 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair.

May be repeated for credit when topics vary.

Business

BUSI 1301 - Business Principles
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly INTB 3354
Prerequisite: None.

Description
Survey of major business functions, forms of business ownership and considerations for running a business in a global context, including: (1) history of globalization; (2) technology and entrepreneurship in a global economy; (3) strategy, organizational design, and leadership; (4) international accounting and financial management; (5) international marketing; (6) global supply chain management; (7) business ethics; and (8) the dynamic role of business in everyday life.

Note: BUSI 1301 meets Business Administration and Management Field of Study requirement for Business Principles. Students under the AY2020 or later undergraduate catalog are not allowed credit for both BUSI 1301 and INTB 3354.
TCCNS Equivalent: BUSI 1301

BUSI 2305 - Business Statistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1324 Mathematics for Business & Social Sciences or MATH 1314 College Algebra and BCIS 1305 Business Computer Applications (3 SCH version) or BCIS 1405.

Description
Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course.

Note: BUSI 2305 is included in the Business Administration and Management Field of Study.
TCCNS Equivalent: BUSI 2305

BUSI 3300 - Introduction to Personal Finance
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Completion of or concurrent enrollment in MATH 1310 or higher.

Description
Basic elements of personal finance. Includes budgeting, credit management, cash flow management purchasing strategies, student loan management, and career selection.
**Note:** Students cannot receive credit for both BUSI 3300 (formerly GENB 3300) Introduction to Personal Finance and FINA 4328 Principles of Personal Finance.

**BUSI 3301 - Connecting College to Business**
**Credit Hours:** 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Junior standing, ENGL 1304 or equivalent and classified as a non-business major. Credit not given for both BUSI 3302 (formerly GENB 3302) and BUSI 3301 (formerly GENB 3301).

**Description**  
Effective communication and professional skills and exploration of business careers for non-business majors.

**Note:** Students who change their major to business with credit for BUSI 3301 (formerly GENB 3301) may substitute it for BUSI 3302 (formerly GENB 3302) and must meet the business writing evaluation requirement.

**BUSI 3302 - Connecting Bauer to Business**
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Completion of ENGL 1303 or alternative; good academic standing; and a pre-business major or declared business major.

**Description**  
Overview of the business programs in Bauer College of Business and the connection to career paths. Development of business protocol and communication skills.

**BUSI 4198 - Independent Study**
**Credit Hours:** 1  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 0  
**Prerequisite:** None.

**BUSI 4320 - Commercial Law**
**Credit Hours:** 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**  
Application of basic legal principles to contracts, sales, insurance, commercial paper, agency, business organizations, real property, personal property, trade regulation, secured transactions, and bankruptcy.

**BUSI 4334 - Principles of Microfinance**
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Junior standing.

**Description**  
Study of the provision of financial services to low-income or solidarity lending groups including consumers and the self-employed, who traditionally lack access to banking venues.

**BUSI 4350 - Business Law and Ethics**
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** BUSI 3302 (formerly GENB 3302) and declared business major, or approval by program director, and a 2.0 GPA or higher.

**Description**  
Commercial laws surrounding business transactions and the ethical aspect of organizational decision-making within these contexts. Includes contracts, business organizations, agency, and property transactions.

**Core Category:** [81] Writing in the Disciplines

**BUSI 4396 - Business Internship**
**Credit Hours:** 3  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Prerequisite:** Pre-business or business major, BUSI 3302 (formerly GENB 3302), and approval of the Rockwell Career Center.

**Description**  
Enhancement of concepts and techniques learned in the classroom. Written report required.

**Typically Offered:** Fall, Spring & Summer
BUSI 4397 - Special Topics in General Business
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: N/A.

BUSI 4398 - Independent Study
Credit Hours: 3
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: N/A.

Business Computer Information Systems

BCIS 1305 - Business Computer Applications
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly DISC 3300
Prerequisite: None.
Description
Fundamental concepts of information systems used in business including the use of computer tools to aid in business decision making.
Note: BCIS 1305 is included in the Business Administration and Management Field of Study. Students under the AY2020 or later undergraduate catalog are not allowed credit for both BCIS 1305 and MIS 3300.
TCCNS Equivalent: BCIS 1305

Business Analytics

BZAN 3310 - Introduction to Business Analytics
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: STAT 3331 or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
The use of basic statistical and operations research techniques to make evidence-based business decisions.
Note: Uses Excel. Students cannot receive credit for both BZAN 3310 Introduction to Business Analytics and SCM 4330 Business Modeling and Decision Analysis.

BZAN 4397 - Selected Topics in Business Analytics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of program director; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
May be repeated when topics vary.
Note: May be repeated when topics vary.

Chemical Engineering

CHEE 1331 - Computing for Engineers
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 2  Formerly CIVE 1331, INDE 1331, MECE 1331
Prerequisite: MATH 1431.
Description
Credit may not be received for more than one of CHEE 1331, CIVE 1331, INDE 1331, and MECE 1331. Introduction to the computing environment; matrix arithmetic; programming essentials; spreadsheets; symbolic algebra tools; solution of typical engineering problems using computer tools.

CHEE 2331 - Chemical Processes
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 1332, ENGI 1100, ENGI 1331, MATH 1432 or 1451, and PHYS 1321.
Description
Introduction to chemical engineering, chemical engineering calculations, unit equations, process stoichiometry, material and energy balances, states of matter, and case studies.
Additional Fee Y
CHEE 2332 - Chemical Engineering Thermodynamics I  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEM 1332, MATH 2433, PHYS 1321, and CHEE 2331.  
Description  
Fundamental concepts of thermodynamic systems, heat and work, properties of pure substances, first and second laws.  

CHEE 3300 - Materials Science & Engineering I  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEE 2331, CHEM 1332, PHYS 1321.  
Description  
Properties of materials with emphasis on metals, ceramics, polymers and electronic materials.  
Additional Fee Y  

CHEE 3321 - Analytical Methods for Chemical Engineers  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 2433 or 1451 and CHEE 2331.  
Description  
Mathematical modeling and conservation equations, linear algebra, ordinary and partial differential equations with applications to chemical engineering systems. Credit may not be received for more than one of MATH 3331 or CHEE 3321.  
Additional Fee Y  

CHEE 3333 - Chemical Engineering Thermodynamics II  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEE 2332.  
Description  
Multicomponent systems, phase equilibria, and prediction of thermodynamic properties.  

CHEE 3334 - Statistics/Numerical Techniques for Chemical Engineers  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEE 2332 and CHEE 3321.  
Description  
Statistics for chemical engineers. Curve fitting, numerical methods in linear algebra, non-linear algebraic equations, ordinary and partial differential equations, optimization. Special emphasis is placed on problems appearing in chemical engineering applications.  
Additional Fee Y  

CHEE 3363 - Fluid Mechanics for Chemical Engineers  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEE 2332 and CHEE 3321.  
Description  
Foundations of fluid mechanics, fluid statics, kinematics, laminar and turbulent flow; macroscopic balances; dimensional analysis and flow correlations.  
Additional Fee Y  

CHEE 3367 - Process Modeling and Control  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEE 3334, CHEE 3363, and CHEE 3321.  
Description  
Modeling techniques of chemical engineering problems with emphasis on process control.  

CHEE 3369 - Chemical Engineering Transport Processes  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEE 3363.  
Description  
Mass transfer in single and multiphase systems and combined heat and mass transfer. Selected topics in heat and mass transfer, and in heat and momentum transfer.  

CHEE 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: senior standing; 3.00 cumulative grade point average in chemical engineering and overall.

CHEE 3462 - Unit Operations
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 1.5 Prerequisite: CHEE 3333.
Description
Unit operations with emphasis on distillation, absorption, extraction, and fluid-solid systems.

CHEE 3466 - Biological and Physical Chemistry
Credit Hours: 4.0
Lecture Contact Hours: 4  Lab Contact Hours: 0 Prerequisite: CHEE 3333 and CHEM 3331.
Description
Biochemistry and physicochemical topics, including chemical kinetics and adsorption.

CHEE 4197 - Selected Topics
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0 May be repeated for credit when topics vary.

CHEE 4198 - Independent Study
Credit Hours: 1.0
Prerequisite: approval of department chair.

CHEE 4297 - Selected Topics
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 May be repeated for credit when topics vary.

CHEE 4298 - Independent Study
Credit Hours: 2.0
Prerequisite: approval of department chair.

CHEE 4321 - Chemical Engineering Design I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: CHEE 3300, CHEE 3333, CHEE 3369, CHEE 3462, ECON 2304, ENGI 2304, and credit for or concurrent enrollment in CHEE 4367.
Description
Design of chemical processes with emphasis on health and safety, and environment aspects; mass and energy balances; equipment design; process economics; profitability analysis; and optimum operating conditions.

CHEE 4322 - Chemical Engineering Design II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: CHEE 4321.
Description
Computer-aided design of chemical processes with emphasis on process economics, profitability analysis, and optimum operating conditions.

CHEE 4361 - Chm Engr Practices
Credit Hours: 3.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 5 Prerequisite: CHEE 3462, 3369, 3367, and credit for or concurrent enrollment in CHEE 4367.
Description
Design and execution of experiments involving chemical reaction, heat and mass transfer, distillation, and process control. Course includes further development of oral and written communication skills.

CHEE 4366 - Biomolecular Engr Fundamentals
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: BIOE 3341 or CHEE 3466.
Description
Analysis and design fundamentals for biochemical processes: introductory biochemistry, microbiology, biological kinetics, reactor design, transport phenomena; applications of enzymes and single and mixed microbial populations.

**CHEE 4367 - Chemical Reaction Engineering**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEE 3369, CHEM 3332 and CHEE 3466.  
Description  
Chemical reaction kinetics, mechanisms, and reactor design in static and flow systems; introduction to heterogeneous catalytic reactions in flow systems.  
Additional Fee Y

**CHEE 4397 - Selected Topics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
May be repeated for credit when topics vary.

**CHEE 4398 - Independent Study**
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Prerequisite: Approval of department chair.

**CHEE 4399 - Senior Honors Thesis**
Credit Hours: 3.0  
Prerequisite: senior standing; 3.00 cumulative grade point average in chemical engineering and overall.

**CHEE 4498 - Independent Study**
Credit Hours: 4.0  
Prerequisite: approval of department chair.

**CHEE 5119 - Nanotechnology Laboratory**
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 2  
Prerequisite: CHEE 3333, enrollment in CHEE 5319, and consent of instructor.  
Description  
Nanotechnology metrology and fabrication methods.

**CHEE 5120 - Nanomaterials Engineering Laboratory**
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 2  
Prerequisite: ECE 5119 or CHEE 5119 or MECE 5119, concurrent enrollment in CHEE 5320, and instructor permission.  
Description  
Introduction to engineering of nanomaterials with emphasis on structural, optical, photonic, magnetic and electronic materials. Experimental design, synthetic and analytical characterization will be emphasized.

**CHEE 5121 - Nanofabrication Laboratory**
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 2  
Prerequisite: ECE 5120 or CHEE 5120 or MECE 5120, enrollment in CHEE 5321, and consent of instructor.  
Description  
Design, fabricate on, and metrology of nanoscale devices.

**CHEE 5319 - Introduction to Nanotechnology**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEE 3333, concurrent enrollment in CHEE 5119, or consent of instructor.  
Description  
Field of nanotechnology. Fundamental concepts underlying various nanotechnologies which serves as a leveling course.

**CHEE 5320 - Introduction to Nanomaterials Engineering**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ECE 5319 or MECE 5319, concurrent enrollment in CHEE 5120, or consent of instructor.
Description
Engineering of nanomaterials with emphasis on structural, optical, photonic, magnetic, and electronic materials. Synthetic methods and analytical characterization with design for applications will be emphasized.

CHEE 5321 - Nanoscale Design & Fabrication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 5320 or CHEE 5320 or MECE 5320, concurrent enrollment in CHEE 5121, or consent of instructor.
Description
Design and fabrication at the nanoscale. Effects of nanoscale phenomena on device scaling; technological advantages and challenges. Design, fabrication, metrology, and device integration at nanoscale.

CHEE 5323 - Fundamentals of Tissue Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 3363 or MECE 3363 or BIOE 3341 and CHEE 3321.
Description
Credit may not be received for more than one of BIOE 4323, CHEE 5395, or MECE 5323. Fundamental concepts in tissue engineering and cell biology including structure, function, and replication.

CHEE 5350 - Advanced Oxidation Processes for Aqueous Systems
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 4367.
Description
This course is designed to provide the fundamentals of advanced oxidation processes currently applied, and under development for the remediation of water, wastewater and sludge. The first half of the course is devoted to present an introduction to AOPs and a background to UV photolysis and it's mathematical modeling. The second half is focused on individual advanced oxidation processes and selected industrial applications that include drinking water & wastewater treatment, odor treatment and textiles applications.

CHEE 5355 - Advanced Biomolecular Engineering
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 4366 or equivalent or consent of program director.
Description
The objective of this course is to introduce fundamental concepts in biochemical engineering. The course assumes that the students have a basic understanding of biomolecules. The course presents a basic understanding of enzyme mechanisms and kinetics. From there we will transition into cellular energetics and the thermodynamics of cellular energetics. Next, we will understand the underlying concepts of commonly used techniques in molecular and cell biology. The second half of the semester will focus on biopharmaceuticals including antibodies, proteins, and cells as drugs in the context of immunotherapy. We will learn the basics of immunology before transitioning into the use of the immunology in cancer immunotherapy. Finally, the course also introduces students to the use of statistics in study design and the use of the appropriate statistical tests for testing hypotheses and selecting appropriate graphs to represent data. The use of appropriate statistics to report the error and a discussion on significant figures will be presented.

CHEE 5356 - Fundamentals of Catalysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Corequisite: Credit for or concurrent enrollment in CHEE 4367, or consent of instructor.
Description
Theories and experimental procedures in modern heterogeneous catalysis, catalyst preparation and properties, absorption, surface mechanisms, catalyst design, and catalytic processes.
Additional Fee N

CHEE 5367 - Advanced Process Control
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 3367 or consent of instructor.
Description
Application of high-speed computers in the control of chemical processes, reactors, and units.

CHEE 5368 - Chemical Process Economics I
CHEE 5369 - Chemical Process Economics II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: senior standing and concurrent enrollment in CHEE 4321.
Description
Managerial economics of chemical processes and products; development of decision-making methods using chemical industry examples.

CHEE 5377 - Introduction to Polymer Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 3363 and either CHEE 3366 or CHEE 3466 or consent of instructor.
Description
Synthesis, characterization, physical properties and processing of polymeric materials. Methods to measure and characterize the correlations among structure processing properties of polymeric materials.

CHEE 5379 - Safety and Reliability
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 3363, CHEE 3369, and CHEE 3367.
Description
Risks, safeguards, and hazards associated with chemical process engineering. Layers of protection, hazard identification, source term models, toxic release and dispersion models, fires and explosions, probabilistic analysis, fault tree analysis, designs to prevent accidents, safety-instrumented systems, and safety-related standards and regulations.

CHEE 5383 - Advanced Unit Operations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Senior standing in chemical engineering or consent of instructor.
Description
Property prediction of multicomponent fluids. Advanced principles of heat exchanger design, multicomponent fractionation, absorption, stripping and extraction.

CHEE 5384 - Petrochemical Processes
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 3332 and senior standing or consent of instructor.
Description
Petrochemical industry in terms of feedstocks, products, companies and trends. Technology, markets, and economics for the major building blocks and derivatives.

CHEE 5386 - Air Pollution Problems and Control
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of instructor.
Description
Air pollutant identification and control technology; estimation of pollutant transport, dispersion, and conversion; computer application for design of control units.

CHEE 5388 - Catalytic Processes
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Credit for or concurrent enrollment in CHEE 4321 and CHEE 4367.
Description
Process-oriented survey of catalytic technology; catalyst selection and design; catalytic processes, engineering and economics in the petroleum, chemical, and pollution control industries.

CHEE 5390 - Energy and the Environment
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly CHEE 6390

Prerequisite: credit for or concurrent enrollment in CHEE 4321 and CHEE 4367.

Description
This course surveys modern energy technologies and their impact on the environment. Topics include energy generation from fossil, nuclear, and renewable sources. Energy utilization covers stationary and transportation applications. Optimization of source-to-consumer efficiencies and minimization of emissions are included, with special emphasis on emerging technologies such as fuel cells. Capstone topics for the course are future developments in the hydrogen economy and the technical-economic-social aspects of global warming.

CHEE 5393 - Cellular and Biological Transport Phenomena
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: BIOE 3341 or CHEE 3363 or equivalent.

Description
Basic cell biology and biophysical chemistry principles related to quantitative analysis of transport phenomena and chemical reactions. Credit may not be received for more than one CHEE 5393.

CHEE 5397 - Selected Topics
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Note: May be repeated for credit when topics vary.

Additional Fee Y

Chemistry

CHEM 1101 - Foundations of Chemistry Laboratory
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Formerly CHEM 2115

Prerequisite: credit for or concurrent enrollment in CHEM 1301.

Description
Credit may not be applied toward a degree for both CHEM 1101 and CHEM 1111 or CHEM 1117. Introductory laboratory illustrating principles of chemistry.

CHEM 1111 - Fundamentals of Chemistry Laboratory
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Prerequisite: credit for or concurrent enrollment in CHEM 1331.

Description
Credit may not be applied toward a degree for both CHEM 1111 and CHEM 1117. Illustrates and reinforces principles and concepts by use of qualitative and quantitative experiments, emphasizing interpretation and reporting of data and facility in handling scientific instruments. TCCNS Equivalent: CHEM 1111

CHEM 1112 - Fundamentals of Chemistry Laboratory
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Prerequisite: CHEM 1111 and credit for or concurrent enrollment in CHEM 1332.

Description
Credit may not be applied toward a degree for both CHEM 1112 and CHEM 1101. Illustrates and reinforces principles and concepts by use of qualitative and quantitative experiments, emphasizing interpretation and reporting of data and facility in handling scientific instruments. TCCNS Equivalent: CHEM 1112

CHEM 1301 - Foundations of Chemistry
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly CHEM 2335

Prerequisite: credit for or concurrent enrollment in MATH 1310 or MATH 1311.

Description
Concepts and principles of chemistry.

Note: Credit may not be applied toward a degree for both CHEM 1301 and CHEM 1331 or CHEM 1372.

Core Category: [30] Life & Physical Sciences

TCCNS Equivalent: CHEM 1306
CHEM 1331 - Fundamentals of Chemistry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1330 or equivalent.
Description
General principles, fundamental laws, atomic & molecular structure, states of matter, & elementary inorganic, nuclear & organic chemistry.
Note: For science and engineering majors. May not be applied toward a degree until CHEM 1111 is successfully completed. Credit may not be applied to a degree for both CHEM 1331 and CHEM 1301 or CHEM 1372.
Core Category: [30] Life & Physical Sciences
TCCNS Equivalent: 1311
Additional Fee Y

CHEM 1332 - Fundamentals of Chemistry 2
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1330 or equivalent and CHEM 1331.
Description
General principles, fundamental laws, equilibrium, kinetics, electrochemistry, and elementary inorganic, nuclear, and organic chemistry.
Note: For science and engineering majors. May not be applied toward a degree until CHEM 1112 is successfully completed. Credit may not be applied to a degree for both CHEM 1332 and CHEM 1301.
Core Category: [30] Life & Physical Sciences
TCCNS Equivalent: CHEM 1312

CHEM 2133 - Inorganic Chemistry Laboratory I
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in CHEM 2233.
Description
Illustrates and reinforces principal concepts and reactions of inorganic chemistry. May not be applied toward degree until CHEM 2133 is successfully completed.

CHEM 2233 - Inorganic Chemistry I
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: CHEM 1112 and CHEM 1332 with grades of at least C-.
Description
Chemical properties of atoms and elements. Categories of compounds of Main Group and d-block elements including hydrides, oxides, hydroxides, halides, and others. Syntheses, reactions, and aspects of systematic chemistry. Introduction to the biochemistry of inorganic compounds. May not apply toward degree until CHEM 2133 is successfully completed.

CHEM 3119 - Analytical Chemistry Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 4  Prerequisite: credit for or concurrent enrollment in CHEM 3369.
Description
For science majors only. May not apply toward degree until CHEM 3369 is successfully completed. Laboratory methods in analytical chemistry, including quantitative separation techniques, electrochemistry, and absorption spectroscopy.

CHEM 3131 - Problem Solving in Organic Chemistry I
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Concurrent enrollment in CHEM 3331. May not be applied toward a major in chemistry.
Description
Development of problem-solving skills for CHEM 3331 in small groups.

CHEM 3132 - Problem Solving in Organic Chemistry II
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: concurrent enrollment in CHEM 3332.
Description
Development of problem-solving skills for CHEM 3332 in small groups. May not be applied toward a major in chemistry.

CHEM 3221 - Fundamentals of Organic Chemistry Laboratory
CHEM 3222 - Fundamentals of Organic Chemistry Laboratory
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: CHEM 3221 and CHEM 1112 and credit for or concurrent enrollment in CHEM 3332.
Description
Syntheses, reaction mechanisms, and qualitative organic analysis.

CHEM 3331 - Fundamentals of Organic Chemistry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 1332.
Description
May not apply toward degree until CHEM 3221 is successfully completed. Chemistry of the compounds of carbon with emphasis on energies and mechanism of reactions, synthesis, and the structure of organic molecules.

CHEM 3332 - Fundamentals of Organic Chemistry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 3331 and CHEM 1332.
Description
May not apply toward degree until CHEM 3222 is successfully completed. Chemistry of the compounds of carbon with emphasis on energies and mechanism of reactions, synthesis, and the structure of organic molecules.

CHEM 3336 - Organic Chemistry of Biological Molecules
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 3332.
Description
A study of the fundamental organic chemistry of biologically important molecules. The structural analysis and synthesis of carbohydrates, lipids, peptides, nucleotides, and related molecules; structure-function relationships and bio-organic reaction mechanisms.

CHEM 3369 - Analytical Chemistry 1
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 3221 and CHEM 3331. MATH 1432 and PHYS 1312 also strongly recommended.
Description
Modern analytical chemistry, including separation methods and quantitative chemistry; introduction to methods of analysis in electrochemistry, absorption, and emission spectroscopy.
Note: May not apply toward degree until CHEM 3119 is successfully completed.

CHEM 3396 - Senior Research Project
Credit Hours: 3.0
Prerequisite: approval of the chair.
Description
Directed research project culminating in a departmentally approved report.

CHEM 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.

CHEM 4115 - Inorganic Chemistry Laboratory II
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 4  Prerequisite: credit for or concurrent enrollment in CHEM 4365.
Description
Synthesis and characterization of inorganic compounds.

CHEM 4151 - Chemistry Internship
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: CHEM major with junior standing or higher and prior written approval of Department Chair or designee.

Description
Enhancement of concepts and techniques learned in the classroom and laboratory through work experience directly related to the chemistry profession. Employer evaluation and written report required.

CHEM 4229 - Instrumental Methods of Analysis Laboratory
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: CHEM 3119 and CHEM 3369; or equivalent.

Description
Credit for or concurrent enrollment in CHEM 4369. Advanced laboratory exercises in optical, electroanalytical, and chromatographic methods of analysis.

CHEM 4270 - Physical Chemistry Laboratory I
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 4  Prerequisite: CHEM 3119 or CHEM 3222 and credit for or concurrent enrollment in CHEM 4370.

Description
Experimental determination of thermodynamic and colligative properties of matter. Uses of digital computers and computer graphics in the laboratory. Written reports in standard professional formats.

CHEM 4272 - Physical Chemistry Laboratory II
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 4  Prerequisite: credit for or concurrent enrollment in CHEM 4372.

Description
Experimental determination of molecular structures via kinetic properties, spectroscopic properties and other instrumental methods. Uses of computers and computer graphics in the laboratory. Written reports in standard professional formats.

CHEM 4330 - Polymer Chemistry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 3222 and CHEM 3332.

Description
Principles of polymerization and degradation, characterization, morphology, rheology, and properties of organic macromolecules.

CHEM 4336 - Fundamental Biochemistry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 3222, CHEM 3332, and CHEM 4372.

Description
Credit may not be received for both CHEM 4336 and BCHS 3304 or BCHS 3305. Organic and physical chemistry of biological molecules, metabolic pathways, and control mechanisms; organization of living cells.

CHEM 4340 - Research Methods
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CUIN 3351 and one of CHEM 1111, CHEM 1117; BIOL 1161, BIOL 1162; PHYS 1101, PHYS 1121 or equivalent, or consent of instructor.

Description
Students perform four independent inquiries, combining skills from mathematics and science to solve research problems. Credit may not be received for CHEM 4340 and PHYS 4340 or BIOL 4340.

CHEM 4364 - Advanced Organic Chemistry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 3222, CHEM 3332, and credit for or concurrent enrollment in CHEM 4372.

Description
Applications of physical principles of organic chemistry, including study of reaction mechanisms, structure determination, and design in syntheses.

CHEM 4365 - Inorganic Chemistry II
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: completion of CHEM 2233, CHEM 2133 and CHEM 4372 with a grade of at least C-.

Description

CHEM 4369 - Analytical Chemistry II
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEM 3119 and CHEM 3369, or equivalent.

Description
Theory of optical, electroanalytical, and chromatographic methods of analysis, including electronic aspects of modern instrumentation.

Note: May not apply toward degree until CHEM 4229 is successfully completed.

CHEM 4370 - Physical Chemistry I
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Credit for or concurrent enrollment in MATH 3321, PHYS 1322, and CHEM 3332.

Description
The gaseous state, thermodynamics, chemical equilibria, change of state, solutions, electrochemistry, and atomic and molecular structure.

Note: Credit may not be received for both CHEM 4370 and 4373.

CHEM 4372 - Physical Chemistry II
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Credit for or concurrent enrollment in MATH 3321, PHYS 1322, and CHEM 3332.

Description
Spectroscopy, kinetic theory, chemical kinetics, photochemistry, introductory quantum chemistry, crystalline and liquid states.

Note: May not apply toward degree until CHEM 4272, or equivalent has been successfully completed.

CHEM 4373 - Survey of Physical Chemistry
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CHEM 3221, CHEM 3331, and MATH 1432.

Description
States of matter, thermodynamics, equilibria, kinetics, solutions, and molecular structure including biological applications.

Note: Credit may not be received for both CHEM 4370 and CHEM 4373.

CHEM 4396 - Research Project
Credit Hours: 3.0  
Prerequisite: CHEM 3396 and approval of the chair.

Description
Directed research project culminating in a departmentally approved report.

CHEM 4397 - Selected Topics in Chemistry
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: approval of department chair.

May be repeated for credit when topics vary.

CHEM 4398 - Independent Study
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: Cr. 3 per semester or more by concurrent enrollment. Prerequisites: CHEM 4370 or CHEM 4373, consent of instructor, and approval of chair.

CHEM 4399 - Senior Honors Thesis
Credit Hours: 3.0  
Prerequisite: CHEM 3399 and approval of department chair.
CHNS 1198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: Cr. 1 or more by concurrent enrollment. Prerequisite: approval of instructor.

CHNS 1209 - Chinese Calligraphy
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Description
Techniques of writing Chinese characters with a brush-pen. Integrates the Chinese language and culture by studying the formation of characters, and basic styles of Chinese calligraphy. Taught in English.

CHNS 1298 - Independent Study
Credit Hours: 2.0
Prerequisite: approval of instructor.

CHNS 1309 - Chinese Writing and Calligraphy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: None.
Description
Integrates the Chinese language and culture by studying the formation and development of characters, and basic styles of Chinese calligraphy. Techniques of writing Chinese characters with a brush-pen.
Note: Taught in English.

CHNS 1398 - Independent Study
Credit Hours: 3.0
Prerequisite: approval of instructor.

CHNS 1501 - Elementary Chinese I
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Description
Restricted to nonnative speakers of Chinese. Introduction to modern spoken and written Mandarin Chinese. Emphasis on oral skills with initial presentation of the written language.
TCCNS Equivalent: CHIN 1511

CHNS 1502 - Elementary Chinese II
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: completion of CHNS 1501 with a minimum grade of C- in twelve months immediately prior to enrollment or placement by examination immediately prior to enrollment.
Description
Restricted to nonnative speakers of Chinese. Introduction to modern spoken and written Mandarin Chinese.
TCCNS Equivalent: CHIN 1512

CHNS 2198 - Special Problems
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0

CHNS 2207 - Conversational Chinese I
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Prerequisite: CHNS 1501 or equivalent.
Description
Students will develop communicative competence. Trains listening and speaking skills. Students will use cognitive strategies and learning skills in their listening comprehension and expression. Use of Chinese language functionally in daily situations.

CHNS 2208 - Conversational Chinese II
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Prerequisite: CHNS 2207 or consent of instructor.
Description
Students will develop communicative competence. Trains listening and speaking skills. Students will use cognitive strategies and learning skills in their listening comprehension and expression. Use of Chinese language functionally in daily situations.

CHNS 2298 - Independent Study
Credit Hours: 2.0
Prerequisite: approval of department chair.

CHNS 2301 - Intermediate Chinese I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: completion of CHNS 1502 completed with minimum grade of C- in 12 months immediately prior to enrollment or placement by examination immediately prior to enrollment.
Description
Restricted to nonnative speakers of Chinese. Introduction to modern spoken and written Mandarin Chinese.
TCCNS Equivalent: CHIN 2311

CHNS 2302 - Intermediate Chinese II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: completion of CHNS 2301 with a minimum grade of C- in twelve months immediately prior to enrollment or placement by examination immediately prior to enrollment.
Description
Restricted to nonnative speakers of Chinese. Introduction to modern spoken and written Mandarin Chinese. Continued development of oral skills with increased emphasis on the written language.
TCCNS Equivalent: CHIN 2312

CHNS 2398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: Cr. 3 per semester or more by concurrent enrollment. Prerequisite: approval of chair.

CHNS 3198 - Special Problems
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0

CHNS 3298 - Independent Study
Credit Hours: 2.0
Prerequisite: approval of department chair.

CHNS 3301 - Advanced Mandarin Chinese I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: CHNS 2302 with a minimum grade of C- in twelve months immediately prior to enrollment or placement by examination immediately prior to enrollment.
Description
Continued development of communication skills of listening, speaking, reading, writing, and cultural understanding.
Note: Restricted to nonnative speakers of Mandarin Chinese.

CHNS 3302 - Advanced Mandarin Chinese II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: CHNS 3301.
Description
Continued development of communication skills of listening, speaking, reading, writing, and cultural understanding.

CHNS 3303 - Readings in Modern Chinese
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: placement by examination immediately prior to enrollment or consent of instructor.
Description
CHNS 3304 - Business Chinese
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHNS 2302 or consent of instructor.
Description
Oral and written communication with attention to contemporary business practices in China.

CHNS 3305 - Survey of Chinese Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: placement by examination or consent of instructor.
Description

CHNS 3342 - Tales of East Asian Cities
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
An examination of the literary and visual representations of various cities in East Asia: Shanghai, Beijing, Hong Kong, Taipei, Tokyo and Seoul. Through close analyses of the fiction, films, and photographs that illuminate East Asian urbanism, we will extensively discuss the cultural representations of East Asian metropolises. Taught in English.

CHNS 3343 - Chinese Popular Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Through discussing contemporary film, music, performance, fashion, art and internet culture, this course explores the changing role of socialist politics, the rise of consumerism, and China’s global cultural significance in the contemporary world. Taught in English.

CHNS 3344 - Modern and Contemporary Global Chinese Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
This course introduces students to the canon of Chinese literature, and traces the social-political and cultural transformation of Chinese societies and the global Chinese diaspora through literature. Taught in English.

CHNS 3350 - Chinese Culture Through Films
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Satisfies three hours requirement for the Minor in Chinese studies. May not apply as foreign language credit. Reading film critics and viewing Chinese films produced in contemporary China within the historical, cultural, thematic, and aesthetic content. Taught in English.

CHNS 3352 - Chinese Culture and Society Through Modern Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Readings of the most important literary works from the 1919 May 4th Movement to the 1970’s.
Note: Taught in English. May not apply as foreign language credit.
Core Category: [40] Language, Philosophy, & Culture

CHNS 3354 - Chinese Culture and Language
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 and ENGL 1304.
Description
Taught in English. Readings and discussions on Chinese language, culture and interactions between the language and the culture from the perspectives of history, geography, and linguistics.
CHNS 3359 - Chinese Culture through History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304. This course is restricted to students in the Chinese study abroad program.
Description
Studies of Chinese culture and history via course readings, Chinese museums and historical sites in China.
Note: Taught in English. May not apply as foreign language credit.

CHNS 3360 - A Look Into Modern China
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
China's transformation in the last two decades and its understanding of modernity. Novels, essays, journals and films reveal conflicts between conventional Chinese values and modern legal systems, economic development and traditional living.
Note: Taught in English.
Core Category: [40] Language, Philosophy, & Culture

CHNS 3396 - Selected Topics
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing.
Description
Topics on Chinese language, literature, and culture. May be repeated for credit when topics vary.
Note: May be repeated for credit when topics vary.

CHNS 3398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Cr. 3 per semester or more by concurrent enrollment. Prerequisite: approval of chair.

CHNS 4301 - Public Speaking in Chinese
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHNS 3301 or equivalent.
Description
Includes giving an opinion, negotiating meanings, debates, proposals, and oral narrations. Designed for both heritage or nonheritage students of Chinese.

CHNS 4302 - Integrated Chinese
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHNS 3301 or equivalent.
Description
Emphasizing four skills of listening, speaking, reading, and writing. Students receive language input through reading, produce their output through conversation and composition. Designed for both heritage or nonheritage students of Chinese.

CHNS 4364 - Issues in Chinese Language and Linguistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303, CHNS 1501, and CHNS 1502.
Description
Issues of Chinese language and linguistics that will enhance appreciation of Chinese culture through analysis of language and linguistics. Taught in English.

CHNS 4371 - Principles of Teaching Chinese
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHNS 2302 or consent of the instructor.
Description
Techniques for structuring Chinese classes, lesson planning, and curriculum implementation. Taught in English.

CHNS 4372 - Studies of Chinese Language Acquisition
CHNS 4396 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHNS 2302 or consent of the instructor.
Description
Methods of teaching and strategies for learning Chinese as a second language. Readings include current research on second language theory acquisition and practices. Taught in English.

CHNS 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: senior standing.
Description
Topics on Chinese language, literature, and culture. May be repeated for credit when topics vary.

Civil and Environmental Engineering

CIVE 2330 - Mechanics I (Statics)
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHYS 1321 and credit for or concurrent enrollment in ENGI 1331 and MATH 2433.
Description
Fundamentals of vector mechanics applied to systems of forces, resultants, free body diagrams, equilibrium and analysis of frames and other structures. Centroids of areas and mass, moments of inertia.

CIVE 2332 - Mechanics of Solids
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CIVE 2330, MATH 2433, and credit for or concurrent enrollment in MECT 3341.
Description
Stress and strain in elastic bodies; statically determinate and indeterminate members; axial force, shear, moment and torsion; beam deflections; columns; combined stresses.

CIVE 3331 - Environmental Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 1332 and CHEM 1112, or CHEM 1372 and CHEM 1117, CIVE 2330, and credit for or concurrent enrollment in ENGI 2334.
Description
Introduction to air, water, and environmental pollutants, and concepts of design for treatment.

CIVE 3332 - Engineering Materials
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: CIVE 2332 and ENGI 2304.
Description
Analysis of properties of solid materials related to engineering design, introduction to metallurgical processes, and materials testing.

CIVE 3337 - Structural Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CIVE 2332.
Description
Structural analysis of determinate and indeterminate trusses, beams and frames; influence lines; deflections.

CIVE 3339 - Geotechnical Engineering
CIVE 3380 - Fundamentals of Plane Surveying
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: CIVE 2332, ENGI 2304, and credit for or concurrent enrollment in MATH 3321.
Description
Principles of solid and fluid mechanics applied to soils. Physical-chemical and mechanical properties of soils and introduction to geotechnical engineering concepts.

CIVE 3332 - Hydrology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CIVE 3432.
Description
Hydrologic cycle, rainfall and runoff, water losses, snowmelt, ground water, unit hydrograph, floods and flood routing, stream flow records, reservoir design, and sedimentation.

CIVE 3434 - Fluid Mechanics and Hydraulic Engineering
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: CIVE 2331 or MECE 3336, ENGI 2304, MATH 3321 and credit for or concurrent enrollment in CIVE 2332 and ENGI 2334.
Description
Fluid properties, hydrostatics, basic equations of fluid mechanics, inviscid and viscous flows, flow through pipes, pipeline systems, and open channel flow.

CIVE 4311 - Professional Practice in Civil Engineering
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Two CIVE 3000 level courses and ENGI 2304.
Description
Professional practice in civil engineering including ethics, professional responsibility and licensure; legal issues; business and management principles; leadership; public policy concerns.

CIVE 4312 - Civil Engineering Design Project
Credit Hours: 3.0
Lecture Contact Hours: 1  Lab Contact Hours: 6  Prerequisite: CIVE 4311, CIVE 4332, CIVE 4333, CIVE 4363, CIVE 4369, and INDE 2333.
Description
Capstone design project. Includes constraints such as economic, environmental, social, political, ethical, health and safety, constructability, and sustainability.

CIVE 4332 - Water and Wastewater Treatment
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CIVE 3331 and CIVE 3434.
Description
Principles of municipal water and wastewater treatment processes.

CIVE 4337 - Transportation Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 2333 and two CIVE 3000 level courses.
Description
Introduction to transportation engineering, emphasizing highway engineering, including geometric design, traffic engineering, transportation planning, and safety.

CIVE 4363 - Concrete Design
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** CIVE 3332 and CIVE 3337.  
**Description**  
Analysis and design of concrete structures and their components.

**CIVE 4364 - Structural Steel Design**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** CIVE 3332 and CIVE 3337.  
**Description**  
Analysis and design of steel structures and their components.

**CIVE 4369 - Foundation Engineering**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** CIVE 3339 and credit for or concurrent enrollment in CIVE 4363.  
**Description**  
Applications of soil mechanics principles to foundation engineering. Exploration techniques, foundation selection criteria, design principles, and construction methods.

**CIVE 4381 - Advanced Geomatics and Geosensing**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** CIVE 3380  
**Description**  
Horizontal and vertical curve computation; Lambert, Transverse and Universal Mercator projections; geodetic and state place coordinate conversions; adjustment in state plane coordinates; geometric geodesy; horizontal and vertical datums; geodetic computations; GPS.

**CIVE 4382 - Legal Principles and Boundary Surveying**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** CIVE 3380 and ENGL 1304.  
**Description**  
Land surveying practice and legal principles of boundary survey of real property; lot survey; property descriptions, sectional survey; the water boundary survey; United State Public Land Survey System, metes and bounds, riparian and mineral rights surveys.

**CIVE 4397 - Selected Topics**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** None.  
May be repeated for credit when topics vary.  
**Note:** May be repeated for credit when topics vary.

**CIVE 4398 - Independent Study**  
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
**Prerequisite:** approval of department chair.

**CIVE 5362 - Water Quality Engineering**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Formerly:** CIVE 4331 Water Quality Engineering  
**Prerequisite:** CIVE 3331 and credit for or concurrent enrollment in CIVE 3434.  
**Description**  
Environmental chemistry and biology applications and implications to engineered and natural waters. Emphasis on physical, chemical, and biological characteristics of water and analytical methods for water quality management.

**CIVE 5375 - Digital Photogrammetry**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** CIVE 4381 and COSC 1304, C Programming, COSC 1305, C++ Programming, COSC 1410 Introduction to Computer Science 1, COSC 1430 Introduction to Programming, ENGI 1331 Computing for Engineers, or other programming course approved by instructor.  
**Description**
Principles of photography and image measurement techniques; fundamentals of image coordinates to ground coordinates; digital photography and mapping, orthophotography, structure from motion.

**CIVE 5380 - Introduction to Geomatics and Geosensing**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Two CIVE 3000 level courses or consent of instructor.
Description
Introduction to plane surveying and differential leveling; horizontal and vertical curves computation; fundamentals of geodesy and map projection; Global Positioning System (GPS); principles of LiDAR and remote sensing.

**CIVE 5386 - Survey Measurements & Analysis**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CIVE 4381.
Description
Matrices; non-linear equations and Taylor's theorem; random vs. systematic errors; propagation of errors; weights; principle of least squares, adjustment of a 1D, 2D, and 3D network; error ellipses; optimization.

**CIVE 5388 - Hazardous Waste Processes**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CIVE 4333.
Description
Physical and chemical principles of solid and hazardous waste treatment processes; mass conservation equations, transport phenomena, phase equilibria, fluid flow in porous media with applications to soil vapor extraction, soil vapor extraction, soil leaching/flushing, stabilization, and bioremediation processes.

**CIVE 5397 - Selected Topics**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  May be repeated for credit when topics vary.
Note: May be repeated for credit when topics vary.

**Classical Studies**

**CLAS 2366 - Who Owns Antiquity? The Battle Over Our Cultural Heritage**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Current controversies surrounding the ethics of cultural property together with an exploration of why history matters to us, what purposes historical narratives and artifacts serve, who gets to interpret them, and why.

**CLAS 3307 - Greek and Roman Myths of Heroes**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
The concept of the hero in ancient Greek culture with comparative consideration of Rome and other cultures.
Note: Taught in English.
Core Category: [40] Language, Philosophy, & Culture

**CLAS 3308 - Myths and Cult of the Greek Gods**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CLAS 3307 Myths and Cult of Ancient Gods  Prerequisite: ENGL 1304.
Description
Religious narratives, beliefs, and rituals in ancient Greek culture with comparative consideration of Rome and other cultures.
Note: Taught in English.
Core Category: [40] Language, Philosophy, & Culture
CLAS 3341 - The Roman Republic
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Social, political, and cultural history of Rome, from its foundation to the Fall of the Republic, 753-27BCE. Taught in English.

CLAS 3345 - Myth and Performance in Greek Tragedy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
The reshaping of myths in tragedies performed in the fifth century BCE and in modern productions of those plays. Critical appraisal of text and performance in the respective cultural contexts.
Core Category: [50] Creative Arts

CLAS 3350 - Law and Society in Ancient Rome
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL1304.
Description
A survey of key Roman legal ideas and texts from the archaic period to the late Republic and early Empire. Special attention paid to the law's relation to Rome's religion and changing social and political structures. Through Cicero the course explores the situation of the practicing advocate in complicated times. Ends with a look at later Roman jurisprudence.

CLAS 3366 - The Trojan War
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CLAS 3366 Greek Art and Archaeology: In Search of the Trojan War  Prerequisite: ENGL 1304.
Description
Survey of ancient Greek art and archaeology connected to the Trojan War from the Bronze Age to the Classical Period with emphasis on its relationship to traditional myths and Classical literature.
Core Category: [40] Language, Philosophy, & Culture

CLAS 3371 - Ancient Comedy and Its Influence
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Comic drama from its origins in ancient Greece, to its Roman transformation, ending with its Renaissance adaptions. Readings from Aristophanes, Menander, Plautus, Terence, Machiavelli, and Shakespeare. Taught in English.

CLAS 3373 - Ancient Satire & Its Influence
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

CLAS 3374 - Women in the Ancient World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Women's lives from the Graeco-Roman world. Analysis and comparisons of literary texts and archeological evidence in their cultural and historical context.
Note: Taught in English.
Core Category: [40] Language, Philosophy, & Culture

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Political and social interactions of religions in the Roman Empire ca. 31 BC to 150 A.D. Special focus on emperor worship, Second Temple Judaism and the Jewish War of 66-70, and the early Jesus movement. Taught in English.
CLAS 3380 - Epic Masculinity: Ideologies of Manhood in Ancient Epic and Modern Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Ideologies of masculinity in ancient Greek and Roman epic as compared to modern cinema (e.g., Spartacus, Gladiator, and Braveheart). Taught in English.

CLAS 3381 - From Homer to Hollywood: Archaic and Classical Greek Themes in Modern Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CLAS 3381 From Homer to Hollywood: Ancient Greek Themes in the Modern Cinema
Prerequisite: ENGL 1304.
Description
Examination of the way modern cinema adapts themes from Greek literature and uses them to explore modern conflict.
Note: Taught in English.
Core Category: [50] Creative Arts

CLAS 3397 - Sel Topics Gr & Rom Civ
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: sophomore standing.
Description
May not apply toward foreign language requirement. Topics from the literature, art, philosophy, religion, and culture of ancient Greece and Rome. May be repeated for credit when topics vary. Taught in English.

CLAS 3398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair. May be repeated for credit when topics vary.

CLAS 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: permission of Director of Classical Studies.
Description
Independent research and writing for the senior honors thesis.

CLAS 4305 - Fifth-Century Athens: Readings in Intellectual, Literary, and Political History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Overview of intellectual trends and political history of fifth-century BCE Athens. Topics include the development of Democracy, birth of tragedy, Persian Wars, Athenian Empire, court system, Peloponnesian Wars, and death of Socrates.
Core Category: [81] Writing in the Disciplines

CLAS 4350 - Age of Augustus
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Exploration of the political, literary, architectural, and artistic changes introduced during the reign of Caesar Augustus, first Emperor of Rome (27BC - 14AD). Taught in English.

CLAS 4353 - Classics and Modernity: The Uses of Antiquity in Modern and Postmodern Contexts
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Use of ancient Greek and Roman concepts by modern and postmodern thinkers, artists, and authors.

CLAS 4370 - Comparative Epic
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly CLAS 3370
Prerequisite: ENGL 1304 and junior standing.

Description
Epic poetry from ancient Greece and Rome with a comparative approach drawing on other cultures, including the ancient Near East, the Hebrew Bible, medieval Europe, and/or modern oral epic traditions. Taught in English.

CLAS 4374 - Sex and Gender in Antiquity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and junior standing.

Description
Issues of sex and gender in ancient Greece and Rome through the study of literature, art, and science.

CLAS 4375 - Gender and Race in Greek Myths
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
Credit for CLAS 4375 may not be applied toward a degree by students who have credit for CLAS 3306. May not apply toward foreign language requirement. Greek myths and rituals, focusing on dynamics of exclusion that parallel modern definitions of ethnicity and gender. Taught in English.

CLAS 4380 - Greek Classics in Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

CLAS 4381 - Latin Classics in Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly (also ENGL 4381)
Prerequisite: ENGL 1304.

Description
Works of Latin literature read in conjunction with modern text inspired by them.

Core Category: [81] Writing in the Disciplines

CLAS 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Cr. 3. Prerequisite: approval of chair. May be repeated for credit when topics vary.

CLAS 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: permission of Director of Classical Studies

Description
Independent research and writing for the senior honors thesis.

College Of Liberal Arts and Social Sciences

LACP 2111 - Liberal Arts Career Planning
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.

Description
Self-marketing strategies to support the development of career skills for CLASS majors. Includes career exploration activities, guided practice, and engaged learning. Understanding the job search process, interviewing strategies, and the types of fields that are available to the wide range of CLASS majors. Students interact with professionals from their areas of interest and learn how to maximize professional relationships. CLASS students will learn how to develop their brand, to identify and research careers and specific positions that meet their interests and skills, and to mobilize networking in their job search.

Communication

COMM 1301 - Media and Society
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Declared Communication major or minor.

Description
Consumer oriented study of mass communications. Provides overview of media structures, media messages, mass audiences, and impact of media on society.

TCCNS Equivalent: COMM 1307

**COMM 1302 - Intro To Comm Theory**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: credit for or concurrent enrollment in ENGL 1303.

Description
Perspectives in communication theory and process.

**COMM 1303 - Writing for Communicators**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: None.

Description
Students learn the form and style of writing needed to tell organizational stories to diverse audiences whose time and attention are limited. Emphasis is on creating copy that is both clear and interesting. Reviews of grammar, punctuation, spelling, sentence and paragraph construction rules are included in the course curriculum.

**COMM 1333 - Interpersonal Communication**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0

Description
Theories and research relating to the initiation, growth, and deterioration of interpersonal relationships in contemporary society.

TCCNS Equivalent: SPCH 1318

**COMM 2300 - Communication Research Methods**
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 1310, MATH 1311, MATH 1312 or MATH 2311.

Description
Social science and qualitative research methods in communication: problem formation, hypothesis testing and theory building; fundamentals of measurement; research designs and approaches; data collection and analysis; and ethics in academic and professional applications.

**COMM 2310 - Writing for Print and Digital Media**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: COMM 1301, COMM 1303, ENGL 1304, HIST 1378 or HIST1379, and POLS 1337.

Description
Teaches cognitive and mechanical skills required to produce news, public relations, and advertising messages on deadline that are ethical, clear, concise, complete, compelling, and accurate. Students learn to gather information from online and traditional sources.

TCCNS Equivalent: COMM 2311

**COMM 2320 - Fundamentals of Media Production**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: COMM 1301, COMM 1303, HIST 1378 or HIST 1379, and POLS 1337.

Description
Fundamentals of current and emerging production techniques in media industries.

**COMM 2322 - Television Production I**
Credit Hours: 3.0  
Lecture Contact Hours: 2.0  
Lab Contact Hours: 3.0  
Prerequisite: COMM 2320.

Description
Application of professional video techniques in programming. Emphasis on studio operation.

**COMM 2326 - Introduction to Sports Broadcasting**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 and COMM 1303 or consent of instructor.

Description
Interactive study of 21st century sports broadcasting, including local high school sports live coverage.

Note: Equipment needed: A digital audio tape recorder or other device for audio recording, microphone optional but recommended (cell phones will work). Students must be able to travel to games.

Additional Fee N

COMM 2327 - Introduction to Screen Writing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301, COMM 1303, ENGL 1304, HIST 1378 or HIST 1379, POLS 1337.

Description
Introduction to the basics of dramatic structure and storytelling for film, television and/or digital productions. Students receive guidelines for writing professionally formatted dramatic scripts. Final assignment will be a feature-length script or two scripts for dramatic shorts, suitable for student or professional projects, submissions to screenwriting competitions and/or writing samples when applying for graduate programs.

Additional Fee N

COMM 2328 - Broadcast Writing Basics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301, COMM 1303, ENGL 1304, HIST 1378 or HIST 1379, POLS 1337.

Description
Script writing for broadcast media.

Additional Fee Y

COMM 2331 - Relational Communication
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 1301, COMM 1333 or consent of instructor.

Description
Current research and theories concerning communication processes and dynamics involved in personal and professional relationships.

COMM 2356 - Business & Professional Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301, COMM 1303, ENGL 1304, or consent of instructor.

Description
Communication activities for business and professional settings with emphasis on emails, texts, posts, memos, letters and reports, how to make presentations and how to interact with peers and supervisors appropriately.

Additional Fee N

COMM 2370 - Introduction to Motion Pictures
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Introduction to the art, technology, economics, and social aspects of film.

COMM 2371 - Media, Sports and Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 and COMM 1303.

Description
Examination of the impact of culture on sports and the role that sports media play in shaping social values. Students will analyze and produce sports media using a cultural lense.

Additional Fee N

COMM 2383 - Food As Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.

Description
Exploration of the ways food functions symbolically and materially as a communicative practice, and how we can examine those stories and then communicate them in a meaningful manner.
COMM 3300 - Health Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly COMM 4333
Prerequisite: Junior standing or consent of instructor.
Description
Examination of the nature, contexts, theories, and selected research shaping health care consumers understanding of health communication issues.

COMM 3301 - Doctor-Patient Interaction
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or consent of instructor.
Description
Explores the nature of physician-patient interaction focusing on communication skills and advocacy development for both groups across the spectrum of healthcare delivery and examining selected theories.

COMM 3302 - E-Health and Telemedicine
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or consent of Instructor.
Description
Examination of how health information is communicated and disseminated through various technologies and delivery channels such as health internet sites, television programming, kiosks, and other related technology-based materials.

COMM 3303 - Health Literacy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or consent of instructor.
Description
The role of diverse communication skills and knowledge in making appropriate health decisions.

COMM 3304 - Multicultural Health Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or consent of instructor.
Description
Diverse ethnic meaning systems and their influences on health behaviors.

COMM 3306 - End of Life Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301, COMM 1333 or consent of instructor.
Description
Mature examination of communication issues related to death and dying.

COMM 3311 - Editing for Print and Digital Media
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 2310.
Description
Editing messages such as public relations, advertising, news, features for print, broadcast, digital media; headline and caption writing; introduction to publication design; photo use and cropping; graphics, visuals.

COMM 3312 - Global Journalism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 or consent of instructor.
Description
Learn about the practice and future of journalism across the globe as you learn how reporting is impacted by different political systems and how new, transnational media outlets have emerged. Students will also learn about foreign reporting, what it entails to live abroad while working for a U.S. media organization.

COMM 3313 - Data Journalism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 and either COMM 2310 or COMM 2328.
Description
This hands-on course will introduce students to all phases of data journalism, including finding and evaluating data sources, analyzing and organizing data, reporting with numbers, and visualizing data. Moreover, students will learn skills in spreadsheet and database operation, data analysis software and data visualization.

COMM 3314 - Intermediate Writing and Reporting
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: COMM 2310.
Description
Gathering and writing news with emphasis on publishing in the student newspaper.

COMM 3315 - News and Social Media
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 2310 or consent of instructor.
Description
Issues at the intersection of news and social media, including how social media is used to search and share news. Typically Offered: Fall & Spring

Additional Fee N

COMM 3316 - Electronic News
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 2310
Description
Theory and practice of assembling, writing, and presenting news for the electronic media.

COMM 3317 - Multimedia Journalism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 2310 or COMM 2327 or COMM 2328.
Description
Fundamentals of using multiple media to produce content for print, broadcast and online platforms.

COMM 3318 - Multimedia Storytelling
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301, 2320.
Description
Students will research a single topic and use various online tools to tell stories related to their topic that may incorporate images, video, sound, text, and audience participation.

COMM 3319 - Preproduction Management
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 2320.
Description
Principles of film and video preproduction and production management, including techniques of script breakdown, scheduling, budgeting, and producing of professional productions and student projects.

COMM 3320 - Audio Production
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 2320 or COMM 3317.
Description
Audio as a medium of influence and expression with applied emphasis on audio production techniques used in radio, TV/cable, and film industries.

COMM 3321 - Single Camera Studio Production
Credit Hours: 3.0
Lecture Contact Hours: 2.0  Lab Contact Hours: 3.0  Prerequisite: COMM 2322 and consent of instructor.
Description
Single camera film-style studio production as a medium of influence and expression with an emphasis on motion picture production techniques incorporated into a High Definition Video environment.

**COMM 3322 - Latino Journalism**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** COMM 2310 or consent of instructor.

**Description**
Discussion of theoretical approaches to Latino news focusing on news creation, production, circulation, distribution and representations. Student will practice newswriting skills, producing a course-long news package or digital writing portfolio.

**Additional Fee** Y

**COMM 3323 - Multimedia Production I**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** Junior standing in Communication.

**Description**
Fundamentals aspects of computer-based multimedia production for mass media and corporate applications.

**COMM 3324 - Photojournalism I**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Junior standing or consent of instructor.

**Description**
Techniques of taking and developing pictures for the mass media.

**COMM 3325 - Sports Journalism**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** COMM 3314, or consent of instructor.

**Description**
Sports broadcasting, reporting, and writing basics. Organizational structures of sports media organizations. Multimedia sports storytelling. Sports journalism ethics and theory.

**COMM 3326 - Graphics Applications**
Credit Hours: 3.0  
**Lecture Contact Hours:** 2.0  
**Lab Contact Hours:** 3.0  
**Prerequisite:** COMM 1301 and junior standing. For Communication majors and minors only.

**Description**
Application of computer graphics and type principles in print journalism, advertising, art, and public relations.

**COMM 3328 - Introduction to Sports Production**
Credit Hours: 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** COMM 2320 and COMM 2328.

**Description**
Teaches students how both remote and studio productions are produced, including Esports, streaming internet sports production.

**COMM 3329 - Media Performance**
Credit Hours: 3  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 3  
**Prerequisite:** COMM 2320, COMM 2322, and COMM 2327 or COMM 2328.

**Description**
Performance techniques for media professionals in news, information, commercial, and entertainment programming.

**COMM 3331 - Communication in the Family**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** COMM 1301 and COMM 1333, or consent of instructor.

**Description**
Theories and research covering communication in the development of the family with an emphasis on parent-child and sibling communication.

**COMM 3332 - Effective Meeting Management**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Junior standing or consent of instructor.
Description
Procedures for planning and conducting meetings, including large conventions, board meetings, and informal committees.

COMM 3340 - Health Campaigns
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing or consent of instructor.
Description
Selected health campaign exemplars and mass customization of multimedia messages to identified segments.

COMM 3349 - Nonverbal Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 or consent of instructor.
Description
Introduction to major codes of nonverbal communication within personal, interpersonal and professional contexts. The course will help students develop heightened awareness of the role of nonverbal features in human interaction and foster a deeper understanding of nonverbal messages across social contexts.

COMM 3350 - Media Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2305 or consent of instructor.
Description
Administration of media properties, government and labor relationships, financing, scheduling, sales, and taxation.

COMM 3352 - Small Group Process
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 2356 or consent of instructor.
Description
Principles of group dynamics with attention to problem-solving activities.
Additional Fee Y

COMM 3353 - Information & Communication Technologies I
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 1301.
Description
Internet and basic transactions across the World Wide Web in the convergent mass communication computing environment. Explores the intersection and implications of information and communication technologies.

COMM 3358 - Leadership Communication & Organizations
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 1301.
Description
Leadership communication in organizational contexts. Theories and types of leadership, power, influence, diversity, ethics, leadership development, and related communication behaviors and activities.

COMM 3359 - Sports Media & Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 and COMM 1303 or consent of the instructor.
Description
Examines the impact of social and digital media’s role in the marketing efforts of sports brands. Emphasis on how to strategically use social media to increase value for a sports brand, as well as on strategic collaboration, tactical execution and measurement of digital and social media efforts.
Additional Fee Y

COMM 3360 - Principles of Strategic Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 and Communication major or minor.
Description
Strategic communication principles, theories and techniques.

**Additional Fee** Y

**COMM 3361 - Advertising Copywriting**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
**Prerequisite:** COMM 2310 and Communication major or minor.

**Description**
Techniques of writing and developing advertisements for offline and online media.

**COMM 3363 - Global & Multicultural Advertising**
Credit Hours: 3.0
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** COMM 3360.

**Description**
Study of the major concepts of international advertising and their importance to global marketing and communication activities around the world, the history and current state of international and cross-cultural advertising practice, and the influence of cultural factors on international and cross-cultural advertising and communication practices.

**COMM 3367 - Student-Run Agency Experience**
Credit Hours: 3.0
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** COMM 2310, 3360 or 3368, or consent of instructor.

**Description**
Provides students the experience of operating a communication agency, including working with clients to meet their needs, strategic planning, creation and implementation of strategies and tactics. Additionally, students will manage agency policies and procedures, promotion, brand identity, website and other collateral materials.

**Note:** Course may be repeated once for credit.

**Additional Fee** N

**COMM 3368 - Principles of Public Relations**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
**Prerequisite:** COMM 2310 or consent of instructor.

**Description**
Public relations theories and techniques in business, government, and the social services.

**COMM 3369 - Strategic Communication Writing**
Credit Hours: 3.0
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** COMM 2310.

**Description**
Preparing memoranda, releases, reports, publicity features, public service announcements, speeches, and other specialized writing.

**Additional Fee** Y

**COMM 3370 - History of Cinema**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
**Prerequisite:** COMM 1301.

**Description**
The evolution of film form, content, technology, and economics with special emphasis on American films.

**COMM 3372 - Gender and Media**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
**Prerequisite:** COMM 1301 or consent of instructor.

**Description**
Examination of historical and current portrayals of gender and gender issues in communication media.

**COMM 3373 - Television: History and Culture**
Credit Hours: 3.0
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** COMM 1301.

**Description**
Study of the development history of television as a mass communication medium within the context of the modernization of American society and culture.

**COMM 3374 - Strategic Social Media**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 2310.
Description
Study of issues at the intersection of strategic communication and social media, including how social media is used by organizations and brands.

**COMM 3376 - Media Effects**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 1301 or consent of Instructor.
Description
Effects of media upon individuals, institutions, and societies through the literature of communication.

**COMM 3377 - Strategic Public Relations Planning**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 3360 or COMM 3368.
Description
Students will learn how to identify a public relations opportunity or problem, conduct research, and prepare a strategic plan designed to take advantage of the opportunity or to solve the problem.

**COMM 3380 - Electronic Field Production**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: COMM 2320 or COMM 3317.
Description
Single camera video production and electronic post-production theories and techniques applied to the creation of information and entertainment programs.

**COMM 3382 - Television II and Sports Production**
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: COMM 2322.
Description
Continuation of instruction on the tools and techniques of studio television and sports productions. The aesthetics of media production, especially in a studio environment, is stressed. Hands-on instruction in the television studio and production control room continues students' learning and performance of duties as Producers, Directors, Stage Managers, Camera Crew, Audio Operators, Lightning Crew, Control Room Crew and Grips both in television and sports production.

**Additional Fee Y**

**COMM 3383 - Non-linear Editing**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 2320 or COMM 3317.
Description
Introduction to computer-based non-linear editing using integrated software packages.

**COMM 3384 - The Media Industry**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 and COMM 1303.
Description
Examines the history, current state, and innerworkings of a specific segment of a media industry, such as film, journalism, public relations or advertising.
Note: Students will travel to a designated "hub city" for the specific industry during the course. Additional fees required.

**COMM 3385 - Communication Practicum Abroad**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 and instructor consent.
Description
Applies concepts and skills related to the field of communication in an international context. May be taken for credit twice for different programs. **Note:** Instructor consent required; extra fee for travel.

**COMM 3388 - Digital Media Entrepreneurship**
Credit Hours: 3.0
Lecture Contact Hours: 3
Lab Contact Hours: 0
**Prerequisite:** COMM 1301 and COMM 1303 or consent of instructor.

**Description**
Prepares students for a constantly evolving media field by grounding them in business dynamics and helping them recognize new opportunities in media industries. Students will gain skills in researching, developing, and launching a new digital media product or service.

**Additional Fee** N

**COMM 3399 - Senior Honors Thesis**
Credit Hours: 3.0
**Prerequisite:** Approval of department chair, a 3.25 grade point average in the major, and a 3.00 cumulative average.

**COMM 4198 - Independent Study**
Credit Hours: 1.0
Lecture Contact Hours: 0.0
Lab Contact Hours: 0.0
**Prerequisite:** Department approval and consent of instructor.

**COMM 4301 - Introduction to Latino Communication Studies**
Credit Hours: 3.0
Lecture Contact Hours: 3
Lab Contact Hours: 0
**Prerequisite:** COMM 1301, COMM 2310 or 2320, COMM 3376, or consent of instructor.

**Description**
Course looks at how Latinos/Latinas identify in various contexts of cultural values, communication styles and cultural competence. Also applies knowledge of culturally competent communication to future business transactions with Latino/Latina groups.

**COMM 4302 - Latinx Media Studies**
Credit Hours: 3.0
Lecture Contact Hours: 3
Lab Contact Hours: 0
**Prerequisite:** COMM 2320 and 3376.

**Description**
A senior-level intensive writing course that explores Latino media systems via six main themes: production, circulation, distribution, reception, representations and effects.

**Additional Fee** N

**COMM 4303 - Communication Law & Ethics**
Credit Hours: 3.0
Lecture Contact Hours: 3.0
Lab Contact Hours: 0.0
**Prerequisite:** COMM 1301, HIST 1378 or HIST 1379, and POLS 1337.

**Description**
Developments changing communication: legislative, legal and ethical issues relative to First Amendment rights and philosophical issues.

**COMM 4310 - Opinion Writing & Blogging**
Credit Hours: 3.0
Lecture Contact Hours: 3
Lab Contact Hours: 0
**Prerequisite:** COMM 3314 or COMM 3316.

**Description**
Preparing elements of editorial page including research and writing of commentaries, columns, and editorials. In addition learning how to create, write and maintain an online blog.

**COMM 4312 - Feature Writing for Print and Digital Media**
Credit Hours: 3.0
Lecture Contact Hours: 3.0
Lab Contact Hours: 0.0
**Prerequisite:** COMM 3314 or consent of instructor.

**Description**
Developing ideas, gathering material, and producing feature reports and query letters for print and digital media.

**COMM 4313 - Investigative Reporting**
Credit Hours: 3.0
Lecture Contact Hours: 3.0
Lab Contact Hours: 0.0
**Prerequisite:** COMM 3314 or consent of instructor.
**COMM 4314 - Social Issues in Journalism**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** COMM 1301 and junior standing, or consent of instructor.

**Description**
Societal problems as portrayed in the press and electronic media. The role of journalism and its impact on social issues. Interaction between public discourse and its social, political, economic, and cultural context.

**COMM 4316 - Advanced Electronic News**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** COMM 3316 and consent of instructor.

**Description**
Advanced study and exercises in writing, producing, and presenting electronic news.

**COMM 4320 - Media Production Workshop I**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2.0  
**Lab Contact Hours:** 3.0  
**Prerequisite:** COMM 2322, COMM 3321 or COMM 3380, and COMM 3383.

**Description**
Application of various media production techniques to a specific production.

**COMM 4322 - Television Producing and Directing I**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 3  
**Prerequisite:** COMM 3380, 3383 and consent of instructor.

**Description**
Creative problems in producing and directing professional level television programming for broadcast purposes.

**COMM 4324 - Advanced Audio Production**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Junior standing, COMM 3320 and consent of instructor.

**Description**
For Communication majors only. Intensive study with reading and discussion to introduce concepts of audio editing, radio production, and audio post production for video production.

**COMM 4328 - Broadcast and Film Dramatic Writing**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** consent of instructor.

**Description**
Principles, methods, and problems in writing dramatic scripts; readings in the dramatic literature of broadcasting and film.

**COMM 4331 - Persuasion**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** Six semester hours of COMM courses completed or consent of instructor.

**Description**
Theories, methods, and ethics of persuasion and social influence.

**COMM 4335 - Crisis Communication**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** COMM 1333 or consent of instructor.

**Description**
Advanced interpersonal communication concepts dealing with relationship disintegration and crisis intervention.

**COMM 4337 - Television and the Family**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** Junior standing, COMM 1301 and COMM 1333, or consent of instructor.
Description
Television portrayals of the family and the processes and relational consequences associated with family use of television.

COMM 4338 - Family in Popular Culture
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing, COMM 1301 and COMM 1333, or consent of instructor.
Description
Portrayal of family in popular media, including comics, radio, movies, television, and music, and how those popular images influence the expectations that audiences construct about family life and family relations.

COMM 4354 - Organizational Crisis Communication
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 1301 and junior standing, or consent of instructor.
Description
Study of how organizations plan for, train for, and respond to crises.

COMM 4355 - Organizational Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: six hours in communication courses or consent of instructor.
Description
Theory and research associated with the study of communication in complex organizations.

COMM 4357 - Intercultural Communication and Organizations
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing, COMM 1301 and COMM 1333, or consent of instructor.
Description
Study of the theory and practice of intercultural communication as it influences organizational behavior, including the effects of cultural diversity on communication within multicultural organizations and the impact of intercultural interactions on communication in organizations.

COMM 4358 - Bargaining and Negotiation
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing or consent of instructor.
Description
The role of communication in bargaining and negotiation within organizational settings.

COMM 4360 - Media Planning & Placement
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 2310 and COMM 3360, or COMM 3368, or consent of instructor.
Description
Application of media planning principles to create an integrated communications plan.

COMM 4361 - Advertising Campaign Competition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: Application to instructor. COMM 3360, COMM 3361 and COMM 4360 or COMM 4366.
Description
Application of creative media and strategic advertising principles in developing a complete advertising campaign for national competition.

COMM 4363 - Integrated Communication Campaigns
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: COMM 3360, COMM 3361 and COMM 4360 or consent of instructor.
Description
Application of integrated communication principles to develop and execute a campaign.

COMM 4365 - Digital Public Relations and Advertising
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COMM 3360 or COMM 3368.
Description

Incorporation of the Internet into integrated communication. Advertising models, promotion activities, relationship marketing and research methodology. Web audience measurement and Internet user characteristics and behavior.

**COMM 4366 - Advertising Account Planning**  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: COMM 2310 and COMM 3360, or COMM 3368, or consent of instructor.  
Description  
Advertising planning that includes strategy, creative and idea development.  
May be repeated once for credit.

**COMM 4367 - Issues Management**  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: Junior standing, and COMM 3360 or COMM 3368, or consent of instructor.  
Description  
Examines the communication strategies used by major organizations to influence public policies.

**COMM 4368 - Public Relations Campaigns**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: COMM 3368 and COMM 3377.  
Description  
Public relations campaign strategies and case histories, including the design and partial implementation of a public relations program for selected clients.

**COMM 4369 - Advertising Portfolio**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: COMM 3326, and COMM 3361, or consent of instructor.  
Description  
Developing a portfolio to show student-produced work in advertising.

**COMM 4370 - Social Aspects of Film**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: three advanced hours in communication.  
Description  
An examination of the social context in which films are produced and exhibited including film censorship, audience attitudes and behavior, and content analysis.

**COMM 4371 - American Cinema: The Directors**  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: COMM 1301.  
Description  
Examination of the role of the director in the conceptualization and creation of a film. Students will look at different directing styles. The director studied will vary from semester to semester. Therefore, students are permitted multiple enrollments for credit. A maximum of three total enrollments of the course is permitted.

**COMM 4372 - Media, Power, and Society**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: COMM 1301 and Junior standing  
Description  
Critical study of media as a social force in modern society.

**COMM 4373 - Intercultural Public Relations**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: COMM 3368, or consent of instructor.  
Description  
Enables students to understand, critique, and apply current theory and principles of practicing public relations in intercultural settings. Focus is on understanding publics with diverse cultural identities and from diverse cultural backgrounds, building relationships with these publics, and managing conflicts.
COMM 4375 - Propaganda and Mass Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 or consent of instructor.
Description
History, theory, development, and impact of propaganda as a controversial mass communication strategy for influencing public opinion.

COMM 4377 - Understanding Publics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 3360, COMM 3368, COMM 3300 or COMM 4355.
Description
Study, understand, and apply current research, theory, and principles of identifying, segmenting, and working with publics.

COMM 4378 - The Social Impact of New Information Technology
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing.
Description
Advanced study and analysis of the cultural and social impact of contemporary communication/information technology.

COMM 4380 - Live Sports Production
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: COMM 3380, COMM 3382 and COMM 3383, or consent of instructor.
Description
Creation of both live and pre-recorded live sports media products, including a 30-minute coaches show, sports event productions, client-based productions and feature productions. Students produce, direct, edit, shoot and write under the guidance of the instructor. Previously learned concepts of preproduction and postproductions will be applied.

Additional Fee Y

COMM 4381 - Digital Cinematography
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: COMM 3321 and consent of instructor.
Description
Advanced techniques in digital cinematography. Focus on narrative storytelling. Scripting, lighting, shooting, and editing in standard and high definition video.

COMM 4382 - Advanced Non-Linear Editing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 3383.
Description
Investigation of the use of visual media creation/editing applications, components, uses as related to film, television, and visual communications industries. Style, ethics, and the politic of the editor emphasized.

COMM 4383 - Documentary Filmmaking
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: permission of instructor.
Description
Theories, methodologies, and practices related to the production of successful documentary films.
Typically Offered: Fall & Spring

COMM 4384 - Strategic Communication Applications
Credit Hours: 3.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 3.0  Prerequisite: COMM 2310, COMM 3360 or COMM 3368, and COMM 3369; or consent of instructor.
Description
Students get real-world experience in conducting client communication, planning public relations programming, conducting research to apply to communication issues, and writing and implementing public relations messages and materials. Students are actively engaged in problem solving during every class meeting, as they are required to contribute ideas and advice for every team's work.
Course may be repeated once for elective credit.
COMM 4386 - Reporting on Immigration, Hispanics and Data
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Examination of media’s role in helping shape perceptions about immigration policies and immigrants, as well as perceptions about countries people migrate from. Introduces students to historical context and current debates on immigration reform, focusing on political discourse and rhetoric in mass media.
Additional Fee  N

COMM 4387 - Media and Political Campaigns in the Digital Age
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMM 1301 and COMM 2310, or consent of instructor.
Description
This course explores the relationship and effects between political campaign messages (political advertising, PR and campaign messages, debates), mass media, and the voter (public) agenda. Students will study how political candidates, political strategists, journalists/media pundits, and citizens construct, transmit, and understand political messages, including how news, new media, advertising, and entertainment media contribute to the shaping of political perceptions, emotions, and behaviors during an electoral campaign.

COMM 4388 - Media, Hispanics and Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Examination of theories, strategies and tactics for communication that can promote action, change and social justice in interest areas relevant to Hispanic communities. The impacts of cultural, political and socio-economic factors on communication, development and social change are emphasized.
Additional Fee  N

COMM 4389 - Media for Social Justice: Digital Media & Activism in Latin America & Houston
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
An experiential learning course that introduces students to both sides of the media/movement relationship, preparing students to fairly, ethically and accurately cover movements as journalists. They will also learn how activists can best deal with media and how to take advantage of new technologies to take charge of message and media content.
Additional Fee  N

COMM 4392 - Professional Internship
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: 75,hours of college credit and an application approved by the Jack J. Valenti School of Communication Internship Coordinator.
Description
Assigned work experience outside the Jack J. Valenti School of Communication in cooperation with supervisors at businesses and media in Houston, nationally and internationally.
May be repeated once for elective credit.
Note: May be repeated once for elective credit.

COMM 4397 - Selected Topics Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or consent of instructor.
Description
Intensive study with reading and discussion in a selected area of communication.
Note: May be repeated for credit with approval of advisor when topics vary.

COMM 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: None. Departmental approval and consent of instructor.
COMM 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair, a 3.25 grade point average in the major, and a 3.00 cumulative average.

Communication Sciences and Disorders

ASLI 3433 - Simultaneous Interpreting I
Credit Hours: 4.0
Lecture Contact Hours: 4.0  Lab Contact Hours: 0  Prerequisite: ASLI majors and ASLI 3330.
Description
Theoretical strategies for interpreting simultaneously between spoken English and American Sign Language will be introduced. Lab included for intensive interlingual practice.

ASLI 3434 - Simultaneous Interpreting II
Credit Hours: 4.0
Lecture Contact Hours: 4.0  Lab Contact Hours: 0  Prerequisite: ASLI majors and ASLI 3333.
Description
Enhanced techniques for skill development when interpreting simultaneously between spoken/written English and American Sign Language. Lab included for intensive inter-lingual practice

COMD 1333 - Introduction to Communication Disorders
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
The field of communication disorders including history of professions in communication disorders and overview of a variety of disorder areas and career opportunities.

COMD 2338 - Phonetics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Analysis of spoken English in articulatory, perceptual, and acoustic terms, with emphasis on general American dialect and its phonetic transcription.

COMD 2339 - Language Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly COMD 2439 Speech and Language Development
Description
Theories and descriptions of typical development of language from infancy through adolescence.

COMD 2376 - Anatomy for Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: declared PRE-COMD major.
Description
Anatomic and physiologic mechanisms underlying swallowing, language, speech and other communication modalities. Systems covered include respiration, phonation, articulation/resonance, deglutition, and the nervous system.

COMD 3301 - History and Culture of American Deaf Community
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: English 1303 and 1304.
Corequisite: ASLI 3330.
Description
Historical overview of the American Deaf community and its evolving culture. Theoretical frameworks from sociology are explored.
Note: Off-campus field trips required.
Additional Fee Y

COMD 3371 - Speech Development and Disorders in Children
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approved COMD major, COMD Core complete.
Description
Introduction to the identification and remediation of speech sound disorders in children; including survey of phonological development, practice in description of typical and atypical speech using the International Phonetic Alphabet.

**Additional Fee Y**

**COMD 3381 - Audiology**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approved COMD major; COMD core complete; COMD 3385.

**Description**
Introduction to audiology, physics of sound, diagnostic audiology, anatomy, physiology and pathologies of the auditory system and types of hearing loss. Also covers hearing technology, hearing screening and hearing conservation.

**Additional Fee Y**

**COMD 3383 - Language Disorders in Children**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COMD Core complete, approved COMD major.

**Description**
Introduction to disorders of language in children from birth through adolescence.

**Additional Fee Y**

**COMD 3385 - Speech Science**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approved COMD major; COMD Core complete.

**Description**
Theoretical and physiological aspects of speech production and perception. Contributions of respiratory, laryngeal, velopharyngeal and articulatory systems to speech production; physical and speech acoustics; speech across the lifespan

**Additional Fee Y**

**COMD 3396 - Selected Topics in Communication Sciences and Disorders**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing, COMD major and consent of department chair.

**Description**
Exploration of specific interests such as bilingual speech and language development, language science, and research in communication sciences and disorders.

**COMD 3399 - Senior Honors Thesis in Communication Disorders**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of department chair.

**Description**
Both COMD 3399 and COMD 4399 must be taken before credit is received for either, and the courses must be taken in sequence

**COMD 4198 - Independent Study in Communication Sciences and Disorders**
Credit Hours: 1.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: senior standing, COMD major and consent of department chair.

**Description**
Offered to advanced COMD majors who wish to explore specific interests such as bilingual speech and language development, language science, and research in communication sciences and disorders.

**COMD 4333 - Neuroscience for Communication Disorders**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approved COMD major, COMD Core complete; COMD 3371, COMD 3383 and COMD 3385.

**Description**
Foundations of neuroanatomy and neurophysiology relevant to speech, language, cognition and swallowing

**Additional Fee Y**

**COMD 4382 - Aural Rehabilitation**
**COMD 4397 - Principles of Pathology and Pathophysiology for the SLPA**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Must be admitted to the SLPA Certificate Program.
Description
Principles, methodology, and procedures used with children and adults living with hearing impairment. Includes amplification devices, communication skills training, educational programming and current issues.

**Additional Fee Y**

**COMD 4398 - Independent Study**
Credit Hours: 3.0
Prerequisite: approval of department chair.
Description
Undergraduate credit only.

**COMD 4399 - Senior Honors Thesis in Communication Disorders**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of department chair.
Description
Both COMD 3399 and 4399 must be taken before credit is received for either, and the courses must be taken in sequence.

**COMD 4489 - Clinical Procedures**
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 1  Prerequisite: COMD Core complete, Approved COMD Major, Hearing and Speech screening complete, COMD 3371 and COMD 3383.
Description
Capstone course for COMD, practical application of clinical skills, guided clinical observation of certified speech language pathologists and/or audiologists.

**Additional Fee Y**

**COMD 5241 - Applied Professional Ethics for the SLPA**
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: COMD 5341, COMD 5342, COMD 5343, COMD 5345, COMD 5346, COMD 5348, 5349, COMD 5441 or permission from the program coordinator.
Description
Issues pertinent to the professional life of the SLPA. Explores scope of service, licensure and registration, ethics, team membership, culturally sensitive practice, interpretation and translation services, and conflict resolution.
Note: This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5341 - Competencies and Strategies for the SLPA I**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Must be admitted to the SLPA Certificate Program.
Description
Roles and responsibilities of the SLPA. Rules and regulations in public school settings, service delivery models, health and safety, assistive technology, and introduction to intervention strategies and data collection.
Note: This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5342 - Competencies and Strategies for the SLPA II**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Must be admitted to the SLPA Certificate Program.
Description
Roles and responsibilities of the SLPA. Screening, cultural competence, working with interpreters, the psychosocial impact of communication disorders, advanced data collection and effective collaboration with team members.
Note: This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5343 - Aural Rehabilitation for the SLPA**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Must be admitted to the SLPA Certificate Program.
Description
Principles, methodology, and procedures used with children and adults living with hearing impairment. Includes amplification devices,
communication skills training, educational programming, and current issues relevant to the SLPA.

**Note:** This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5345 - Speech and Language Disorders in Children for the SLPA**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Must be admitted to the SLPA Certificate Program.

**Description**
Theories and research related to phonological and language development and disorders in pre-school children. General diagnostic and remedial approaches for children with phonological and language-based problems relevant to SLPA.

**Note:** This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5346 - Speech and Language Disorders in Adults for the SLPA**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Must be admitted to the SLPA Certificate Program.

**Description**
Theories and research related to acquired speech and Language disorders in adults. General diagnostic and remedial approaches for adults including aphasia, motor speech disorders, voice disorders and cognitive communication disorders.

**Note:** This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5348 - Phonetics for the SLPA**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Must be admitted to the SLPA Certificate Program.

**Description**
Analysis of spoken English in articulatory, perceptual, and acoustic terms, with emphasis on general American dialect and its phonetic transcription for the SLPA.

**Note:** This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5441 - SLPA Externship I**

**Credit Hours:** 4.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 4  
**Prerequisite:** COMD 5341, COMD 5343, COMD 5345, COMD 5346, COMD 5348, COMD 5449, or permission from the program coordinator.

**Description**
Supervised clinic experience in school, clinic, or hospital setting 4 hours per week for 12 weeks. Development of clinical skills, professionalism, and developing competencies for ethical and effective clinical practice.

**Note:** This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5442 - SLPA Externship II**

**Credit Hours:** 4.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 4  
**Prerequisite:** COMD 5341, COMD 5342, COMD 5343, COMD 5345, COMD 5346, COMD 5348, COMD 5441, COMD 5449 or permission from the program coordinator.

**Description**
Supervised clinic experience in school, clinic, or hospital setting 4 hours per week for 12 weeks. Development of clinical skills, professionalism, and developing competencies for ethical and effective clinical practice.

**Note:** This COMD class is designated for the Speech Language Pathology Assistant Certificate Program

**COMD 5449 - Speech and Language Development for the SLPA**

**Credit Hours:** 4.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 1  
**Prerequisite:** Must be admitted to the SLPA Certificate Program.

**Description**
Theories and descriptions of typical development of language and speech from infancy through adulthood for the SLPA.

**Note:** These COMD classes listed below are designated for the Speech Language Pathology Assistant Certificate Program

**Comparative Cultural Studies**

**CCS 2350 - Perspectives on Cultural Studies**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.
Description
CCS gateway course examines culture across disciplinary perspectives. Team lecturers present the what/how/why of what they do in studying the cultural dimension of life, historically, regionally, thematically, globally.

CCS 2394 - Selected Topics in Comparative Cultural Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
May be repeated for credit when topic varies.

CCS 3350 - Brazilian Cultures and Their Histories
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Peoples and cultures that created Brazil. Brazilian politics, economics, and visual cultures may also be the focus.
May be repeated for credit when topic varies.

CCS 4394 - Selected Topics in Comparative Cultural Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair.
May be repeated for credit when topic varies.

CCS 4398 - Independent Study in Comparative Cultural Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and consent of instructor.
May be repeated for credit when topic varies.

Computer Engineering and Analytics

CEA 3201 - Computer Programming for Engineers
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: CEA 2206, ENGI 2304.
Description
Procedural and object-oriented programming, functions and operators, classes, event-driven programs, user interfaces.

CEA 3302 - Fundamentals of Software Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CEA 3201.
Description
Software engineering concepts, software processes, process models, agile development, requirements analysis, software quality, software project management.

CEA 3311 - Operating Systems for Engineers
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CEA 3312.
Description
Layered operating system architecture, processes and thread concepts and management, concurrency, scheduling and deadlock avoidance, OS communication, virtual memory, file management, virtual systems, multi-core and distributed systems.

CEA 3312 - Fundamentals of Computer Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CEA 3338.
Description
Quantitative basis for computer architecture, memory hierarchy design, processor design exploiting parallelism, pipelining, memory hierarchy design, trends in computing architectures.

CEA 3323 - Data Structures and Algorithms
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CEA 3201.

**Description**
Data structures, arrays, trees, graphs, stacks and heaps, sorting, efficient hashing and indexing, computational complexity, recursion, sequences, sets and maps, efficient search algorithms, applications.

**CEA 3337 - Digital Signals and Systems**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CEA 2300.

**Description**
Basic concepts of continuous-time and discrete-time linear signals and systems, sampling, convolution, Fourier analysis, z transforms, applications.

**CEA 3338 - Microprocessor Systems**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: MATH 3321.

Corequisite: CEA 3201.

**Description**
Microcomputer architecture, assembly language programming, I/O programming, I/O interface design, I/O peripheral devices, data communications, and data acquisition systems.

**CEA 3421 - Introduction to Control Systems**
Credit Hours: 4.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 3  
Prerequisite: CEA 3337.

**Description**
Feedback and control principles, state space modeling and design, stability, reachability, and robustness analysis.

**CEA 4321 - Database Principles and Applications**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CEA 3201.

Corequisite: CEA 4339.

**Description**
Introduction to databases, relational data modeling, SQL programming, conceptual modeling, database design theory and normalization, database security, data mining and data warehousing, distributed databases and NOSQL (not only Structured Query Language) systems.

**CEA 4335 - Capstone Design I**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: CEA 3302, ECON 2304, INDE 2333.

**Description**
Propose and begin team projects involving open-ended design problems supplied by industry and faculty. Professionalism, research methodologies, design tools, and technical communication. The primary deliverable at the end of the semester is a prototype, the nature of which will be dependent on the project type.

**CEA 4336 - Capstone Design II**
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: CEA 4335.

**Description**
Complete, construct, demonstrate, and present team projects begun in Capstone Design I. Report on the status of prototypes from projects initiated in Capstone Design I course. Professionalism, research methodologies, design tools, and detailed technical communication.

**CEA 4339 - Engineering Applications of Graph Theory**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CEA 3201, CEA 3323.

**Description**
Graphs and their engineering applications, paths and circuits, trees and fundamental circuits, cut sets, matrix representation of graphs, directed graphs.

**CEA 4341 - Pattern Recognition and Machine Learning**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 2333.  
Corequisite: CEA 4355.  
Description  
Basic concepts of machine learning, parametric and non-parametric learning, Bayesian learning, artificial neural networks, unsupervised learning, generative models, support vector machines and subspace learning, deep learning, and emerging trends.  

CEA 4355 - Engineering Data Analytics  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CEA 4321.  
Description  
R programming, structured and unstructured data, big data, data tidying, data visualization and exploratory analysis, regression, unsupervised and supervised machine learning, predictive data modeling, illustrative applications.  

CEA 4422 - Communications and Networking  
Credit Hours: 4.0  
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: CEA 3311, INDE 2333.  
Description  
Computer communication technologies, networking models and standards, local area networks, wide area networks, low-power communications and personal area networks, wired and wireless network protocols, emerging trends and applications.  

CEA 4424 - Embedded Computing and Internet of Things  
Credit Hours: 4.0  
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: CEA 3338.  
Corequisite: CEA 4422.  
Description  
Survey of embedded and networked things including sensors, actuators and smart objects, wired and wireless IoT (Internet of Things) network architecture, network protocols, security, data and analytics, industrial and public safety applications of IoT.  

CEA 4442 - Robotics and Automation  
Credit Hours: 4.0  
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: CEA 3421, CEA 4424.  
Description  
Coordinate transformations, forward and inverse kinematics, computer vision, motion planning, manipulability, visual servo control, industry applications. Students will build their own robot arm as part of the course.  

CEA 4444 - Introduction to Cybersecurity  
Credit Hours: 4.0  
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: CEA 4424.  
Description  

Computer Information Systems  

CIS 1300 - Problem Solving Using Computers  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C or better in MATH 1330 and Computer Information Systems Major or Minor or consent of program coordinator.  
Description  
Introduction to programming for business related applications. Emphasis on approaches to problem solving using computer programming. Hardware, software, number systems, basic computer organization, and structured programming.  

CIS 2332 - Information Technology Hardware and Systems Software  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Computer Information Systems Major or Grade of C or better in ITEC 1301.  
Description
A conceptual and technological survey of the structure of distributed information systems architectures, operating systems, network operating systems, data management systems, application development environments, peripheral technology, and user interfaces.

**CIS 2334 - Information Systems Applications**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Computer Information Systems Major or Grade of C or better in ITEC 1301 or ELET 2300 or equivalent.  
**Description**  
Concepts and production skills relating to information systems technologies, procedures, and resources.

**CIS 2336 - Internet Application Development**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** C or better in COSC 1306 or equivalent.  
**Description**  
Internet and World Wide Web Technologies. Development and maintenance of Web sites and Web Applications.

**CIS 2337 - Fundamentals of Information Security**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** None.  
**Description**  
Information security, including technical security issues, people security issues, policy issues, privacy, and ethics.

**CIS 2348 - Information Systems Application Development**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** C or better in both MATH 1431 and (COSC 1306 or equivalent).  
**Description**  
Development of Information Systems Applications using modern application development technologies.

**CIS 3320 - Information Visualization**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** MATH 2311 or TMTH 3360 or equivalent.  
**Description**  
Information visualization offers instruments for reasoning about quantitative information, analyzing and communicating statistical information. The course overviews the main typologies of data graphics (data-maps, time-series, space-time narrative, relational diagrams, graphs and methods for dimensionality reduction) and provides a language for discussing data visualizations combined with a knowledge of the human perception of visual objects. The course teaches how to visualize information effectively by using statistical methods, combined with knowledge of the human perception and the basics of data graphics.

**CIS 3337 - Secure Application Design**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** CIS 2337, CIS 2348, and Computer Information Systems major or minor, or consent of program manager or program coordinator.  
**Description**  
Designing applications using a secure design life cycle process, including common causes of errors and current tools to improve code.

**CIS 3343 - Information Systems Analysis & Design**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Credit for or concurrent enrollment in MATH 2311 or TMTH 3360 or equivalent and C or better in CIS 2334.  
**Description**  
Development and evaluation of information systems with relation to efficiency and cost.

**CIS 3347 - Information Systems Infrastructure and Networks**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** C or better in both CIS 2332, CIS 2337, and (credit for or concurrent enrollment in MATH 2311 or TMTH 3360 or equivalent), and (Computer Information Systems major or minor, or consent of program manager or program coordinator).
Description
Data communication standards, protocols, models, architectures, internet topics, and ethics. Components of industry infrastructure with business justification. Study of emerging technologies and trends related to software/hardware components.

CIS 3351 - Intrusion Detection and Incident Response
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CIS 2337 and Computer Information Systems major or minor, or consent of program manager or program coordinator.
Description
Intrusion detection and incident response for enterprise level computer systems, including technical, policy, and legal issues.

CIS 3355 - Integrated Information Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in each of CIS 2336, CIS 2348, and CIS 3347, and Computer Information Systems major or minor, or consent of program manager or consent of program coordinator.
Description
Evaluation of integrated information systems.

CIS 3357 - Cloud Computing Infrastructure
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CIS 3347.
Description
Cloud computing infrastructure principles and concepts. Technical issues include virtualization, broad network access, resource pooling, and rapid elasticity. Operational issues include both service and deployment models as well as the relationship between capital and operational expenses. Emphasis is given to leveraging cloud computing infrastructure to further organizational goals.

CIS 3358 - Database Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CIS 3343.
Description
Applications of hierarchical and relational database systems.

CIS 3367 - Cloud Computing Architecture and Implementation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CIS Major and Grade of "C" or better in CIS 3347.
Description
Architecting and building flexible, scalable, and reliable web-based systems capable of supporting millions of simultaneous requests. Provisional computing power, storage options, networking, and databases. Industry best practices and design patterns for high availability, event-driven scaling, web-scale storage, and full automation and decoupling of the infrastructure.

CIS 3368 - Advanced Information Systems Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CIS 2348 and MATH 1431, Computer Information Systems major or consent of program coordinator.
Description
Use of integrated development tools for full-stack systems development. Architectural planning, technology selection, user interface design concepts, and programming for desktop applications that include database persistence.

CIS 4320 - Decision Informatics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly: ITEC 4397 Data Mining with Applications to Health Care
Prerequisite: TMTH 3360 or equivalent, CIS 3365 or equivalent.
Description
Computer information systems that support organizational decision making processes.

CIS 4338 - Database Administration and Implementation
CIS 4339 - Enterprise Applications Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CIS 3365, and Computer Information Systems major, or consent of coordinator.
Description
Database implementation for a multi-user environment, including usage analysis, database application development, and query optimization.

CIS 4357 - Digital Forensics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CIS 3355, CIS 3365, and CIS 3368, and Computer Information Systems major, or consent of program coordinator.
Description
Advanced n-tier client/server application development for an enterprise-wide setting.

CIS 4367 - Advanced Digital Forensics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly: CIS 4397 Special Topics Advanced: Digital Forensics  Prerequisite: CIS 4357
Description
Advanced digital forensics; e-discovery, media analysis, data reconstruction, reporting and legal issues surrounding digital data in criminal and civil litigation.

CIS 4375 - Project Management and Practice
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in both CIS 4338 and CIS 4339, and Computer Information Systems major or minor, or consent of program manager or program coordinator.
Description
Computer Information Systems Capstone course. Information Systems Project Management concepts. Students plan, manage and complete a major semester-long group project involving a multi-user information system application for a client.

CIS 4397 - Selected Topics in Computer Information Systems
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of department.
Note: May be repeated for credit when topics vary.

CIS 4398 - Independent Study
Credit Hours: 3.0  Formerly: ITEC 4398  Prerequisite: approval of department chair.
Description
Individual projects under faculty sponsorship.

Computer Science

COSC 1300 - Introduction to Computing
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3
Description
May not be used to satisfy any computer science degree requirement. An introduction to computing with emphasis on the practical usage of personal computers; concepts of recorded programs, computer organization, operating systems, mainframes, minicomputers, and personal computer; selected applications of personal computers; word processing, databases, and spreadsheets; societal impact of computers.
COSC 1304 - C Programming
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or equivalent.
Description
Computer organization and systems software, techniques for designing C language programs, programming in C language.

COSC 1305 - C++ Programming
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 1304.
Description
Object-oriented programming in the C++ programming language.

COSC 1306 - Computer Science & Programming
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: MATH 1310 or equivalent.
Description
Introduction to problem solving through computer programming. Students will learn the fundamental principles of computer science, basic hardware and software components of a computer system, computational thinking, basic algorithms, and programming concepts. Students will get hands-on experience in problem solving by designing, writing, testing and debugging programs in a modern programming language.
Core Category: [90] Math/Reasoning
TCCNS Equivalent: TCCNS COSC 1336 (*may also serve TCCNS COSC 1436)

COSC 1320 - Object Oriented Programming
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COSC 1304 OR ECE 3331.
Description
Object oriented paradigm, UML modeling, GUI programming, and JAVA and C++ programming. Introduction to program specification, unit testing, and debugging.
Typically Offered: Fall

COSC 1410 - Introduction to Computer Science I
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in MATH 1431.
Description
Computer organization, structured procedural programming, C/C++ programming language, algorithm design, and a short introduction to object-oriented programming.

COSC 1430 - Introduction to Programming
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 1  Prerequisite: COSC 1306, and credit for or concurrent enrollment in MATH 1431.
Description
Fundamental concepts of structured programming; procedures and elementary data structures with a focus on problem solving strategies and implementation; computer organization, structured procedural programming, C/C++ programming language, and algorithm design.
TCCNS Equivalent: COSC 1437

COSC 2306 - Data Programming
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 1306.
Description
Developing, testing and maintaining programs; fundamental algorithms; important data structures including records, arrays, lists, trees and hash tables and their use in real world problems; manipulating vectors, matrices and graphs.
Note: Not applicable for Computer Science Majors and Computer Science Minors.
Additional Fee N

COSC 2320 - Data Structures
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 1320.
Description
Introduction to various data structures (stacks, queues, lists, hash tables, trees, heaps, and graphs); sorting and searching; design, analysis, and comparison of algorithms.

COSC 2410 - Computer Organization and Programming
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3 Prerequisite: COSC 1410.
Description
Basic computer organization; machine execution cycle, digital representation of data and instructions, assembly language programming, assembler, loader, macros, subroutines, program linkage, memory hierarchy, DRAM, SRAM, cache.

COSC 2430 - Programming and Data Structures
Credit Hours: 4.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 1.0 Prerequisite: COSC 1430 and credit for or concurrent enrollment in MATH 1432.
Description
Introduction to fundamental data structures: arrays, lists, stacks, queues, hash tables, trees; sorting and searching; graph algorithms; design, analysis, and comparison of algorithms. Correctness verification techniques such as assertions and invariants. Review program specification, unit testing, and debugging.
TCCNS Equivalent: COSC 2436

COSC 2440 - Computer Organization and Architecture
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 1 Prerequisite: COSC 1430
Description
Low-level computer design, basics of digital design, and hardware/software interface; Principles of pipelining and caching, instruction pipelining, SIMD and multiprocessor systems.
Note: Cannot earn credit for both COSC 2440 and COSC 3330.

COSC 3320 - Algorithms and Data Structures
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0 Prerequisite: MATH 3336, and COSC 2320 or 2430. Declared Computer Science majors and minors only.
Description
Algorithm analysis and design, heuristics; advanced tree structures; advanced hashing techniques; sorting and searching; graphs, sets. NP-Completeness, Time and Space complexities.
Typically Offered: Fall

COSC 3330 - Computer Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: COSC 2410
Description
Logic design, principles of operation of digital computers, and analysis of major components: arithmetic processing, memory, control and input/output units, instruction pipelining, SIMD and multiprocessor systems.
Note: COSC majors and minors only. Cannot earn credit for both COSC 2440 and COSC 3330.
Typically Offered: Fall

COSC 3336 - Computing Structures
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MATH 2331 or MATH 3321 and COSC 2440.
Description
MATH 2331 or MATH 3321 and COSC 2440.

COSC 3337 - Data Science I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Formerly COSC 4335.
Prerequisite: COSC 2306 or COSC 2430, and MATH 3339 and declared COSC major, COSC minor, or Data Science minor.
Description
Data science concepts including exploratory data analysis, data visualization, statistical inference and modeling, machine learning, clustering, post-
processing and interpreting results.

Additional Fee Y

COSC 3340 - Introduction to Automata and Computability
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0 Prerequisite: MATH 3336, and COSC 2320 or 2430. Declared Computer Science majors and minors, and Computer Engineering majors.

Description
Introduction to automata theory (finite-state automata, push-down automata, Turing machines); formal systems (regular and context-free languages and grammars); computability, Church-Turing thesis.

Typically Offered: Fall

COSC 3360 - Fundamentals of Operating Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: COSC majors and minors: COSC 2430 and COSC 2440 ; CpE majors: COSC 2320 AND ECE 5367.

Description
Operating system; sequential processes, concurrent processes, deadlock, mutual exclusion, semaphores; memory management, processor management, peripheral device management.

Note: COSC majors and minors and CpE majors only.

COSC 3371 - Cybersecurity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Formerly COSC 4371.

Prerequisite: COSC 3360.

Description
Introduction to cybersecurity: theoretical foundations of security, cryptographic algorithms and protocols, widely used security protocols (such as SSL), and practical attack and defense techniques, including software vulnerability exploits and firewalls

Additional Fee Y

COSC 3380 - Design of File and Database Systems
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0 Prerequisite: MATH 3336, and COSC 2320 or 2430. Declared Computer Science majors and minors, and Computer Engineering majors.

Description
Techniques for file organizations on secondary storage, performance, design, and management of large integrated databases, data models, query languages.

Typically Offered: Fall

COSC 3396 - Senior Research Project
Credit Hours: 3.0
Prerequisite: approval of department chair.

Description
Directed research project culminating in a departmentally approved report. COSC 3396 and COSC 4396 must be satisfied in order for any to apply to a degree.

COSC 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair. COSC 3399 and COSC 4399 must be satisfied in order for any to apply to a degree.

COSC 4151 - Computer Science Internship
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0 Prerequisite: COSC major with junior standing or higher and prior written approval of department chair or designated.

Description
Enhancement of concepts and techniques learned in the classroom through work experience directly related to the computer science profession.

Note: Employer evaluation and written report required.
COSC 4198 - Independent Study
Credit Hours: 1.0
Prerequisite: approval of department chair.

COSC 4298 - Independent Study
Credit Hours: 2.0
Prerequisite: approval of department chair.

COSC 4311 - Computer Scientists and Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 3360.
Description
Issues of professional responsibility and ethics related to the use of computer technology in complex modern working environments. Emphasis and evaluation on technical writing.
Typically Offered: Fall

Additional Fee Y

COSC 4315 - Programming Languages and Paradigms
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COSC 2320 or COSC 2430.
Description
Discussion and comparison of basic programming styles; their underlying paradigms and languages based on these paradigms; such as imperative and functional programming styles.

COSC 4324 - Entrepreneurship for Computer Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 4351 or COSC 4353.
Description
To provide fundamental knowledge and practice in modern application design and startups. Covers software idea/concept, implementation using contemporary software technologies, business, legal, and marketing step for software product/tech startup.

COSC 4331 - Real-Time Systems and Embedded Programming
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 3360.
Description
Introduction to real-time and embedded systems; scheduling; programming language and operating systems; support; formal specification, analysis, and verification; embedded programming; power-aware computing.

COSC 4332 - Medical Robotics & Image Guided Interventions
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Senior standing in Computer Science.
Description
Basics of medical robotics as used in image guided interventions and surgeries. Includes robot registration, sensing, kinematics, safety and control, augmented reality, and tele-surgeries.

COSC 4337 - Data Science II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 3337 and declared COSC major, COSC minor, or Data Science minor.
Description
Emphasis on practical techniques for working with large-scale data. Advanced machine learning topics such as Neural Networks and Deep Learning, ensemble learning approaches and model evaluation.
Additional Fee N

COSC 4346 - Security Analytics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Math 2331, Math 3339, COSC 2430.
Description
Review of security problems including malware, phishing and intrusions. Unique challenges of security domain. Adaptations and Applications of Statistical, Data Mining, Natural Language Processing and Machine Learning techniques to security.

Additional Fee N

COSC 4348 - Introduction to Game Art & Animation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of instructor.
Description
Video game concept arts and computer animation. Modeling game assets and animation using the latest game software and hardware.

COSC 4349 - Intermediate Game Art & Animation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 4348 or consent of instructor.
Description
Intermediate video game concept arts and computer animation. Advanced topics of modeling game assets and animation, using the latest game software and hardware.

COSC 4351 - Fundamentals of Software Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC majors and minors: COSC 3320 and MATH 3336 ; CpE majors: COSC 2320 and MATH 3336.
Description
Introduction to the concepts of software engineering. Identification of problems related to the development of large software systems. Software project planning, requirements analysis, design, implementation, quality assurance and maintenance.
Typically Offered: Fall

COSC 4353 - Software Design
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COSC 3320, and MATH 3336 or COSC 3336. Declared Computer Science majors and minors only.
Description
Object-oriented paradigm, classes, object relationship, software architecture, object modeling technique, design metrics, software development patterns, practices, and principles.

COSC 4354 - Software Development Practices
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: COSC 4353. Declared Computer Science majors and minors only.
Description
Pragmatics of software development, hands-on iterative, incremental and agile software development team project with emphasis on use of state of the art tools, techniques, principles, and better practices.
Typically Offered: Fall

COSC 4355 - Introduction to Ubiquitous Computing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 4353. For COSC majors and minors only.
Description
Introduction to software development for ubiquitous devices such as PDAs and cell phones.
Typically Offered: Fall

COSC 4358 - Introduction to Interactive Game Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: COSC 3320.
Description
Team development of interactive video games on state-of-the-art devices.

COSC 4359 - Intermediate Interactive Game Development
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: COSC 4358 and COSC 4370.

Description
Continuation of the introduction to Interactive Game Development. Advanced theories and practices in game development.

COSC 4364 - Numerical Methods
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: MATH 2331, MATH 3339, and COSC 2320 or COSC 2430.

Description
Programming numerical solution of problems in linear algebra; system of linear equations, matrix inversion, and Eigenvalue problems, solution of equations, polynomial approximations, and initial value problems of ordinary differential equations.

COSC 4368 - Fundamentals of Artificial Intelligence
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: COSC 2320 or COSC 2430.

Description
An overview of main topics in the field of artificial intelligence. Topics include search techniques, reasoning with logic, planning, decision making, machine learning, and robotics.

COSC 4370 - Interactive Computer Graphics
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: MATH 2331, and COSC 2320 or COSC 2430.

Description
Introduction to graphics hardware and software; interactive systems to display three-dimensional objects; display and input devices; and alternative algorithms, system configuration, and design trade-offs. Term project required.

COSC 4372 - Fundamentals of Medical Imaging
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: Senior standing in Computer Science.

Description
Medical imaging modalities; principles, data collection, and image reconstruction. X-rays, CT, ultrasound, and MRI. Simulations of image generation.

COSC 4377 - Introduction To Computer Networks
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: COSC 2440, and COSC 2320 or COSC 2430.

Description
Data communications; network protocols and architecture; local and wide-area networks; internetworking.

COSC 4390 - Internet Computing
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: COSC 2320 or COSC 2430.

Description
Web based technologies, client/server computing, HTTP, JavaScript and related libraries/frameworks/platforms, event handling and network-programming.

COSC 4393 - Digital Image Processing
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: MATH 3339, and COSC 2320 or COSC 2430.

Description
Essential concepts of digital image processing, image acquisition and processing, practical applications, and elementary image analysis algorithms.

COSC 4394 - Physical Computing for Image Analytics
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: COSC 3337 or COSC 4351 or COSC 4393.

Description
The design and construction of physical systems using a mix of software and hardware to sense and respond to the surrounding world.

Additional Fee N
COSC 4396 - Senior Research Project
Credit Hours: 3.0
Prerequisite: COSC 3396 and approval of department chair.
Description
Directed research project culminating in a departmentally approved report. COSC 3396 and COSC 4396 must be satisfied in order for any to apply to a degree.

COSC 4397 - Sel Top-Computer Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Advanced standing and consent of instructor.
Description
Selected topics in major areas of computer science not covered in detail in any of the courses in the regular computer science program.
Note: May be repeated for credit with approval of chair.
Additional Fee Y

COSC 4398 - Independent Study
Credit Hours: 3.0
Prerequisite: approval of department chair.

COSC 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: COSC 3399 and approval of department chair.
Description
COSC 3399 and COSC 4399 must be satisfied in order for any to apply to a degree.

COSC 4498 - Independent Study
Credit Hours: 4.0
Prerequisite: approval of department chair.

Construction Engineering

CNE 2211 - Construction Engineering Fundamentals
Credit Hours: 2
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: ENGI 1331.
Description
Introduction to planning, administration, management, and cost of construction projects. Organization of construction firms, development of construction documents.

CNE 3301 - Construction Safety Engineering
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 1332, ENGI 2304, PHYS 1322.
Description
Safety practice, hazard and risk analyses, site safety, OSHA regulations, accidents, documentation, safety policies and procedures, safe work environments and other safety related topics.

CNE 3310 - Construction Scheduling, Planning and Control
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CNE 2211.
Corequisite: INDE 3330.
Description

CNE 3311 - Construction Engineering Equipment and Methods
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Corequisite: CNE 3310.
Description
Construction equipment, methods, and economics. Equipment productivity, equipment selection, and means and methods within economic constraints.

CNE 3321 - Construction Engineering Management
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CNE 3310.
Description

CNE 3322 - Legal Aspects of Construction Engineering
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CNE 3310, ENGI 2304.
Description
Basic legal concepts pertaining to the construction industry. Contracts, dispute resolution, change orders, lien laws, delay damages, contractor liability.

CNE 3333 - Building Information Modeling
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: CNE 3310.
Description
Principles, theory, and techniques of building information modeling applications in the construction industry; variants of Building Information Modeling; standards.

CNE 4312 - Construction Engineering Design Project
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: CIVE 4311, CNE 3322, CNE 3333, CNE 4321 and INDE 3333.
Description
Design of capstone construction project, including estimating, scheduling, document preparation, constructability site analysis, safety, equipment and material plans.

CNE 4321 - Construction Engineering Estimating
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: CNE 2211, INDE 3330, MATH 3321.
Description
Estimating techniques based on the Construction Specifications Institute. Budgets, unit price proposals, quantity take-offs for materials, labor, and equipment.

Construction Management

CNST 1301 - Construction Materials and Methods
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CNST 1361 and CNST 1330 or CNST 1315.
Description
Basic building materials and systems used in constructing buildings, bridges, and infrastructure projects.

CNST 1315 - Project Drawings & Graphics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Reading drawings and graphics for process and industrial type projects.

CNST 1325 - Process and Industrial Construction
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CNST 1361 and CNST 1330 or CNST 1315.
Description
Construction materials and methods common to installation process and industrial projects.
CNST 1330 - Graphics I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Lettering, geometric construction, multi-view and auxiliary projections, sections, and connections, dimensioning, and isometric and oblique pictorials.
Manual and computer aided drawing techniques.

CNST 1361 - Construction Management I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Overview of the construction industry, job market, roles and responsibilities, and common project management tools.

CNST 2321 - Mechanical and Electrical Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CNST 1301 or CNST 1325.
Description
Planning and construction of mechanical and electrical systems common to construction projects.

CNST 2325 - Process and Industrial Subsystems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CNST 1301 or CNST 1325.
Description
Mechanical and electrical systems common in process and industrial projects.

CNST 2341 - Construction Documents
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CNST 2321 or CNST 2325.
Description
Bidding documents and contract documents commonly used in construction projects and an understanding of the hierarchy/relationships among these documents.

CNST 2345 - Contract Documents for Capital Projects
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Corequisite: C or better in CNST 2321 or CNST 2325.
Description
Contract administration and legal documents common in process and industrial projects.

CNST 2351 - Construction Estimating I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in CNST 2321 or CNST 2325.
Description
Skills and tools necessary to prepare cost estimates for construction projects, focus on the blueprint reading and material quantity takeoff.

CNST 3155 - Construction Materials and Testing
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 2  Prerequisite: C or better in PHYS 1301 and MATH 1431.
Description
Properties and testing methods for common construction materials (wood, steel, and concrete).
Additional Fee  $2.00  Fee Type  Lab Fee

CNST 3185 - Construction Experience
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: C or better in CNST 2351.
Description
Students will fulfill 400 hours of work experience to gain practical experience and professional skills prior to graduation. Includes an intensive writing experience in the form of a formal technical report describing the experience.
CNST 3205 - Construction Safety Management
Credit Hours: 2.0
Lecture Contact Hours: 2 Lab Contact Hours: 0 Prerequisite: C or better in CNST 2351.
Description
OSHA regulations and industry practices related to creating and maintaining safe construction sites. Students will be eligible to sit for the 10-hour OSHA safety certification exam.
Additional Fee
Y

CNST 3210 - Safety for Industrial Projects
Credit Hours: 2.0
Lecture Contact Hours: 2 Lab Contact Hours: 0 Prerequisite: C or better in CNST 2351.
Description
Industry practices related to creating and maintaining safe construction sites for process and industrial projects.
Additional Fee
Y

CNST 3265 - Construction Layout and Site Development
Credit Hours: 2.0
Lecture Contact Hours: 2 Lab Contact Hours: 0 Formerly CNST 4265.
Prerequisite: C or better in MATH 1431.
Description
Basic surveying techniques, construction, layouts, and fundamental requirements and regulations related to land development.
Additional Fee
Y

CNST 3301 - Construction Equipment and Methods
Credit Hours: 3
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: C or better in CNST 2351 and MATH 1431.
Description
Construction equipment and selected construction methods including economy, selection, productivity of common construction equipment and construction procedures for industrial and heavy civil construction.

CNST 3331 - Construction Planning and Scheduling
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: C or better in CNST 2351.
Description
Planning, scheduling principles, and techniques common to construction projects utilizing industry standard scheduling software packages.

CNST 3351 - Construction Estimating II
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: C or better in CNST 2351.
Description
Skills and tools necessary to prepare formal bids for construction projects, pricing, indirect costs, bid analysis, and use of computer aided software.

CNST 3355 - Strength of Construction Materials
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: C or better in MATH 1431 and PHYS 1301/1101.
Description
Construction engineering with respect to stress, strains, and deflection of structural components of buildings.
Additional Fee
Y

CNST 3365 - Cost Estimating Capital Projects
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: C or better in CNST 2351.
Description
Cost estimating of process and industrial projects including FEED and definitive estimates.

CNST 3372 - Soil Mechanics and Foundations
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 3355.

**Description**
Aspects of soils essential to construction, including soil classifications, methods of soil exploration, standard laboratory tests, and basic design and installation for shallow and deep foundation systems.

**CNST 4198 - Special Problems**
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0

**CNST 4220 - Comprehensive Construction Management and Emerging Practices**
Credit Hours: 2  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Concurrent enrollment with CNST 4331/CNST 4335.

**Description**
Review of construction concepts required for industry.

**CNST 4302 - Construction Law and Ethics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 2341 or CNST 2345.

**Description**
United States legal system and contractual issues that are significant to construction managers, addresses ethics in the construction industry.

**CNST 4311 - Structural Steel and Timber Construction**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 3355.

**Description**
Design aspects of selected structures using steel and timber standard shapes/components; involving the application of the AISC Code; design of wood formwork systems.

**CNST 4315 - Steel Construction**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 3355.

**Description**
Steel properties, standard shapes, design, and installation of steel elements common to process and industrial projects such as tanks, pipes, and pipe supports.

**CNST 4331 - Construction Management II**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 3205, CNST 3331 and CNST 3351.

**Description**
Capstone course to develop a formal construction proposal for a construction project.

**Note:** The American Institute of Constructors (AIC) Level 1 Associate Constructors (AC) exam is required. Students are responsible for the AIC exam fees.

**CNST 4335 - Capital Projects Development**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 3210, CNST 3331 and CNST 3365.

**Description**
Capstone course to develop a formal proposal for an industrial construction project.

**Note:** The American Institute of Constructors (AIC) Level 1 Associate Constructors (AC) exam is required. Students are responsible for the AIC exam fees.

**CNST 4341 - Project Controls**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 4331.

**Description**
Integrates skills and knowledge taught in the program including the crucial construction management activities that take place from the time a contract is awarded until the contract is closed out.

**CNST 4345 - Reinforced Concrete Structures**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 3355.  
Description  
Design and installation of concrete elements common to process and industrial projects such as slabs, beams, heavy concrete pours, short columns, and pedestals.

**CNST 4381 - Reinforced Concrete and Building Codes**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 3355.  
Description  
Application of the ACI 318 Building Code for construction, analysis, and inspection of reinforced concrete members and formwork.

**CNST 4385 - Field Operations for Capital Projects**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in CNST 4335.  
Description  
Site utilization, project execution plans, progress measurements, analyzing field data, and close-out of process and industrial projects.

**Cooperative Education**

**COOP 0011 - COOP Education Work Period I**  
Credit Hours: 0.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 0.0  
Description  
All students registering for CO-OP must contact the CO-OP Office (713-743-4230) to confirm their work plans. It is the student’s responsibility to register for CO-OP in a timely manner. Students not registered appropriately will have a stop placed on their records and be charged a late fee.

**COOP 0012 - COOP Education Work Period II**  
Credit Hours: 0.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 0.0  
Description  
All students registering for CO-OP must contact the CO-OP Office (713-743-4230) to confirm their work plans. It is the student’s responsibility to register for CO-OP in a timely manner. Students not registered appropriately will have a stop placed on their records and be charged a late fee.

**COOP 0013 - COOP Education Work Period III**  
Credit Hours: 0.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 0.0  
Description  
All students registering for CO-OP must contact the CO-OP Office (713-743-4230) to confirm their work plans. It is the student’s responsibility to register for CO-OP in a timely manner. Students not registered appropriately will have a stop placed on their records and be charged a late fee.

**COOP 0014 - COOP Education Work Period IV**  
Credit Hours: 0.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 0.0  
Description  
All students registering for CO-OP must contact the CO-OP Office (713-743-4230) to confirm their work plans. It is the student’s responsibility to register for CO-OP in a timely manner. Students not registered appropriately will have a stop placed on their records and be charged a late fee.

**COOP 0015 - COOP Education Work Period V**  
Credit Hours: 0.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 0.0  
Description  
All students registering for CO-OP must contact the CO-OP Office (713-743-4230) to confirm their work plans. It is the student’s responsibility to register for CO-OP in a timely manner. Students not registered appropriately will have a stop placed on their records and be charged a late fee.

**COOP 0016 - COOP Education Work Period VI**  
Credit Hours: 0.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 0.0  
Description
All students registering for CO-OP must contact the CO-OP Office (713-743-4230) to confirm their work plans. It is the student's responsibility to register for CO-OP in a timely manner. Students not registered appropriately will have a stop placed on their records and be charged a late fee.

**COOP 0017 - COOP Education Work Period VII**
Credit Hours: 0.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  
Description
All students registering for CO-OP must contact the CO-OP Office (713-743-4230) to confirm their work plans. It is the student’s responsibility to register for CO-OP in a timely manner. Students not registered appropriately will have a stop placed on their records and be charged a late fee.

**Cultural and Urban Studies**

**CUST 4397 - Sel Tops- Cultural Studies II**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

**Curriculum and Instruction**

**CUIN 1101 - Step 1 - Teaching Science and Mathematics**
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Description
Methods of teaching science and mathematics in schools. Requires students to observe and teach science and math activities in elementary school classrooms.

**CUIN 1102 - Step 2 - Teaching Science and Mathematics**
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Description
Methods of teaching science and mathematics in schools. Requires students to observe and teach science and math activities in middle school classrooms.

**CUIN 1103 - Development of Educator Dispositions**
Credit Hours: 1.0
Lecture Contact Hours: 1.0  Lab Contact Hours: 0.0  Prerequisite: None.

**CUIN 2320 - Mathematics for Elementary and Middle School Teachers**
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or MATH 1311; MATH 1312.  
Description
Prepares students to teach mathematics at the elementary and middle school level. Emphasis is placed on developing specialized knowledge for teaching mathematics, which includes deep understanding of our base 10 number system, arithmetic, and problem solving. Topics include introduction to problem solving, counting, the four basic operations whole numbers decimals, and fractions, number theory, and the integration of algebra into arithmetic.  
Core Category: [90] Math/Reasoning

**CUIN 3111 - Educational Technology for Elementary Teachers**
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Formerly CUIN 3111 Educational Technology for Children I  
Prerequisite: credit for or concurrent enrollment in CUIN 3316.  
Description
Use of educational technologies in elementary teaching and learning.

**CUIN 3121 - Educational Technology for Secondary Teachers**
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Formerly CUIN 3121 Educational Technology for Adolescents I  
Prerequisite: admission to Teacher Education and credit for or concurrent enrollment in CUIN 3321 or EDUC 3301.  
Description
Use of educational technologies in adolescent teaching and learning.
CUIN 3302 - Social Education  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly CUIN 3302 The 21st Century Student  
Prerequisite: admission to Teacher Education Program.  
Description  
Exploring 21st century teaching and learning by investigating local and global communities through a social justice and culturally responsive lens.

CUIN 3310 - Foundations of Bilingual Education  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: six semester hours of advanced Spanish or equivalent.  
Description  
Rationale and history of bilingual programs for limited or non-English speaking students. Taught in Spanish.

CUIN 3311 - Methods and Techniques in Bilingual Education  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 9  
Prerequisite: CUIN 3310.  
Description  
Field-based course that focuses on methods in teaching content areas in Spanish. Taught in Spanish.

CUIN 3312 - Educational Technology  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: ENGL 1304.  
Description  
Instructional strategies using technology to effective support classroom teaching.

CUIN 3313 - Learning and Development Technologies  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: None.  
Description  
Development of learning experiences using instructional technology in education and industry environments.

CUIN 3316 - Prekindergarten Curriculum and Instruction  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: admission to Teacher Education Program and credit for or concurrent enrollment in CUIN 3201.  
Description  
Foundations of prekindergarten curriculum.

CUIN 3317 - Kindergarten and Elementary School Curriculum and Instruction  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to the Teacher Education Program, credit for CUIN 3316, and concurrent enrollment in CUIN 4315  
Description  
Foundations of kindergarten and elementary school curriculum.

CUIN 3321 - Introduction to Teaching Middle Grades  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Formerly CUIN 3221 Introduction to Teaching Middle Grades  
Prerequisite: Admission to Teacher Education and credit for or concurrent enrollment in CUIN 3121.  
Description  
Field-based experiences with the principles of teaching middle grades including teaching strategies, curriculum design, and organization of learning environments.

CUIN 3333 - Differentiating Curriculum, Instruction, & Assessment for Diverse Learners  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CUIN 3321.  
Description
Students explore the various approaches to differentiating curriculum, instruction, and assessment for diverse students. Strategies and techniques that are supported by research and best practice are discussed and analyzed.

**CUIN 3345 - Writing and Grammar for Teaching English**
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: ENGL 1304.

**Description**
Detailed view of teaching writing and grammar within the context of the writing process.

**CUIN 3346 - Teaching the Writing Process**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to the Teacher Education program.

**Description**
Methods and techniques for teaching the writing process in grades K-12.

**Additional Fee** $2.00  
**Fee Type** Lab Fee

**CUIN 3347 - Reading in the Content Area**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: admission to Teacher Education.

**Description**
Methods and materials for teaching developmental reading in specific content areas. Assessment and treatment of reading difficulties, including dyslexia and other literacy disorders, in grades 4-12.

**CUIN 3350 - Knowing and Learning Science and Math**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: credit for or concurrent enrollment in CUI 1101.

**Description**
Theories and frameworks addressing how people come to know in mathematics and science-related domains, including types of thinking and possible roles of the teacher and learner.

**CUIN 3351 - Classroom Interactions in Science and Mathematics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CUI 1102 and CUI 3350 (can be taken concurrently).

**Description**
Impact of interactions in the classroom and ways to combine content and pedagogy to address equity and diversity issues.

**CUIN 3352 - Perspectives Math and Science**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: CUI 1101.

**Description**
Introduces prospective mathematics and science teachers to historical, social, and philosophical implications of mathematics and science advances during significant episodes in history.

**CUIN 4101 - Content for Teaching**
Credit Hours: 1.0  
Lecture Contact Hours: 1.0  
Lab Contact Hours: 0.0  
Prerequisite: Admission to Teacher Education program and approval of advisor.

**Description**
Application of previous coursework in researching, understanding, developing and refining specific content knowledge relevant to the content area sought to teach.

**CUIN 4303 - Second Language Acquisition**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: admission to Teacher Education.

**Description**
Principles of second language acquisition and learning.

**CUIN 4304 - Language Arts/Reading Methods in Spanish**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: admission to Teacher Education and CUIN 3311

**Description**

Methods and materials for teaching language arts and reading in Spanish. Taught in Spanish.

**CUIN 4315 - Assessment of Children**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to Teacher Education Program, credit for CUIN 3316 and concurrent enrollment in CUIN 3317.

**Description**

Principles and procedures for assessing children.

**CUIN 4325 - Teaching Science in Grades 4-8 I**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to Teacher Certification Program.

**Description**

Instructional strategies and materials for teaching Science in grades 4-8.

**CUIN 4326 - Teaching Science in Grades 4-8 II**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to Teacher Certification Program.

**Description**

Curricular and assessment strategies for teaching science in grades 4-8.

**CUIN 4331 - Adolescent Literature**

Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: ENGL 1304.

**Description**

Survey course designed to acquaint preservice teachers with literature aimed at young adult readers and to expose them to developmental stages of adolescence as it relates to reading and literature.

**CUIN 4332 - Literacy Assessment for Reading and Writing**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to Teacher Education Program.

**Description**

Principles, methods, and materials for assessment and remediation of reading and writing in school settings.

**CUIN 4336 - Popular Culture in Education**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to Teacher Certification Program.

**Description**

Strategies of applying popular culture and issues in social studies/social education.

**CUIN 4337 - Teaching Social Studies in Middle Grades for Generalists**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to QUEST 2.

**Description**

Curriculum, concepts, methods, and materials for teaching social studies in the middle grades. For middle level generalists.

**CUIN 4341 - Teaching Mathematics Problem Solving**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to Teacher Certification Program.

**Description**

Instructional techniques that promote student ability to solve nonstandard mathematical problems.

**CUIN 4344 - Teaching Mathematics in Grades 4-8**
CUIN 4346 - Teaching Secondary Mathematics with Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Certification Program.
Description
Introduction to curriculum, methods, and materials for teaching mathematics in grades 4-8.

CUIN 4347 - Teaching Mathematics in Grades 7-12
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Certification Program.
Description
Introduction to curriculum, methods, and materials for teaching mathematics in grades 7-12.

CUIN 4348 - Teaching Mathematics in Middle Grades for Generalists
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to QUEST 2.
Description
Curriculum, concepts, methods, and materials for teaching mathematics in the middle grades. For middle level generalists.

CUIN 4349 - Teaching Geometry and Algebra Concepts
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Education program.
Description
Methods course for pre-service mathematics teachers that focuses on design of appropriate instructional methods, materials, and assessment techniques for teaching geometry and algebra concepts.

Additional Fee $2.00  Fee Type Lab Fee

CUIN 4350 - Multiple Teaching Strategies for Math and Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CUIN 3351.
Description
New technologies, teaching strategies, and assessment for effective classroom instruction. Includes teaching practicum in a high school setting.

CUIN 4351 - Developing Proportional Reasoning
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Education and CUIN 3321.
Description
Methods course for pre-service mathematics teachers that addresses research, methods, and materials which support student development of proportional reasoning concepts and skills.

Additional Fee $2.00  Fee Type Lab Fee

CUIN 4361 - Second Language Methodology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Admission to Teacher Education and co-enrollment in student teaching.
Description
Instruction and assessment of English as a Second Language students.

CUIN 4375 - Classroom Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Education.
Description
Effective classroom management models with emphasis on organizational systems, pro-social discipline, socioemotional climate, and group process strategies.
CUIN 4397 - Selected Topics in C&I  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** approval of chair.  
**Description**  
May be repeated for credit when topics vary.

CUIN 4398 - Independent Study  
**Credit Hours:** 1.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 0  
**Prerequisite:** Cr. 3. (3-0). Prerequisite: approval of chair.

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**Dance**

DAN 1103 - Freshman Seminar in Somatics  
**Credit Hours:** 1.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 0  
**Prerequisite:** None.  
**Description**  
Concurrent enrollment required in a two or three credit hour modern and/or ballet technique class. Each semester, students will learn through practical experience, a new somatic technique. Topics will include but are not limited to: Pilates, Alexander Technique, Feldenkrais, Yoga, Yamuna Body Rolling, and Gyrotonics.

DAN 1112 - Introduction to Pilates Mat  
**Credit Hours:** 1.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 1  
**Prerequisite:** An introduction to the STOTT PILATES method of pilates.  
**Description**  
STOTT PILATES incorporates modern exercise principles, and applies proven and accepted practices in biomechanics, rehabilitation and athletic performance enhancement into a comprehensive, systematic, contemporary approach to the original teachings. STOTT PILATES exercises are designed to restore the natural curves of the spine and rebalance the muscles around the joints. This involves placing more emphasis on pelvic and scapular stabilization, and integration of all the parts of the body into one. Preparatory exercises and modifications allow the technique to be appropriate for many different body types and abilities, making it applicable to sport-specific training and everyday life.  
**Note:** This is a pre-requisite to the STOTT PILATES Certification Training.

DAN 1201 - Ballet I Part I  
**Credit Hours:** 2.0  
**Formerly** DAN 1206  
**Description**  
Concepts and skills involved in ballet at the beginning level.  
May be repeated for credit with consent of instructor.

DAN 1202 - Ballet I Part II  
**Credit Hours:** 2.0  
**Formerly** DAN 1206  
**Prerequisite:** DAN 1201 and consent of instructor.  
**Description**  
Continuation of the concepts and skills involved in ballet at the beginning level.  
May be repeated for credit with consent of instructor.

DAN 1210 - Jazz I  
**Credit Hours:** 2.0  
**Description**  
The acquisition of the concepts and skills involved in jazz dance at the beginning level.  
May be repeated for credit with consent of instructor.

DAN 1211 - Modern Dance I Part I  
**Credit Hours:** 2.0  
**Formerly** DAN 1212  
**Description**  
Concepts and skills involved in modern dance at beginning level.
DAN 1212 - Modern Dance I Part II
Credit Hours: 2.0
  Prerequisite: DAN 1211 and consent of instructor.
Description
Continuation of concepts and skills involved in modern dance at the beginning level.
May be repeated for credit with consent of instructor.

DAN 1300 - Dance as a Fine Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Corequisite: Concurrent enrollment in a ballet and/or modern technique class is required.
Description
This course, designed specifically for dance majors and minors, is an introduction to understanding contemporary dance as a fine art. It is a combination lecture/discussion/studio class. Students will be introduced to fundamental dance structures, improvisation, dance history, aesthetics, and criticism. Finally, students will gain an understanding of composition analysis through discussion of the readings, concerts, assignments, and video viewings.

DAN 2203 - Ballet II Part I
Credit Hours: 2.0
  Formerly DAN 1203
  Prerequisite: DAN 1202 and consent of instructor.
Description
Concepts and skills involved in ballet at the intermediate level.
May be repeated for credit with consent of instructor.

DAN 2204 - Ballet II Part II
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: DAN 2203 and consent of instructor.
Description
Continuation of concepts and skills involved in ballet at the intermediate level.
May be repeated for credit with consent of instructor.

DAN 2213 - Modern II Part I
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Formerly DAN 1213
Prerequisite: DAN 1212 and consent of instructor.
Description
Concepts and skills involved in modern dance at the intermediate level.
May be repeated for credit with consent of instructor.

DAN 2214 - Modern II Part II
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Formerly DAN 1213
Prerequisite: DAN 2213 and consent of instructor.
Description
Continuation of concepts and skills of modern dance at the intermediate level.
May be repeated for credit with consent of instructor.

DAN 2300 - Dance Improvisation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: DAN 1300 and concurrent enrollment in dance technique course at 1000- or 4000-level as appropriate.
Description
Exploration of the use of the body and the variables of space, time, and energy.

DAN 2303 - Dance Production I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

Formerly DAN 3208 Dance Production; DAN 3308 Dance Production

Prerequisite: None.
Corequisite: Enrollment in a dance technique class.

Description
Theoretical and practical experience in staging, lighting, and producing choreographic presentations of dance performance.

**DAN 2304 - Dance Kinesiology**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

Prerequisite: consent of instructor.

Description
Study of human body in motion as it relates to dance with a focus on anatomy, physiology, and biomechanics. Other course topics include: somatics, nutrition, conditioning, and injury prevention.

Typically Offered: Fall

**DAN 2305 - Dance Composition I**
Credit Hours: 3.0

Prerequisite: DAN 2300 or consent of instructor.

Description
Approaches to compositional form emphasizing creative and innovative experiences.

**DAN 2306 - Dance Composition II**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

Prerequisite: DAN 2305 Dance Composition I or consent of instructor.

Description
Advanced approaches to compositional form emphasizing elements of music and rhythm.

**DAN 2307 - Introduction to Dance**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

Prerequisite: ENGL 1304.

Description
An introductory class to dance as an art form with an overview of the dance techniques, history, and choreography of major dance genres.

Core Category: [50] Creative Arts; [81] Writing in the Disciplines

**DAN 2308 - Design Elements for Dance**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

Prerequisite: Acceptance to the Dance major by audition and consent of instructor.

Description
Fundamental principles and elements of theatrical design applied to creating and staging dance.

Typically Offered: Spring

**DAN 2309 - Dance Production II**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

Prerequisite: None.

Corequisite: Concurrent enrollment in a dance technique class.

Description
Theoretical and practical experience in staging, lighting, costuming, and producing choreographic presentations of dance. This course may include specialization of one element of design.

**DAN 3103 - Junior Seminar in Somatics**
Credit Hours: 1.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

Prerequisite: Two semesters of DAN 1103.

Corequisite: Concurrent enrollment required in a two or three credit hour modern and/or ballet technique class.

Description
Each semester, students will learn through practical experience, a new somatic technique. Topics will include but are not limited to: Pilates, Alexander Technique, Feldenkrais, Yoga, Yamuna Body Rolling, and Gyrotonics.
DAN 3203 - Contact Improvisation  
Credit Hours: 2.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: DAN 2300 and consent of instructor.  
Corequisite(s): DAN 3302 or consent of instructor.  
Description  
This course is dedicated to the practice and study of contact improvisation (CI). Class time will be devoted to the cultivation of skills and states that support contact dances.

DAN 3302 - Intermediate Advanced Theory & Technique  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: DAN 2214 and DAN 2204 or consent of instructor.  
Description  
Intermediate modern dance performance technique and related theory. May be repeated for credit with consent of instructor.

DAN 3306 - Dance Composition III  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: DAN 2306 Dance Composition II.  
Description  
Prepares students in advanced choreography, with an emphasis on thematic content development through research.

DAN 3310 - Dance History I  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing.  
Description  
Evolution of dance as a communicative art form from antiquity thorough 19th Century Romantic Period.  
Core Category: [50] Creative Arts; [81] Writing in the Disciplines

DAN 3311 - Dance History II  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: consent of instructor.  
Description  
Development of 20th century contemporary dance from Loie Fuller and Isadora Duncan to post-modernism and current trends, within a historical and cultural context.

DAN 3312 - STOTT PILATES: Intensive Mat Certification  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Anatomy, Pedagogy II (or equivalent) or consent of instructor.  
Description  
Preparation for certification in STOTT PILATES Level I Matwork repertoire. Topics include postural analysis, self-practice, teaching, and observation of the STOTT PILATES method.  
Typically Offered: Spring

DAN 3314 - Technology in Dance  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Junior standing or consent of instructor.  
Corequisite: Concurrent enrollment required in a two or three credit hour dance technique class.  
Description  
This course will investigate the fusion of dance and technology with respect to the creation of intermedial dance works.

DAN 4110 - Dance Ensemble  
Credit Hours: 1.0  
Prerequisite: admission by audition.  
Description  
Repertory experiences in contemporary and classical dance.  
May be repeated for a maximum of four semester hours.
DAN 4197 - Selected Topics
Credit Hours: 1.0
Lecture Contact Hours: 1 Lab Contact Hours: 0 Prerequisite: junior standing and consent of chair.
May be repeated for credit when topics vary.

DAN 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0 Lab Contact Hours: 0 Prerequisite: approval of chair.

DAN 4204 - Jazz Dance III
Credit Hours: 2.0
Lecture Contact Hours: 2 Lab Contact Hours: 0 Prerequisite: consent of instructor.
Description
Concepts and skills involved in jazz dance at the advanced level with an emphasis on musical theatre dance repertory and history.
May be repeated for credit with consent of instructor.

DAN 4298 - Independent Study
Credit Hours: 2.0
Lecture Contact Hours: 0 Lab Contact Hours: 0 Prerequisite: approval of chair.

DAN 4302 - Advanced Technique and Theory
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: 2 semesters of DAN 3302 or consent of instructor.
Description
Advanced performance technique and related dance theory.
May be repeated for credit with consent of instructor.

Typically Offered: Fall & Spring

DAN 4305 - Senior Dance Project with Career Management
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 1 Formerly DAN 4105
Prerequisite: DAN 2300, DAN 2305, and DAN 2306.
Description
Directed dance composition culminating in a fully realized choreographed project inclusive of career management. Professional development topics include project grant writing, fundraising, resumes, and presentation skills.

DAN 4307 - Teaching Dance in Education
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: DAN 3310, DAN 3311, DAN 2305 DAN 3305 or instructor approval.
Corequisite: DAN 3302, or DAN 4302 or instructor approval.
Description
Introduction to educational dance for K-12 inclusive of lesson and curriculum planning. Development of skills for teaching Creative Dance with field experiences in an elementary school.
Additional Fee Y

DAN 4308 - Teaching Dance Skills
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: DAN 2304.
Corequisite: DAN 3302, or DAN 4302 or instructor approval.
Description
A motor learning approach to teaching dance skills. Theoretical and practical applications of modalities for teaching dance technique in a variety of styles and settings.
Additional Fee Y

DAN 4330 - Career Skills for the Practicing Dance Artist
DAN 4331 - PR and Marketing Entrepreneurship for the Arts
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.
Description
This course provides a comprehensive overview of grant writing strategies and teaching artist skills necessary for career sustainability in the arts. Course topics include effective planning, research, and preparation for writing skillfully within fundraising, and teaching/performing as an artist in K-12 schools.

DAN 4397 - Selected Topics in Dance
Credit Hours: 3.0
Prerequisite: junior standing and consent of chair.
May be repeated for credit when topics vary.

DAN 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

Digital Media

DIGM 1300 - Introduction to Digital Media
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
An introduction to the field of Digital Media, including digital imaging and design, print publishing, web publishing, and the business environment.
Note: Students must pass this course with a C+ or higher to declare digital media as a major.

DIGM 1350 - Graphics for Digital Media
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: C or higher in ENGL 1303 or ENGL 1304 or credit for AP English Language and Composition.
Description
Pixel-based and vector graphics for use in print and digital media.

DIGM 1376 - User Experience (UX) Principles
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Declared Digital Media or Computer Information System major or minor.
Description
History and evolution of UX research and the primary research methods used by usability researchers.

DIGM 2325 - Information Technology Applications for Digital Media
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: C+ or better in DIGM 1350.
Description
Information Technology applications for digital media businesses: business information systems, social technology, data analysis, database concepts and applications, business intelligence, and data management (warehousing, analyzing, mining, and visualization).

DIGM 2351 - Web Design
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: A grade of C or better in DIGM 1350 or approved equivalent and Digital Media major or Computer Graphics minor status.
Description
Web page design, site planning, interface design, and site implementation. Students must pass a Photoshop pretest during the first week of class to continue.

**DIGM 2352 - Digital Photography**
Credit Hours: 3.0  
*Lecture Contact Hours: 2  Lab Contact Hours: 3*  
Prerequisite: A grade of C or better in DIGM 1350.  
Description  
Digital cameras; photographic principles; image organization, metadata, evaluation, and correction; digital asset management; creating image portfolios for the Web; use of color management to soft/hard-proof finished photographs.

**DIGM 2353 - Page Layout and Design**
Credit Hours: 3.0  
*Lecture Contact Hours: 2  Lab Contact Hours: 3*  
Prerequisite: A grade of C or better in DIGM 1350, Declared Digital Media major or minor.  
Description  
Use of page layout software to create effective documents that follow established principles of design, typography, color, and photography, as well as ethical and legal standards.

**DIGM 2357 - Content Strategy & Development**
Credit Hours: 3.0  
*Lecture Contact Hours: 2  Lab Contact Hours: 3*  
Prerequisite: A grade of C or higher in DIGM 1350 and DIGM 1376.  
Description  
Developing a content strategy from a brand perspective. Digital storyboarding for multi-touch, multichannel campaigns using personalized communications software.

**DIGM 3152 - Graphic Communication Output Lab**
Credit Hours: 1.0  
*Lecture Contact Hours: 0  Lab Contact Hours: 3*  
Prerequisite: Credit for or concurrent enrollment in DIGM 3252.  
Description  
Laboratory activities and experiments related to digital and conventional graphic communication output.

**DIGM 3252 - Graphic Communication Output**
Credit Hours: 2.0  
*Lecture Contact Hours: 2  Lab Contact Hours: 0*  
Prerequisite: Grade of C or better in DIGM 2353 or 3351.  
Description  
Static and variable-data printing technologies; binding and finishing technologies; materials used in print production; history and significance of printing methodologies.

**DIGM 3252 - Graphic Communication Output**
Credit Hours: 2.0  
*Lecture Contact Hours: 2  Lab Contact Hours: 0*  
Formerly DIGM 3352  
Prerequisite: A grade of C or better in DIGM 2353 or DIGM 3351.  
Description  
Static and variable-data printing technologies; binding and finishing technologies; materials used in print production; history and significance of printing methodologies.  
Typically Offered: Fall and Spring

**DIGM 3326 - Big Data Analytics for Digital Media**
Credit Hours: 3.0  
*Lecture Contact Hours: 2  Lab Contact Hours: 3*  
Prerequisite: Grade of C or better in DIGM 2325 or CIS 2334.  
Description  
Leveraging data sets and social media to identify potential customers and to determine what they want.

**DIGM 3350 - Graphic Communication Production Processes**
DIGM 3351 - Individualized Communication Processes
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Grade of C or higher in DIGM 2325 and DIGM 2353.  
Description  
Strategically designing and producing personalized and engaging print media campaigns through the use of database and variable data software. Image capture, manipulation, color management, transfer, and finishing.

DIGM 3353 - Visual Communications Technology
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: ENGL 1303 or ENGL 1304. May not apply to a major in Digital Media.  
Description  
Visual communications: design principles, typography, color, photography, pixel and vector graphics, print, electronic delivery, ethical considerations, and presenting ideas to clients.

DIGM 3354 - Video Production 1
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: A grade of C or better in DIGM 2352 or approved equivalent.  
Description  
Introduction to digital film and video production from concept development and planning through post-production to delivery. Students must pass a digital photography pretest during the first week of class to continue.

DIGM 3355 - Package Technology
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: A grade of C or better in DIGM 1350, DIGM 3152, and DIGM 3252.  
Description  
Packaging structures from the perspectives of distribution packaging, materials, product protection, testing methodology, palletization, and designing for various shipping methods and channels. Current Topics in industry trends.

DIGM 3356 - ePublishing
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: A grade of C or better in DIGM 2357 and DIGM 3351.  
Description  
Design for tablet and mobile device delivery; information technologies for eMedia workflows; use of XML for ePublishing; digital asset management; personalized e-mail blasts.

DIGM 3370 - Two Dimensional Computer Generated Imagery Animation
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: A grade of C or better in DIGM 3354.  
Description  
Two-dimensional (2D) computer-generated imagery (CGI), including drawing, coloring, and animating objects and characters; phonemes for character dialog; and object-oriented programming.

DIGM 3374 - Video Production 2
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: A grade of C or better in DIGM 3354.  
Description  
Advanced techniques in digital video production including special effects and motion graphics.
DIGM 3399 - Senior Honors Thesis  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly GRTC 3399  
Prerequisite: approval of department chair. Independent work in digital media with faculty supervision. May be repeated for credit.

DIGM 4350 - Venue Transmedia  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: Grade of C or better in DIGM 3374.  
Description  
The tools, technologies, and practices of producing and directing a multiplatform live event in a venue with an audience in attendance. Capturing the event, video switching, text and motion graphics generation, sound design and mixing, video projection, lighting, and content streaming for remote delivery and viewing.  
Additional Fee N

DIGM 4351 - Portfolio Development for Digital Media  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: Grade of C or higher in DIGM 2357, DIGM 3351, and DIGM 3354.  
Description  
Students will brand themselves and their careers by completing and polishing their hard-copy portfolios and by using commercially-available online resources to build their online portfolios.

DIGM 4371 - 3D Modeling and Animation  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: A grade of C or better in DIGM 3370.  
Description  
Three-dimensional (3D) computer-generated imagery (CGI), including modeling, coloring, texturing, rigging, and animating objects and character; also morph targeting for facial expressions and phonemes.

DIGM 4372 - Costing in Digital Media  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Formerly GRTC 4372  
Prerequisite: Grade of C or better in DIGM 2357, DIGM 3351, and DIGM 3354. (DIGM 3354 waived for Graphic Communications Technology Minors).  
Description  
Principles and techniques of cost estimation for digital media production.

DIGM 4373 - Photographic Tone and Color Reproduction  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: Grade of C or better in DIGM 3252.  
Description  
Tone and color theory, measurement, and modification; calibrating and characterizing input and output devices; G7 calibration technology; converting photographs to match output device requirements for black-and-white or color reproduction; outputting images to meet or exceed customer expectations.  
Additional Fee Y

DIGM 4375 - Package Design  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: A grade of C or better in DIGM 3252 and DIGM 3152.  
Description  
Packaging design from the perspectives of brand alignment, aesthetics, form, manufacturing processes, sustainability, utility, and commercial and governmental requirements. Creating prototypes; developing and presenting client proposals.

DIGM 4376 - Integrated Media  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: DIGM 2351, 2353, 3354 and 3357 (DIGM 3354 waived for Computer Graphics Minor).  
Description
Developing personal and corporate brands that integrate print- and web-design, computer graphics, photographs, videos, social- and mobile-media.

**Additional Fee Y**

**DIGM 4378 - Senior Project**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Formerly GRTC 4378**
**Prerequisite:** Grade of C or higher in DIGM 4351 or consent of program coordinator.
**Description**
Directed research project.

**DIGM 4379 - Transmedia Marketing**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 3  **Prerequisite:** Grade of C or higher in DIGM 2357, DIGM 3351, and DIGM 3354.
**Description**
The technology, production, and management of creative story-telling authored across multiple media distribution platforms.

**DIGM 4381 - Mobile Application Design**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 3  **Prerequisite:** (ELET 2300 or COSC 1306) & (Digital Media Major or Minor) & C or better in DIGM 1350.
**Description**
Mobile applications design using object-oriented programming; 2D and 3D graphics; cloning mobile applications.

**DIGM 4382 - Simulation and Gaming**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 2  **Lab Contact Hours:** 3  **Prerequisite:** Digital Media Major or Minor, B or better in DIGM 4371 and ELET 2300.
**Description**

**DIGM 4390 - Current Issues in Digital Media**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Formerly GRTC 4390**
**Prerequisite:** Senior Standing in Digital Media major or minor; consent of program coordinator.
**Description**
Issues and topics in digital media.
**Note:** Check class notes for prerequisites as topics vary.

**DIGM 4396 - Internship in Digital Media**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 0  **Lab Contact Hours:** 9  **Formerly Formerly GRTC 4396.**
**Prerequisite:** Consent of instructor.
**Additional Fee Y Fee Type Lab Fee**

**DIGM 4397 - Selected Topics in Digital Media**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Formerly GRTC 4397.**
**Prerequisite:** Approval of department chair.
**Note:** May be repeated for credit when topics vary.
**Additional Fee Y**

**DIGM 4398 - Independent Study**
**Credit Hours:** 3.0
**Lecture Contact Hours:** 0  **Lab Contact Hours:** 0  **Formerly GRTC 4398**
**Prerequisite:** approval of department chair.
**Description**
Individual projects under faculty sponsorship. May be repeated for credit.

**DIGM 4399 - Senior Thesis**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  

*Formerly GRTC 4399*

*Prerequisite: Grade of C or better in DIGM 2351, DIGM 3351, DIGM 3354, and DIGM 4372.*

*Description*

Directed research project.

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**Economics**

**ECON 2301 - Global Economic Concepts**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  

*Prerequisite: MATH 1310 or equivalent or consent of instructor.*

*Description*

Nontechnical introduction to microeconomic and macroeconomic concepts emphasizing global economy.

*Note:* Credit may not be earned in both ECON 2301 and ECON 2305. Not intended for business administration majors. Economics majors/minors who earn at least a B+ in ECON 2301 may petition to substitute 2301 for ECON 2305.

*Core Category: [80] Social & Behavioral Sciences*

**ECON 2304 - Microeconomic Principles**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  

*Prerequisite: MATH 1310 or equivalent or consent of instructor.*

*Description*

Individual consumer and firm behavior, supply and demand and the market determination or prices, production, and income. Includes government price ceilings, monopoly and antitrust, market failures and environmental pollution.

*Core Category: [80] Social & Behavioral Sciences*

TCCNS Equivalent: ECON 2302

**ECON 2305 - Macroeconomic Principles**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  

*Prerequisite: MATH 1310 or equivalent or consent of instructor.*

*Description*

Aggregate economy, inflation, recession, and economic policy. Economic growth, business cycle theory, and international trade.

*Note:* Credit may not be earned in both ECON 2301 and 2305. Economics majors/minors with at least a B+ in ECON 2301 may petition to substitute ECON 2301 for ECON 2305.

*Core Category: [80] Social & Behavioral Sciences*

TCCNS Equivalent: ECON 2302

**ECON 2370 - Introduction to Economic Data Analysis**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  

*Prerequisite: Completion of MATH 1310 or equivalent or consent of instructor.*

*Description*

Introduction to basic concepts in statistics with strong emphasis on the application of statistical methods to the analysis and interpretation of economic data. Topics include descriptive statistics, sampling theory, confidence interval, hypothesis testing, and simple linear regression analysis. Students will also learn how to carry out statistical analysis in spreadsheet programs like Excel.

*Core Category: [90] Math/Reasoning*

**ECON 3332 - Intermed Microeconomics**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  

*Prerequisite: ECON 2304 or Math major with sophomore standing in the Option in Mathematical Finance program.*

*Description*

Rigorous introduction to resource allocation in a market economy including consumer behavior, firm behavior, supply and demand, efficiency and the determination of prices.
ECON 3334 - Intermed Macroeconomics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2305 or Math major with sophomore standing in the Option in Mathematical Finance program.
Description
Rigorous introduction to the determination of aggregate output, employment, the price level and income. Includes effects of inflation, causes of business cycles determination of economic growth, impacts of monetary policy and effects of government taxation, spending and the national debt.

ECON 3340 - Comparative Economic Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly ECON 4379
Prerequisite: ECON 2301 or ECON 2304 or ECON 3332 or consent of instructor.
Description
The role and impacts of alternative allocation systems, including markets, socialization and central planning. Structure and performance of historical and contemporary economic systems, with implications for the emerging world economy.

ECON 3341 - Russian and Chinese Transformation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly ECON 4386
Prerequisite: junior standing.
Description
Examination of Soviet and Chinese economic history from their communist takeovers to the present. Focuses on the era of Soviet planning in both countries. Explores the factors that led to the collapse of the Soviet Union and of the Chinese reform of the late 1970s that made possible China's rapid growth over the past three decades.

ECON 3342 - Global Issues in Economic Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Econ 2301 or Econ 2304.
Description
The objective of this course is to provide reading material and lectures which facilitate a better understanding of the world, its politics, its people, the problems facing the global environment and the changing global economy in which we live. We will study populations that have experienced a dramatic transformation and improvement in the conditions of their life and those that have not.
Note: Credit may not be earned in both Econ 4389: Economic Geography and Econ 3342.

ECON 3344 - History of Economic Doctrine
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 3332 and ECON 3334, or consent of instructor.
Description
Development of economic thought and the intellectual and historical framework within which economic ideas have grown. Among the thinkers that are emphasized are Smith, Ricardo, Marx, Malthus, Marshall, Say, Turgot and Keynes.
Core Category: [81] Writing in the Disciplines

ECON 3347 - Capital Market Economics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, ECON 2305, and ECON 2370, MATH 1314 or MATH 1431 or consent of instructor.
Description
Financial assets in the context of time, uncertainty, options, and information. Time value of money, market efficiency, risk, asset pricing, derivatives, firm capital structure, market microstructure, and quantitative financial modeling.

ECON 3348 - Food, Population, Agriculture and the Environment
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Econ 2301 or Econ 2304.
Description
The objective of this course is to provide reading material and lectures which facilitate a better understanding of the world, its politics, its agriculture and food production, the dynamics of population, the problems facing the global environment and the changing global economy in which we live. Central to the course is both the sustainability and the economics of global food production systems and their ability to end hunger and malnutrition.
and to feed a growing world population.

**Note:** Credit may not be earned in both Econ 4389: Food, Population, and the Environment and Econ 3348.

**ECON 3350 - American Economic Growth**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** ECON 2304, and ECON 2305, or consent of instructor.

**Description**

Applications of economic analysis to American economic history and how that history has shaped modern economic institutions, including the experience of the Colonies, the American Revolution, Industrialization, the Civil War and the Great Depression.

**Core Category:** [81] Writing in the Disciplines

**ECON 3351 - Economics of Development**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** ECON 2301 or ECON 2304 or consent of instructor.

**Description**

Nature, causes and possible solutions to problems in underdeveloped economies. Analysis of economic, political and human implications of economic growth, including the influence of the international aid community and the consequences of world trade.

**ECON 3357 - Data Management with Economic Applications**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** MATH 1310, Economics Majors and Minors only.

**Description**

This course introduces the basic elements of data collection, cleaning and preparation, as well as statistical principles, methods, and programming for data analysis. It focuses on advanced topics in Excel and introductory SQL to create relational databases, extract information, manipulate and prepare data and perform data analysis with the applications in risk management and financial modeling.

**Additional Fee** N

**ECON 3361 - Economics of Globalization**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** ECON 2301 or Econ 2305 or consent of instructor.

**Description**

Analysis of modern day economic globalization, focusing on capital market integration and its effect on economic growth and development, income inequality and labor markets. Credit may not be earned in both INTB 3353 and Econ 3361.

**ECON 3362 - Mathematics for Economics**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** ECON 2370.

**Description**

Develop algebra and calculus-based techniques for analyzing economic decisions. Solve constrained optimization problems for consumer choice and for determination of optimal input levels for production by firms. Connect key calculus concepts to relevant probability and statistics theories to deepen students understanding of econometrics methods. Train students to think about multidimensional datasets as vectors and matrices. Explore computational tools for deriving and approximating mathematical solutions to economic problems.

**Additional Fee** N

**ECON 3363 - Environmental Economics**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** ECON 2304 or ECON 3332 or consent of instructor.

**Description**


**ECON 3365 - Labor Economics**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** ECON 2304 or ECON 3332 or consent of instructor.

**Description**

Introduction to economic theory, data and policy issues in labor economics. Labor market effects of minimum wage laws, mandatory employee
benefits, technological change, international trade and immigration. Effects of income replacement programs, rise in female labor supply, rise in income inequality, decline in manufacturing and the decline of unions.

**ECON 3368 - Economics of Health Care**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ECON 2304 or ECON 3332 or consent of instructor.  
**Description**  
Determinants of supply and demand for health care, including the regulatory environment and government policy. Medical insurance, behavior of patients and medical professionals, methods of health finance, medical liability, government programs and regulation of health care industry.

**ECON 3370 - Introduction To Econometrics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly** ECON 4365 Introduction To Econometrics  
**Prerequisite:** ECON 2370 with a grade of C- or better.  
**Description**  
Introduction to basic econometric concepts and methods necessary for conducting empirical analysis. Practical applications using Excel and Stata. Topics include model specification, regression analysis, results interpretation and an overview of advanced topics in econometrics.

**ECON 3371 - Economics of Money and Banking**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ECON 2305 or ECON 3334 or consent of instructor.  
**Description**  
Analysis of how the banking system and monetary policy determine the money supply and interest rates. U.S. Federal Reserve Bank, unemployment, inflation, stock and bond markets and interest rates.

**ECON 3377 - Economics of Public Finance**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ECON 2304 or ECON 3332 or consent of instructor.  
**Description**  
Effects of economic incentives on voters, government officials, economy and markets. Analysis of situations where private markets fail to be efficient. Applications to government policies at federal and local levels, including welfare, insurance, health care, policing, roads and Social Security. Analysis of tax system and interaction among federal, state, and local governments.

**ECON 3385 - Economics of Energy**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ECON 2304 or ECON 3332 or consent of instructor.  
**Description**  
National and international energy markets in various forms, including oil, natural gas and alternative energy sources. Pricing, distribution and allocation and U.S. and international regulation of industry.

**ECON 3389 - Topics in Contemporary Economics I**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Sophomore standing  
**Description**  
Development of economic thought and the intellectual and historical framework within which economic ideas have grown. Among the thinkers that are emphasized are Smith, Ricardo, Marx, Malthus, Marshall, Say, Turgot and Keynes. A survey of contemporary economic theory and problems. May be repeated for credit when topics vary.  
**Typically Offered:** Fall, Spring

**ECON 3399 - Senior Honors Thesis**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** approval of chair.

**ECON 4198 - Independent Study**  
**Credit Hours:** 1.0
ECON 4298 - Independent Study
Credit Hours: 2.0

ECON 4321 - Economic Analysis of U.S. Legal System
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing.
Description
Economic implications of law and the legal system, including common law, constitutional law, and administrative law. Property torts, contracts and criminal law.

ECON 4331 - Economics of Gender
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 3332 or consent of instructor.
Description
Gender gap in market work and market pay and the role of household specialization and discrimination. Female labor force participation in the U.S. and the influence of industrial structure, technology, marriage, and fertility on a women’s decision to engage in market work.

ECON 4335 - Economic Growth Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 3332 and ECON 3334, or consent of instructor.
Description
Theory and empirics of economic growth with emphasis on international comparisons of performance of income and productivity. Technology, population dynamics, government policy, culture, income inequality, international trade, democracy, and the rule of law.

ECON 4338 - Regression Causal Modeling and Social Science Data Mining
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Econ 3370 (previously Econ 4365).
Description
The course focuses on very basic statistical data mining tools. Topic areas include review of multiple regression analysis, models of association and clustering, statistical learning models, the explanation of individual behaviors, and simple forecasting models. This is an applied statistics and not a course in computer science or database management.

ECON 4345 - Social Economics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 3332.
Description
In this course, we will extend our basic tools of economic analysis to explore a variety of social phenomena that are key elements of our day to day lives. Instead of treating people as individual actors making decisions in isolation from each other, we will explicitly consider the roles of interactions between members of a society. Main topics covered are social learning, norms and conformity; identity, culture and status; peer effects and sorting and segregation
Additional Fee N

ECON 4349 - Introduction to Game Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2370 and ECON 3332.
Description

ECON 4360 - Introduction to Mathematical Economics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1314 or MATH 1431 and ECON 3332.
Description
Develop algebra and calculus based techniques for analyzing economic decisions. Solve constrained optimization problems for consumer choice and for determination of optimal input levels for production by firms. Elements of game theory and dynamic economic decision making.
ECON 4368 - International Monetary Economics  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 3334 or consent of instructor.  
Description  
Exchange rate determination, the balance of payments, the international flow of capital and its impact on economies, alternative exchange rate systems, government management of international financial environment and European, Latin America and Asian exchange rate crises.

ECON 4370 - International Trade  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly ECON 3376  
Prerequisite: ECON 3332 or consent of instructor.  
Description  
Causes of international trade and its effect on national economies. Consequences of trade barriers and trade policies in different economic environments, including reaction to national monopolistic practices. International transmission of investment, labor and technology.

ECON 4372 - Economics of Education  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 3332 or consent of instructor.  
Description  
The roles of technology and globalization in the requirement for an educated work force. Effects of education policies on meeting the need for skilled workers, including the roles of school resources, teachers, and peers.

ECON 4373 - Economics of Financial Crises  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 3334.  
Description  
This course reviews the historical background behind various crises that have occurred around the world and proposes theories to address them. Topics covered include banking crises, sovereign debt defaults, economic depressions, international contagion, exchange rate crises, hyperinflations and behavioral finance.

ECON 4374 - Behavioral Economics  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Econ 3332 Intermediate Microeconomics.  
Description  
The course explores various ways in which the predictions of classical economic theory fail in the real world and attempts to modify the theories to take into consideration these deviations and better explain and predict human behavior. This course will introduce students to the basic findings of this field and give them the tools to formulate new theories, test predictions, and apply the insights from behavioral economics to the real world.  
Note: Credit may not be earned in both Econ 4389: Behavioral Economics and Econ 3348.

ECON 4376 - Industrial Organization  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly ECON 3376  
Prerequisite: ECON 3332 and ECON 2370 or consent of instructor.  
Description  
This course will cover the basic tools and issues in the field of industrial organization. Prominent topics will include oligopoly, cartel behavior, anti-competitive practices, anti-trust and regulation.

ECON 4377 - Urban Economics  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 3332 or consent of instructor.  
Description  
Analysis of the American city's economic structure: its causes, location of residential and production activities, income disparities and implications for urban development and how the public sector affects the urban economy.

ECON 4378 - Chinese Economy
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ECON 3332 and ECON 2370 or consent of instructor.

Description
This course provides an introduction to the recent development of Chinese economy. The course has an emphasis on the microeconomic literature, covering topics including fertility policy, inequality, environment and migration.

ECON 4385 - Monetary Policy
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ECON 3334.

Description
Monetary policy affects all aspects of the economy: interest rates, inflation, unemployment, stock prices, and even income inequality. The Chair of the Federal Reserve Board, which sets monetary policy, is often called the second most powerful person in the United States. The course will consider how monetary policy is conducted in the United States and other countries, with particular attention to developments since the Financial Crisis and Great Recession of 2008.

Additional Fee N

ECON 4389 - Topics in Contemporary Economics II
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Junior standing.

Description
A survey of contemporary economic theory and problems.

Note: May be repeated for credit when topics vary.

Typically Offered: Fall and Spring

ECON 4390 - Economics Internship
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ECON 3332 and ECON 3334 and consent of instructor.

Description
Work with practicing economists in selected private industry, federal, state and local government offices. Correlated readings.

May be repeated once for credit. Only three hours may apply toward the ECON major requirements.

ECON 4395 - Selected Topics in Applied Econometrics
Credit Hours: 3
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ECON 3370 (previously ECOM 4365).

Description
This course is a continuation of ECON 3370 (previously ECOM 4365) and introduces students to several extensions of multiple regression methods for analyzing data in economics and related disciplines. Topics might include regressions with panel data, instrumental variables regression, analysis of randomized experiments, regressions with time series data, forecasting, probability models, survival analysis, etc. See semester course listing section sub-titles and descriptions for details.

ECON 4398 - Independent Study
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: approval of chair.

ECON 4399 - Senior Honors Thesis
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ECON 3399 and approval of department chair.

Education

EDUC 3101 - Practicum for Preservice Teachers
Credit Hours: 1.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 1.0  
Prerequisite: EDUC 3301 or CUIN 3316 or CUIN 3221.

Description
Practicum of design and implementation of instruction and assessment; classroom management; teacher inquiry.

EDUC 3301 - Introduction to Teaching

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Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Education.

Description
Introduction to teaching profession, including theories and principles of teaching; professional and pedagogical knowledge and skills; legal and ethical aspects; structure, organization, and management of schools; and field-based experiences.

EDUC 4311 - Student Teaching and Integrated Technology: Elementary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 12  Prerequisite: completion of professional development sequence and admission to student teaching.

Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type Student Teaching Fee

EDUC 4312 - Student Teaching and Integrated Technology: Elementary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: completion of professional development sequence and admission to student teaching.

Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.

EDUC 4313 - Student Teaching: Early Childhood Education
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: completion of professional development sequence and admission to student teaching.

Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type Student Teaching Fee

EDUC 4314 - Student Teaching: Secondary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: completion of professional development sequence and admission to student teaching.

Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type Student Teaching Fee

EDUC 4315 - Student Teaching: Secondary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: completion of professional development sequence and admission to student teaching.

Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type Student Teaching Fee

EDUC 4316 - Student Teaching: Art - Elementary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: completion of professional development sequence and admission to student teaching.

Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type Student Teaching Fee

EDUC 4317 - Student Teaching: Art - Secondary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: completion of professional development sequence and admission to student teaching.

Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
EDUC 4318 - Student Teaching: Music - Elementary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: completion of professional development sequence and admission to student teaching.
Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type  Student Teaching Fee

EDUC 4319 - Student Teaching: Music - Secondary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 9  Prerequisite: completion of professional development sequence and admission to student teaching.
Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type  Student Teaching Fee

EDUC 4322 - Student Teaching: Theater - Elementary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 12  Prerequisite: completion of professional development sequence and admission to student teaching.
Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Typically Offered: Fall, Spring, Summer

EDUC 4323 - Student Teaching: Theater - Secondary
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 12  Prerequisite: completion of professional development sequence and admission to student teaching.
Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.

EDUC 4324 - Student Teaching and Integrated Technology: Middle School
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 12  Prerequisite: completion of professional development sequence and admission to student teaching.
Description
Demonstration of specified competencies in a school setting, including technology integration, guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type  Student Teaching Fee

EDUC 4325 - Student Teaching and Integrated Technology: Middle School
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: completion of professional development sequence and admission to student teaching.
Description
Demonstration of specified competencies in a school setting, including technology integration, guided by a cooperating teacher and directed by a university supervisor. Seminar required.
Additional Fee $50.00 per SCH  Fee Type  Student Teaching Fee

EDUC 4511 - Student Teaching and Integrated Technology-Elementary
Credit Hours: 5.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 20.0  Prerequisite: Admission to Teacher Education program and approval of advisor.
Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.
EDUC 4512 - Student Teaching and Integrated Technology-Elementary
Credit Hours: 5.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 5.0 Prerequisite: Admission to Teacher Education program and approval of advisor.
Description
Demonstration of specified competencies in a school setting guided by a cooperating teacher and directed by a university supervisor. Seminar required.

Electrical and Computer Engineering

ECE 2100 - Circuit Analysis Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3 Prerequisite: credit for or concurrent enrollment in ECE 2202.
Description
Introduction to the electronics laboratory equipment. Introductory experiments in circuit analysis. Formal report writing. This laboratory course is a prerequisite for all other ECE laboratory courses.

ECE 2201 - Circuit Analysis I
Credit Hours: 2.0
Lecture Contact Hours: 1  Lab Contact Hours: 3 Prerequisite: ENGI 1100 OR ECE 1100 OR ECE 1111, ENGL 1331, ENGL 1303 or ENGL 1309, ENGL 1304, or ENGL 1310, MATH 1431, MATH 1432, PHYS 1321 and PHYS 1121.
Corequisite: MATH 2433, MATH 3321, PHYS 1122 and PHYS 1322.
Description
Analysis of resistive circuits, including node voltage and mesh current methods, and Thevenin and Norton equivalent circuits.
Note: Major exams given on Saturdays.

ECE 2202 - Circuit Analysis II
Credit Hours: 2.0
Lecture Contact Hours: 1  Lab Contact Hours: 3 Prerequisite: ECE 2201 and PHYS 1122.
Description
Analysis of electric circuits, including inductors, capacitors, and first order circuits; sinusoidal analysis.

ECE 3155 - Electronics Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 4 Prerequisite: ECE 2100 and ENGI 2304 and credit for or concurrent enrollment in ECE 3355.
Description
Laboratory projects concerning topics studied in electronics

ECE 3317 - Applied Electromagnetic Waves
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: PHYS 1122 and PHYS 1322.
Description
Maxwell's equations in time and frequency domains, Poynting's theorem, plane wave propagation, reflection and transmission in lossless and lossy media, transmission lines, waveguides, and antennas.

ECE 3318 - Applied Electricity and Magnetism
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0 Prerequisite: ENGI 1100, ENGI 1331, MATH 2433, MATH 3321, PHYS 1322, PHYS 1122.
Description
Fundamentals of electricity and magnetism, vector calculus, Maxwell's equations, Kirchoff's laws, static electric and magnetic fields, resistance, capacitance, inductance, magentic circuits, and transformers.

ECE 3331 - Programming Applications in Electrical and Computer Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MATH 3321 and credit for or concurrent enrollment in ECE 2201.
Description
Procedural programming in C and C++, with applications in electrical and computer engineering.

ECE 3337 - Signals and Systems Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ECE 2202.
Description
Time and frequency domain techniques for signals and systems analysis. Engineering applications of the convolution integral, Fourier series and transforms, and Laplace transforms.
Additional Fee Y

ECE 3340 - Numerical Methods for Electrical and Computer Engineers
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ECE 3331.
Description
Basic numerical methods with engineering applications. Emphasis on use of computer-based solution techniques.

ECE 3355 - Electronics
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ECE 2202.
Corequisite: Credit for or concurrent enrollment in ECE 3337 and ECE 3155.
Description
Signal and amplifier concepts; operational amplifiers; diodes and nonlinear circuits; bipolar junction transistors; biasing, small and large signal analysis; transistor amplifiers.
Additional Fee Y

ECE 3364 - Circuits and Systems
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ECE 3337
Description
Three-phase circuits, self inductance, mutual inductance single-phase transformers, three-phase transformers, Laplace transform circuit analysis, analysis and design of frequency-selective circuits, control system characteristics and stability.

ECE 3366 - Introduction to Digital Signal Processing
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ECE 3337.
Description
Credit may not be received for more than one of ECE 3366 and BIOE 3366. Discrete-time signals and systems, discrete Fourier methods, sampling, z-transform, modulation, synthesis of discrete-time filters using digital signal processors. Examples will be taken from bioelectrical signals.

ECE 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.

ECE 3436 - Microprocessor Systems
Credit Hours: 4.0
Lecture Contact Hours: 3   Lab Contact Hours: 3  Prerequisite: ECE 3331 and ECE 3441.
Corequisite: Credit for or concurrent enrollment in ECE 2100.
Description
Memory devices, microcomputer architecture, assembly language programming, I/O programming, I/O interface design, data communications, and data acquisition systems. Laboratory exercises in assembly language and C.
Additional Fee Y

ECE 3441 - Digital Logic Design
Credit Hours: 4.0
Lecture Contact Hours: 3   Lab Contact Hours: 3  Prerequisite: ECE 2201.
Corequisite: Credit or concurrent enrollment in ECE 2100.
Description
Boolean algebra, combinational logic, sequential machine analysis and synthesis.

ECE 3456 - Analog Electronics
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: ECE 3155 and ECE 3355.
Description
Bipolar, MOS, and JFET transistors; multistage amplifier design; frequency response and feedback concepts; operational amplifiers; analysis and design using discrete and integrated devices.

ECE 3457 - Digital Electronics
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: ECE 3355.
Description
Analysis of discrete and integrated digital electronic devices and components and their use in the design and implementation of digital circuits.

ECE 4113 - Energy Conversion Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ECE 2100 and credit for or concurrent enrollment in ECE 4363.
Description
Selected experiments in electromechanical energy conversion devices.

ECE 4115 - Control Systems Laboratory I
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ECE 2100 and credit for or concurrent enrollment in ECE 4375.
Description
Introductory experiments in automatic control systems.

ECE 4117 - Telecommunications Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ECE 2100 and credit for or concurrent enrollment in ECE 4371.
Description
Selected experiments in telecommunications.

ECE 4119 - Solid State Devices Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in ECE 4339.
Description
Introduction to the methods of solid state device characterization and the use of CAD tools in the design of discrete devices.

ECE 4198 - Independent Study
Credit Hours: 1.0
Prerequisite: approval of department chair.

ECE 4298 - Independent Study
Credit Hours: 2.0
Prerequisite: approval of department chair.

ECE 4335 - Electrical and Computer Engineering Design I
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: ECE 3155, ECE 3317, ECE 3340, ECE 3355, ECE 3436, INDE 2333, and a core approved economics elective.
Description
Propose and begin team projects involving open-ended design problems supplied by industry and faculty. Professionalism, research methodologies, design tools, and technical communication.
ECE 4336 - Electrical and Computer Engineering Design II
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: ECE 4335 and graduating senior standing.
Description
Complete, construct, demonstrate, and defend team projects begun in ECE 4335.

ECE 4339 - Physical Principles of Solid State Devices
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3155, ECE 3355, and credit for or concurrent enrollment in ECE 4119.
Description
Electronics, modern physics, and electromagnetism used to develop fundamental understanding of bipolar, Schottky, and MOS solid state device operation.

ECE 4363 - Electromechanical Energy Conversion
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3364 and credit for or concurrent enrollment in ECE 4113.
Description
Electromechanical energy conversion principles, transformers, rotating machines, and solid-state motor control.

ECE 4371 - Introduction to Telecommunications Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3337 and INDE 2333.
Description
Linear systems, filters, convolution, spectra, random processes, noise, baseband transmission, amplitude modulation and angle modulation, baseband digital communication and digital modulation.

ECE 4375 - Automatic Control Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3337 and credit for or concurrent enrollment in ECE 4115.
Description
Automatic control systems: mathematical modeling, block diagram, transfer function, system response, stability, root-locus, Bode analysis, Nyquist analysis, Nichols analysis, compensator design.

ECE 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

ECE 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.

ECE 4437 - Embedded Microcomputer Systems
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: ECE 3155, ECE 3355, ECE 3436 and ECE 3441.
Description
Hardware and software components of real-time embedded microcomputer systems; programming and interfacing to real-time external devices.

ECE 4498 - Independent Study
Credit Hours: 4.0

ECE 5113 - Microwave Engineering Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ECE 2100 and credit for or concurrent enrollment in ECE 5317.
Description
Selected topics in microwave engineering.
ECE 5114 - Antenna Engineering Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ECE 2100 and credit for or concurrent enrollment in ECE 5318.
Description
Selected topics in antenna engineering.

ECE 5115 - Control Systems Lab II
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ECE 2100, ECE 4375, and credit for or concurrent enrollment in ECE 5335.
Description
Computer simulations and computer-aided control system design.

ECE 5119 - Nanotechnology Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 2  Prerequisite: Credit for or concurrent enrollment in ECE 5319.
Description
Laboratory exercises pertaining to ECE 5319. Introduction to nanotechnology, metrology and fabrication methods.

ECE 5120 - Nanomaterials Engineering Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 2  Prerequisite: ECE 5119 or CHEE 5119 or MECE 5119, concurrent enrollment in ECE 5320 and instructor permission.
Description
Introduction to engineering of nanomaterials with emphasis on structural, optical, photonic, magnetic and electronic materials. Experimental design, synthetic and analytical characterization will be emphasized.

ECE 5121 - Nanofabrication Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 2  Prerequisite: ECE 5120 or CHEE 5120 or MECE 5120, concurrent enrollment in ECE 5321, and consent of instructor.
Description
Design, fabrication, and metrology of nanoscale devices.

ECE 5127 - Power Transmission and Distribution Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ECE 2100 and credit for or concurrent enrollment in ECE 5377.
Description
Real and reactive power, power flow and voltage regulation, parallel lines and transformers, series and parallel network compensation, phase shift transformers, protection.

ECE 5180 - Power Electronics Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Prerequisite(s): ECE 3155. Co-Requisite(s): ECE 5380.
Description
Analysis, design, and test of power semiconductor devices (diodes, thyristors and transistors) and power electronics converters (DC-AC, DC-DC, DC-AC, and AC-AC converters) by simulation and experimentation.

ECE 5197 - Selected Topics
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  May be repeated for credit when topics vary.

ECE 5311 - Introduction to Machine Learning
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3331, INDE 2333, MATH 2433 and MATH 3321.
Description
Deep Learning, Convolutional Neural Network, Auto-Encoder, Generative Adversarial Network, Recurrent Network, Dictionary Learning and Sparse
Additional Fee \text{ N}

**ECE 5317 - Microwave Engineering**

Credit Hours: 3.0  
Lecture Contact Hours: 3 \hspace{1em} Lab Contact Hours: 0  \hspace{1em} Prerequisite: ECE 3317.

Description  
Transmission lines, waveguides, microstrip circuits, microwave circuit theory, scattering matrices, impedance transformers, passive microwave devices, resonators, microwave tubes, and solid state active devices.

**ECE 5318 - Antenna Engineering**

Credit Hours: 3.0  
Lecture Contact Hours: 3 \hspace{1em} Lab Contact Hours: 0  \hspace{1em} Prerequisite: ECE 3317.

Description  
Antenna concepts, linear wire antennas, linear arrays, aperture and horn antennas, printed-circuit radiators, frequency-independent antennas, and measurement techniques.

**ECE 5319 - Introduction to Nanotechnology**

Credit Hours: 3.0  
Lecture Contact Hours: 3 \hspace{1em} Lab Contact Hours: 0  \hspace{1em} Prerequisite: Credit for or concurrent enrollment in ECE 3317 or consent of program director.

Description  
Fundamental concepts underlying various nanotechnologies.

**ECE 5320 - Intro Nanomaterials Engineering**

Credit Hours: 3.0  
Lecture Contact Hours: 3 \hspace{1em} Lab Contact Hours: 0  \hspace{1em} Prerequisite: ECE 5319 or CHEE 5319 or MECE 5319, concurrent enrollment in CHEE 5120, or consent of instructor.

Description  
Engineering of nanomaterials with emphasis on structural, optical, photonic, magnetic, an electronic materials. Synthetic methods and analytical characterization with design for applications will be emphasized.

**ECE 5321 - Nanoscale Design & Fabrication**

Credit Hours: 3.0  
Lecture Contact Hours: 3 \hspace{1em} Lab Contact Hours: 0  \hspace{1em} Prerequisite: ECE 5320 or CHEE 5320 or MECE 5320, concurrent enrollment in ECE 5121, or consent of instructor.

Description  
Design and fabrication at the nanoscale. Effects of nanoscale phenomena on device scaling; technological advantages and challenges. Design, fabrication, metrology, and device integration at nanoscale.

**ECE 5330 - Introduction to Robotics**

Credit Hours: 3.0  
Lecture Contact Hours: 3 \hspace{1em} Lab Contact Hours: 0  \hspace{1em} Prerequisite: MATH 3321, MATH 2433, and senior-standing in major.

Description  
Robotic fundamentals including rigid motions; homogenous transformations; forward and inverse kinematics; velocity kinematics; motion planning; trajectory generation; sensing, vision; control.

**ECE 5335 - State-Space Control Systems**

Credit Hours: 3.0  
Lecture Contact Hours: 3 \hspace{1em} Lab Contact Hours: 0  \hspace{1em} Prerequisite: ECE 4375.

Description  
State-space modeling, matrix algebra, system response, coordinate transformation, stability, controllability, observability, realization, state-feedback design and observers, nonlinear systems, Lyapunov functions, and optimal control.

**ECE 5340 - Introduction to Well-Logging Techniques**

Credit Hours: 3.0  
Lecture Contact Hours: 3 \hspace{1em} Lab Contact Hours: 0  \hspace{1em} Prerequisite: ECE 3317 or GEOL 4330 or PHYS 4321 or consent of instructor.
Description
Logging tools, including electrical resistivity, induction, acoustic, dielectric, natural gamma ray, neutron density, pulse neutron, NMR, and dipmeter.
Production tools, along with well log data transmission, processing, and recording.

ECE 5346 - VLSI Design
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3456 or ECE 3457.
Description
Integrated circuit design using computer-aided design methods; MOS, GaAs and bipolar techniques; standard cells, digital subcircuit and memory layout and design. Includes project requiring students to design and to have fabricated a functional integrated circuit.

ECE 5354 - Digital Video
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3331 and ECE 3337.
Description

ECE 5356 - CMOS Analog Integrated Circuits
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3456.
Description
Analysis and design of CMOS analog integrated circuits at the transistor level, single-stage and multistage amplifiers, differential pairs, current source biasing circuits, current mirrors, and operational amplifier circuit design.

ECE 5357 - Introduction to Cybersecurity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 1331, ENGI 1100, & MATH 2433.
Description
Additional Fee N

ECE 5358 - Modern Optics and Photonics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3317.
Description
Lightwave fundamentals: geometrical and wave optics, interference, diffraction, scattering, Fourier optics; photonic passive & active devices: waveguides, lasers detectors, modulators, photonic integrated circuits, displays; optical system design and engineering.

ECE 5367 - Introduction to Computer Architecture and Design
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3436 and ECE 3441.
Description
Computer organization, computer arithmetic, instruction sets, programming with MIPS assembly language, CPU design, pipelining, and memory hierarchy including caching and virtual memory.

ECE 5377 - Power Systems Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Circuits and Systems (ECE 3364).
Description
Additional Fee Y

ECE 5380 - Power Electronics and Electric Drives
ECE 5385 - Smart Grid Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3364.
Description
Cross-disciplinary topics in smart grid technology including energy generation, transmission, distribution, and delivery. Theory, technology, design, policy, and implementation of smart grid technology.

ECE 5388 - Renewable Energy Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECE 3364.
Description
Introduction and comprehensive overview of renewable energy technology. Topics include distributed generation and renewable energy including wind power, solar power, fuel cells and hydropower.

ECE 5397 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Cr. 3. (3-0). May be repeated for credit when topics vary.

ECE 5436 - Advanced Microprocessor Systems
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: ECE 3436 and ECE 3441.
Description

ECE 5440 - Advanced Digital Design
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: ECE 3155, ECE 3355, ECE 3441, and credit for or concurrent enrollment in ECE 3436.
Description
Design fundamentals and techniques using application specific integrated circuit development and synthesis tools and field programmable gate arrays. Design of control units, arithmetic and logic units, memory and I/O subsystems, and cache.

ECE 5451 - Principles of Internetworking
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: ECE 3355.
Description
Local area networks, IP addressing, routing protocols, TCP flow, congestion and error control, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), and Network Address Translation (NAT). Selected applications.

Electrical-Electronics Technology

ELET 1400 - Circuit Theory and Lab I
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Formerly ELET 1300/1100
Prerequisite: credit for or concurrent enrollment in MATH 1431.
Description
Principles and applications of direct current electricity. Applications to series, parallel, and series-parallel circuitry including Ohm’s Law, Kirchhoff’s Laws, mesh and nodal analysis, resistance, capacitance, inductance, magnetism, and electromagnetism.
ELET 1401 - Circuit Theory and Laboratory II
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Formerly ELET 1301/1101
Prerequisite: C or better in ELET 1400.
Description
Analysis and applications of single phase and three phase alternating current circuits, transformers and electric power concepts.

ELET 2101 - Poly-Phase Circuits and Transformers Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in ELET 2301.
Description
Experiments in poly-phase circuits and power transformers.
Additional Fee $2.00  Fee Type Lab Fee

ELET 2103 - Digital Systems Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Corequisite: ELET 2303.
Description
Experiments in digital systems, including basic gates, combinational and sequential systems, binary arithmetic circuits, MUX/DEMUX, decoder and encoder devices. Use of modern software simulation tools is emphasized.

ELET 2105 - Semiconductor Devices and Circuits Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Corequisite: ELET 2305.
Description
Experiments in semiconductor circuits and systems.

ELET 2300 - Introduction to C++ Programming
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1330.
Description
Fundamentals of C++ programming, conditional and looping constructs, functions and function overloading, arrays, pointers and references, class concepts, and files. Emphasis on practical applications.
Core Category: [90] Math/Reasoning

ELET 2301 - Poly-phase Circuits and Transformers
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in ELET 1401.
Description
Poly-phase circuit analysis and fundamentals of power transformers.

ELET 2303 - Digital Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Credit for or concurrent enrollment in ELET 1401 or ELET 2307.
Corequisite: ELET 2103.
Description
Digital systems and their applications, gates, Boolean algebra, simplification methods, design of combinational logic circuits, counters, IC characteristics, MSI, and memory devices.

ELET 2305 - Semiconductor Devices and Circuits
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C- or better in ELET 1401, PHYS 1302, PHYS 1102, and credit for or concurrent enrollment in ELET 2105.
Corequisite: ELET 2105.
Description
Solid state devices and circuits, including single stage and multistage amplifiers, frequency response, and semiconductor circuit applications.
ELET 2307 - Electrical-Electronic Circuits
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in MATH 1330.
Description
For non-CETE and non-EPTE majors. Basic dc and ac circuits.

ELET 3107 - Electrical Machines and Controls Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in MATH 1431 and ELET 3307 or equivalents.
Description
Experiments in the characteristics, operation, and control of DC and AC motors and generators.
Additional Fee $2.00 Fee Type Lab Fee

ELET 3112 - Rotating Machine Controls Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: concurrent enrollment in ELET 3307.
Description
Experiments in electromechanical, PLC, and solid-state controls for rotating machines.

ELET 3301 - Linear Systems Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in MATH 1432, and credit for or concurrent enrollment in ELET 2305.
Description
Differential equations, Fourier series & transforms, Laplace transforms. Applications to linear systems: electrical circuits, communication, signal processing, and control. Use of modern simulation software packages.

ELET 3307 - Electrical Machines and Controls
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in ELET 2301 and MATH 1431 or consent of instructor.
Description
Characteristics and operation of dc and ac motors, generators, and basic motor control principles.

ELET 3312 - Programmable Logic Controllers & Motor Control Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Minimum grade of C- in ELET 3307.
Description
Programmable Logic Controllers and microprocessor-based controls for electrical motors and generators.

ELET 3402 - Communications Circuits
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: Minimum grade of C- in ELET 3301.
Description
Analysis of tuned circuits, rf oscillators, amplifiers, modulation/demodulation theory and circuits and rf and fiber optic transmission lines.

ELET 3403 - Sensor Applications
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Formerly ELET 3303  Prerequisite: Minimum grade of C- in ELET 2305 and credit for or concurrent enrollment in ELET 3301.
Description
Sensor technology and its applications, including OpAmp and signal conditioning circuits, modern sensors, ADC/DAC, AC/DC and step motor control circuits, and interfaces between these components.

ELET 3405 - Microprocessor Architecture
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: Minimum grade of C- in ELET 2300, and ELET 2303.
**ELET 3425 - Embedded Systems**
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: Minimum grade of C- in ELET 3405 and credit for or concurrent enrollment in ELET 3403.
Description
Hardware and software design of embedded microprocessor/microcontroller systems: system architecture, memory management, I/O programming, real-time operating systems, and application development using a high level programming language.
Additional Fee $2.00 Fee Type Lab Fee

**ELET 4103 - Power Distribution and Transmission Lab**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Credit for or concurrent enrollment in ELET 4303.
Description
Experiments on power transmission and distribution systems.

**ELET 4105 - Senior Design Lab in Electrical Power Engineering Technology**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ELET 4305 and EPET major.
Description
Senior project laboratory including progress reports, prototype construction and testing, final project report, and presentations.

**ELET 4126 - Power Converter Circuits Laboratory**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: ELET 2305 and ELET 3301.
Description
Pspice simulation and laboratory experiments involving power converter circuits and their control/application.

**ELET 4198 - Independent Study**
Credit Hours: 1.0

**ELET 4208 - Senior Project Laboratory**
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: ELET 4308.
Description
Senior project laboratory in computer engineering technology including progress reports, prototypes construction and testing, final project reports, and presentations.
Additional Fee $2.00 Fee Type Lab Fee

**ELET 4300 - Unix Operating System**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 3425.
Description
Unix operating system concepts, fundamental command-line features, file and directory system navigation, file security, simple editors and vi text editor, command shells, shell scripts, mail, and basic network use.

**ELET 4302 - Data Communication Systems**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 3402.
Description
Analysis and design of communication systems, emphasizing system performance evaluation, microwave channels, linear, nonlinear, and pulse/digital modulation, multiplexing, and propagation effects.
ELET 4303 - Computer-Based Power Distribution and Transmission
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Minimum grade of C- in ELET 3307.
Description
Principles of operation and applied design of bulk power distribution and transmission systems and substations.

ELET 4304 - Control Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Minimum grade of C- in ELET 3301.
Description
Modeling and analysis of single-input, single-output feedback control systems. Tuning of cascade compensator parameters, stability, analog and digital implementation, frequency-domain methods, and simulation using modern software packages.

ELET 4305 - Senior Design in Electrical Power Engineering Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 3307, credit for or concurrent enrollment in ELET 4317, and EPET major.
Description
Senior projects; including proposals, project management, and integrated hardware and software design.
Additional Fee Y

ELET 4308 - Senior Project
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Minimum grade of C- in ELET 3425, and TLIM 3363, and credit for or concurrent enrollment in ELET 3402.
Description
Senior projects in computer engineering technology including proposals, project management, integrated hardware and software design.

ELET 4309 - Object-Oriented Applications Programming
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 3425 or consent of instructor.
Description
Object-oriented concepts, implementation using modern programming languages such as C++, Java, and C#. Concepts of class, methods, overloading, abstract classes and polymorphism, inheritance, exception handling and files. Software design processes and tools, program efficiency, and differences and similarities between OOPs.

ELET 4310 - Alternative Electrical Energy Sources
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 3307.
Description
Relative advantages and economic factors associated with alternative energy sources, utility interface issues and their impact on power quality.

ELET 4315 - Telecommunications
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Minimum grade of C- in ELET 3402.
Description
Topics in telecommunications, including digital transmission systems, digital switching, and communication techniques in wired, wireless, and optical systems.

ELET 4317 - Computer-Based Electrical System Protection and Safety
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 4303.
Description
Computer-based protection of electrical systems and components. Electrical system safety practices.
Additional Fee Y

ELET 4319 - Electrical Power Systems and Industry Practices
ELET 4325 - Advanced Microcomputer Networks
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 3307.
Description
History, regulatory and legal issues in electrical power. Relationships among institutions involved in electrical power: FERC, North American Reliability Council, state regulation boards, and EPRI. Basic electrical power generation plant principles.

ELET 4326 - Power Converter Circuits
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 4421.
Description
Advanced topics in microcomputer networking, including internetworking and routers, and network management.

ELET 4327 - Optical Circuits
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 3402.
Description
Electric power converter circuits: rectifiers, inverters, dc-dc converters, power supplies, and power quality issues associated with the operation of converters.

ELET 4332 - Physiological Systems Modeling and Simulation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: senior status in CETE or consent of instructor.
Description
Engineering and computational approaches for modeling physiological systems. Hands-on experience with elementary physiological measurements.

ELET 4335 - The Principles and Applications of Fuel Cell Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 1301 or consent of instructor.
Description
Fuel cell use in an emerging, efficient, alternative energy technology frontier. Modern energy relevant to the DOE.

ELET 4350 - Overview of Computational Health Informatics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: TLIM 3363, ENGI 2304, or Completion of University approved WID.
Description
Overview of electronic medical records, health information exchange, clinical decisions, computational information retrieval, telemedicine, consumer health informatics, HIPPA, and evidence based medicine.

ELET 4351 - Biomedical Data Mining
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 2300 or equivalents, ELET 3301 or CIS 3365.
Description
Machine learning and data mining of biomedical, health, and demographic data. Practical examples and applications will be demonstrated using simulated and actual data sets.

ELET 4352 - Computational Tools for Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 2300 or equivalent.
Description
Introduction to scripting languages and associated toolboxes. The course consists of interactive lectures, hands-on experience with tools.

ELET 4354 - Biomedical Image Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 2300 or equivalent, ELET 3301.
Description
Digital image processing from an operational perspective. Aspects of image acquisition, digitization, enhancement, restoration and segmentation in practical applications.

ELET 4355 - Biomedical Signal Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 2300 or equivalent, ELET 3301.
Description
Digital signal processing with application to biomedical signals. Aspects of signal acquisition, processing, and feature extraction along with practical applications and elementary signal analysis algorithms.

ELET 4360 - Sustainable and Resilient Technology Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: TLIM 3363 or WID equivalent.
Description
Process and steps involved in sustainable technology research, design and development cycle. Basic analytical and experimental tools.

ELET 4397 - Selected Topics in Elet
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of chair.
Note: May be repeated for credit when topics vary.

ELET 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

ELET 4421 - Computer Networks
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in ELET 3402.
Description
Introduction to computer networking: local area networking, access technologies, and internet protocol. Laboratory instruction in network implementation and development and operating system management.

ELED 3320 - Survey of Literature for Children and Adolescents
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: sophomore standing and admission to Teacher Education.
Description
Reading and evaluation of books, guidance of reading interests, and techniques for promoting lifelong reading among elementary and adolescent students.

ELED 3322 - Elementary Reading and Phonics Instruction
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Education Program and CUIN 3201.
Description
Methods and materials for pre-reading and beginning reading instruction, and concepts related to science of reading, including phonics.
ELED 4310 - Reading and Language Arts in the Elementary School
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to QUEST 2 and six semester hours of sophomore level English.
Description
Field-based course that introduces curriculum, concepts, methods, and materials for teaching reading and language arts in the elementary school.

ELED 4311 - Science in the Elementary School I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to QUEST 2 and six semester hours of laboratory science courses.
Description
Models of elementary children's understanding of scientific concepts and the corresponding instructional strategies for supporting learning.

ELED 4312 - Science in the Elementary School II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELED 4311.
Description
Field-based course that introduces the curriculum, concepts, methods, and materials for teaching science in the elementary school.

ELED 4314 - Mathematics in the Elementary School I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to QUEST 2.
Description
Models of elementary children's understanding of mathematical concepts and the corresponding instructional strategies for supporting learning.

ELED 4315 - Mathematics in the Elementary School II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELED 4314.
Description
Field-based course that introduces curriculum, concepts, methods, and materials for teaching mathematics in the elementary school.

ELED 4320 - Social Studies in the Elementary School
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to QUEST 2.
Description
Field-based course that introduces the contemporary structure of social studies programs; social science backgrounds: inquiry processes; cognitive, affective; teaching strategies.

Energy and Sustainability

ENRG 3310 - Introduction to Energy and Sustainability
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing.
Description
Introduction to the energy industry and issues relating to energy and sustainability.

ENRG 4320 - Case Studies in Energy and Sustainability
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENRG 3310 and declared Energy and Sustainability minor, or permission of the program manager.
Description
Case studies on existing, transitional, and alternative energy resources, and sustainability from the perspective of economics and business; technology; architecture and design; public policy; and education.

ENRG 4397 - Selected Topics In Energy and Sustainability
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing and approval of the department chair or program director.
May be repeated when topics vary.
ENRG 4398 - Independent Study in Energy and Sustainability
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0

Engineering

ENGI 1100 - Introduction To Engineering
Credit Hours: 1.0
Lecture Contact Hours: 0   Lab Contact Hours: 3  Prerequisite: Credit for or enrollment in MATH 1431. Engineering undergraduate standing or permission of the Director of Undergraduate Programs in Engineering.
Description
Overview of engineering, information about various engineering disciplines, introductory problem-solving, engineering design, and engineering ethics.

ENGI 1101 - Engineering Success
Credit Hours: 1
Lecture Contact Hours: 0   Lab Contact Hours: 1  Prerequisite: None.
Corequisite: MATH 1330.
Description
A non-degree applicable first year engineering success course providing in-class and online self-assessment activities covering learning/critical thinking/study skills, motivation, accountability, and strategic planning.

ENGI 1331 - Computing and Problem Solving for Engineers
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGI 1100, MATH 1431 and CHEM 1331 OR PHYS 1321. Engineering undergraduate standing or permission of the Director of Undergraduate Programs in Engineering.
Description
Introduction to computing; matrix arithmetic, programming constructs, algorithms and graphical visualization using MATLAB; problem solving applications in engineering analysis and design.

ENGI 2304 - Technical Communications for Engineers
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGI 1100, ENGL 1304, engineering undergraduate standing, and completion of one of the following courses: ECE 2201, CHEE 2331, CIVE 2330, INDE 2333, MECE 2336, PETR 2311 or permission of the Director of Undergraduate Programs.
Description
Engineering communication skills: written proposals, specifications, progress reports, and technical reports; individual and group oral presentations; essays on engineering ethics, contemporary engineering issues and the impact of engineering decisions.
Core Category: [81] Writing in the Disciplines

ENGI 2334 - Introduction to Thermodynamics
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: CHEM 1331 or CHEM 1372, MATH 2433, and PHYS 1322.
Description
Fundamental concepts, thermodynamic systems and applications, heat and work, properties of pure substances, first and second laws of thermodynamics.

ENGI 4198 - Independent Study
Credit Hours: 1.0

ENGI 4397 - Engr Ldrshp&Entrepreneurism I
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0

ENGI 4398 - Independent Study
ENGR 2405 - Circuit Analysis
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 1  Prerequisite: ENGL 1100 , ENGI 1331 , MATH 1432, PHYS 1321 , PHYS 1121
Corequisite: MATH 2433 , MATH 3321 , PHYS 1322 , PHYS 1122
Description
Basic concepts of electric circuit analysis techniques. Inductors, capacitors, first order circuits. Sinusoidal analysis.
Typically Offered: Spring

ENGR 2406 - Fundamentals of Digital Logic
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 1  Prerequisite: ENGI 1100  and ENGI 1331
Description
Binary representations, combinational logic devices, Boolean algebra, combinational logic design, sequential logic, finite state machines, programmable logic.
Typically Offered: Fall

Engineering PROMES

EGRP 1120 - Design Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: consent of instructor.
Description
Hands-on design and problem-solving laboratory.
Note: Restricted to PROMES students unless approved by instructor.

EGRP 1121 - Design Laboratory II
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 4  Prerequisite: consent of instructor.
Description
Guided in design of simple engineering applications. Credit may not be applied to a degree in engineering.

EGRP 1130 - Engineering Applications I
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in CHEE 2331.
Description
Cooperative workshop on engineering applications.
Note: Credit may not be applied to a degree in engineering.

EGRP 1131 - Engineering Applications II
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
Prerequisite(s): Consent of instructor or credit for or concurrent enrollment in CIVE 2330 or MECE 2336. Cooperative workshop on engineering applications.

EGRP 1140 - Engineering Applications III
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in PETR 2311.
Description
Cooperative workshop on engineering applications.
Note: Credit may not be applied to a degree in engineering.

EGRP 1141 - Engineering Applications IV
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in ECE 2201.
Description
Cooperative workshop on engineering applications. Credit may not be applied to degree in engineering.
May be repeated for credit.

EGRP 1142 - Engineering Applications V
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in ECE 2202.
Description
Cooperative workshop on engineering applications. Credit may not be applied to a degree in engineering.
May be repeated for credit.

EGRP 1150 - Engineering Applications VI
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in CIVE 2331 or MECE 3336.
Description
Cooperative workshop on engineering applications.
Note: Credit may not be applied to a degree in engineering.

EGRP 1151 - Engineering Applications VII
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in PETR 2313.
Description
Cooperative workshop on engineering applications.
Note: Credit may not be applied to a degree in engineering.

EGRP 1165 - Engineering Workshop
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor.
Description
Special problems performed in a collaborative workshop.
May be repeated for credit.
Note: Credit may not be applied to degree in engineering.

EGRP 1170 - Engineering Applications IX
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in MECE 2334.
Description
Cooperative workshop on engineering applications.
Note: Credit may not be applied to a degree in engineering.

EGRP 1180 - Engineering Applications X
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in CHEE 2332.
Description
Cooperative workshop on engineering applications.
Note: Credit may not be applied to a degree in engineering.

EGRP 1181 - Engineering Applications XI
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in ENGI 2334.
Description
Cooperative workshop on engineering applications.
Note: Credit may not be applied to a degree in engineering.

EGRP 1182 - Engineering Applications XII
EGRP 1183 - Engineering Applications XIII
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Consent of instructor or credit for or concurrent enrollment in CHEE 3363.
Description
Cooperative workshop on engineering applications.
Note: Credit may not be applied to a degree in engineering.

ENGL 1100 - Basic Writing
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Corequisite: Must be taken concurrently with ENGL 1303.
Description
A non-course competency-based option comprising 15-30 hours of mandatory individual tutoring to address developmental writing outcomes that students have not mastered. The tutoring supports the development of college-level writing through practice in the writing process.

ENGL 1300 - Basic Writing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Course may be offered as a pre-requisite only during Summer term.
Corequisite: Must be taken concurrently with ENGL 1303.
Description
Development of college-level writing through practice in the writing process.
Note: May not be substituted for ENGL 1303 or ENGL 1304 or equivalents. May not be used to satisfy any degree requirements at the university.

ENGL 1303 - First Year Writing I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: A TSI placement score of at least 340, and an essay score of at least a 4 on the TSI Writing Assessment; or a placement score of less than 340, and an ABE Diagnostic level of at least 4, and an essay score of at least 5 on the TSI Writing Assessment; and a score ranging from 351 to 390 on the TSI Reading Assessment. Students may exempt the TSI by obtaining satisfactory scores on other accepted standardized tests. See http://www.uh.edu/ussc/tsi/ for details.
Description
A detailed study of the principles of rhetoric as applied in reading and writing expository essays.
Note: Students who score below the minimum on the TSI must enroll concurrently in ENGL 1300 or, if slightly below the minimum writing score, in ENGL 1100. Students who score below the minimum on the TSI Reading Assessment must enroll concurrently in IRW 1300.
Core Category: [10] Communication
TCCNS Equivalent: ENGL 1301

ENGL 1304 - First Year Writing II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent.
Description
Detailed study of the principles of rhetoric as applied to analyzing and writing argumentative and persuasive essays; principles and methods of research, culminating in writing a substantial research paper.
Core Category: [10] Communication
TCCNS Equivalent: ENGL 1302

ENGL 1370 - Freshman Composition II - Honors
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: placement by the university’s Honors College.
Corequisite: HON 2301.
Description
Principles of rhetoric as applied to writing persuasive essays; principles and methods of research.

**Note:** Credit for both ENGL 1370 and ENGL 1304, ENGL 1310, or 1360 may not apply toward a degree.

**Typically Offered:** Fall

**Core Category:** [10] Communication

**ENGL 2303 - English Literature to 1798**

**Credit Hours:** 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304 or equivalent.

**Description**
Critical examination of works of major and selected minor writers from Beowulf through the Neoclassical Age. Emphasis on composition.  
TCCNS Equivalent: ENGL 2322

**ENGL 2304 - English Literature Since 1798**

**Credit Hours:** 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304 or equivalent.

**Description**
Critical examination of works from the beginnings of Romanticism to present. Emphasis on composition.  
TCCNS Equivalent: ENGL 2323

**ENGL 2305 - Introduction to Fiction**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304 or equivalent.

**Description**
Selected works of fiction emphasizing composition.  
**Core Category:** [40] Language, Philosophy, & Culture  
TCCNS Equivalent: ENGL 2342

**ENGL 2306 - Introduction to Poetry**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304 or equivalent.

**Description**
Selected works of poetry emphasizing composition.  
**Core Category:** [40] Language, Philosophy, & Culture

**ENGL 2307 - Introduction to Drama**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304 or equivalent.

**Description**
Selected works of drama emphasizing composition.  
**Core Category:** [50] Creative Arts

**ENGL 2308 - Introduction to Nonfiction Prose**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304 or equivalent.

**Description**
Study of literary works of nonfiction prose, centering on important aspects of the Western tradition. Emphasis on composition.  
**Core Category:** [40] Language, Philosophy, & Culture

**ENGL 2315 - Literature and Film**

**Credit Hours:** 3.0  
**Prerequisite:** ENGL 1304 or equivalent.

**Description**
Representations of literary works and themes as they have appeared in films.  
Topics may vary; course cannot be repeated for credit.  
**Core Category:** [40] Language, Philosophy, & Culture
ENGL 2316 - Literature and Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Literature and its relations to various aspects of culture. Topics may vary; course cannot be repeated for credit.
Core Category: [40] Language, Philosophy, & Culture

ENGL 2318 - Creation and Performance of Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Creation and performance of literature, such as prose fiction, poetry, and drama; may include recitations.
Core Category: [50] Creative Arts

ENGL 2320 - Book and Beyond
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Print in the development and spread of humanistic culture. Attention to impact of technological innovation on expression and communication.

ENGL 2321 - Computers in Humanities
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Communication and electronic technologies. Emphasis on writing that employs new forms of communication, such as hypertext, Web pages, and other dynamic interactive modes.

ENGL 2323 - Literature and Identity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Literature and its relation to various aspects of identity.
Core Category: [40] Language, Philosophy, & Culture

ENGL 2324 - Literature, Arts, and Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
The ways in which socio-political and artistic contexts influence the creation and appreciation of literature.

ENGL 2325 - Literary Traditions of the Nonwestern World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Comparative study of literary traditions of the nonwestern world, such as South Asian, Middle Eastern, African, or Latin American.
Core Category: [40] Language, Philosophy, & Culture

ENGL 2330 - Writing in the Discipline of English
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Practices of reading and writing in the discipline of literary studies with emphasis on writing the critical essay and the research paper.
Core Category: [81] Writing in the Disciplines

ENGL 2340 - Cosmic Narratives
ENGL 2350 - Intermediate Composition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Narrative history of the Universe from its beginnings to the present emphasizing relevance of cosmic narratives to human situation.
Core Category: [40] Language, Philosophy, & Culture

ENGL 2360 - Western World Literature - Honors
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 2301 or ENGL 3300 may not apply toward a degree. Classical through the Renaissance. Emphasis on composition.

ENGL 2361 - Western World Literature II - Honors
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 2302 may not apply toward a degree. Neoclassical through the present. Emphasis on composition.

ENGL 3300 - Ancient and Classical Literature
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
May not be taken for credit if student has already taken ENGL 2301 or ENGL 2360. Ancient and classical literature through the Renaissance.

ENGL 3301 - Introduction to Literary Studies
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Development of skills in critical reading of and critical writing about literary texts.

ENGL 3302 - Medieval Literature
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Survey of English and translated European literature of the eighth through fifteenth centuries, including such genres as lyrics, drama, romance, epic, satire, allegory, dream vision.

ENGL 3304 - Chaucer
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Selections from The Canterbury Tales and shorter poems with emphasis on literary qualities, Middle English language, and medieval setting.

ENGL 3305 - English Renaissance
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
An introduction to significant authors, movements, and genres of English literature from about 1500 to 1660; includes readings from Bacon, Sidney, Spenser, Marlowe, Shakespeare, Donne, Burton, et al.

ENGL 3306 - Shakespeare: The Major Works
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
One-semester concentration on the major plays, such as The Merchant of Venice, Henry IV, King Lear, and The Tempest.
Core Category: [40] Language, Philosophy, & Culture

ENGL 3309 - Renaissance Drama
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
English drama, exclusive of Shakespeare, from 1580 to 1642.

ENGL 3312 - Literature of Restoration and Eighteenth Century Literature
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Dryden, Pope, Swift, Johnson, and Blake; the poetic genres; the rise of journalism and the novel; biography and drama; historical and philosophical background.

ENGL 3313 - Restoration and Eighteenth Century Drama
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Survey of the witty, sometimes bawdy drama of the court of Charles I and the serious, sentimental productions of the Age of Johnson.

ENGL 3315 - The Romantic Movement
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description

ENGL 3316 - Literature of the Victorian Age
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
British Victorian poetry and prose from the High Victorians through the Pre-Raphaelites to the Decadents. Novels may be included at the instructor's option.

ENGL 3317 - The British Novel Before 1832
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Representative novels by writers such as Defoe, Richardson, Fielding, Sterne, and Austen.

ENGL 3318 - The British Novel Since 1832
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Representative novels by writers such as the Brontes, Dickens, Thackeray, Eliot, and Hardy.

ENGL 3321 - Modern British Literature
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
<th>Description</th>
<th>Core Category</th>
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<tbody>
<tr>
<td>ENGL 3322</td>
<td>Contemporary Novel</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGL 1304 or equivalent</td>
<td>A survey of major British writers from the turn of the century to World War II, including Joyce, Lawrence, Yeats, Forster, Thomas, and related figures.</td>
<td>[40] Language, Philosophy, &amp; Culture</td>
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<tr>
<td>ENGL 3323</td>
<td>Development of Literary Criticism and Theory</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGL 1304 or equivalent</td>
<td>The contemporary English novel and the continental European novel.</td>
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<tr>
<td>ENGL 3324</td>
<td>The Development of the Novel</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGL 1304 or equivalent</td>
<td>Comparison of novels representing various periods in Western cultures with emphasis on a broad historical perspective of the genre, as well as its special characteristics.</td>
<td>[40] Language, Philosophy, &amp; Culture</td>
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<tr>
<td>ENGL 3325</td>
<td>Structures of Poetry</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGL 1304 or equivalent</td>
<td>Comparison of novels representing various periods in Western cultures with emphasis on a broad historical perspective on the genre, as well as its special characteristics.</td>
<td>[40] Language, Philosophy, &amp; Culture</td>
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<tr>
<td>ENGL 3327</td>
<td>Masterpieces of British Literature to the Eighteenth Century</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGL 1304 or equivalent</td>
<td>Works by major British authors representative of medieval, Renaissance, and neoclassical periods.</td>
<td>[40] Language, Philosophy, &amp; Culture</td>
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<tr>
<td>ENGL 3328</td>
<td>Masterpieces of British Literature from the Eighteenth Century</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGL 1304 or equivalent</td>
<td>Works by major British authors representative of the romantic, Victorian, and modern periods.</td>
<td>[40] Language, Philosophy, &amp; Culture</td>
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<tr>
<td>ENGL 3329</td>
<td>Beginning Creative Writing: Fiction and Poetry</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGL 1304 or equivalent and 3 hours in 2000- or 3000-level literature.</td>
<td>Analysis and writing of fiction and poetry. Basic techniques and vocabulary in craft.</td>
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<tr>
<td>ENGL 3330</td>
<td>Beginning Creative Writing: Fiction</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>3 hours of 2000- or 3000-level literature.</td>
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</tbody>
</table>
Analysis and writing of fiction. Techniques and craft vocabulary essential to construction of narratives. Exploration of both traditional and contemporary fiction; practice in fictional techniques.

**ENGL 3331 - Beginning Creative Writing: Poetry**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: 3 hours of 2000- or 3000-level literature.
Description
Analysis and writing of poetry. Techniques and craft vocabulary essential to construction of poems. Exploration of both traditional and contemporary poetry; practice in poetic techniques.

**ENGL 3332 - Beginning Creative Writing: Nonfiction**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: 3 hours of 2000- or 3000-level literature.
Description
Analysis and writing of nonfiction. Techniques and craft vocabulary essential to nonfiction. Exploration of both traditional and contemporary nonfiction: practice in nonfictional techniques.

**ENGL 3339 - Student Literary Journal Practicum**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
A practicum course focused on publication of a literary magazine, activities related to running a literary magazine, and practical/theoretical issues related to those activities.

**ENGL 3340 - Advanced Composition**
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Undergraduate credit only. Practice in prose rhetoric, especially in formal and informal essays, popular and professional articles, and critical reviews.

**ENGL 3341 - Business and Professional Writing**
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Writing business letters, various types of business reports, proposals, and résumés.

**ENGL 3343 - Advanced Composition: Style**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Expository rhetoric and writing course that examines the study of style in writing today.

**ENGL 3345 - Nobel Prize Winners in Literature**
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Examination of selected works by winners of the Nobel Prize in literature in prose, poetry, and drama, focusing on literary techniques and the cultural background and significance of the work.

**ENGL 3347 - Classics of Adolescent Literature**
Credit Hours: 3.0
Prerequisite: six semester hours in 2000-level English.
Description
Selected literary classics by representative writers from Louisa May Alcott and Robert Louis Stevenson to Anne Frank and Harper Lee, with emphasis on literary and cultural significance.

**ENGL 3348 - Thoreau**
ENGL 3349 - Native American Literature
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Literary study of myths, legends, stories, and novels of Native Americans in relevant historical and cultural contexts.

ENGL 3349 - Native American Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
The study of American philosopher, naturalist, essayist, and journal writer, Henry David Thoreau.

ENGL 3350 - American Literature to 1865
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
First semester: critical examination of major and selected minor writers from the colonial period through Hawthorne and Melville; second semester: from Whitman and Twain to the present.
Core Category: [40] Language, Philosophy, & Culture

ENGL 3351 - American Literature Since 1865
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
First semester: critical examination of major and selected minor writers from the colonial period through Hawthorne and Melville; second semester: from Whitman and Twain to the present.
Core Category: [40] Language, Philosophy, & Culture

ENGL 3352 - Nineteenth-Century American Fiction
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Development of theme, symbolic patterns, and form in the nineteenth-century American novel from a historical, sociocultural, and/or generic perspective.

ENGL 3353 - Modern American Fiction
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Development of theme, symbolic patterns, and form in the modern American novel from a historical, sociocultural, and/or generic perspective.

ENGL 3354 - Contemporary American Fiction
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Trends and ideas in major writers since 1940.

ENGL 3358 - Hong Kong Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Study of generic, historical, and stylistic characteristics of non-western, postcolonial Hong Kong Cinema.

ENGL 3360 - Survey of African American Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Literary-historical survey of African American literature from mid-eighteenth century to present.

Core Category: [40] Language, Philosophy, & Culture

**ENGL 3361 - Mexican American Literature**
Credit Hours: 3.0
Formerly ENGL 2397
Prerequisite: ENGL 1304 or equivalent.
Description
Works of Mexican-American writers, including fiction, poetry, drama, the essay, and autobiography.

**ENGL 3362 - Women in Literature**
Credit Hours: 3.0
Formerly ENGL 4363
Prerequisite: ENGL 1304 or equivalent.
Description
Literature by and about women. Offered either as a general survey or specific study of the literary period or genre. Approach is historical or critical.

**ENGL 3363 - Masterpieces of African American Fiction**
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Major works of African American fiction.

**ENGL 3364 - African American Poetry and Drama**
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Major works of African American poetry and drama.

**ENGL 3365 - Postcolonial Literature**
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Literary works from and about cultures that have recently emerged from a colonial past.

**ENGL 3366 - Jewish-American Literature**
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Works of Jewish-American writers. May include fiction, drama, poetry, or non-fiction prose.

**ENGL 3367 - Gay and Lesbian Literature**
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Literature by and about gays and lesbians. May include fiction, drama, poetry, or nonfiction prose.

**ENGL 3369 - Caribbean Literatures**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Development and thematic concerns of novel writing from the Anglophone, Hispanophone, and Francophone Caribbean in English.

**ENGL 3370 - Modern Irish Literature**
Credit Hours: 3.0
Prerequisite: six semester hours in core communications courses.
Description
Literature from the Celtic Renaissance to 1950 with emphasis on Lady Gregory, Yeats, Joyce, and Synge.

ENGL 3371 - Contemporary Irish Literature
Credit Hours: 3.0
Prerequisite: six semester hours in core communications courses.
Description
Irish novels, drama, poetry, film and music from 1950 to the present.

ENGL 3379 - African Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
The study of the literature and culture of the African continent mostly focusing on the African novel.

ENGL 3380 - Modern Indian Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
A selection of the most prominent authors from India, both in recent times and earlier moments of the 20th century.

ENGL 3396 - Selected Topics in English
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent and approval of department chair.
Description
Topics vary depending on field of interest of instructor.
May be repeated for credit when topics vary.

ENGL 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.

ENGL 4300 - Introduction to the Study of Language
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Overview of linguistics, introducing basic concepts with particular attention to English: sounds, word formation, approaches to grammatical description, history, acquisition, and social and regional variation.

ENGL 4303 - Teaching English as a Second Language
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Theory and techniques of teaching English as a second language to adolescents and adults.

ENGL 4304 - Varieties of English
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304 or equivalent.
Description
An exploration of language diversity, variations of American English, and the factors of language change. Issues and consequences of language diversity will be discussed as they relate to cultural diversity, attitudes, education, and policy.

ENGL 4310 - History of the English Language
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Linguistic and cultural approach to the history of the English language through its various periods.
ENGL 4311 - Language Socialization
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304 or equivalent.
Description
The study of human socialization and language use through ethnographic data collection. Students will examine how language practices compare across cultures and contexts as well as how this knowledge fits into broader social theoretical frameworks.

ENGL 4315 - Sociolinguistics
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Social implications of language; linguistic insight into social stratification.

ENGL 4319 - English in the Secondary Schools
Credit Hours: 3.0
Prerequisite: 18 semester hours in English.
Description
Content areas taught in secondary schools with emphasis on language and composition.

ENGL 4322 - Grammar and Usage
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Parts of speech, sentence elements, and doctrines of correctness.

ENGL 4330 - European Renaissance
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
The European Renaissance from the historical and cultural perspectives of literature, history, philosophy, art, architecture, music, drama, and technology.

ENGL 4332 - Modern and Contemporary Poetry
Credit Hours: 3.0
Prerequisite: ENGL 1304.
Description
A survey of American, British, and Irish modern, postmodern, and contemporary poetry.

ENGL 4340 - Feminist Criticism and Theory
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
An introduction to the theories and methods of feminist criticism as practiced in literary studies.

ENGL 4341 - Queer Theory
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
An introduction to the field of queer theory as practiced in literary studies.

ENGL 4342 - Gender and Writing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
A rhetoric course that explores connections between writing and the social construction of gender.

ENGL 4343 - Writing Houston: Reading and Researching Our City
ENGL 4350 - Short Story Writing  
Credit Hours: 3.0  
Prerequisite: admission to the Creative Writing Concentration and 3 hours in 3000-/or 4000-level literature courses in fiction. ENGL 4353 recommended prior to this course.  
Description  
Analysis and writing of short stories, including crafting the story; traditional and contemporary examples; and short story as particular narrative genre.  
May be repeated once for credit.

ENGL 4351 - Poetry Writing  
Credit Hours: 3.0  
Prerequisite: admission to the Creative Writing Concentration and 3 hours in 3000-/or 4000-level literature courses in poetry. ENGL 4354 recommended prior to this course.  
Description  
Analysis and writing of lyric poetry, including crafting of complete poems; traditional and contemporary lyrics; and lyric as a genre.  
May be repeated once for credit.

ENGL 4352 - Nonfiction Writing  
Credit Hours: 3.0  
Prerequisite: admission to the Creative Writing Concentration and at least 3 hours in 3000-/or 4000-level literature.  
Description  
Analysis and writing of creative nonfiction. Focus of course may vary: possible genres include memoir, travel writing, lyric essay, and narrated event. Exploration of both traditional and contemporary nonfiction.  
May be repeated once for credit.

ENGL 4353 - Fiction Forms  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to the Creative Writing Concentration and 3 hours in 3000-/or 4000-level literature courses in fiction.  
Description  
Analysis and writing of fictional narrative with focus on craft (characters, dialogue, plot, setting, and point of view). Traditional and contemporary examples.  
May be repeated once for credit.

Note: May be repeated once for credit.

ENGL 4354 - Poetic Forms  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to the Creative Writing Concentration and 3 hours in 3000-/or 4000-level literature courses in poetry.  
Description  
Analysis and writing of poetry with focus on craft (metaphors, images, lines, stanzas, diction, enjambment). Practice in a variety of poetic genres. Traditional and contemporary examples.  
May be repeated once for credit.

Note: May be repeated once for credit.

ENGL 4355 - Senior Writing Projects in Creative Writing: Fiction  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 4353.  
Description
Craft-based analysis of published fiction and workshop critique culminating in a substantial work of fiction (a collection stories, a novella, or substantial portions of a novel) with a reflective introduction.

**ENGL 4356 - Senior Writing Projects in Creative Writing: Fiction**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 4354.

**Description**
Craft-based analysis of published poetry and workshop critique culminating in a portfolio of original poetry with a reflective introduction.  
Typically Offered: Fall

**ENGL 4357 - Nonfiction Forms**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to the Creative Writing concentration and 3 hours in 3000- or 4000-level literature courses.

**Description**
Advanced analysis and writing of memoir, collections of lyric essays, cultural essays, or historical essays. Focus on larger units of nonfiction: either a memoir or a collection of essays.

**ENGL 4358 - Senior Writing Projects in Creative Writing: Nonfiction**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission to the Creative Writing Concentration and 3 hours in 3000-/or 4000-level literature courses in poetry.

**Description**
Advanced analysis and writing of memoir, collections of lyric essays, cultural essays, or historical essays. Focus on larger units of nonfiction: either a memoir or a collection of essays.

**ENGL 4360 - Bible as Literature**

Credit Hours: 3.0  
Prerequisite: ENGL 1304.

**Description**

**ENGL 4364 - Minorities in Literature**

Credit Hours: 3.0  
Prerequisite: ENGL 1304 or equivalent.

**Description**
The minority as subject and symbol in selected literature, concentrating on one or more of the following groups: the Black, the Chicano, the Jew, the woman, and the American Indian. May be repeated once with the approval of the chair if the particular topic changes. May be repeated once with the approval of the chair if the particular topic changes.

**ENGL 4366 - Introduction to Folklore**

Credit Hours: 3.0  
Prerequisite: ENGL 1304 or equivalent.

**Description**
Introduction to the theories and methods of folkloristics; collection and analysis of folklore.

**ENGL 4367 - Documenting Community Culture**

Credit Hours: 3.0  
Prerequisite: ENGL 1304.

**Description**
Term-long fieldwork and research project emphasizing the methods and principles of studying communities and recording folklore.

**ENGL 4371 - Literature and Medicine**

Credit Hours: 3.0  
Prerequisite: ENGL 1304 or equivalent.

**Description**
Literature by and about physicians and patients: experiences of illness, aging, death, reconciliation, recovery, healing, pregnancy. Emphasis on ethical questions.

ENGL 4372 - Literature and the Environment
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Literature about nature, the environment, wilderness preservation, environmental justice, and urban nature in the context of current developments in ecocritical theory and criticism.

ENGL 4373 - Film, Text, and Politics
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Analysis and interpretation of film in terms of genre, narrative, aesthetics, cultural context, and political content.

ENGL 4375 - Literature and Popular Culture
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Analysis and interpretation of the relationships between literature and popular culture.

ENGL 4376 - Robin Hood in Culture
Credit Hours: 3.0
Prerequisite: ENGL 1304.
Description
Adaptations of the Robin Hood narrative in medieval through contemporary texts and various media, including film. Emphasizes how the developing legend reflects changing cultural issues.

ENGL 4378 - Women Writers
Credit Hours: 3.0
Prerequisite: ENGL 1304 or equivalent.
Description
Prose, poetry, and drama by women writers.

ENGL 4380 - Greek Classics in Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

ENGL 4381 - Latin Classics in Translation
Credit Hours: 3.0
Formerly (also CLAS 4381)
Prerequisite: ENGL 1304 or equivalent.
Description
Latin classics.

ENGL 4390 - Professional Internship
Credit Hours: 3.0
Prerequisite: major in English, junior standing, and approval of the Director of Upper-Division Studies of the Department of English.
Description
Supervised work experience in professions related to the English major. May be repeated once for credit.

ENGL 4391 - Senior Seminar: Advanced Community Engagement
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 3301.
Description
Advanced community engagement and/or service learning and reflection. Classroom and fieldwork focus on community literacy and the development of reflective research. Course fulfills senior experience requirement.

**ENGL 4392 - Practicum: Teaching English as an Additional Language**
Credit Hours: 3
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: At least six hours from the approved course list for the Certificate in Teaching English as an Additional Language (TEAL). ENGL 4303 Teaching English as a Second Language must be taken as part of the six-hour prerequisite. If students' six hours of TEAL coursework do not include ENGL 4303, students must take ENGL 4303 as a concurrent course with the Practicum. Eligible students should make an appointment with the TEAL Director to discuss their career interests and possible practicum sites before enrollment in the Practicum.

**Description**
The Practicum course is a supervised work experience in the field of teaching English as an additional language. The Practicum focuses on classroom-based assignments and experiences to help students become reflective and proficient teachers of English as an additional language. The Practicum course can be fulfilled in a variety of ways based on students' teaching interests and their target group of English-language learners. For example, students can be assigned to the Language and Culture Center (LCC), Houston-based communities and organizations that provide English tutoring to residents learning English as an additional language, English Dept. faculty working with students involved with learning and/or writing English as an additional language, or an English composition course. Students enrolled in the Practicum will be directly supervised by a professional working in a teaching capacity within the assigned site. This person will function as the Practicum student's Site Supervisor. The Practicum Coordinator, most typically a faculty member from the Dept. of English, oversees student enrollment and site placement, as well as course content, and the weekly course meetings.

**ENGL 4394 - Topics in the Historical Novel**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

**Description**
How the historical novel explicitly engages factual events, places, and personages to dramatize the history of a particular period and place.

**ENGL 4395 - Topics in Autobiography**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

**Description**
Study of various works and forms of literature's fourth genre, autobiography or memoir.

**ENGL 4396 - Senior Experience Seminar Topics**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 3301.

**Description**
Topics for the seminar will vary. The course is self-reflective and integrative learning focused on advanced independent research writing that engages critical thinking.

**ENGL 4397 - Topics in Film, Literature, and Culture**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.

**Description**
Study of film and literature from a selected culture.

**ENGL 4398 - Independent Study**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent and approval of chair.

**ENGL 4399 - Senior Honors Thesis**
Credit Hours: 3.0  Prerequisite: approval of department chair.

**Entrepreneurship**

**ENTR 3310 - Entrepreneurship**
Credit Hours: 3.0  
Prerequisite: None.  
Description: Entrepreneurship as it relates to starting and building a successful business.

Note: Credit not given for both ENTR 3310 and ENTR 3311.

ENTR 3311 - Technology Entrepreneurship
Credit Hours: 3.0  
Lab Contact Hours: 3  
Prerequisite: None.  
Description: Entrepreneurship as it relates to starting and building a successful technology-based business.

Note: Credit not given for both ENTR 3310 and ENTR 3311.

ENTR 3312 - Corporate Entrepreneurship
Credit Hours: 3.0  
Lab Contact Hours: 3  
Prerequisite: None.  
Description: Entrepreneurial activities within an existing organization.

Note: Y

ENTR 3321 - Social Entrepreneurship
Credit Hours: 3.0  
Lab Contact Hours: 3  
Prerequisite: ENTR 3310 or ENTR 3311 or ENTR 3312.  
Description: Entrepreneurial principles applied to social enterprises and charitable organizations.

ENTR 3341 - Family Business
Credit Hours: 3.0  
Lab Contact Hours: 3  
Prerequisite: None.  
Description: Strategic, managerial, behavioral and financial issues in family owned and managed companies.

ENTR 3342 - Women in Entrepreneurship
Credit Hours: 3  
Lab Contact Hours: 3  
Prerequisite: None.  
Description: Issues that women entrepreneurs face and means of addressing those issues.

ENTR 4110 - Entrepreneurial Values and Leadership
Credit Hours: 1  
Lab Contact Hours: 0  
Prerequisite: ENTR 3310 and approval of entrepreneur coordinator.  
Description: Developing an understanding of personal purpose and values along with leadership and executional skills.

Note: May be repeated for credit.

ENTR 4320 - Entrepreneurial Revenue
Credit Hours: 3.0  
Prerequisite: ENTR 3310 and approval of entrepreneur coordinator.  
Description: Relationships among pricing, marketing strategies and revenues.

ENTR 4330 - Entrepreneurial Costs and Budgets
Credit Hours: 3.0  
Prerequisite: ENTR 3310 and approval of entrepreneur coordinator.
Description
Cost research and relationships between income, balance sheets, cash flow, capital budgets, and operating budget statements.

ENTR 4340 - Entrepreneurial Capital
Credit Hours: 3.0
Prerequisite: ENTR 3310 and approval of entrepreneur coordinator.
Description
Concepts and issues in legal forms of organizations, capital choices, and sources of funding.

ENTR 4350 - Entrepreneurial Strategy
Credit Hours: 3.0
Prerequisite: ENTR 3310 and approval of entrepreneur coordinator.
Description
Strategy and tactics in developing ideas and allocating resources for entrepreneurs.

ENTR 4360 - Business Plan and Implementation
Credit Hours: 3.0
Prerequisite: ENTR 3310 and approval of entrepreneur coordinator.
Description
Development and implementation of business plans.

ENTR 4380 - Venture Fund
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENTR 4340 and approval of instructor.
Description
Analysis of early stage companies and management of an early stage investment fund.
Note: May be repeated for credit.

ENTR 4393 - RED Labs Pre-accelerator
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.
Description
Technology entrepreneurship focused on building a real company. Developing the business model and team.

ENTR 4394 - RED Labs Accelerator
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.
Description
Technology entrepreneurship focused on building a real company. Validating the business model and moving to launch.

ENTR 4396 - Entrepreneurship Internship
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: junior standing and approval of department chair.
Description
Enhancement of concepts and techniques learned in the classroom. Written report required.

ENTR 4397 - Sel Topics in Entrepreneurship
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of chair or program director; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program. May be repeated when topics vary.
Note: May be repeated when topics vary.

ENTR 4398 - Independent Study in Entrepreneurship
Credit Hours: 3.0
Ethnic Studies

ETHN 2300 - Introduction to Ethnic Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
This course serves as an introduction to the study of race and ethnicity in the U.S. Through a combination of historical narratives, autobiography, fiction, and analytical essays, students will gain a glimpse into the spectrum of identities and issues inherent in American culture. Current issues and events will also be analyzed through the prism of race and ethnicity.
Core Category: [40] Language, Philosophy, & Culture
Additional Fee  N

Exploratory Studies

CORE 1101 - College Success
Credit Hours: 1
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.
Description
Provides first-year students with opportunities to develop skills, behaviors and attitudes exhibited by successful scholars, including learning and study strategies, communication, time-management, and career and major exploration, as well as connection to UH campus culture and resources.

Finance

FINA 3332 - Principles of Financial Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ACCT 2301 (formerly ACCT 2331) and MATH 1313 (TCCN MATH 1324); good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Time value of money, principles of corporate financial management and investments.

FINA 4310 - Behavioral Finance
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332 and STAT 3331 or equivalents; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Individual decision behavior within a financial market context. Evaluation of psychological explanations for market movements and anomalies. Emphasis on the application of psychological principles to decision-making behavior.

FINA 4320 - Investment Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332 or equivalent, STAT 3331, and ECON 2304; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Techniques of securities evaluation, portfolio optimization, and the relationship between risk and return on financial securities.

FINA 4323 - Investments and Mutual Fund Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Security analysis and portfolio performance evaluation techniques. Development of tools to systematically analyze stocks and form justifiable opinions about those stocks. Characteristics of the asset management industry, developing portfolio strategies, and evaluation of the portfolio manager’s performance against stated objectives.

FINA 4325 - Retirement and Estate Planning
FINA 4326 - Private Equity and Investment Banking
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, STAT 3331 and credit or concurrent enrollment in FINA 4352; good academic standing; and declared Program for Financial Planning track in Finance.
Corequisite: FINA 4352.
Description
Evaluation and selection of the various types of tax qualified and non-qualified retirement plans for businesses and individuals; understanding and computing retirement needs analysis; and planning for distribution of assets during life and post-mortem, including estate planning documents, gifting and proper titling of assets.
Note: For students pursuing the Personal Financial Planning Track and Certified Financial Planner Certification.

FINA 4328 - Principles of Personal Finance
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Elements of the personal financial planning process: budgeting, credit and cash flow management, personal income taxes and insurance, investing, retirement planning, financial security and independence.
Note: Students cannot receive credit for both BUSI 3300 (formerly GENB 3300) Introduction to Personal Finance and FINA 4328 Principles of Personal Finance.

FINA 4329 - Life Insurance and Annuities
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Economics, principles, types of life insurance, selection and classification of risk, needs analysis for personal and business needs. The perspective of insurance companies is also examined.

FINA 4330 - Corporate Finance
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332 or equivalent, STAT 3331, and ECON 2304; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Capital budgeting, capital structure, and dividend policy of the firm.

FINA 4334 - Managerial Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly FINA 3334  Prerequisite: ACCT 2302, MATH 1313, MATH 1314, and ECON 2304; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Allocation of resources within the business enterprise. Emphasis on profit maximization in the context of alternative market structures.

FINA 4341 - Commercial Bank Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332 or equivalent, STAT 3331, and ECON 2304; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Survey of commercial banking principles and analysis of banking issues.
FINA 4342 - Financial Evaluation of Corporate Reports
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Analysis of the balance sheet, income statement, and cash flows of business entities. Applications to specific industries through case studies.

FINA 4343 - Credit Analysis
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Analysis of credit risk from the viewpoint of financial intermediaries and institutions. Examination of the role of financial regulations and other determinants of the credit decision. Applications to credit analysis for banks and other intermediaries through case studies.

FINA 4350 - Derivatives I: Options
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Provides a thorough analysis of the theory of options and its applications in practice. Emphasis is on risk management by investors and firms of all sizes.

FINA 4351 - Derivatives II: Forwards, Futures and Swaps
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Valuation and use of futures and swaps on commodities and financial instruments.

FINA 4352 - Financial Planning for Professionals
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and declared Program for Financial Planning track in Finance.

Description
General principles in financial planning including the financial planning process, cash flow and debt management, regulatory requirements of financial planning, education funding, employer benefits planning, personal insurance planning, and professional conduct and fiduciary responsibility.

Note: For students pursuing the Personal Financial Planning Track and Certified Financial Planner Certification.

FINA 4353 - Practicum in Personal Financial Planning
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 4352 and FINA 4325; good academic standing and declared Program for Financial Planning track in Finance.

Description
This capstone course integrates the knowledge acquired in previous financial planning classes through analysis of comprehensive case studies. Students will utilize the skills and knowledge of financial planning that are represented in the full range of topics as outlined by the CFP Board of Standards. Students will review and utilize the quantitative, analytical, and technical skills needed to address complex personal financial planning situations covered by the CFP exam.

Note: For students pursuing the Personal Financial Planning Track and Certified Financial Planner Certification.

FINA 4354 - Risk Management
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332 or equivalent, STAT 3331, and ECON 2304; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Commercial risk analysis evaluation, abatement, transfer, insurance, and self-financing.
FINA 4355 - International Risk Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332 or equivalent, STAT 3331, and ECON 2304; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
International issues in risk management.

FINA 4356 - Insurance Operations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Survey of insurance industry operations, including underwriting, marketing, loss control, claims, reinsurance, and investments.

FINA 4357 - Commercial Liability
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Survey of commercial liability principles and analysis of current issues.

FINA 4358 - Commercial Property
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Survey of commercial property principles and analysis of current issues.

FINA 4359 - Energy Insurance and Risk Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Survey of energy insurance and risk management techniques.

FINA 4360 - International Financial Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FINA 3332 or equivalent, STAT 3331, and ECON 2304; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
International financial markets and financial decision making in the global economy.

FINA 4370 - Energy Trading
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, STAT 3331, and approval of department chair; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Comprehensive introduction to the trading of energy contracts. Examination of risk-management objectives and organization of energy trading. Valuation of the principal energy contracts. Organization and trading of petroleum, natural gas, and power markets.

FINA 4371 - Energy Value Chain
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
The nature of energy assets, operations and products produced, and the economics of each component of the EVC.
FINA 4372 - Upstream Economics  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
**Description**  
The energy industry's upstream (E&P) segment, discussing geological processes that form and trap hydrocarbons, describing the techniques used to find, produce, and process energy discoveries. Ownership, operational decision making, finding and lifting costs, risk assessment and mitigation, reserve accounting, financing, and unconventional hydrocarbons.

FINA 4373 - Petrochemical and Refining Economics  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ECON 2304, FINA 3332, and STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
**Description**  
Consideration of economic concepts and analysis of the structure and behavior of global refining and petrochemical industries. Exploration of current issues facing the industry, global and local supply constraints, industry profitability and investment, impact of changes in relative hydrocarbon values, regulatory impacts, unconventional crudes, alternative transportation fuels, and the role of the industry in economic development.

FINA 4380 - Real Estate Finance and Investment  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** FINA 4330; good academic standing; pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
**Description**  
Overview of financing for all major real estate asset classes.

FINA 4381 - Essentials of Real Estate Principles  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** FINA 4330 and credit for or concurrent enrollment in FINA 4380; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
**Description**  
Basic principles of real estate industry and profession; financial instruments of credit and sources of capital; regulation of title, ownership, easements, development, and public purposes; agency and professional certifications.

FINA 4382 - Developing a Real Estate Project  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** FINA 4330 and credit for or concurrent enrollment in FINA 4380; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
**Description**  
Overview of the development process from an entrepreneurial point-of-view, including market analysis, site selection, project budgeting/financial analysis, land acquisition, marketing and leasing, joint ventures, financing, design and construction management, and dispositions.

FINA 4383 - Real Estate Market Research and Valuation  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** FINA 4330 and credit for or concurrent enrollment in FINA 4380; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
**Description**  
Introduction to fundamentals of market research in real estate and determination of project feasibility.

FINA 4384 - Residential Real Estate  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** FINA 4330 and credit for or concurrent enrollment in FINA 4380; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
**Description**
Overview of residential real estate: multi-family, single family, community development and homebuilding, including professional aspects, financial and market analysis, financing, development, sale or leasing and operations.

**FINA 4385 - Mastery of Real Estate**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** FINA 4330 and credit for or concurrent enrollment in FINA 4380; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**
Capstone course that organizes knowledge and skills learned in the core courses, refined into practice-based professional application. Includes current industry dynamics and identification of leading edge innovations in the profession, utilizing case studies, project field trips, development of business plans, and team case study projects presented to industry professionals.

**FINA 4396 - Finance Internship**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** FINA 3332, a declared finance major or minor, and approval of department chair.

**Description**
Enhancement of concepts and techniques learned in the classroom through work experience directly related to the finance profession. Written report required.

**FINA 4397 - Selected Topics in Finance**

**Credit Hours:** 3  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Approval of chair or program director; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program. May be repeated when topics vary.

**Note:** May be repeated when topics vary.

**FINA 4398 - Independent Study**

**Credit Hours:** 3.0

**FINA 4399 - Senior Honor Thesis**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** approval of department chair and Bauer College's Office of Undergraduate Business Programs.

**French**

**FREN 1501 - Elementary French I**

**Credit Hours:** 5.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 2  
**Description**
Students with two or more years of high school French are urged to take a placement examination to determine at which level to begin French. Credit for FREN 1501 may not be applied toward a degree by students who have credit for FREN 1301 . Understanding, speaking, reading, and writing French, including practice sessions and electronic drill. TCCNS Equivalent: FREN 1511

**FREN 1502 - Elementary French II**

**Credit Hours:** 5.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 2  
**Prerequisite:** FREN 1301 or FREN 1501 or equivalent.

**Description**
Students with two or more years of high school French are urged to take a placement examination to determine at which level to begin French. Credit for FREN 1502 may not be applied toward a degree by students who have credit for FREN 1301 and FREN 1302 . Understanding, speaking, reading, and writing French, including practice sessions and electronic drill. TCCNS Equivalent: FREN 1512

**FREN 2301 - Intermediate French**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2302
Corequisite: FREN 2302
Description
Credit for FREN 2301; FREN 2302 may not be applied toward a degree by students who have credit for FREN 2603. Credit for FREN 2302 may not be applied toward a degree by students who have credit for FREN 2397. Grammar review, reading of literary materials, conversation, and composition. TCCNS Equivalent: FREN 2311

FREN 2302 - Intermediate French
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2301 and FREN 1502 or equivalent.
Description
Credit for FREN 2301; FREN 2302 may not be applied toward a degree by students who have credit for FREN 2603. Credit for FREN 2302 may not be applied toward a degree by students who have credit for FREN 2397. Grammar review, reading of literary materials, conversation, and composition. TCCNS Equivalent: FREN 2312

FREN 3311 - French Phonetics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2302 or equivalent.
Description
Introduction to basic principles of pronunciation, intonation, rhythm; transcription based on the International Phonetic Alphabet (IPA). Practical application through readings in poetry and prose.

FREN 3312 - Oral Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2302 or equivalent.
Description
Limited to nonnative speakers. Students not majoring or minoring in French require prior consent of instructor. Development of conversational skills in French through a systematic study of grammar, usage, and vocabulary. Readings related to contemporary issues in France and the U.S.

FREN 3313 - Advanced Grammar and Composition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2301 and FREN 2302 or equivalent.
Description
Advanced grammatical structures and their direct application to different forms of written expression.

FREN 3315 - Practical Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2302 or equivalent.
Description
Translation primarily from French to English of recent materials from the areas of science, business, politics, communications.

FREN 3316 - Survey of French Culture and Civilization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2302.
Description
The cultural and intellectual development of France, including contemporary cultural trends.

FREN 3317 - Business French
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3313 or consent of instructor.
Description
Develops oral proficiency, specialized vocabulary, and understanding of French corporate culture.

FREN 3318 - History of French Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and FREN 2302 or equivalent.
Description
The course will cover the historical, cultural, thematic, and aesthetic evolution of French cinema from the silent era to modern times.

Note: FREN 3318 is designed for French majors and minors; therefore assignments are written in French. Taught in English.

Core Category: [40] Language, Philosophy, & Culture

FREN 3319 - History of French Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
This course covers historical, cultural, thematic and aesthetic evolution of French Cinema from the silent era to modern times.

Note: FREN 3319 is designed for students outside the discipline; therefore assignments are written in English. Taught in English.

Core Category: [40] Language, Philosophy, & Culture

FREN 3320 - Introduction to French Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3313 or equivalent.
Description
Reading and analysis of French texts including major literary works representing all literary genres, prose, poetry, and theatre.

FREN 3321 - Cinema of French-Speaking Africa
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly FREN 3321 Francophone African Cinema
Prerequisite: ENGL 1303 or equivalent and sophomore standing.
Description
Study of films from French-speaking North & Sub-Saharan Africa within their historical, cultural, thematic, and aesthetic context.

Note: May not apply to foreign language requirement for the B.A. Taught in English. All assignments and papers to be written in French. Advanced proficiency in French required.

Core Category: [40] Language, Philosophy, & Culture

FREN 3322 - Cinema of French-Speaking Africa
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly FREN 3322 Francophone African Cinema
Prerequisite: ENGL 1303 or equivalent and sophomore standing.
Description
Study of films from French-speaking North & Sub-Saharan Africa within their historical, cultural, thematic, and aesthetic context.

Note: May not apply to a major or minor in French or to the foreign language requirement for the B.A. Taught in English.

Core Category: [40] Language, Philosophy, & Culture

FREN 3331 - The Life of Words
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: FREN 2302.
Description
How French works: etymology, figures of speech, patterns of discourse in the French language.

FREN 3335 - French Popular Music
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2302.
Description
Survey of popular music in French and francophone cultures.

FREN 3340 - Contemporary French Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2302 or equivalent.
Description
A survey of French institutions, political trends, current events, and contemporary social issues.

FREN 3341 - Women in French Cinema
FREN 3351 - The Francophone World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 2302 or equivalent.
Description
Representation of women and gender issues in contemporary French cinema.

FREN 3352 - Youth in Francophone Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: 2302 or equivalent.
Description
Introduction to filmic representations of youth in the Francophone world.

FREN 3362 - Paris - Berlin: Tales of Two Cities
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly FREN 3362 Paris and Berlin
Cross-Listed As: GERM 3362
Prerequisite: ENGL 1304.
Description
Cultural, historical, and literary impact of urbanization in nineteenth and twentieth century France and Germany.
Note: Cannot apply toward any foreign language requirement or as credit toward a major or minor in French. Taught in English.
Core Category: [40] Language, Philosophy, & Culture

FREN 3364 - Writing Holocausts: The Literatures of Genocide
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Cross-Listed As: GERM 3364
Prerequisite: ENGL 1304.
Description
Literature and historical context of the Holocaust with implications for understanding other acts of genocide.
Note: Cannot apply toward any foreign language requirement or French major/minor. Taught in English.
Core Category: [40] Language, Philosophy, & Culture

FREN 3397 - Sel Topics in French
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: FREN 2301 and FREN 2302 or equivalent.
May be repeated for credit when topics vary.

FREN 3398 - French Business Internship
Credit Hours: 1.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

FREN 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair.
Description
FREN 3399 and FREN 4399 must be satisfied in order for any to apply to a degree.

FREN 4315 - Advanced Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Six hours at 3000 level or higher or consent of instructor.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 4316</td>
<td>Contemporary France</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313 and three additional hours at 3000-level or higher, or consent of instructor.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td>Translates literary and non-literary texts from English to French and French to English.</td>
</tr>
<tr>
<td>FREN 4317</td>
<td>Advanced Business French</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313 and three additional hours of French at 3000-level or higher or consent of instructor.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td>French institutions, political and social issues, and France in the Francophone world.</td>
</tr>
<tr>
<td>FREN 4326</td>
<td>Nineteenth Century French Literature</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313 and FREN 3320 or consent of instructor.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td>Major authors and movements in poetry, prose, and drama.</td>
</tr>
<tr>
<td>FREN 4328</td>
<td>Twentieth Century French Literature</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313, FREN 3320 or consent of instructor.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
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<td></td>
<td>Study of major trends in the French poetry, prose, and drama of twentieth century literature.</td>
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<tr>
<td>FREN 4329</td>
<td>Twentieth Century French Novel</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313, FREN 3320 or equivalent.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
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<td></td>
<td>Analysis of major novels from Proust to the present.</td>
</tr>
<tr>
<td>FREN 4330</td>
<td>Twentieth Century French Theatre</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313, FREN 3320, or consent of instructor.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
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<td></td>
<td></td>
<td>Samples of French literary, philosophical, and avant-garde theatre since World War I.</td>
</tr>
<tr>
<td>FREN 4332</td>
<td>Jung and French Literature</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313, FREN 3320, or consent of instructor.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
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<td></td>
<td></td>
<td>Application of Jungian theory to various works of French literature from Middle Ages to 20th Century.</td>
</tr>
<tr>
<td>FREN 4333</td>
<td>French for the Professions</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313 and three additional hours of French at 3000-level or consent of instructor.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
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<td></td>
<td></td>
<td>Acquisition of linguistic and cultural proficiencies in the context of the French workplace with a focus on professional settings and communication techniques. Typically Offered: Fall</td>
</tr>
<tr>
<td>FREN 4334</td>
<td>Writing Across the Disciplines</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: FREN 3313 and FREN 3320.</td>
</tr>
</tbody>
</table>
Description
This course teaches the student to write in different modes of expression (letters, portraits, descriptions etc.), and to write a research paper in the target language.

FREN 4340 - Food in French Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3313 and three additional hours at 3000 level or higher, or consent of instructor.
Description
Perspectives on food and gastronomy in French history, culture, and society.

FREN 4342 - French Women Writers
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3313, FREN 3320, or consent of instructor.
Description
Major women writers from the seventeenth to twentieth century. Taught in French.

FREN 4343 - Short Fiction
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Six hours at 3000 level or higher or consent of instructor.
Description
An exploration of the specificity and role of French short fiction including the short story, fairy tales, 'fabliaux', fables, maxims, and contemporary 'micro-fiction.'

FREN 4350 - Sex and the Other in French Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3313, FREN 3320, or consent of instructor.
Description
Gender, sexuality, and identity in French and francophone literature.

FREN 4351 - French in North America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Six hours at 3000-level or higher, or consent of instructor.
Description
The study of film, literature, music, and art in North American francophone cultures.

FREN 4395 - Selected Topics in French Language and Civilization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3313 and three additional hours of French at 3000-level or consent of instructor.
Description
Courses in French language and civilization.
May be repeated for credit when topics vary.

Typically Offered: Fall & Spring

FREN 4396 - Selected Topics in French language and culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3313 and three additional advanced hours in French.
Description
Courses in French language and culture.

FREN 4397 - Selected Topics in French Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3313, 3320, or consent of instructor.
Description
Courses in French & francophone literature.
May be repeated for credit when topics vary.
FREN 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0

FREN 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: FREN 3399 and approval of department chair.
Description
FREN 3399 and 4399 must be satisfied in order for any to apply to a degree.

General Business Administration

GENB 5303 - Professional Accounting Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: an undergraduate degree.
Description
Strategies to increase the effectiveness of oral and written communication to accounting information stakeholders.

GENB 5304 - Business Ethics for Accountants
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to the Certificate in Accountancy Program.
Description
Legal and ethical environment of accounting.

GENB 5305 - Commercial Law
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to the Certificate in Accountancy Program.
Description
Agency, contracts, debtor-creditor relationships, government regulation of business, and the uniform commercial code.

GENB 5397 - Selected Topics in Business
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to the Certificate in Accountancy Program.
May be repeated when topics vary.

Geography

GEOG 2340 - World Realms
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: concurrent enrollment in or completion of ENGL 1303 or equivalent.
Description
Examination of the interactions between people, cultures, and natural surroundings.

Geology

GEOL 1102 - Introduction to Climate Change Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in GEOL 1302.
Description
Study of climate change processes through the collection of meteorological and geochemical data and analysis of climate related datasets.

GEOL 1130 - Physical Geology Lab
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Credit for or concurrent enrollment in GEOL 1330.
Description
Supplementary to lecture; study of minerals, rocks, and maps. Various field trips will be offered.
TCCNS Equivalent: 1103

**GEOL 1150 - Introductory Meteorology Laboratory**

**Credit Hours:** 1.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Prerequisite:** credit for or concurrent enrollment in GEOL 1350.

**Description**  
Study of weather elements and analysis of weather phenomena using meteorological instrumentation.

**GEOL 1176 - Historical Geology Laboratory**

**Credit Hours:** 1.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Prerequisite:** GEOL 1130 and credit for or concurrent enrollment in GEOL 1376.

**Description**  
Various field trips will be offered. Supplementary to lecture; study of rocks, fossils, and maps.
TCCNS Equivalent: 1104

**GEOL 1197 - Selected Topics Geosciences**

**Credit Hours:** 1.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 0  
**Prerequisite:** consent of instructor.

**Description**  
Current topics in geology and geophysics.  
May be repeated for credit when topics vary.

**GEOL 1302 - Introduction to Global Climate Change**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** MATH 1310 or MATH 1311.

**Description**  
Examines how past climate records and models provide a better understanding of possible future climate changes. Greenhouse gases, solar output, Earth's orbit, and anthropogenic effects.  
Typically Offered: Contact your academic advisor

**Core Category:** [30] Life & Physical Sciences

**GEOL 1330 - Physical Geology**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** credit for, placement out of, or concurrent enrollment in MATH 1310 or MATH 1311.

**Description**  
Principles of geology; emphasis on surface and internal processes of the earth.

**Core Category:** [30] Life & Physical Sciences
TCCNS Equivalent: GEOL 1303

**Additional Fee $40.00 Fee Type Field trip fee**

**GEOL 1340 - Earth Systems**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly GEOL 1440**

**Prerequisite:** MATH 1310 or MATH 1311.

**Description**  
Earth's dynamic systems emphasizing the interactions among the atmosphere, hydrosphere and lithosphere. Includes the processes by which the earth was formed and continues to be modified as well as how humans affect and are affected by those processes.

**Core Category:** [30] Life & Physical Sciences

**GEOL 1350 - Introduction to Meteorology**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Corequisite:** MATH 1310 or MATH 1311.

**Description**  
Basic concepts and principles of meteorological processes including clouds and precipitation, local and global circulation, air masses and fronts, and
severe weather systems.

Core Category: [30] Life & Physical Sciences

**GEOL 1360 - Introduction to Oceanography**

Credit Hours: 3.0

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  Prerequisite: MATH 1310 or MATH 1311.

Description
Survey of the marine environment: oceanic physical phenomena, chemistry of water, geological history, ocean biota, climate records contained in oceanic sediments, and human utilization of marine resources.

Core Category: [30] Life & Physical Sciences

Additional Fee $40.00 Fee Type Field trip fee

**GEOL 1370 - Natural Disasters**

Credit Hours: 3.0

*Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0*  Prerequisite: Course MATH 1310 or MATH 1311.

Description
The scientific study of the geology, meteorology, oceanography, and climatology of common natural disasters.

Typically Offered: FALL

Core Category: (30) Life & Physical Sciences

**GEOL 1376 - Historical Geology**

Credit Hours: 3.0

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  Prerequisite: GEOL 1330, and credit for, placement out of, or concurrent enrollment in MATH 1310 or MATH 1311.

Core Category: [30] Life & Physical Sciences

TCCNS Equivalent: 1304

**GEOL 1397 - Selected Topics - Geosciences**

Credit Hours: 3.0

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  Prerequisite: consent of instructor.

Description
Current topics in geology and geophysics.

May be repeated for credit when topics vary.

**GEOL 3130 - Paleobiology Laboratory**

Credit Hours: 1.0

*Lecture Contact Hours: 0  Lab Contact Hours: 3*  Prerequisite: Declared major in the Department of Earth and Atmospheric Sciences and credit for or concurrent enrollment in GEOL 3330.

Description
Introduction to invertebrate fossils.

Note: Undergraduate credit only. Weekend field trips may be required. Cost to be defrayed by student.

**GEOL 3145 - Structural Geology Laboratory**

Credit Hours: 1.0

*Lecture Contact Hours: 0  Lab Contact Hours: 3*  Prerequisite: credit for or concurrent enrollment in GEOL 3345.

Description
Five-day field trip required; expense to be defrayed by student. Techniques for solving problems in structural geology.

**GEOL 3150 - Principles of Stratigraphy Laboratory**

Credit Hours: 1.0

*Lecture Contact Hours: 0  Lab Contact Hours: 3*  Prerequisite: Declared EAS major and concurrent enrollment in or credit for GEOL 3350.

Description
Stratigraphic problem solving.

**GEOL 3178 - Weather Information**
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Description  
Use of computers to obtain weather information and to make weather forecasts.

GEOL 3325 - Rocks and Minerals  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: Declared major in the Department of Earth and Atmospheric Sciences; GEOL 1130, 1330 and CHEM 1111, 1331.  
Description  
Minerals and megascopic petrography of common rocks. Classification, identification, description, and interpretation of rocks in hand specimen.

GEOL 3330 - Paleobiology  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Declared major in the Department of Earth and Atmospheric Sciences and GEOL 1130, GEOL 1330 and credit for or concurrent enrollment in GEOL 3130. BIOL 1361 and 1362 and/or GEOL 1376 and 1176 are strongly recommended.  
Description  
Principles and methods of interpreting fossils, including functional morphology, systematics, paleoecology, paleoceanography, evolution, biostratigraphy, and paleobiogeography.

GEOL 3331 - Environmental Geology  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GEOL 1130 and GEOL 1330.  
Description  
Geosciences related aspects of the interaction between people and the physical environment, including 1) philosophy and fundamental principles, 2) hazardous earth processes, 3) human interaction with the environment, 4) minerals, energy and environment, and 5) global change, land use planning, and decision making.

GEOL 3332 - Geology of U.S. National Parks and Monuments  
Credit Hours: 3.0  
Lecture Contact Hours: 2.0  
Lab Contact Hours: 3.0  
Prerequisite: GEOL 1330 and either GEOL 1376 and GEOL 1176 or GEOL 3340.  
Description  
Geologic evolution of North America and its landscape as illustrated by selected national parks and monuments of the United States.

GEOL 3334 - Earthquakes  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GEOL 1330 and PHYS 1321.  
Description  
Causes of earthquakes; questions of earthquake prediction, earthquake hazards, and social policy development associated with land use planning and building design.  
Additional Fee  
Y

GEOL 3338 - Environmental Hydrogeology  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Declared major in the Department of Earth and Atmospheric Sciences; GEOL 3370 or GEOL 3325, PHYS 1321, and MATH 1431, or consent of instructor.  
Description  
Principles of groundwater and surface water flow and interaction with the environment: water quality and pollution.

GEOL 3340 - Geologic Field Methods  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: Declared EAS major and credit for or concurrent enrollment in GEOL 3370 or GEOL 3325.  
Description  
Interpreting topographic and geologic maps; solving geologic problems using trigonometry and descriptive geometry, field mapping, and report writing.  
Additional Fee  $40.00  
Fee Type  Field trip fee
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
<th>Description</th>
<th>Additional Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 3342</td>
<td>Principles of Air Pollution</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Declared majors in the College of Natural Sciences and Mathematics or Engineering and GEOL 1302 or GEOL 1350.</td>
<td>Structure of the atmosphere, anthropogenic and natural emissions of pollutant precursors, meteorological influences on pollutant transport and diffusion, chemical transformations, and health effects of pollution.</td>
<td></td>
</tr>
<tr>
<td>GEOL 3345</td>
<td>Structural Geology</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>GEOL 3372 or GEOL 3325, GEOL 3340, MATH 1431, PHYS 1301 or PHYS 1321, and credit for or concurrent enrollment in GEOL 3145.</td>
<td>Properties of earth minerals and their behavior in stress fields; description, classification, and interpretation of geologic structures.</td>
<td>$40.00</td>
</tr>
<tr>
<td>GEOL 3350</td>
<td>Stratigraphy</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>GEOL 3340 and credit for or concurrent enrollment in GEOL 3150.</td>
<td>Principles of stratigraphy applied to problems of geometry, composition, and time relations of stratified rocks.</td>
<td>$40.00</td>
</tr>
<tr>
<td>GEOL 3355</td>
<td>Field Geology I</td>
<td>3.0</td>
<td>0</td>
<td>9</td>
<td>GEOL 3145, GEOL 3345, GEOL 3150, GEOL 3350, and GEOL 3340.</td>
<td>Geological mapping of topographic and aerial photographic bases, detailed measuring of stratigraphic sections, and visits to features of geologic interest.</td>
<td></td>
</tr>
<tr>
<td>GEOL 3357</td>
<td>Soils</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>GEOL 3370</td>
<td>Fundamentals of soil formation, classification, and identification, and the role of soils in the global biogeochemical cycles.</td>
<td>$40.00</td>
</tr>
<tr>
<td>GEOL 3360</td>
<td>Field Geology II</td>
<td>3.0</td>
<td>0</td>
<td>9</td>
<td>GEOL 3355, GEOL 3360</td>
<td>Geological mapping of topographic and aerial photographic bases, detailed measuring of stratigraphic sections, and visits to features of geologic interest.</td>
<td></td>
</tr>
<tr>
<td>GEOL 3370</td>
<td>Mineralogy</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: Declared EAS majors or permission from EAS undergraduate faculty advisor and CHEM 1111, CHEM 1331, GEOL 1330, and GEOL 1130.

Description
Identification and description of minerals, including their crystallographic, physical, chemical, and structural properties.

Additional Fee $40.00  
Fee Type Field trip fee

GEOL 3372 - Petrography
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: Declared EAS majors and GEOL 3370.

Description
Description, classification, and analysis of rocks at macro- and microscopic scales.

Additional Fee $40.00  
Fee Type Field trip fee

GEOL 3373 - Igneous and Metamorphic Petrogenesis
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: GEOL 3370 and GEOL 3372.

Description
Description, classification, and analysis of igneous and metamorphic rocks at the macro- and microscopic scales. Study of igneous and metamorphic processes and environments, igneous and metamorphic textures, and geochemical principles.

Additional Fee $40.00  
Fee Type Field trip fee

GEOL 3374 - Sedimentary Petrogenesis
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: GEOL 3350, GEOL 3150, and GEOL 3373.

Description
Description and interpretation of sediments and sedimentary rocks from outcrop, hand specimens, and microscopic thin sections.

Additional Fee $40.00  
Fee Type Field trip fee

GEOL 3377 - Oceanography
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: nine hours core-approved BIOL, CHEM, GEOL or PHYS.

Description
Introduction to the world’s oceans and oceanic processes.

GEOL 3378 - Principles of Atmospheric Science
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Declared majors in College of Natural Sciences and Mathematics or Engineering and MATH 1310, and GEOL 1102 or GEOL 1150.

Description
Principles of physics and dynamics of atmosphere: Local, meso, and synoptic scale weather and global general circulation.

GEOL 3380 - Physical Meteorology
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PHYS 1322, MATH 2433 and GEOL 3378.

Description
Fundamental physical processes in the atmospheric sciences: thermodynamics, radiative transfer, and cloud microphysics.

GEOL 3381 - Micrometeorology
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PHYS 1322, MATH 2433 and GEOL 3378.

Description
Behavior of the atmosphere, radiation, and energy balance near the earth’s surface; transfer of heat, mass and momentum; effects on pollutants, microclimate, and land surface on the atmospheric boundary layer.

GEOL 3382 - Atmospheric Chemistry
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 3383</td>
<td>Remote Sensing</td>
<td>3.0</td>
<td>2.0</td>
<td>3</td>
<td>GEOL 1330, MATH 1432, and PHYS 1322, or consent of instructor.</td>
<td>Principles of remote sensing, data collection, digital image processing, and applications in geologic, environmental, and land use studies. Counts as advanced geophysics elective. Credit may not be received for both GEOL 3383 and 6325.</td>
</tr>
<tr>
<td>GEOL 3396</td>
<td>Senior Research Project</td>
<td>3.0</td>
<td>0</td>
<td>0</td>
<td>A minimum GPA of 3.0 in both the major and cumulative, and approval of the department chair.</td>
<td>Directed research project culminating in a departmentally approved report. GEOL 3396 and GEOL 4396 must be satisfied in order for any to apply to a degree.</td>
</tr>
<tr>
<td>GEOL 3399</td>
<td>Senior Honors Thesis</td>
<td>3.0</td>
<td>0</td>
<td>0</td>
<td>approval of department chair.</td>
<td>GEOL 3399 and GEOL 4399 must be satisfied in order for any to apply to a degree.</td>
</tr>
<tr>
<td>GEOL 4198</td>
<td>Independent Study</td>
<td>1.0</td>
<td>0</td>
<td>0</td>
<td>senior standing and approval of chair.</td>
<td></td>
</tr>
<tr>
<td>GEOL 4330</td>
<td>Introduction to Geophysics</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>GEOL 1330, MATH 2433 and PHYS 1322.</td>
<td>Principles of seismology, gravity, geomagnetism, radioactivity, electromagnetism and heat flow, and their use in geological interpretation.</td>
</tr>
<tr>
<td>GEOL 4331</td>
<td>Geospatial Analysis and Applications</td>
<td>3.0</td>
<td>2</td>
<td>3</td>
<td>MATH 1431.</td>
<td>Fundamentals of geospatial science, methods, analysis and applications with hands-on experience.</td>
</tr>
<tr>
<td>GEOL 4332</td>
<td>Applications of GPS &amp; LIDAR</td>
<td>3.0</td>
<td>2</td>
<td>3</td>
<td>PHYS 1322 and GEOL 4330</td>
<td>Principles of Global Positioning System (GPS) and Light Detection And Ranging (LIDAR); hands-on experience on field instrumentation, data collection, and data processing. Some previous GIS experience useful. Note: Credit may not be applied for both GEOL 4332 &amp; 6323.</td>
</tr>
<tr>
<td>GEOL 4333</td>
<td>Mesoscale Meteorology</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>GEOL 3342.</td>
<td></td>
</tr>
</tbody>
</table>
Physical nature and practical consequences of mesoscale atmospheric phenomena. Mesoscale convective systems, fronts, terrain-forced circulations, observations, analysis, and prediction of mesoscale phenomena.

**GEOL 4334 - Environmental Data Analysis**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 3  
**Prerequisite:** MATH 2433 and either GEOL 1302 or GEOL 1350 or GEOL 3378 or consent of instructor.  
**Description**  
Physical and mathematical basis of environmental data analysis. Topics include basic concepts of statistics, regression, filtering, and principal component analysis, etc. Credit cannot be applied for GEOL 4334 and 6328.

**GEOL 4335 - Numerical Modeling in Atmospheric Sciences**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 3  
**Prerequisite:** GEOL 3378 and MATH 2433.  
**Description**  
Concepts of numerical models in atmospheric science, meteorological models, urban and regional air quality models, and mobile emissions models.  
**Additional Fee** Y

**GEOL 4336 - Atmospheric Radiation**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly** GEOL 4397 Atmospheric Radiation  
**Prerequisite:** GEOL 3378 and MATH 2433  
**Description**  

**GEOL 4337 - Physical Volcanology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** GEOL 1330, GEOL 1130, GEOL 3370 or GEOL 3325.  
**Description**  
Overview of volcanology terms and concepts; the tectonic setting of volcanoes, the geology and geophysics of volcanoes, volcanic products, and volcanic formations.

**GEOL 4338 - Advanced Climate Change**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** GEOL 1302 and GEOL 3342  
**Description**  
Investigation of the nature of the global climate system and the main processes controlling climate. Topics include global energy balance, atmospheric circulation, and the carbon cycle.

**GEOL 4340 - Aerosols and Climate**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 3  
**Prerequisite:** GEOL 3378 and MATH 2433.  
**Description**  
Principal aerosol types, size distribution, and chemical composition in the global atmosphere. Aerosol instrumentation including remote sensing from satellites.  
**Note:** Credit may not be applied for both GEOL 4340 & 6327.

**GEOL 4341 - Dynamic Meteorology**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 3  
**Prerequisite:** MATH 1431 and GEOL 3378.  
**Description**  
Principles of atmospheric motions, continuity and momentum equations, atmospheric thermodynamics, planetary boundary layer and free tropospheric motions, mesoscale and synoptic systems, general circulation.

**GEOL 4343 - Atmospheric Instrumentation**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 3  
**Prerequisite:** GEOL 3342 or GEOL 3382.  
**Description**
Overview of contemporary methods used in atmospheric research, including absorption spectroscopy, mass spectrometric, chromatographic, and radiometric methods. Hands-on laboratory where students set-up, operate, and collect field data.

**GEOL 4346 - Air Pollution Meteorology**

*Credit Hours: 3*

*Lecture Contact Hours: 2  Lab Contact Hours: 3*  
*Formerly GEOL 4397 Air Pollution Meteorology*

*Prerequisite: GEOL 3378.*

*Description*

Meteorological factors influencing air quality. Atmospheric dispersion and characteristics, land use and topographic effects, local circulations, effects of cloud and precipitation, long range transport.

**GEOL 4347 - Atmospheric Biogeochemistry**

*Credit Hours: 3.0*

*Lecture Contact Hours: 2  Lab Contact Hours: 3*  
*Prerequisite: MATH 1431, CHEM 1331, GEOL 1302 or 1350*

*Description*

Global biogeochemical cycles of relevant atmospheric species; impact of human perturbations of biogeochemical cycles on atmospheric composition and human health.

**GEOL 4348 - Remote Sensing for Atmospheric Science**

*Credit Hours: 3.0*

*Lecture Contact Hours: 2  Lab Contact Hours: 3*  
*Prerequisite: PHYS 1322, and either GEOL 3378, or GEOL 3342.*

*Description*

Remote Sensing (RS) techniques, their physical principals and applications in atmospheric science. Analysis of meteorological variables, atmospheric trace gases, and surface properties.

**GEOL 4350 - Geomorphology**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
*Prerequisite: GEOL 3345 or consent of instructor.*

*Description*

Processes and resulting landforms that shape the landscape, including the role of climate and tectonics in affecting evolution of landscapes.

**GEOL 4355 - Geophysical Field Camp**

*Credit Hours: 3.0*

*Lecture Contact Hours: 0  Lab Contact Hours: 9*  
*Prerequisite: GEOL 4330.*

*Description*

Cost to be defrayed by student. Field acquisition and interpretation of global positioning satellite (GPS) technology, multicomponent seismic reflection and refraction methods, ground-penetrating radar (GPR), gravity and magnetics, well logging, and vertical seismic profiling (VSP).

*Additional Fee Y*

**GEOL 4358 - Introduction to Depositional Models**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
*Prerequisite: GEOL 3235; GEOL 3350 recommended.*

*Description*

Credit may not be received in both GEOL 4358 and GEOL 6358. Field trips required; cost to be defrayed by the student. Recent sedimentary depositional environments as a basis for interpreting the sedimentary rock record.

*Additional Fee $40.00 Fee Type Field trip fee*

**GEOL 4365 - Environmental Geochemistry**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
*Prerequisite: Declared major in the College of Natural Sciences and Mathematics; CHEM 1332, CHEM 1112, GEOL 1330 and GEOL 1130.*

*Description*

An introduction to the principles of chemistry as they apply to the solution of geological problems including the processes that control the composition of water in the earth and reactions between water and rocks.

*Additional Fee Y*

**GEOL 4367 - Geochemical Reaction Modeling**
**GEOL 4370 - Global Seismology**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GEOL 4330.  
Description  
Acquisition and interpretation of seismic structures of mantle plumes, mid-oceanic ridges, subduction zones, and transgression regions, to infer the property and physical state of the Earth's interior.

**GEOL 4378 - Data Analytics and Machine Learning for Geoscientists**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GEOL 4330.  
Description  
Introductory machine learning with a focus on the concepts and implementation of machine learning algorithms using open source frameworks on real-world geological data sets.

**GEOL 4379 - Groundwater and Engineering Geophysics**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PHYS 1322 and GEOL 1330.  
Description  
Methods of characterizing shallow, subsurface conditions, including the influence of fluids on the physical properties of near-surface materials, high-resolution seismic and gravity methods.

**GEOL 4381 - Geophysical Signals and Analysis**  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: GEOL 4330; GEOL 4355; MATH 3321.  
Description  
Digital signal analysis; sampling, spectral analysis and filtering; processing of seismic, ground penetrating radar, and gravity data; lab exercises and processing including deconvolution, noise suppression, subsurface model building, and imaging.

**GEOL 4382 - Introduction to Petroleum Geology**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Credit for or concurrent enrollment in GEOL 3345 and GEOL 3350.  
Description  
Fundamentals of petroleum geology; source rock, reservoir, and trap studies. Practical exploration methods such as subsurface stratigraphy and mapping.  
Note: Credit may not be applied for both GEOL 4382 and GEOL 6381.

**GEOL 4383 - Elements of Reservoir Geophysics**  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: GEOL 4330.  
Description  
Rock properties and fluid effects; well logging and analysis; processing and interpretation of seismic data for petroleum development; geostatistics; time-lapse 3D seismic methods.

**GEOL 4385 - Introduction to Marine Geophysics**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GEOL 4330  
Description  
Overview of exploration geophysics in the marine environment; navigation, seafloor imaging; theory and techniques of marine seismic reflection and refraction, gravity, magnetics, heat flow; interpretation of marine geophysical data.
GEOL 4386 - Petroleum Geoscience for Petroleum Engineers
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: GEOL 1330, GEOL 1130, PETR 2313, and declared major in Petroleum Engineering.
Description
Formation and distribution of conventional and unconventional petroleum resources, and the geological and geophysical methods used in their exploration, characterization, and production.

GEOL 4396 - Senior Research Project
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: GEOL 3396 and approval of department chair.
Description
Directed research project culminating in a written report approved by the committee and Department Chair. GEOL 3396 and GEOL 4396 must be satisfied in order for either to apply to a degree.
Additional Fee Y

GEOL 4397 - Selected Topics-Geology
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.
Description
Current topics in geology and geophysics.
Note: May be repeated for credit when topics vary.

GEOL 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: senior standing and approval of chair.

GEOL 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: GEOL 3399 and approval of department chair.
Description
GEOL 3399 and GEOL 4399 must be satisfied in order for any to apply to a degree.

German

GERM 1303 - Basic German I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Normally may not be taken for credit by students who have had two or more years of high school German. Credit for GERM 1303 may not be applied toward a degree by students who have credit for GERM 1501 or GERM 1603. All language skills (reading, writing, listening and speaking) are equally developed. Students will be able to communicate in contemporary German on a limited range of topics.

GERM 1304 - Basic German II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GERM 1303.
Description
Credit for GERM 1304 may not be applied toward a degree by students who have credit for GERM 1502 or GERM 1603. All language skills (reading, writing, listening, and speaking) are equally developed. Students will be able to communicate in contemporary German on a limited range of topics.

GERM 1501 - Beginning German I
Credit Hours: 5.0
Lecture Contact Hours: 4  Lab Contact Hours: 1  Description
Normally may not be taken for credit by students who have had two or more years of high school German. Credit for GERM 1501 may not be applied toward a degree by students who have credit for GERM 1303. Thorough foundation in structure of the German language concentrating on basic skills of reading, writing, understanding, and speaking German, emphasizing oral proficiency and communicative, interactive language learning. Introduction to the culture of German-speaking countries. Required one-hour computer and video lab session per week.
TCCNS Equivalent: GERM 1511
GERM 1502 - Beginning German II
Credit Hours: 5.0
Lecture Contact Hours: 4  Lab Contact Hours: 1  Prerequisite: GERM 1303 or GERM 1501 or equivalent (placement exam score).
Description
Credit for GERM 1502 may not be applied toward a degree by students who have credit for GERM 1304. Thorough foundation in structure of the German language concentrating on basic skills of reading, writing, understanding, and speaking German, emphasizing oral proficiency and communicative, interactive language learning. Introduction to the culture of German-speaking countries. Required one-hour computer and video lab session per week.
TCCNS Equivalent: GERM 1512

GERM 1803 - Accelerated Beginning German
Credit Hours: 8.0
Lecture Contact Hours: 8  Lab Contact Hours: 0  Description
May not be taken for credit by students who have had two or more years of high school German. Credit for GERM 1803 may not be applied toward a degree by students who have credit for GERM 1302, GERM 1304, GERM 1501, or GERM 1502. Thorough foundation in German language concentrating on basic skills of reading, writing, understanding, and speaking German, emphasizing oral proficiency and communicative, interactive language learning. Introduction to culture of German-speaking countries. Homework includes video and computer assignments that must be completed in the language acquisition center.

GERM 2111 - Intermediate Conversational German
Credit Hours: 1.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: GERM 1304 or 2502, or equivalent (placement test score).
Description
May not be used to satisfy second year language requirement. May be taken concurrently with GERM 2331, GERM 2332. Intermediate level with intensive practice in spoken German through guided conversation and discussion of contemporary topics, using visual materials.

GERM 2112 - Intermediate Conversational German
Credit Hours: 1.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: GERM 1304 or 2502, or equivalent (placement test score).
Description
May not be used to satisfy second year language requirement. May be taken concurrently with GERM 2331, GERM 2332. Intermediate level with intensive practice in spoken German through guided conversation and discussion of contemporary topics, using visual materials.

GERM 2331 - Intermediate German I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GERM 1304 or GERM 1502 or GERM 1803 or equivalent (placement exam score).
Description
Guided conversation and composition; oral reports based on listening comprehension exercises and written material; review of major grammatical structure. Reading of short literary texts and nonfiction.
TCCNS Equivalent: GERM 2311

GERM 2332 - Intermediate German II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GERM 2331 or equivalent (placement exam score).
Description
Guided conversation and composition; oral reports based on listening comprehension exercises and written material; review of major grammatical structure. Reading of short literary texts and nonfiction.
TCCNS Equivalent: GERM 2312

GERM 2398 - Independent Study
Credit Hours: 3.0

GERM 3111 - Advanced Conversational German
Credit Hours: 1.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: GERM 2331 and GERM 2332 or equivalent.
Description
Advanced level intensive practice in spoken German; free discussion of contemporary topics, using visual materials, listening comprehension exercises, and articles from German newspapers and magazines.

GERM 3112 - Advanced Conversational German  
Credit Hours: 1.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: GERM 2331 and GERM 2332 or equivalent.  
Description  
Advanced level intensive practice in spoken German; free discussion of contemporary topics, using visual materials, listening comprehension exercises, and articles from German newspapers and magazines.

GERM 3198 - Independent Study  
Credit Hours: 1.0

GERM 3329 - Introduction to Translation  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1303 and GERM 2332 or equivalent.  
Description  
A language skills course designed to introduce and practice translation techniques from German to English. Emphasis is on written communication (newspaper articles, business letters, prose selections, etc.).

GERM 3330 - Reading German Texts  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 2332 or equivalent.  
Description  
May be taken concurrently with GERM 3333. Textual analysis with selected fictional and nonfictional readings in German. Development of reading and writing skills.

GERM 3331 - Introduction to German Literature I  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 2332 or equivalent.  
Description  
Methods of analysis of German poetry, drama, and prose with selected readings of major German authors.

GERM 3332 - Introduction to German Literature II  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 2332 or equivalent.  
Description  
Survey of major periods of German literature from the Age of Enlightenment to the present with representative works.

GERM 3333 - German Conversation and Composition  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 2332 or equivalent.  
Description  
Conversation based on general interest topics, newspaper articles, and short literary texts; writing of expository German prose, developing sophisticated vocabulary and style.

GERM 3334 - German Conversation and Composition  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 2332 or equivalent.  
Description  
Conversation based on general interest topics, newspaper articles, and short literary texts; writing of expository German prose, developing sophisticated vocabulary and style.

GERM 3350 - Understanding the 20th Century through German Culture  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304.
Description
Development of modern Western Civilization and key cultural and historical moments of the 20th century explored through the framework of German culture (literary texts, film, art).

Note: Taught in English.
Core Category: [40] Language, Philosophy, & Culture

GERM 3362 - Paris - Berlin: Tales of Two Cities
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly GERM 3362 Paris and Berlin
Cross-Listed As: FREN 3362

Prerequisite: ENGL 1304.
Description
Cultural, historical, and literary impact of urbanization in nineteenth and twentieth century France and Germany.
Note: Cannot apply toward any foreign language requirement or as credit toward a major or minor in French. Taught in English.
Core Category: [40] Language, Philosophy, & Culture

GERM 3363 - Themes in German Drama
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
Historical, cultural, thematic, and aesthetic evolution of German drama from the Enlightenment to the present. Taught in English.
Note: May not apply to foreign language requirement. Taught in English.
Core Category: [50] Creative Arts

GERM 3364 - Writing Holocausts: The Literatures of Genocide
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Cross-Listed As: FREN 3364

Prerequisite: ENGL 1304.
Description
Literature and historical context of the Holocaust with implications for understanding other acts of genocide. Analysis of literary texts, film, and art.
Note: Cannot apply toward foreign language requirement. Taught in English.
Core Category: [40] Language, Philosophy, & Culture

GERM 3369 - World War I in Literature, Visual Arts, and Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
Representations of World War I in literature, photography, art, film; focus on the cultural impact of the war experience, avant-garde movements, and social, political and artistic rupture.
Note: Taught in English.
Core Category: [40] Language, Philosophy, & Culture

GERM 3380 - German Women Film Directors
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent and sophomore standing.

Description
Screening and study of German films by women directors within their historical, cultural, and aesthetic content. Taught in English.
Note: May not apply to German major, minor, or foreign language requirement. May apply to Women's Studies Minor, Film Studies Minor, and German Area Studies Minor/Major.

GERM 3381 - History of German Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 and sophomore standing.

Description
History of German films within their historical, cultural, thematic, and aesthetic context.
Note: Taught in English.
Core Category: [50] Creative Arts

GERM 3382 - History of German Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent and sophomore standing.
Description
History of German films within their historical, cultural, thematic, and aesthetic context. Taught in English.

GERM 3384 - Fascism and German Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 and sophomore standing.
Description
Screening and study of German films produced during the Fascist period (1933-45) within their historical, cultural, thematic, and aesthetic context. Taught in English.

GERM 3385 - East German Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 and sophomore standing.
Description
Screening and study of East German films within their historical, cultural, thematic, and aesthetic context. Taught in English.

GERM 3386 - Films of Fassbinder
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent and sophomore standing.
Description
The films of Fassbinder within their historical, cultural, thematic, and aesthetic context. Taught in English.

GERM 3387 - Films of Herzog
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent and sophomore standing.
Description
The films of Werner Herzog within their historical, cultural, thematic, and aesthetic context. Taught in English.

GERM 3388 - Films of Wenders
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent and sophomore standing.
Description
The films of Wim Wenders within their historical, cultural, thematic, and aesthetic context. Taught in English.

GERM 3395 - Topics in German Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent and sophomore standing.
Description
May not apply to German major, minor, or foreign language requirement. May apply to minor in German Area Studies. Screening and study of German films within their historical, cultural, thematic, and aesthetic context. Taught in English.
May be repeated for credit when topics vary.

GERM 3397 - Selected Topics in German Language, Culture, Civilization, and Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GERM 2331; GERM 2332 or equivalent.
May be repeated for credit when topics vary.

GERM 3398 - Independent Study
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: GERM 2331, 2332 or equivalent, and approval of chair.

**GERM 3399 - Senior Honors Thesis**  
Credit Hours: 3.0  
Prerequisite: approval of department chair.

**GERM 4329 - Advanced Translation**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304, GERM 3334 or equivalent, and GERM 3329 or consent of instructor.  
Description  
Translation of literary and nonliterary texts, including translation from English to German.

**GERM 4356 - Romanticism**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 3331, GERM 3332, GERM 3333, and GERM 3334, or equivalent.  
Description  
Introduction to the concepts of Romanticism, its underlying philosophical ideas, and the romanticists' contribution to literary criticism; reading of representative works.

**GERM 4357 - German Literature 1890-1945**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 3331, GERM 3332, GERM 3333, and GERM 3334, or equivalent.  
Description  
Representative works of German poetry, drama, and prose that illuminate major trends in German literature between 1890 and 1945.

**GERM 4358 - German Literature Since 1945**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 3331, GERM 3332, GERM 3333, GERM 3334, or equivalent.  
Description  
Post-World War II literature of the Federal Republic of Germany, the German Democratic Republic, Austria, and Switzerland. Emphasizes contemporary trends.

**GERM 4359 - Germany since Reunification**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 3333 and GERM 3334 or equivalents.  
Description  
Post-reunification Germany through representative literary and non-literary texts.

**GERM 4361 - Advanced Writing and Reading Across Disciplines**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 3353 and GERM 3334 or equivalents.  
Description  
Development of stylistic control of vocabulary, grammar, and idiomatic usage through reading and writing across disciplines from such areas as the humanities, social sciences, business, and natural sciences.

**GERM 4370 - Vienna 1900 - The Birth of the Modern**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: GERM 3334 or equivalent.  
Description  
Avant-garde turn-of-the-century movements in Viennese literature, theater, music, art, architecture, philosophy, and psychoanalysis examined within the cultural, social, and political context of pre-1918 Central Europe.

**GERM 4371 - Techniques of Teaching Foreign Languages**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Completion of GERM 4381 with a B or better or the approval of the department chair.  
Description
Introduction to the methodology of teaching and testing through lectures, readings, demonstrations, and practical applications. For secondary school teachers. Taught in English.

**GERM 4373 - German Cultural History I: From the Beginnings to World War I**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GERM 3333 or equivalent.
**Description**
German cultural history from the beginnings to World War I.

**GERM 4374 - German Cultural History II: The Twentieth Century**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GERM 3333 or equivalent.
**Description**
Survey of 20th century German cultural history in the context of major social and political developments from World War I to German reunification.

**GERM 4391 - Professional Practicum in a German-Speaking Country**
Credit Hours: 3.0
Prerequisite: GERM 3334 and consent of instructor.
**Description**
Hands-on work in field of study in selected businesses in German-speaking countries. Written report to evaluate and integrate practical experience.

**GERM 4397 - Selected Topics in German Language and Literature**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GERM 3331 and GERM 3332 or equivalent.
May be repeated for credit when topics vary.

**GERM 4398 - Independent Study**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

**GERM 4399 - Senior Honors Thesis**
Credit Hours: 3.0
Prerequisite: approval of department chair.

**International and Global Studies**

**IGS 2350 - Introduction to International and Global Studies**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly GIS 2350 Introduction to Global and International Studies
Prerequisite: ENGL 1304.
**Description**
International and Global Studies gateway course examining trans-cultural and trans-historical topics in international and global contexts with the aim of preparing students for future graduate studies, or for jobs in our increasingly globalized marketplace.

**IGS 3396 - Selected Topics in Global Studies**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly GIS 3396 Selected Topics in Global Studies
Prerequisite: ENGL 1304.
**Description**
Topics of interest in globalization studies. Requires approval of Department for repeated credit.
**Note:** Requires approval of Director of India Studies or Department Chair.

**IGS 4350 - Global Business Cultures: India and the U.S.**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly GIS 4350 Global Business Cultures: India and the U.S.
Prerequisite: ENGL 1304.
**Description**
Prerequisite(s): ENGL 1304. This course explores the impact of globalization on the gendered experiences of individuals and communities in varied contexts around the world, with particular focus on women of color and sexual minorities.

Greek

GREK 1301 - Elementary Greek I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Introduction to classical and coined Greek, presenting basic grammar through readings selected from ancient authors.

GREK 1302 - Elementary Greek II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Introduction to classical and coined Greek, presenting basic grammar through readings selected from ancient authors.

GREK 2301 - Intermediate Greek I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GREK 1302 or equivalent.
Description
First semester: readings selected from philosophical and historical prose, oratory, tragedy, and comedy. Second semester: one author, chosen to meet interest of students.

GREK 2302 - Intermediate Greek II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GREK 1302 or equivalent.
Description
First semester: readings selected from philosophical and historical prose, oratory, tragedy, and comedy. Second semester: one author, chosen to meet interest of students.

GREK 3301 - Classical Greek Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GREK 2302.
Description
Selections from the major Greek authors varying from year to year to meet the needs and interests of students.

GREK 3302 - Advanced Readings in Classical Greek Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: GREK 3301.
Description
Selections from the major Greek authors varying from year to year to meet the needs and interests of students.

GREK 3398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: GREK 2301; 2302 or equivalent and approval by chair.

GREK 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

Health Education

HLT 1353 - Personal Health
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Introduction to scientific facts and principles related to healthful living and prevention of disease.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLT 2310</td>
<td>Emergency Care &amp; First Aid</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td></td>
<td>Emergency care program of the school; Red Cross certification.</td>
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<td>TCCNS Equivalent: PHED 1306</td>
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<tr>
<td>HLT 2320</td>
<td>Introduction to Public Health</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>HLT 1353 and 3 credit hours of Life &amp; Physical Sciences.</td>
<td>This course will provide an overview of critical issues in the field of public health and health promotion as well as concepts of health and health education and contributions of health care professionals in a variety of settings.</td>
</tr>
<tr>
<td>HLT 3300</td>
<td>Social Health and Wellness</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>None.</td>
<td>Exploration of social factors associated with the health and wellness of populations defined by sociodemographic characteristics including, but not limited to race, sex, and social class.</td>
</tr>
<tr>
<td>HLT 3301</td>
<td>Health Behavior Theories: Concepts and Applications</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>HLT 2320 3.0 credit hours of WID, or consent of instructor.</td>
<td>The structure, content, and application of theories of health behavior change. Typically Offered: Fall, Spring, Summer</td>
</tr>
<tr>
<td>HLT 3303</td>
<td>Health of Elementary School Child</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Junior standing or consent of instructor.</td>
<td>Health status, determinants of health, needs, and interests of elementary age children with implications for public health and health education.</td>
</tr>
<tr>
<td>HLT 3304</td>
<td>Adolescent Health Issues</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Junior standing and HLT 2320 (or consent of instructor).</td>
<td>Health status, needs, and risks associated with adolescence with implications for health education.</td>
</tr>
<tr>
<td>HLT 3306</td>
<td>Environmental Health</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Junior standing and HLT 2320 (or consent of instructor).</td>
<td>Principles of environmental health, issues related to environmental diseases, and investigation of the mobilization of the public and official, voluntary health agencies to minimize such societal problems.</td>
</tr>
<tr>
<td>HLT 3325</td>
<td>Medical Terminology</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>Junior standing.</td>
<td>Learning the vocabulary of medical, dental and other allied health/medical fields.</td>
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<tr>
<td>HLT 3380</td>
<td>Culture and Health</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>HLT 2320 and Junior standing.</td>
<td></td>
</tr>
</tbody>
</table>
Description
Examines the relationship between cultural variables and health/healthcare delivery.

Additional Fee Y

HLT 3381 - Health Promotion and Disease Prevention
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and six semester hours of biology or consent of instructor.

Description
Theories and strategies in health education for prevention and control of common diseases and promoting health.

HLT 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

HLT 4302 - Health Aspects of Human Sexuality
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing, HLT 1353, and PSYC 1300 or consent of instructor.

Description
Physical, mental, and social health issues associated with sexual practices. Examination of school, family, and community roles in addressing these issues.

HLT 4303 - The Obesity Epidemic
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing.

Description
Public health, policy, and environmental correlates of obesity prevention and control in the U.S.

HLT 4306 - Women's Health Issues
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing.

Description
Factors influencing women's health, emphasizing biological, sociocultural, and behavioral factors of special attention to the health of women.

HLT 4307 - Research and Evaluation in Health
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HLT 3301.

Description
Research and evaluation skills fundamental to health promotion programming.

Additional Fee Y

HLT 4308 - Understanding Cancer
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and six semester hours of natural science or consent of instructor.

Description
Cancer prevention, control, and impact on individuals, families, and the community.

HLT 4309 - Health Disparities
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: senior standing and completion of twelve hours of health core or advanced health elective courses.

Description
Social and societal factors fundamental in creating disparities in health. Formulation of public policy objectives to reduce and ultimately eliminate health disparities.

HLT 4310 - Program Planning for the Health Professions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HLT 2320; HLT 3301, HLT 3381, and HLT 4307,(or consent of instructor).
Description
Development, implementation, and evaluation of health programs and interventions.

HLT 4317 - Foundations of Epidemiology in Public Health
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: HLT 2320 and 6, additional semester hours of health education courses.
Description
Basic concepts of epidemiology and biostatistics as applied to public health issues.

HLT 4320 - Administration of Health Services
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Basic characteristics of the U.S. healthcare system and health services delivery.

HLT 4392 - Field Work in Community Health
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 7  Prerequisite: HLT 4310; if Junior standing, then instructor approval required.
Description
Observation and supervised field work in official and/or voluntary health agencies.

HLT 4393 - Field Work in Community Health
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 4  Prerequisite: HLT 4392 or consent of instructor for concurrent enrollment in HLT 4392.
Description
Observation and supervised field work in official and/or voluntary health agencies.

HLT 4397 - Selected Topics in Health
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: junior standing.
May be repeated for credit when topics vary.

HLT 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0   Lab Contact Hours: 0

HLT 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0

Hindi

HIND 1501 - Beginning Hindi I
Credit Hours: 5.0
Lecture Contact Hours: 5   Lab Contact Hours: 0  Description
No prior knowledge of Hindi is required. Hindi writing, reading system, and basic conversation skills.

HIND 1502 - Beginning Hindi II
Credit Hours: 5.0
Lecture Contact Hours: 3   Lab Contact Hours: 2  Prerequisite: HIND 1501 or equivalent (placement exam score).
Description
Continued development of listening comprehension, oral communication, reading, and writing.

HIND 2301 - Intermediate Hindi I
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: HIND 1502 or equivalent (placement exam score).
Description
Continued development of listening comprehension, oral communication, reading, and writing.
HIND 2302 - Intermediate Hindi II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIND 2301 or equivalent (placement exam score).
Description
Continued development of listening comprehension, oral communication, reading, and writing.

Hispanic Studies

HISP 1301 - Introduction to Bilingual Creative Writing
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: None.
Description
Introduction to basic elements of fiction: evocative detail, dialogue, point-of-view, characterization, and narrative structure, among others. Readings will include major works in the literary cannon (Kafka, Chejov, Borges, Atwood, ) as well as a substantial portion (more than 50%) of works authored by Spanish and Latin American writers (in English translation) in connection with Hispanic and Chicano/Latino authors in the United States. We will discuss this range of short fiction in class, providing too an opportunity to experience in context some of the techniques that will figure in the course. This class promotes the idea that writing is community making in a variety of ways. Taught in English.

HISP 2373 - Spanish Culture and Civilization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Survey of the cultural history of Spain and its relation to major world cultural and political movements. Analysis of major cultural, social, and political topics.
Note: Taught in English.
Core Category: [40] Language, Philosophy & Culture

HISP 2374 - Spanish American Culture and Civilization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Survey of the cultural history of Spanish America. Analysis of major cultural, social, literary, and political topics.
Note: Taught in English.
Core Category: [40] Language, Philosophy & Culture

HISP 2375 - United States Hispanic Culture and Civilization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Survey of the cultural history of Hispanics in the United States. Analysis of major cultural, social, literary, and political topics.
Core Category: [40] Language, Philosophy & Culture

HISP 3373 - Spanish Culture and Civilization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Survey of the cultural history of Spain and its relation to major world cultural and political movements. Analysis of major cultural, social, and political topics. Taught in English.

HISP 3374 - Spanish American Culture and Civilization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Survey of the cultural history of Spanish America. Analysis of major cultural, social, literary, and political topics. Taught in English.

HISP 3375 - United States Hispanic Culture and Civilization
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
Survey of the cultural history of Hispanics in the United States. Analysis of major cultural, social, literary, and political topics.

History

HIST 1376 - The United States To 1877
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 1  Description
Satisfies half of the state requirement in American history. The social, economic, and political history of the United States to 1877.
Note: Taught in large lecture and small discussion group format.
Core Category: [60] American History
TCCNS Equivalent: HIST 1301

HIST 1377 - The U S To 1877
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
The social, economic, and political history of the United States to 1877.
Note: Credit in both HIST 1376 and 1377 cannot be applied toward a degree.
Core Category: [60] American History
TCCNS Equivalent: HIST 1301

HIST 1378 - The U S Since 1877
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Satisfies half of the state requirement in American history. The social, economic, and political history of the United States since 1877.
Note: Taught in large lecture and small discussion group format.
Core Category: [60] American History
TCCNS Equivalent: HIST 1301

HIST 1398 - Special Problems
Credit Hours: 3.0  
Lecture Contact Hours: 0  Lab Contact Hours: 0

HIST 2301 - The Historian's Craft
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.

Description
Introduction to historical research, writing, and thinking, including the fundamental tools that historians use in their work ranging from the collection of sources, to the creation of a bibliography, writing a literature review, and the proper use of citations.

HIST 2341 - Texas To 1865
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
The social, economic, and political history of Texas to 1865.
Core Category: [60] American History

HIST 2343 - Texas Since 1865
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
The social, economic, and political history of Texas since 1865.

**Core Category:** [60] American History

**HIST 2346 - America Eats: An Introduction to Food History**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
Across generations, food has been fundamental to our basic human needs. In studying food, we learn more about the social worlds we inhabit, and how we participate in shaping the economy, culture, and environment in local, national, and global contexts. In this introductory course, we will examine the many ways that the diverse people living in what became the United States have related to and defined themselves by the foods they cultivated, prepared, and consumed.

**HIST 2348 - U.S. Latino/a Histories**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
This course will explore Latina/o histories from the colonial era to the present day.

**Core Category:** [60] American History

**HIST 2349 - Latina/o Jewish History**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
History of understudied communities of Jewish Latina/os, linking U.S. and Latin American history and bringing together the disciplines of Jewish and Latina/o studies. Examination of the formation of diaspora and identity, including notions of race, ethnicity, and how we think about American history.

**Core Category:** [40] Language, Philosophy, & Culture

**HIST 2351 - Western Civilization to 1450**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly** HIST 1301  
**Prerequisite:** ENGL 1304.

**Description**
Ancient and medieval history to 1450.

**Core Category:** [40] Language, Philosophy, & Culture

**TCCNS Equivalent:** HIST 2311

**HIST 2353 - Western Civilization From 1450**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly** HIST 1302  
**Prerequisite:** ENGL 1304.

**Description**
Europe and European expansion since 1450.

**Core Category:** [40] Language, Philosophy, & Culture

**TCCNS Equivalent:** HIST 2312

**HIST 2355 - The Global History of Food**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
This course places our everyday experiences of food and eating within a broader human and natural history. We will consider how human societies have provided for one of their most basic needs using land and ocean resources, from early settlements to the contemporary era of "sustainable development." Through a combination of online and classroom-based activities, students will learn and practice primary source analysis, find and utilize web-based historical research tools, and build historical arguments in writing. Students will also use historical methodologies to critically examine contemporary debates within the food industry as well as broader questions of social and environmental sustainability.

**HIST 2361 - The Study of Early Civilizations**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HIST 1303
Prerequisite: ENGL 1304.

**Description**
Fundamentals of historical inquiry through an intensive study of a major world civilization or theme in world history prior to the Renaissance.

**Core Category:** [40] Language, Philosophy, & Culture

**HIST 2363 - Study of Modern Civilizations**
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304.

**Description**
Fundamentals of historical inquiry through an intensive study of a major world civilization or theme in world history from the Renaissance forward. Typically Offered: Fall & Spring

**Core Category:** [40] Language, Philosophy & Culture

**HIST 2368 - Introduction to African Studies**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304

**Description**
This course introduces students to the geography, history, politics, economics, arts, and cultures of sub-Saharan Africa with focus on historical events that contributed to modern-day realities, the diversity of African peoples and cultures, Africa's place in the world, and African diasporas of the past and present.

**Core Category:** [40] Language, Philosophy, & Culture

**HIST 2371 - Latin America 1492-1820**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

**Description**
Colonial history of Latin America. Iberian cultural heritage and reasons for overseas expansion, nature of New World societies, colonial administrative structures, development of a complex racial hierarchy and the rise of Independence movements.

**Core Category:** [40] Language, Philosophy, & Culture

**HIST 2372 - Latin American History Since 1820**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HIST 2372 Latin America Since 1820  Prerequisite: ENGL 1304.

**Description**
History of Latin America in the national period. Struggles for independence, formation of nation states, the emergence of modern social systems, and problems of underdevelopment.

**Core Category:** [40] Language, Philosophy, & Culture

**HIST 2373 - Environment in Latin America**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HIST 4321 Environment in Latin America  Prerequisite: ENGL 1304.

**Description**
Major themes in the field of environmental history in the Americas, from the colonial era to the present.

**Core Category:** [40] Language, Philosophy, & Culture

**HIST 2374 - Popular Culture in Latin America**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.

**Description**
This class explores significant aspects of Latin American culture in the 19th and 20th centuries. It examines the historical context for music, the arts, media, fashion, sports, and cinema.

**Core Category:** [40] Language, Philosophy, & Culture

**Additional Fee**
N
HIST 2397 - Selected Topics in History  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Description  
Cr. 3. (3-0). May be repeated for credit when topics vary.

HIST 2398 - Special Problems  
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0

HIST 3303 - Disease, Health, and Medicine in American History  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing or consent of instructor.  
Description  
The history of health care delivery in America, and how disease patterns are related to changes in society. The rise of modern medicine from the seventeenth century to the present; the relationship between the medical profession and society, and ethical issues in medicine.

HIST 3305 - The Old South  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing or consent of instructor.  
Description  
The development of the American South as a distinctive section from colonial times to the end of the Civil War.

HIST 3308 - The American West Since 1848  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing or consent of instructor.  
Description  
The American West after 1848. Emphasis on region's diversity, extractive economy, environmental change, and mythical importance.

HIST 3309 - History through Fiction  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Junior standing or consent of instructor.  
Description  
Through sampling process and content analysis, major works of fiction will be examined as sources for historical understanding.

HIST 3310 - Jacksonian America, 1820-1850  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304.  
Description  
Social and political history of the U.S. from the end of the War of 1812 to the Compromise of 1850.  
Additional Fee Y

HIST 3311 - Civil War and Reconstruction, 1850-1877  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304.  
Description  
Social, political, and military examination of the origins, conduct, and aftermath of the American Civil War.  
Additional Fee Y

HIST 3312 - American Civil War in Film  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304.  
Description  
This course will examine how the American Civil War has been treated in film from the 1930s to the present. The main themes to be covered include: the coming of the Civil War; generals and soldiers; life on home fronts; and the ending of slavery and Reconstruction.  
Additional Fee Y

HIST 3314 - Liberals vs. Conservatives: FDR to the Present
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HIST 3314 Liberals vs. Conservatives: US Politics from FDR to Present
Prerequisite: junior standing or consent of instructor.
Description
Surveys U.S. political history from FDR to Obama. Special attention to the impact of ideology on public policy and the varieties of liberal and conservative reforms.
Core Category: [81] Writing in the Disciplines

HIST 3315 - Introduction to Public History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Introduction to the multifaceted work of public historians ranging from museums to archives and editing to policy analysis. Includes both "hands-on" and traditional assignments.

HIST 3316 - Race and Racism in American Science and Medicine
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Examines the construction of "race" and the consequences of racism in scientific and medical research and practice in the United States.

HIST 3317 - Making of Ethnic America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304; junior standing or consent of instructor.
Description
History from a multicultural perspective of the ethnic communities and their contributions to American culture.

HIST 3319 - Plagues and Pestilence: Epidemics in World History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Social, political, and economic dimensions of epidemics from the Black Death to smallpox to HIV/AIDS.

HIST 3320 - U.S. Women's History Since 1840
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
The impact of industrialization, immigration, and war on women of various classes, races, and ethnicities; women's movements of the 19th and 20th centuries, with emphasis on how attention to gender transforms our interpretations of modern U.S. history.

HIST 3322 - The Vietnam War
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Prominent developments in twentieth-century Vietnam and U.S. intervention in its civil war.

HIST 3325 - The Mexican American Civil Rights Movement in 20th Century
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Examines the rise and development of the Mexican American civil rights movement from the early 1900s to the present.

HIST 3326 - African American Women in Slavery and Freedom
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
African American women from the colonial period to the present.
HIST 3327 - Houston Since 1836
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
When used to satisfy the history core curriculum requirement, this course is in the category of Texas history. Growth and change in the emergence of a modern sunbelt city from its founding in 1836.

HIST 3328 - Colonial North America, 1450-1765
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or permission of instructor.
Description
Course examines European colonization of North America and the interactions of various European colonists with Native Americans, the natural environment, and enslaved Africans.

HIST 3329 - Native North America, Origins - 1840
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or permission of instructor.
Description
Course examines the history of Native American peoples prior to European contact through the era of Indian Removal east of the Mississippi River (c. 1840).

HIST 3330 - African American History to 1865
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Analysis of the experiences of Blacks in the formation and development of America to 1865: slavery, race relations, urbanization, war, politics, economics, and civil rights.

HIST 3331 - African American History Since 1865
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Analysis of the experiences of Blacks in the formation and development of America since 1865: slavery, race relations, urbanization, war, politics, economics, and civil rights.

HIST 3332 - Chicano History to 1910
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
The role of the Chicano in American history from the colonial period to 1910.

HIST 3333 - Chicano History Since 1910
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Examines the historical development of the Mexican origin community within the context of U.S. history from 1910 to the present.
Core Category: [81] Writing in the Disciplines

HIST 3334 - Chicana History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Analysis of the experiences of Mexican-origin women in the United States in the nineteenth and twentieth centuries, and their contributions to social, cultural, and economic life of the U.S.

HIST 3336 - History of U.S. Latinx Music
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.

Description
This course explores the history of U.S. Latinx peoples through the study of popular music. Music offers rich avenues into understanding political, economic, social, and cultural changes in U.S. Latinx life, U.S.-Latin American connections, gender roles, race and racism in Latin America and the United States, and U.S. Latinx social realities in the 20th and 21st centuries. From the Latin American colonial period to present-day United States, the course examines how Latinx shaped American culture, U.S. Latinx identity, migration, immigration, community formation, politics, social relations, and the development and production of sound.

HIST 3337 - Texas-Mexican Music in 20th Century
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Explores and explains the rise of Mexican music in Texas and the ways in which American and Latin American music influenced its development in the 20th century.

HIST 3338 - Native American History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 1377 and HIST 1378 or consent of instructor.

Description
Native American history from European colonization to the present.

HIST 3339 - Ancient Greece
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2351 and junior standing, or consent of instructor.

Description
Ancient Mediterranean world through the age of classical Greece.

HIST 3340 - Ancient Rome
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2351 or HIST 2361 and junior standing or consent of instructor.

Description
The Roman world from the origins of the state to the barbarian invasions.

HIST 3342 - Texas-Mexican History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Historical experience of people of Mexican descent in Texas, 1836- present.

HIST 3349 - War, Globalization, and Terrorism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
The role of the United States globally from the colonial period to the present with special focus on the post Civil War era.

HIST 3350 - Russia at War
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
This course course explores social, political, and cultural impacts of war on Russian state and society. Beginning with the Vikings, it examines the earlier and later consolidation of the Russian state into and beyond the 20th century.

Additional Fee

HIST 3351 - Work and Family Life in Modern Europe
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and either of HIST 2353 or HIST 3380.
Description
The impact in western Europe of the industrial revolution, rise of the welfare state, twentieth-century total war and the affluent society on class relations, class consciousness, family life, domestic ideologies, childhood, and gender relations.

Core Category: [81] Writing in the Disciplines

HIST 3352 - Modern France Since 1870
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Politics, economic development, society, family life, and cultural movements in modern France from the foundation of the Third Republic to the present day.

HIST 3353 - England to 1689
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: HIST 2351 and HIST 2353.

Description
Political, constitutional, social, and economic history of Britain until the Revolutionary Settlement of 1689. Emphasis given to Britain's constitutional development and to its position as a world power.

HIST 3354 - England Since 1689
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: HIST 2351 and HIST 2353.

Description
Political, constitutional, social, and economic history of Britain since the Revolutionary Settlement of 1689. Emphasis given to Britain's constitutional development and to its position as a world power.

HIST 3355 - British Empire Since 1500
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Expansion and contraction of the empire, relationship between empire and British life, place of the empire in the European and global context, impact of the empire upon colonial regions.

HIST 3356 - History of Madness
Credit Hours: 3.0
Lecture Contact Hours: 3.0   Lab Contact Hours: 0.0  Prerequisite: Junior standing or consent of instructor.

Description
The names, evaluations of, and understandings of mental disorders have changed much over time. This course examines attitudes about and actions towards the mentally disordered and their treatment over time and in various places.

HIST 3357 - Modern Germany, 1815-1918
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: HIST 2353.

Description
Political, social, economic, and intellectual currents in German history from the Germanic confederation of 1815 through World War I.

HIST 3358 - Modern Germany Since 1918
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: HIST 2353.

Description
Political, social, economic, and intellectual currents in German history from the end of World War I to the present.

HIST 3359 - Comparative WWII Home Fronts
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304 and HIST 2353 or consent of instructor.

Description
Examines the WWII home fronts of fascist Italy, Nazi Germany, occupied and Vichy France, the concentration camps, and the U.S. through the lenses of gender, cultural propaganda, and social policy.

**HIST 3360 - Native Americans in Film**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1403.  
Description  
Examination of the history of Native American peoples since European contact through the present day in the form of a variety of films, including classic westerns, documentaries, Hollywood blockbusters, and Native films. Focus on several key themes of the Native American experience, including the indigenous struggle to defend homelands and preserve community autonomy; shifting identities and what it has meant/means to "be Indian"; cultural persistence; distinctive views of family and gender; and, diversity among the many different Native peoples.

**HIST 3361 - Sports in American History**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304.  
Description  
History of some of the main sports that have captured the attention of millions of Americans, the origins of those sporting competitions, and some of their historic athletes. Exploration of the much larger themes in America's history, culture, and society, including the impact of class, race and gender on American sports; the role that immigration, ethnicity, urbanization, and industrialization played in "America's" games; and how sports revealed conflicts between labor and capital, as well as the politics of gender, race, and ethnicity.

**HIST 3362 - Rise & Fall of Soviet Union**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0

**HIST 3363 - Pirates and Smugglers in the Modern World**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Junior standing or consent of instructor.  
Description  
Explores piracy and smuggling from the early modern world to the present. Topics include Caribbean and Indian Oceans and pirates, social history, and piracy and smuggling in the age of globalization.

**HIST 3364 - History of Energy in Russia**
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: Junior standing or consent of instructor.  
Description  
This course explores the significant recent Russian wealth obtained from oil inaddition to the authoritarian state power and imperial expansion for resources that have been a long-term part of Russian history.

**HIST 3365 - Russian Revolution in Film and Fiction**
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: Junior standing or consent of instructor.  
Description  
This course will use some of the most prominent texts and films about the Bolshevik revolution to examine how they reflected its historical experience of mass violence, radical reforms, and social upheavals. Cultural responses are explored in the political and social realities of Russian history as well as the cultural logic of the works.

**HIST 3366 - Europe since 1900**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304.  
Description  
This course is a broad historical survey of Europe since 1900. Some of the important events, people, ideas, conflicts, and issues in modern European history will be covered including revolutions, war, mass migration, free and planned economies, and the rise of the European Union.  
Additional Fee N

**HIST 3367 - Japan Since 1600**
HIST 3368 - World Environmental History to 1800
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Human interactions with the environment from the rise of complex societies to 1800. Comparative themes: inventions of agriculture; human, plant, and animal migrations; global commodity trades; religion and nature.

HIST 3369 - Colonial Mexico
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HIST 4368
Prerequisite: junior standing or consent of instructor.

Description
The evolution of Mexican society from the Spanish conquest in 1521 until the Independence Revolution of 1810.
Core Category: [81] Writing in the Disciplines

HIST 3370 - Twentieth Century Revolutions in Latin America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HIST 4374
Prerequisite: junior standing or consent of instructor.

Description
An analysis of the social, economic, and political conflicts that led to revolutionary upheavals in Cuba, Chile, Nicaragua, and Bolivia.

HIST 3371 - Russian Imperial History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
This course examines Russian imperial history from the 18th century to the early 20th. Imperial politics, economic, and social policies will be discussed as well as revolution and characteristics of Russian authoritarianism.

HIST 3375 - The CIA in the Third World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
The Central Intelligence Agency as an instrument of United States policy toward Third World nations. The history of American intelligence institutions, the contemporary history of selected developing nations, U.S. relations with these countries, and specific cases of CIA involvement.

HIST 3376 - Caribbean History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
A survey of important events that have shaped the lives of the people of the Caribbean from pre-Columbian times to the present.

HIST 3377 - Modern Middle East
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Disintegration of the Ottoman empire; imperialism and decolonization; the new nation states; Zionism and Arab nationalism; Arabs and Israelis; oil.

HIST 3379 - World Civilizations to 1500
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HIST 3379 World Civilizations to c.e. 1500

Description
History of modern Japan from the Tokugawa period to the present with emphasis on the political, social, and economic transformations.
Prerequisite: junior standing or consent of instructor and ENGL 1304.

Description
A comparative survey of six major geographical and cultural areas (West Asia, South Asia, East Asia, Africa, Europe, and Meso-America) from 4000 B.C. to c.e. 1500.

Core Category: [40] Language, Philosophy, & Culture

HIST 3380 - World Civilization Since 1500
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor and ENGL 1304.

Description
An overview of the interactions among seven major cultural traditions (Judeo-Christian, Graeco-Roman, Indian, Chinese, African, Islamic, American Indian) from c.e.1500.

Core Category: [40] Language, Philosophy, & Culture

HIST 3381 - African Civilization to 1750
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Presents the history of Africa from the time of earliest humans (c. 10,000 BCE) to the Atlantic Trade era. Focus is on African contributions to world cultures, the Early Iron Age and the rise of states and empires, international and continental trade systems, the introduction of Islam and Christianity, and cultural heritage of modern-day Africans on the continent and in the diaspora.

HIST 3382 - African Civilization Since 1750
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Africa since 1750: the Slave Trade Era (c.1450-1850); Africans' experiences under colonial rule; the rise of nationalism in the 1960's; and the struggle for independence.

HIST 3383 - World Revolutions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Causes and effects of modern revolutions from the English Civil War of the 17th century to the Iranian Revolution at the end of the 20th century.

HIST 3384 - Palestine and the Making of the Arab-Israeli Conflict
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and junior standing or consent of instructor.

Description
This course examines the origins of one of the longest running and most significant conflicts in modern history, exploring the history of Palestine from the late Ottoman period to the 1948 Nakba.

HIST 3385 - Ottoman Empire I
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing or consent of instructor.

Description
History of the Ottoman Empire from its rise in the thirteenth century to the mid-sixteenth century. Analysis of the transformation of the Ottoman principality into a leading world empire in the context of world history.

HIST 3386 - From Napoleon to Nasser: Modern Arab History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.

Description
Covering the creation, politics, economics, and cultures of modern Arab states.

Additional Fee Y

HIST 3388 - China: Early Civilization to 1600
HIST 3386 - China from the origins of its civilization through its growth during the imperial age. Emphasizes the formation of political systems and social institutions; religious, moral and social beliefs; economic development.

HIST 3389 - China Since 1600
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
General history of modern China, focusing on the major political, social, and cultural transformations of China from the 17th and 18th centuries through the internal and external crises of the 19th century, the rise of nationalism and communism in the 20th century and contemporary dilemmas of social and economic reform.

HIST 3390 - Middle East: Pictures & Words
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Analytical examination of the historical role of the visual and literary arts in contemporary Muslim and Arab societies using regional films, novels, and non-fiction works.

HIST 3391 - Africa and the Indian Ocean World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
East Africa c. 200 - 1900 C. E.; Islamic trade in Indian Ocean; African contributions to Indian Ocean culture.

HIST 3394 - Sel Tops-Us History
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or consent of instructor.
May be repeated for credit when topics vary.

Note: May be repeated for credit when topics vary.

HIST 3395 - Sel Top-European Hist
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
May be repeated for credit when topics vary.

HIST 3396 - Sel Top-Latin Amer Hist
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
May be repeated for credit when topics vary.

HIST 3397 - Sel Tops-African History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
May be repeated for credit when topics vary.

HIST 3398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

HIST 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair. HIST 3399 and HIST 4399 must be satisfied in order for any to apply to a degree.

HIST 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: approval of chair.

HIST 4298 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: approval of chair.

HIST 4300 - Data Science in Humanities and Beyond
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
Working with data is an important skill for today's and tomorrow's professionals. Historians increasingly work with computerized data and/or technologies. This class will discuss the historical, social, political, and economic contexts of historical and humanities' uses of data with IT technologies.
Additional Fee N

HIST 4301 - Issues in Feminist Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304 and junior standing or consent of instructor.
Description
This course introduces historical and interdisciplinary methods in feminist research, providing an opportunity especially to complete research at the Carey C. Shuart Women's Archive and Research Collection and other Houston area archives. Beyond individual research, we will engage in exciting group research projects documenting women's lives through oral history, digital technologies, and multimedia sources. Applying a local-global historical lens, students can explore local and United States history as well as a range of geographical regions, transnational connections, and contemporary women’s, sexuality, and gender issues.

HIST 4303 - Women in the Civil Rights Movement
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
This course examines the lives of the women that participated in the freedom struggle, and their role in the Modern-Day Civil Rights Movement.

HIST 4304 - The American Revolution
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
Background, military, political, and diplomatic developments, 1763-1783.

HIST 4306 - Social Reform Movements in Antebellum America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
Examination of the numerous social movements that emerged in antebellum America to reform society.

HIST 4311 - The Age of Roosevelt, 1929-1945
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
The Great Depression and World War II, with emphasis on Franklin D. Roosevelt's leadership through these periods.

HIST 4313 - The United States, 1961-1976
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
Political, diplomatic, social, economic, and cultural developments with emphasis on presidencies of Kennedy, Johnson, Nixon; Soviet-American confrontations; war in Vietnam; civil rights and counterculture movements; liberal reform; resurgence of conservatism; and Watergate.

HIST 4314 - American History Through Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
Film as a source in the study of twentieth century United States social and cultural history.

HIST 4316 - History of Racism and Anti-Racism through Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
Both racist representations and the struggle against them in U.S. cinema, as well as the history of the struggles against racism as depicted in film.

HIST 4318 - Africa and the Oil Industry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
History of the oil industry in Africa. Role of Africa in international oil history, analyzes the "Oil Curse," impact of local communities, role of national and international oil companies in political and development policies, from 1960 to the present.

HIST 4320 - Radicalism and Protest in the US
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
History of anti-Capitalist and anti-State protest in U.S. history from the colonial period to the present.

HIST 4321 - The History of Jewish Food
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
This course explores the history of Jewish peoples and the Jewish Diaspora through the study of food and foodways. A focus on Jewish food practices offers rich avenues into understanding political and economic changes in Jewish life, communities, relations between women and men, and global Jewish social realities. The course spans the ancient to modern periods.
Core Category: [81] Writing in the Disciplines

Additional Fee N

HIST 4322 - Environment in U.S. History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
Changing human relations with their physical environments and implications for society from colonization through industrialization to modern environmentalism.

HIST 4323 - Witchcraft in the Old & New World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
History of witchcraft in Western Europe and North America from the fifteenth to the seventeenth century.

HIST 4325 - Houston Eats!: Research in Food and Public History
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: The students who are taking this course should have completed six-hours in advanced US History and six-hours in advanced non-US History. Additionally, student should have completed 3 hours from: HIST 3314, HIST 3333, HIST 3351, HIST 3369, HIST 4321, OR HIST 4339 or other approved writing intensive course.
Description
This history capstone course centers on the food history of the greater Houston area.

HIST 4327 - Europe 1930-1945
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Seminar-style discussion class, using both primary and secondary materials, covering many of the major events of these crisis years - the Great Depression, the Spanish Civil War, the rise of fascism, Stalinism, World War II, and the Holocaust.

HIST 4328 - The Vikings
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2351 or HIST 3379 or consent of instructor.
Description
History, culture, and religion of Vikings from their Indo-European roots and migration to Scandinavia through their invasions of Europe, excursions to North America, and trade with the Byzantine and Muslim worlds: state-building and impact on world history.

HIST 4330 - Flowering of the Middle Ages
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Aspects of the Middle Ages from the perspectives of different disciplines such as history, English, French, Spanish, philosophy, music, art history, engineering, architecture, and law.
Core Category: [40] Language, Philosophy, & Culture

HIST 4331 - The Normans
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2351 or HIST 3379 or consent of instructor.
Description
Normans from their Viking origins through their conquests in northern Europe, the Mediterranean, North Africa, and the Middle East: state-building in these regions, cultural achievements, the role of women, and impact on world history.

HIST 4336 - A History of Histories: Capstone Course on Historiography
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or permission of professor.
Description
Survey of the schools and purposes of history-writing.

HIST 4337 - US History Through Biography: Methods and Approaches
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and junior standing or consent of instructor.
Description
This class considers biography as a lens through which to explore the contours of US history. More than a designation of 'great' Americans, biography offers historians a way to complicate how we think about ordinary and extraordinary lives. Treating biography as a form of micro history, this course introduces new approaches to this classic genre by exploring historian-biographers' works spanning US history. In anticipation of creating our own biographical sketches, we will explore the unique qualities and particular difficulties of biographical writing as well as biographers' source base including autobiography, multimedia texts, and oral history.

HIST 4338 - Enlightenment Stories: The Thought and Literature of the Enlightenment
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or permission of professor.
Description
Survey of the thought, writings and interpretations of the Enlightenment, with particular emphasis on France and Scotland.

HIST 4340 - Philosophies of History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or content of the instructor.
Description
Introduction to historical methods, approaches, and topics. Exploration of why historical interpretations constantly change over time and what accounts for these differing interpretations, assumptions, contradictions, and ongoing debates within the field.

HIST 4342 - Food, Race and Medicine
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or instructor consent.
Description
Examination of the historical relationships between food, race, medicine, and power throughout the twentieth and twenty-first centuries. In particular, focus on the politics of health, the business of race and ethnicity in medicine, and the unique ways food in various contexts influence relationships of power in American society. Consumption of food and mobilizations around food as a portal into contemporary questions of race, ethnicity, class, immigration, politics, exclusion, regionalism, and access that are essential for understanding American history.

HIST 4343 - Russian Revolutions and Stalinism
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing or consent of instructor.
Description
This course provides a comprehensive overview of the revolutionary transformation in Russia that began as a democratic uprising against oppressive tsarist power and ended with an even harsher Stalinist regime. Important historical figures such as Nicholas II, Lenin, Stalin, and Trotsky are examined as the evolution of the revolution is traced.

HIST 4344 - Ancient Numismatics
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing or consent of instructor.
Description
Examines the ancient origins of money, specifically coinage, and emphasizes texts and objects. Money has shaped history at all levels from the conditions of everyday life to the collapse of mighty empires.

HIST 4346 - Tudor England, 1485-1603
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2351.
Description
Britain under the Tudor monarchy - Henry VII to Elizabeth I, the Age of Thomas Moore and William Shakespeare.

HIST 4347 - Stuart England, 1603-1714
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2353.
Description
The Stuart Century of Revolution and its impact on America and Europe.

HIST 4348 - Social History of Early Modern England
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2351.
Description
Society, economy, and culture in England during the age of More, Shakespeare, and Milton. Topics include the nature of a pre-modern economy, high culture vs. popular culture, and the lives of common women and men in this period.

HIST 4349 - British Empire-Capstone
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2351 or HIST 2361 and junior standing or consent of instructor.
Description
Historiography of the British Empire from 1500 to 1965 using secondary readings and primary historical sources. Student will write an original essay drawing on secondary and primary sources.

HIST 4350 - Alexander the Great
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 2351 or HIST 2361 and junior standing or consent of instructor.
Description
The life and legacy of Alexander the Great of Macedonia, emphasizing historiography from ancient to modern times.

HIST 4355 - Topics in the History of Law and Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or the consent of the instructor.

HIST 4361 - 20th-Century Genocides
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304; HIST 2353 or HIST 3380 or consent of instructor.
Description
The emergence, development, underlying causes, and uses of genocide, ethnic cleansing, and other crimes against humanity.

HIST 4364 - Consumer Culture in Latin America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Consumer and popular material culture in twentieth-century Latin America with an emphasis on the relation between consumer culture and gender, class, nationalism, racial and ethnic identities, and politics.

HIST 4365 - Women in Latin America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Latin American women's history from the prehispanic period to the present, emphasizing experiences of women of different classes, races, and ethnicities, from rural and urban areas, during ordinary and revolutionary times.

HIST 4366 - Latin American History through the Novel
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Factual events, places, and personages in order to dramatize the history of a particular period and place.

HIST 4367 - U.S. Latina/o Food History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
This course explores the history of U.S. Latinas/o identity through the foods they cultivated, prepared, and consumed from the 19th century to the present. Through interdisciplinary readings, films and an examination of the diverse Latino foods we find around our city we will follow themes including migration, colonialism, labor, gender, globalization, nutrition and health, consumerism, and memory and nostalgia.

HIST 4368 - Food, Drink, and Drugs of Latin America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
History of the culinary traditions and psychoactive substances of Latin America. Indigenous, African and European contributions to the development of the region's rich cuisine and abundant pharmacopeia.

HIST 4369 - Modern Mexico: 1810 to the Present
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Social history of modern Mexico.

HIST 4370 - The U.S. and Mexico
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Social history of the interactions of the peoples of the U.S. and Mexico.

HIST 4371 - Latin American History Through Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
History of Latin American thought through a variety of films made by Latin Americans and others, and the history of Latin America.
Core Category: [50] Creative Arts

HIST 4372 - African Experience in Latin America and the Caribbean
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
Explores the origins, expansion, and abolition of African slavery in Latin America and the Caribbean; examines slavery's legacy on late nineteenth and early twentieth century race relations.

HIST 4375 - The Atlantic World since 1450: Slaves and Capitalists, Rebels and Zombies
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: The students who are taking this course should have completed six-hours in advanced US History and six-hours in advanced non-US History. Additionally, student should have completed 3 hours from: HIST 3314, HIST 3333, HIST 3351, HIST 3369, HIST 4321, OR HIST 4339 or other approved writing intensive course.
Description
This fourth-year capstone seminar surveys major themes in Atlantic history from 1450 until the late nineteenth-century.

HIST 4376 - Revolutionary Cuba
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
The origins of the revolution of 1959 and the Cuban people's attempt to construct a socialist state to the present.

HIST 4377 - Blacks in Latin American and Caribbean in the 20c.
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
The social, political, cultural and economic history of people of African ancestry since the abolition of slavery to the present.

HIST 4378 - Food Fads and Scares in American History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HIST 1377 and HIST 1378 or equivalent, or content of instructor.
Description
Course examines the causes and effects of food fads - from early American vegetarianism, to elimination diets, to organic and local food sourcing - and food scares, from concerns about the intertemporal effects of meat, to concerns about industrial food processing, to concerns about food allergies.

HIST 4379 - Sex and Violence in the Old South
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
This course uses a gender studies approach to examine concepts such as gentility, civility, and honor, along with the exalted but helpless position of the 'southern belle.' The course will also discuss riverboat gamblers, the raping of slaves by the masters, plantation justice, slave breeding and slave insurrection. The course explores the role of men and women, white, black, and native American in the context of slave society. Additionally, the course analyzes gender definitions, violence, social roles and socially normed behavior.

HIST 4380 - Arab Revolutions I 1879-1948
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.
Description
This course examines Arab revolutions and revolutionary movements, assessing their diverse causes, connections, and crucial impact. It begins with the Egyptian Revolt of 1879 and ends with the Palestinian Nakba of 1948.

HIST 4381 - Arab Revolutions II 1948-Present
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
This course examines post-1948 Arab revolutions with a focus on major revolutionary case studies. It concludes with an overview of the legacy of these historic revolutions and revolts and their relevance to the contemporary Arab Spring.

HIST 4384 - East Asian Women in Historical and Cross-Cultural Perspectives
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or higher or consent of instructor.
Description
Senior undergraduate seminar which provides historical and cultural perspectives on East Asian women in Asia and the United States.

HIST 4386 - Africa 1945 to the Present
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
Description
Contemporary situation in Africa through the analysis of the impact of W. W. II, the rise of nationalism, the independence struggles 1960-1980; failures and successes of new nation-states; debt, development and neo-colonialism; military states and civil wars since 1960; the abolition of apartheid in South Africa.

HIST 4389 - From Blues Era to Hip Hop World: Black Life in the 20th Century
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
Analysis of African Americans in the twentieth century with a central focus on cultural developments.
Additional Fee Y

HIST 4392 - Selected Topics in Asian History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
May be repeated for credit when topics vary.

HIST 4393 - Selected Topics: Middle East
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
May be repeated for credit when topics vary.

HIST 4394 - Sel Top-United States History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: HIST 1377 and HIST 1378.
May be repeated for credit when topics vary.

HIST 4395 - Sel Tops-European Hist
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
May be repeated for credit when topics vary.

HIST 4396 - Sel Top-Latin Amer Hist
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing or consent of instructor.
May be repeated for credit when topics vary.
HIST 4397 - Selected Topics in African History
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or consent of instructor.
May be repeated for credit when topics vary.

HIST 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

HIST 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: HIST 3399 and approval of department chair. HIST 3399 and 4399 must be satisfied in order for any to apply to a degree.

Honors

HON 2101 - The Human Situation: Modernity
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Corequisite: ENGL 2361.
Description
Required for students with membership in the university’s Honors College. Discussion of readings from: Machiavelli, Bacon, Descartes, Hobbes, Swift, Rousseau, Goethe, Flaubert.

HON 2301 - The Human Situation: Antiquity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C+ or higher in ENGL 1303 or placement by the Honors College.
Corequisite: ENGL 1370.
Description
Readings from Homer, Sophocles, Aristophanes, Plato, and the Bible. Combination of lectures and discussion.
Note: Required for students with membership in the university's Honors College.
Core Category: [40] Language, Philosophy, & Culture

HON 2341 - Classics of Modernity
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 and 1304 or equivalent.
Corequisite: HON 2101.
Description
Examination of classic texts in early to late modern literature and political philosophy.
Core Category: [81] Writing in the Disciplines

HON 2397 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

HON 3132 - Mapping Success
Credit Hours: 1
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: None.
Description
Students will learn to make curricular and co-curricular decisions that will help them develop a personalized map to meet their academic and professional goals.
Note: This is an open honors course; any student who has satisfied the prerequisites for the course may enroll. For further information, contact honors@uh.edu.

HON 3300 - Introduction to Social Medicine
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
All health professionals, regardless of specialty, work in settings where social, economic, and political forces powerfully influence who becomes ill,
from what, and how likely it is that effective treatment options are both available and can be applied to positive effect in any one patient. This course introduces some core concepts in the field of 'social medicine' that explain why health outcome inequalities exist and what we might do about them in the future.

**Core Category:** [81] Writing in the Disciplines

**HON 3301 - Readings in Medicine and Society**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
The study of medicine as a social practice, including medical ethics, public health policy, the history of health care, and the cultural context of medical practice.

**HON 3302 - Readings in Public Health & Community Medicine**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
The study of public health and community medicine via health care ethics, public health policy, the history of health care, and the cultural context of health care and public health practice.

**Note:** This is an open Honors course; any student who has satisfied the prerequisites for the course may enroll. For further information contact honors@uh.edu

**HON 3303 - Readings in Mental Health & Society**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
The study of mental health and medicine via medical ethics, public health policy, the history of health care, and the cultural context of medical practice.

**Note:** This is an open Honors course; any student who has satisfied the prerequisites for the course may enroll. For further information contact honors@uh.edu

**HON 3304 - Objects of Medicine: The Technologies and Material Cultures of Medicine**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
Emerging material cultures of medicine in order to understand their effects on the relationship between healthcare providers and their patients.

**HON 3305 - Medicine in Performance**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
Theatrical and cinematic depictions of illness, disability, and the medical situation, and their reflections in performed social expectations of medical professionals and patients.

**HON 3306 - Health & Human Rights**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly** HON 4397 Health & Human Rights  
**Prerequisite:** ENGL 1304.

**Description**
Political advocacy and responses on issues such as health access, government responsibility, and the competing definitions of what it means to be 'healthy'.

**HON 3307 - Narrative Medicine**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**
We explore the concept of illness narratives and how they might help with patient care. What constitutes a narrative? Why might narratives focusing on illness be different? How might the concept of 'narrative' help analyze the effects of illness and help us to communicate, perhaps to a patient, perhaps to a friend, possibly even to ourselves?
Note: This is an open Honors course; any student who has satisfied the prerequisites for the course may enroll. For further information contact honors@uh.edu

HON 3308 - Lyric Medicine
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Exploration of clinical empathy in medicine using medically-themed literature including lyric memoir, poetry, and non-chronological fiction.
Note: This is an open Honors course; any student who has satisfied the prerequisites for the course may enroll. For further information contact honors@uh.edu

HON 3309 - Introduction to Health Professions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: none
Description
Introduction to health care delivery systems in the U.S. with emphasis on the role of various professions (e.g., optometry, medicine, osteopathy, dentistry, pharmacy, nursing, podiatry, social work, clinical psychology, allied health professions).
Note: For students considering careers in the health professions.

HON 3310 - Poetics and Performance
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Provides a creative and critical view of art, dance, film, music, literature, and theater.

HON 3312 - Immersion Journalism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HON 2101 and HON 2301.
Description
Advanced analysis and writing of immersive journalism. This course employs a two-part strategy: critical reading and creative practice.
Typically Offered: Fall and Spring

HON 3330 - Leadership Theory and Practice
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HON 3397 Leadership Theory and Practice  Prerequisite: none
Description
Review of major leadership theories designed to incorporate research, practice, skill-building, and direct application to real world scenarios.

HON 3331 - Introduction to Civic Engagement
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
The theme of this course is civic engagement with a focus on its link to poverty. Upon completion of this class, the student will understand the importance of how healthcare, property, food and nutrition, and education are impacted through the framework of building and achieving social capital.
Additional Fee N

HON 3332 - Mapping Success
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Students will learn to make curricular and co-curricular decisions that will help them develop a personalized map to meet their academic and professional goals.
Note: This is an open honors course; any student who has satisfied the prerequisites for the course may enroll. For further information, contact honors@uh.edu.

HON 3335 - Leadership: The Classic Texts
HON 3330 - Leadership Theories and Narratives
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HON 3330 or consent of instructor.
Description
Explore leadership theories and narratives found in classic texts from antiquity to the present.

HON 3350 - Principles of Data and Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
During this course, students will be introduced to data science concepts and learn the necessary basic skills to manage and analyze data and be exposed to concepts such as exploratory data analysis, statistical inference and modeling, machine learning, and higher dimensional data analysis. The principles will be introduced through a fixed set of pre-selected projects, and grades will be assigned based on technical proficiency in straightforward and common data analytics tasks, causal inference and convincing argumentation, and comprehension of broad ethical and social issues.

HON 3360 - Principles and Practices of Global Engagement
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or consent of instructor.
Description
This course is the gateway to the Honors College Minor in Global Engagement, and provides a theoretical, ethical, and experiential learning framework for participation in academic, co-curricular, and professional travel programs. It emphasizes principles of critical reflection, cultural awareness, personal accountability, and ethical engagement that serve to enhance learning experiences in the context of local, national, and international communities. The concept of global engagement begins with an examination of the principles of citizenship in diverse societies, creating a foundation for and orientation towards critically reflective learning.

HON 3361 - Global Engagement and Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Interdisciplinary reading and research seminar on economic, cultural, political, historical, and technological components of global engagement. Discussion of strengths and limitations of various research methodologies and the completion of an individual research project.
Note: This is an open honors course; any student who has satisfied the prerequisites for the course may enroll. For further information, contact honors@uh.edu.

HON 3397 - Honors Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of the Dean of the Honors College.
May be repeated for credit when topics vary.

Note: May be repeated for credit when topics vary.

HON 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of dean of the Honors College.
Description
For interdisciplinary topic.

HON 4130 - E-Portfolio
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Formerly HON 4198 E-Portfolio
Prerequisite: consent of dean of the Honors College
Description
Students will create an electronic portfolio of personalized reflection pieces, best papers, leadership and service experiences, research activities, awards, etc.

HON 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Approval of the Associate Dean of the Honors College.
Description
Cr. 1 per semester or more by concurrent enrollment.

HON 4298 - Independent Study
Credit Hours: 2.0

HON 4301 - Medicine, Science & Technology in the Ancient World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and HONS 3301.
Description
We will explore the historical roots of Western medicine, science & technology through ancient Near Eastern, Greek, Roman, rabbinic, and medieval Islamic texts. Selections may include the Hippocratic writings, Galen, the Hebrew Bible, New Testament, and Apocrypha, the Babylonian Talmud, Maimonides, Ibn Sina (Avicenna), and Mesopotamian cuneiform medical and scientific texts.

Note: This is an open Honors course; any student who has satisfied the prerequisites for the course may enroll. For further information contact honors@uh.edu

HON 4302 - The Holocaust and Medical Ethics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and HONS 3301.
Description
This class explores the ethical precedents and legacy of Nazi experimentation on human beings during WWII. Topics will include, the Milgram and Zimbardo/Stanford Prison obedience experiments, the Tuskegee syphilis experiment, and the conduct of research with human participants (from 'informed consent' to the Belmont Report and beyond). Students will interact with experts from the Texas Medical and the Houston Museum District.
Note: This is an open Honors course; any student who has satisfied the prerequisites for the course may enroll. For further information contact honors@uh.edu

HON 4310 - City Dionysia
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304 or equivalent.
Description
A project-based, course wherein students develop, research, curate, and perform a creative project located within or inspired by the City of Houston or the City Dionysia project. A capstone course for the Creative Work minor.

HON 4315 - Artists and Their Regions: Creative Work in Performance and Context
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
The context and impact of art and literature in a particular geographical region, usually Texas, the American South, or Latin-America. Includes travel and field experience.

HON 4330 - Narratives in the Professions
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Studying narrative works that depict various professional environments and roles, in order to gain insight into one's own professional paths, aspirations, and values.
Note: This is an open honors course; any student who has satisfied the prerequisites for the course may enroll. For further information, contact honors@uh.edu.

HON 4350 - Data and Society in Practice
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HON 3350 Principles of Data and Society.
Description
Students will gain technical skills through involvement in planning and implementation of data driven projects, including primary responsibility for data integration, acquisition, analysis, and pre- sentation. More advanced modeling of causal and inferential processes, including both initial workflow diagrams and presentations and visualizations that represent the entire arc of the project, will give structure to the course and provide the basis for evaluation appropriate to the desired learning outcomes.
HON 4355 - Engaged Data  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HON 3350 Principles of Data and Society.  
Description  
The new paradigms of data science permeate our lives, from how we participate in social networks to how we pay for food, and yet most of us have no idea how it works behind the user interface. People who know what is happening, what choices are made and hidden from view, and who know how to use the data for the good that is, the ones who can critically engage with producing and interpreting data will have the advantage in the emerging society of ubiquitous data. This class will use project-based learning and real world examples to explore competing ways of modeling data and using data science to interpret and transform our world.

HON 4390 - Antiquity Revisited  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Advanced interdisciplinary topics for reading and discussion with selected faculty.  
Description  
An exploration of great books from the Greek and Judeo-Christian traditions. May be repeated for credit when topics vary.

HON 4391 - Modernity Revisited  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Advanced interdisciplinary topics for reading and discussion with selected faculty.  
Description  
An exploration of great books from Dante to the present. May be repeated for credit when topics vary.

HON 4397 - Honors Selected Topics  
Credit Hours: 3  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of the Dean of the Honors College.  
May be repeated for credit when topics vary.  

Note: May be repeated for credit when topics vary.

HON 4398 - Independent Study  
Credit Hours: 3.0  
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Approval of the Associate Dean of the Honors College.  
Description  
Cr. 3 per semester or more by concurrent enrollment.

HON 4399 - Senior Honors Thesis  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of dean of the Honors College.  
Description  
For interdisciplinary topic.

Hotel and Restaurant Management  
HRMA 1301 - Hospitality Technology  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HRMA 1101 - Hospitality Technology  
Description  
Introduction to technology and its application within the hospitality industry from a managerial and strategic perspective.

HRMA 1320 - Foodservice Management  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.  
Description  
Introduction to restaurant and foodservice management. Analysis of industry segments, career opportunities, production, systems management,
service, and facilities.

Additional Fee N

HRMA 1335 - Facilities Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HRMA 2335 Facilities Management
Description
Introduction to building systems and facilities management for hospitality establishments.
Typically Offered: Fall, Spring, & Summer

HRMA 1337 - Introduction to the Hospitality Industry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
History and development of the hospitality industry, including food, beverage, and lodging management.

HRMA 1345 - Safety and Sanitation in the Hospital Industry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HRMA 1245 and HRMA 4351
Description
Integration of safety and sanitation using Hazard Analysis Critical Control Point (HACCP) as the model for implementation of strategies to maintain and enhance the profit potential in hospitality operation. Sanitation certification requirement.

HRMA 1367 - Lodging Management
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: None.
Description
A comprehensive analysis of the various aspects of management and operations in the global lodging industry.
Typically Offered: Fall, Spring, & Summer

Additional Fee Y

HRMA 1422 - Food Service Production and Operations I
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 4  Formerly HRMA 2422; also formerly HRMA 1422 Food Service Production and Operations
Prerequisite: credit for or concurrent enrollment in HRMA 1345.
Description
Food service systems, including menu management, purchasing and production applied to an operating environment. Laboratory aspects and demonstration of basic food production techniques and principles.
Typically Offered: Fall, Spring, & Summer

HRMA 2115 - Dean's Leadership Series
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Description
Leadership styles, philosophies, and how they attribute to success in the hospitality industry. Leaders from major hospitality corporations including alumni and young emerging leaders present.

HRMA 2160 - Professional Development
Credit Hours: 1
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: HRMA 1337.
Description
Employment in hospitality setting for a minimum of 400 clock hours in an instructor approved learning situation and participation in a number of career preparation activities.
Typically Offered: Fall, Spring, & Summer

HRMA 2197 - Selected Topics
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0
HRMA 2220 - Food Service Production and Operations II
Credit Hours: 2.0
Lecture Contact Hours: 1   Lab Contact Hours: 4  Formerly HRMA 1220; also formerly HRMA 2220 Food and Beverage Service
Prerequisite: HRMA 1422.
Description
Service styles, practices, and procedures in food service operations, including food production and laboratory experiences.

HRMA 2315 - Introduction to SPA Management
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0
Description
The nature of the spa industry, its history, future and characteristics. To develop a working and hands on knowledge of spa operations.

HRMA 2324 - Nutrition and Healthy Living
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0
Description
Healthy living and prevention of chronic diseases, including nutrient composition, absorption, and metabolic processes for multicultural, ethnic, and generational diversity as well as biotechnology, trends, and nutrition claims.

HRMA 2340 - Systems of Accounts in the Hospitality Industry
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: MATH 1310 or 1311.
Description
Financial record keeping and reporting, utilizing uniform systems of accounts for hotels, restaurants, and clubs, with emphasis on payroll, statement analysis, and computer applications.

HRMA 2343 - Hospitality Cost Controls
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Formerly HRMA 3343.
Prerequisite: Math 1310 or 1311, and HRMA 2340 or ACCT 2301.
Description
Principles and procedures for controlling food, beverage, and labor costs in the hospitality industry.
Additional Fee Y

HRMA 2350 - Management Principles in Hospitality
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: HRMA 1337.
Description
This course serves as an introduction to the management principles in hospitality. It is designed to integrate the accepted theories in the area with real world applications to provide students with the basic knowledge and skills needed for managing others. This course begins with a discussion of the current issues in hospitality management and then proceeds to cover the traditional functions of management: planning, organizing, leading, and controlling. Lecture and class assignments given in the course are intended to help students understand the needs of modern public and private hospitality organizations, including emerging national and international trends.
Additional Fee Y

HRMA 2356 - Communication Strategies for Hospitality Professionals
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: None.
Description
This course will assist students in developing multiple personal and professional communication channels within a multicultural environment which can be applied to hospitality organizations. Emphasis will be placed on personal presentations, written (emails, letters, memos), social communication channels, collaborative communication, as well as non-verbal skills.
Additional Fee N

HRMA 2365 - Tourism
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in ENGL 1304.
Description
Overview of the history and implications of travel and tourism as an economic, political and cultural force, and the effect of tourism development on the quality of life of the host society.

Core Category: [80] Social & Behavioral Sciences

**HRMA 2368 - Room and Housekeeping Management**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1335 and credit for or concurrent enrollment in HRMA 1367.
Description
Operation of a rooms department of a typical full-service or selective service lodging facility. Management responsibilities together with operational techniques.
Typically Offered: Fall, Spring, & Summer

**HRMA 2373 - Spanish for the Hospitality Industry**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Introduction to basic Spanish skills to perform more efficiently in the hospitality workplace.

**HRMA 2382 - Introduction to Club Management**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Introduction to environments, opportunities, and strategies pertinent to managing the functions of a private club.

**HRMA 2397 - Selected Topics**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

**HRMA 3153 - Hotel Marketing New York Style**
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Description
Analysis of New York City hotels' physical plant, customer segments, pricing and unique characteristics, identification, evaluation of products and services from the national purveyors at the annual International Hotel/Motel trade show.

**HRMA 3154 - Restaurant Marketing Chicago Style**
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Description
Analysis of Chicago restaurants' physical plant, customer segments, pricing and unique characteristics, identification, evaluation of products and services from the national purveyors at the annual National Restaurant Association trade show.

**HRMA 3160 - Hospitality Practicum II**
Credit Hours: 1.0
Lecture Contact Hours: 1.0  Lab Contact Hours: 0.0  Prerequisite: HRMA 2160.
Description
Employment in a hospitality setting for a minimum of 300 clock hours in an instructor approved learning situation and participation in a number of career preparation activities.

**HRMA 3197 - Selected Topics in Hospitality**
Credit Hours: 1
Lecture Contact Hours: 1  Lab Contact Hours: 0  May be repeated when topics vary.

Note: May be repeated when topics vary.

**HRMA 3297 - Selected Topics in Hospitality**
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  May be repeated when topics vary.

**HRMA 3321 - Contract Food Service Management**
HRMA 3327 - Restaurant Layout and Design
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1337 or Consent of Instructor.
Description
The field of professional contract food management, including the accounting, legal, marketing, sales, production, and personnel functions.

HRMA 3335 - Alcoholic Beverage Production - Wine, Spirits and Beer
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 2  Prerequisite: Must be legal drinking age.
Description
Production of wine, beers, distilled spirits, and cordials. Standards of quality, processing, storage, service, and service for the four categories of spirituous beverages and various types of products within those categories.
Additional Fee $40.00 Fee Type HRMA Fee

HRMA 3336 - Beverage Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1422.
Description
Manager's role and responsibility in developing and operating a facility serving alcoholic beverages. Emphasis on product.

HRMA 3341 - Hospitality Managerial Accounting
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 2340 and MATH 1310 or 1311.
Description
Hospitality managerial accounting, emphasizing planning and control functions including yield management, cash and operating budgets, standards, and decision making. Break-even analysis, ratio analysis, interpretation of financial statements, budgeting, cash forecasts, and hospitality case studies.

HRMA 3342 - Club Operations Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1337 and HRMA 2340.
Description
Private club management as contrasted with traditional profit-motivated segments of the hospitality industry.

HRMA 3345 - Wine Appreciation
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 2  Prerequisite: junior standing and legal drinking age.
Description
Wine producing regions of the world. Compiling of wine lists, serving, and recommending wine and food combinations.
Additional Fee $100.00 Fee Type HRMA Fee

HRMA 3346 - Beer Appreciation
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 2  Prerequisite: Must be of legal drinking age.
Description
Beer producing regions of the world. Sensory evaluation and the technical details of beer production. Compiling of beer lists, serving, and recommending beer and food combinations.
Typically Offered: Fall and Summer

HRMA 3348 - Principles of Hospitality Revenue Management
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1367.

Description
The principles of pricing strategies, distribution channels, market segmentation, and demand forecasting from a financial and managerial perspective. Current industry technology will be used to reinforce the concepts.

HRMA 3349 - Hospitality Purchasing
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1422 or Consent of Instructor.

Description
Procedures and practices in the purchasing function for acquiring hospitality services, food, beverages, equipment, and supplies.

HRMA 3352 - Human Resource Management
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1337.

Description
Application of human resource management in hospitality environments; selection, placement, training, compensation, motivation, and performance appraisals of organizing members; labor relations and government regulations specific to the hospitality industry.

HRMA 3353 - Hospitality Metrics and Data Analytics
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 3341 and one of the following: MATH 2311, PSYC 3301, or TMTH 3360.

Description
This course provides students with an in-depth understanding of business analytics techniques applicable to hospitality organizations.

Additional Fee N

HRMA 3357 - Gaming and Casino Management
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1337.

Description
Overview of gaming industry; lotteries, pari-mutuel wagering and casino operations. Subjects examined include: operation, marketing, accounting, controls, security, and social consequences.

HRMA 3358 - Hospitality Industry Law
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1337.

Description
Laws applicable to ownership and operations of hotels, restaurants, and clubs. Contracts, the Uniform Commercial Code, torts, liabilities.

Core Category: [81] Writing in the Disciplines

HRMA 3361 - Hospitality Marketing
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1337.

Description
Principles and procedures for managing the hospitality marketing function.

Typically Offered: Fall, Spring, & Summer

HRMA 3362 - Management Training Work Experience I
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Sophomore standing and consent of instructor.

Description
Analysis of a hospitality establishment from a managerial perspective while student is employed at that establishment.

HRMA 3364 - Hotel Sales
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1367.

Description
Functions of a hotel sales department including group, transient and banquet sales, selected sales and customer service techniques, selling styles, and facility presentations.

**HRMA 3366 - Social Media in the Hospitality Industry**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing.
**Description**
Introduction to business uses of social media in the hospitality industry.
Typically Offered: Fall, Spring, & Summer

**HRMA 3371 - Multicultural Etiquette in the Hospitality Industry**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing and consent of instructor.
**Description**
Etiquette and protocol in business and social settings. Domestic, international, and multicultural common courtesies, greetings and introductions, communications, and dining etiquette.

**HRMA 3372 - Convention and Meeting Management**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1367.
**Description**
Convention and association management, emphasizing program planning, budgeting, marketing, public relations, food and beverage and hospitality planning, audio visual and transportation coordination, exhibit sales and management, contract and lease negotiations, and human resources.

**HRMA 3379 - Entertainment and Venue Marketing**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Introduction to the fundamental business/marketing concepts necessary for successful sports and entertainment events. This course provides a solid knowledge base in the areas of marketing foundations, economics, sponsorship, public relations, sales, advertising, and licensing.

**HRMA 3384 - Gourmet Night Management I**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1337 and consent of instructor.
**Description**
Enrollment limited to students serving as Director or Assistant Director for Gourmet Night. Food and beverage management, logistics management, operations management, service management, and wine management. Recruitment and training management of student volunteers.

**HRMA 3385 - Hall of Honor Management I**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 1337 and consent of instructor.
**Description**
Food and beverage management, logistics management, marketing, operations management, service management, and wine management. Recruitment and training management of student volunteers.
**Note:** Enrollment limited to students participating in Hall of Honor.
Typically Offered: Fall

**HRMA 3387 - Management & Operations of Senior Living Facilities**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
**Description**
Career opportunities, management and operation of senior living facilities.

**HRMA 3397 - Selected Topics in Hospitality**
Credit Hours: 3.0
May be repeated when topics vary.

**HRMA 3399 - Senior Honors Thesis I**
Credit Hours: 3.0  
Prerequisite: approval of Dean of the College and the HRM Office of Student Services.

HRMA 3420 - Foodservice Operations  
Credit Hours: 4.0  
Lecture Contact Hours: 3  Lab Contact Hours: 4  Prerequisite: HRMA 1320 and HRMA 1345.  
Description  
Manager's role of the operation of restaurants and foodservices. A systems approach to menu management, purchasing, production, purchase orders, marketing, service and evaluation procedures. Integration of all aspects of operations, laboratory included.  
Additional Fee N

HRMA 3440 - Hotel Operations  
Credit Hours: 4.0  
Lecture Contact Hours: 3  Lab Contact Hours: 4  Formerly HRMA 4340.  
Prerequisite: HRMA 3348.  
Description  
This course will provide a deep dive into hotel departmental responsibilities, operating policies, and procedures. The learning process will include interactive lectures, group discussions, research, and guest lecturers. Following a rotating schedule, students will shadow management and work within a hotel to reinforce concepts. The course will focus on the responsibilities of the Front Office Manager, Executive Committee, General Manager, and Owner.  
Additional Fee Y

HRMA 3445 - Global Wine Immersion  
Credit Hours: 4.0  
Lecture Contact Hours: 3  Lab Contact Hours: 4  Prerequisite: HRMA 3345 with grade of B or better.  
Description  
Must be legal drinking age. This course is designed to advance students to a global understanding of wines through learning materials and sensory evaluation of regional wines. The content and the exam for Wine and Spirits Educational Trust (WSET) Level 1 Award in Wine is a required component of this course. The aim of this course is develop students knowledge of wines of the world and the global wine industry, as well as to enable students to gain an internationally recognized professional qualification of Wine and Spirits Education Trust (WSET) Level 1 Award in Wine, which will enhance their employability.  
Additional Fee N

HRMA 4132 - Beverage Management and Marketing Internship  
Credit Hours: 1.0  
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: junior standing, minimum 21 years of age, and consent of instructor.  
Description  
Application of theoretical approaches to the study of beverage management and marketing thorough a supervised practicum in the wine and spirits industry.

HRMA 4197 - Sel Tops Hospitlty Mgmnt  
Credit Hours: 1.0  
Lecture Contact Hours: 1.0  Lab Contact Hours: 0.0  Prerequisite: junior standing or consent of instructor.  
Note: May be repeated for credit when topic varies.

HRMA 4198 - Independent Study  
Credit Hours: 1.0  
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: junior standing and/or consent by petition.  
Note: Designed for undergraduate students who wish to pursue special studies for which a course is not organized.

HRMA 4297 - Selected Topics in Hospitality Management  
Credit Hours: 2.0  
Prerequisite: junior standing or consent of instructor.  
May be repeated for credit when topic varies.

HRMA 4298 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: junior standing and/or consent by petition.
Note: Designed for undergraduate students who wish to pursue special studies for which a course is not organized.

HRMA 4310 - Entrepreneurship in the Hospitality Industry
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 2 Prerequisite: HRMA 1337 and junior standing.
Description
Entrepreneurship as it relates to starting and building a successful business in the hospitality industry.
Typically Offered: Fall, Spring, & Summer

HRMA 4311 - Franchising in the Hospitality Industry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: HRMA 1337 and junior standing.
Description
Concepts and issues as it relates to franchising and building a successful business in the hospitality industry.
Typically Offered: Fall, Spring, & Summer

HRMA 4322 - Restaurant Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: HRMA 1422 and 2350.
Description
Manager’s role in restaurant operations. Control systems as diagnostic indicators, the role of managerial leadership, staff selection and staff
development, effective approaches to successful client relations, and approaches to maintaining the balance between food, service, and facilities
quality.

HRMA 4323 - Advanced Food and Beverage Management
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 5 Prerequisite: HRMA 2220 and HRMA 2343.
Description
Preparation of menus, recipes, purchase orders, food preparation, marketing, and evaluation procedures. Integration of all aspects of restaurant
operation. Includes laboratory.
Typically Offered: Fall, Spring, & Summer

HRMA 4326 - Catering Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: None.
Description
Catering operations and management, catering in the hospitality industry, and the various catering disciplines. Marketing, sales operations,
technology, and innovations. The laboratory component encompasses all aspects of catering management.

HRMA 4328 - Restaurant Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: HRMA 3341 or 3343, and HRMA 3361.
Description
Analysis and evaluation of food service operation development emphasizing marketing analysis, location, valuation, and financing.

HRMA 4336 - Beverage Marketing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing.
Description
Identify and analyze the segmenting, targeting, and positioning of the alcoholic beverage industry with emphasis on the suppliers, retailers, and on-
premise accounts to understand product assortment and pricing decision.

HRMA 4338 - Hotel Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: HRMA 3341 and HRMA 3361 or consent of instructor.
Description
Analysis and evaluation of hotel development. Emphasizing marketing analysis, location, valuation, and financing.

HRMA 4343 - Financial Administration for the Hospitality Industry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 3341 and one of the following (ECON 2370, MATH 2311, POLS 3316, PSYC 3301, TMTH 3360.)
Description
Principles of hospitality managerial finance including the mathematics of finance, working capital and capital asset management, cost of financing, property valuation, and financial feasibility studies.
Typically Offered: Fall, Spring, & Summer

HRMA 4344 - California Wine Experience
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 3345 or consent of instructor; must be of legal drinking age.
Description
Viticulture and viniculture practices and techniques, as well as production, marketing strategies, business strategies, and the corporate culture of California wineries. Wine tours, seminars, and tastings will be included. Students to defray expenses for their travel and lodging.

HRMA 4346 - Texas Wine and Food Experience
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 3345 and consent of instructor.
Description
Must be legal drinking age. Viticulture practices and techniques, as well as production, marketing strategies, business strategies and the corporate culture of the Texas wine industry. Wine tours, seminars and tastings are included as well as a destination food component.

HRMA 4350 - Strategy and Innovation in the Hospitality Industry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 2350.
Description
The purpose of this course is to provide the students with concepts and applications of strategic management of innovation in hospitality. Due to the uniqueness of services, it is vital to secure sustainable competitive advantages in the market based on innovation in service design and delivery. This course examines various innovation spaces (i.e., product, process), and recognizes several views of innovativeness (e.g., firm-centric, customer-centric, and entrepreneurial). Topics include service-dominant logic, value co-creation, innovation/innovativeness, innovation space, technology and environment, customer-driven business models and competitive advantages resulting from innovation, and entrepreneurial innovation.

HRMA 4352 - Hospitality Organizational Behavior
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 2350.
Description
Employees are the heart and soul of the hospitality industry. This course provides a comprehensive analysis of human behavior and examines how employee behavior affects hospitality organizational performance. Coupling theory and application, it examines three sources of organizational behavior: individuals, groups, and structure. Topics include motivation, motivations, emotions, stress, individual and group behavior, conflict, organizational structure, decision making, communication, and organizational change and development.

HRMA 4353 - Leadership in the Hospitality Industry
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRMA 2350.
Description
Hospitality leadership philosophies. Coaching, teaching, facilitating, and motivating a workforce in various hospitality environments.
Note: There is a writing component to this course that takes place in the University Writing Center requiring an additional time commitment. Further information will be discussed the first day of class.
Typically Offered: Fall, Spring, & Summer

Additional Fee Y
HRMA 4354 - Advanced Hospitality Operations Management  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: HRMA 2343.  
Description  
Managing resources to produce hospitality products and services. Utilizing quantitative and qualitative analysis to evaluate efficiencies and effectiveness of managing resources.  
Typically Offered: Fall, Spring, & Summer

HRMA 4355 - Event Administration  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Description  
Analysis of event management focusing on sports and entertainment, examining human resources, customer service, facility, ticket, concessions operations, legal issues; budgeting and financial administration; sales marketing; merchandising and promotions.  
May be repeated when venue changes.

HRMA 4360 - Hospitality Internship  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: HRMA 2160. In order to enroll in this course, you must have completed the following requirements: Already completed at least 700 hours of work experience in the hospitality industry. Received approval for your internship from Instructor prior to enrolling. Submitted Supervisor agreement form. Submit internship application form.  
Description  
This course helps students discover, develop and demonstrate their highest professional goals to attain their targeted job, while internalizing a process for ongoing development that continues beyond college. Upon completion of this course, students should have completed 1000 work hours, including a 300 hour internship.  
Additional Fee N

HRMA 4361 - Marketing Strategies in the Hospitality Industry  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing and HRMA 3361.  
Description  
Strategic analysis and organizational decisions involved in creating and maintaining markets in the hospitality industry.

HRMA 4362 - Management Training Work Experience II  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: Junior standing and consent of instructor.  
Description  
Analysis of a hospitality establishment from a managerial perspective while student is employed at that establishment.

HRMA 4367 - Advanced Lodging Management  
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 4  
Prerequisite: HRMA 2343.  
Description  
Evaluation of operating standards essential to the profitability of a lodging and accommodation enterprise. Application of theory to operational decisions. Includes laboratory.

HRMA 4370 - Project Development and Management in the Hospitality Industry  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: HRMA 3353.  
Description  
This course aims to provide students with the knowledge and tools to plan, execute, assess, and evaluate projects in the hospitality industry to ensure set objectives are successfully met. In the hospitality industry projects can be of various natures from construction of a new facility, additions to existing facilities, implementing new training programs, converting software or repositioning a product to increase asset value.  
Additional Fee N

HRMA 4382 - Advanced Club Operations  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: HRMA 1337.
### Description
Strategic management in the private club industry. Analysis of environments, opportunities, and strategies peculiar to managing the functions in a private club.

**HRMA 4384 - Gourmet Night Management II**
- **Credit Hours:** 3.0
- **Lecture Contact Hours:** 3  
  **Lab Contact Hours:** 0  
  **Prerequisite:** HRMA 3384 and consent of instructor.

**Description**
Enrollment limited to students who are serving as Director or Assistant Director for Gourmet Night. Food and beverage management, logistics management, marketing, operations management, service management, and wine management. Recruitment and training management of student volunteers for area student directing. Develop training manuals, order equipment, market event, and oversee respective areas.

**HRMA 4385 - Hall of Honor Management II**
- **Credit Hours:** 3.0
- **Lecture Contact Hours:** 3  
  **Lab Contact Hours:** 0  
  **Prerequisite:** HRMA 1337, HRMA 3385, and consent of instructor.

**Description**
Food and beverage management, logistics management, marketing, operations management, service management, and wine management. Recruitment and training management of student volunteers.

**Note:** Enrollment limited to students participating in Hall of Honor.

**Typically Offered:** Fall

**HRMA 4388 - Managing Diversity in Hosp Ind**
- **Credit Hours:** 3.0
- **Lecture Contact Hours:** 3  
  **Lab Contact Hours:** 0  
  **Prerequisite:** HRMA 3352.

**Description**
Evolving issues of workplace diversity. The impact of cultural, legal, and economic forces on business. Management of an increasingly diverse workforce with respect to moral, legal, and employee relations considerations.

**HRMA 4397 - Selected Topics Hosp Mgt**
- **Credit Hours:** 3.0
- **Lecture Contact Hours:** 3  
  **Lab Contact Hours:** 0  
  **Prerequisite:** Junior standing or consent of instructor.

**Note:** May be repeated for credit when topic varies.

**Additional Fee Y**

**HRMA 4398 - Independent Study**
- **Credit Hours:** 1.0
- **Lecture Contact Hours:** 0  
  **Lab Contact Hours:** 0  
  **Prerequisite:** Junior standing and/or consent by petition.

**Note:** Designed for undergraduate students who wish to pursue special studies for which a course is not organized.

**HRMA 4399 - Senior Honors Thesis II**
- **Credit Hours:** 3.0
- **Prerequisite:** HRMA 3399 and approval of Dean of the College and the HRM Office of Student Services.

**HRMA 4462 - Practical Project Management in the Hospitality Industry**
- **Credit Hours:** 4.0
- **Lecture Contact Hours:** 3  
  **Lab Contact Hours:** 4  
  **Prerequisite:** HRMA 4370.

**Description**
This course aims to present a hands-on approach to problem-solving through innovative solutions in the hospitality industry. Students will solve real industry problems presented by a hospitality/travel firm. This course utilizes real-life exercises, access to firm information, interviews with executives, data collected from consumers/employees, and technology to help students solidify this decision making process, and present an innovative solution to industry executives, via analytical skills and creative use of technology and management tools.

**Additional Fee N**

### Human Development and Consumer Sciences

**HDCS 1300 - Human Ecosystems and Technological Change**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.

Description
Introduction to the study of human and consumer needs, values, and goals in relationship to natural, man-made, and behavioral systems within the context of dynamic technological change.

Core Category: [81] Writing in the Disciplines

HDCS 2301 - Consumer Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.

Description
Analysis of consumer models and managerial process as influenced by science, technology, and consumer economics with consideration of impact on individuals and families.

Additional Fee Y

HDCS 3300 - Organizational Decisions in Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.

Description
Systems-theory approach to organizational planning and decision making in a variety of contexts.

HDCS 3302 - Consumer Textiles
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: none.

Description
Analysis of textile components to predict product quality and end-use performance.

HDCS 3303 - Retailing and Consumer Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent and MATH 1310, or consent of instructor.

Description
Interdisciplinary analysis and comparison of retailing and consumer science. Psychology of consumer choice and the structure of the retailing industry.

HDCS 3304 - Visual Merchandising
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 3303 or consent of instructor.

Description
Principles of design: visual merchandising, product promotions, and communication.

HDCS 3376 - Resources in Technology Entrepreneurship
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or departmental approval.

Description
Practical approaches to resources for technology-based enterprises.

HDCS 4300 - Research Concepts in HDCS
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 3303 or consent of instructor.

Description
Research processes applicable to human development and consumer sciences. May be repeated up to 2 times.

Typically Offered: Fall & Spring

HDCS 4302 - Apparel Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 3303 or consent of instructor.
Description
Critical evaluation of quality levels of manufactured apparel. Issues involved in merchandising.

HDCS 4303 - Merchandising Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 3303 or consent of instructor.
Description
Merchandising systems, including wholesale, retail, and allied markets. Emphasis on initiating and implementing changes within the system.

HDCS 4304 - Fashion Brand Direction
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 4303.
Description
Theory, analysis, and application of branding processes and strategies for the fashion industry.

HDCS 4369 - Entrepreneurship
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HDCS 4369  Prerequisite: HDCS 3376.
Description
Planning and organizing a single proprietorship with emphasis on technical assistance, marketing strategy, location, financing, legal issues, management of human resources, promotion, business records, and credit.

HDCS 4370 - Technology Entrepreneurship
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior Standing or departmental approval.
Description
Concepts and issues related to the commercialization of technology based products and services.

HDCS 4372 - Forecasting for Technology Entrepreneurship
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or department approval.
Description
Forecasting technology and organizational change with performance models.

HDCS 4374 - Entrepreneurial E-Tailing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or department approval.
Description
Technology-based approaches for entrepreneurial enterprises.

HDCS 4375 - Strategies in E-Tailing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 4374 or department approval.
Description
Strategies for consumer acceptance and profitability in E-Tailing.

HDCS 4380 - Merchandising
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing or department approval.
Description
Mathematical, statistical, and control phases of retail buying, computing prices and markups, evaluating inventories, controlling stocks, and budgeting expenses.

HDCS 4386 - Communication Strategies for Retailing and Supply Chain
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 3300 or consent of instructor.
Description
Principles and techniques of mass communication, direct marketing and media used in retailing and supply chain programs, and providing services.

HDCS 4393 - Internship in Retail and Consumer Sciences
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: Retail and Consumer Science major and senior standing.
Description
Application of theoretical approaches to the study of the individual, family, and consumer through a supervised practicum in the student's area of emphasis.

HDCS 4394 - Internship in Retailing and Consumer Sciences
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 3 Prerequisite: HDCS major and senior standing.
Corequisite: HDCS 4393.
Description
Application of theoretical approaches to the study of the individual, family, and consumer through a supervised practicum in the student's area of emphasis.

HDCS 4396 - Selected Topics in Human Development and Consumer Sciences
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: junior standing and permission of the department chair.
May be repeated for a maximum of nine semester hours.

HDCS 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: consent of instructor.

Human Development and Family Studies

HDFS 1300 - Development of Contemporary Families
Credit Hours: 3.0
Lecture Contact Hours: 1.5  Lab Contact Hours: 1.5 Prerequisite: ENGL 1303.
Description
A multidisciplinary integration of historical, psychological, and sociological approaches to the study and understanding of diversity in family forms and public policies that influence a family's values, beliefs, and behaviors.
Core Category: [81] Writing in the Disciplines
Additional Fee $2.00 Fee Type Lab Fee

HDFS 1311 - Personal Development and College Success
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0 Prerequisite: None.
Description
Theory and research on cognitive, motivational, and behavioral factors related to academic success; emphasis on application to students' development and personal and family resource management.

HDFS 2317 - Introduction to Human Development and Interventions
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 1 Description
Multidisciplinary integration of biological, psychological, and cultural approaches to the study of life-span human development; introduction to the development-in-context approach to understanding human development; focus on applied problems related to delivery of human services.
Core Category: [80] Social & Behavioral Sciences

HDFS 2320 - Research Methods in Human Development & Family Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: credit for or concurrent enrollment in HDFS 1300 or 2317.
Description
Understanding, planning, and evaluating research. The nature of scientific research, fundamentals of research, ethics, measurement, and design with emphasis on applications in HDFS.

**HDFS 3300 - Introduction to Educational Psychology**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0 Formerly EPSY 3300 Educational Psychology*

*Prerequisite:* Completion of UH Core Social and Behavioral Sciences course

*Description*

Overview of educational theories emphasizing learning and motivation. Focus on how theories can be applied in multiple context to a diverse population of learners.

**HDFS 3310 - Introduction to Child Life**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: HDFS 2317.*

*Description*

Examines the role of child life specialists in meeting children’s psychosocial needs. Students explore the intersection of human development, family systems, the healthcare environment, illness, and therapeutic play.

**HDFS 3317 - Prenatal and Infant Development**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: HDFS 2317 or consent of instructor.*

*Description*

Multidisciplinary integration of biomedical, psychosocial, and cultural perspectives on prenatal and infancy period; implications of early determinants in relation to later development.

**HDFS 3318 - Human Ecology of Adult Development**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: HDFS 2317 or consent of instructor.*

*Description*

Multidisciplinary integration of biological, psychological, and cultural perspectives on adult development and aging; emphasis on development-in-context approach to understanding adulthood; and focus on applied problems related to adult development.

**HDFS 3320 - Careers in Human Development and Family Studies**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0 Formerly HDFS 4322 Human Development and Family Studies*

*Prerequisite:* None.

*Description*

Explores interdisciplinary career options within helping professions. Specialties such as careers and graduate programs focused on developmental stages and family life education will be covered as well as the importance of transferable skills, laws and professional ethical standards, and the influence of public policy on individuals and families.

**HDFS 3350 - Observation and Assessment of Children and Adolescents**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 1 Prerequisite: HDFS 2317.*

*Description*

Observation and informal assessment methods for children from birth through adolescence to assess biological, cognitive, and socioemotional development. Includes the development and/or selection of appropriate instruments, data collection techniques, and analysis of assessment results and application of theory to developmentally appropriate practice.

*Additional Fee Y Fee Type Lab Fee*

**HDFS 4198 - Independent Study**

*Credit Hours: 1.0*

*Lecture Contact Hours: 0  Lab Contact Hours: 0*

**HDFS 4315 - Culture and Diversity in Human Development**

*Credit Hours: 3.0*

*Lecture Contact Hours: 3  Lab Contact Hours: 1 Formerly HDFS 4315 Analysis of Community Resources and Human Services*
Prerequisite: HDFS 2317.

Description
Culture and diversity throughout the lifespan. Includes service learning component.

HDFS 4316 - Dynamics of Family Relationships
Credit Hours: 3.0
Lecture Contact Hours: 3.0 Lab Contact Hours: 0.0 Prerequisite: HDFS 2317 or consent of instructor.

Description
Multidisciplinary research related to the internal dynamics of contemporary families with an emphasis on interpersonal communication, family policies, and the impacts of stress and crises on families.

HDFS 4317 - Introduction to Early Childhood Development
Credit Hours: 3.0
Lecture Contact Hours: 2.0 Lab Contact Hours: 2.0 Prerequisite: HDFS 2317 and prior or concurrent enrollment in HDFS 3350.

Description
Development from birth to 8 years of age that covers physical, cognitive, language and literacy, and socio-emotional development, including a practicum.

Additional Fee $2.00 Fee Type Lab Fee

HDFS 4318 - Parent-Child Relationships
Credit Hours: 3.0
Lecture Contact Hours: 3.0 Lab Contact Hours: 0.0 Prerequisite: HDFS 2317 and HDFS 1300 (or consent of the instructor).

Description
Multidisciplinary overview of parent-child relationships in contemporary society, emphasis on development-in-context approach to the study of parenting; review of research and public policies on parenting; and focus on strategies for prevention and intervention in a variety of settings.

HDFS 4320 - Evaluation of Programs for Children and Families
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: HDFS 2320 or HLT 4307, or PSYC 2301 or MATH 3211 or an equivalent introductory research methods/statistics course.

Description
Program evaluation involves research to evaluate the design, implementation, effectiveness, efficiency, and impact of social programs. Topics covered include reasons for and uses of program evaluations; types of evaluation, and evaluation methods; including needs assessment, formative research, process evaluation, monitoring of outputs and outcomes, impact assessment, and cost analysis.

HDFS 4325 - Theory to Practice in Human Development and Family Studies
Credit Hours: 3.0
Lecture Contact Hours: 1.5 Lab Contact Hours: 1.5 Prerequisite: HDFS 2317, HDFS 3300, HDFS 3350.

Description
Techniques for family life educators and human science providers who will help individuals and families address key issues of development and human relationships at each stage of the life cycle. Students will gain an understanding of their professional role in supporting evidence-based practices through effective use of community and family resources.

Additional Fee N

HDFS 4393 - Internship in Human Development & Family Studies
Credit Hours: 3.0
Lecture Contact Hours: 0.0 Lab Contact Hours: 3.0 Prerequisite: HDFS major, senior standing, HDFS 2320, HDFS 4317, HDFS 4319, concurrent enrollment in HDFS 4394 and passing required writing assessment.

Description
Application of theoretical approaches, public policies, and professional ethics related to the study of the individual, family and/or community through a supervised internship in the student’s area of emphasis.

HDFS 4394 - Internship in Human Development & Family Studies
Credit Hours: 3.0
Lecture Contact Hours: 0.0 Lab Contact Hours: 3.0 Prerequisite: HDFS major, senior standing, HDFS 2320, HDFS 4317, HDFS 4319, concurrent enrollment in HDFS 4393 and passing required writing assessment.

Description
Application of theoretical approaches, public policies, and professional ethics related to the study of the individual, family and/or community through a supervised internship in the student’s area of emphasis.

**HDFS 4397 - Selected Topics in Hdfs**
*Credit Hours: 3.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing in HDFS and permission of the instructor.*
May be repeated for a maximum of six semester hours of credit.

**HDFS 4398 - Independent Study**
*Credit Hours: 3.0*
*Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Independent Study in Human Development and Family Studies.*

### Human Nutrition and Foods

**NUTR 2133 - Commercial Food Production I Lab**
*Credit Hours: 1.0*
*Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: NUTR 2332.*
*Corequisite: NUTR 2333.*
*Description*
Laboratory experiences in food preparation, basic cooking techniques, use of commercial equipment, food/kitchen safety and sanitation, and the relationship between food, chemistry, and microbiology.

**NUTR 2332 - Introduction To Human Nutrition**
*Credit Hours: 3.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HDCS 2332  Prerequisite: MATH 1310 and 3 SCH of BIOL.*
*Description*
Principles of human nutrition, with emphasis on the nutrient composition of foods, nutrient absorption, and metabolic and physiological processes. Evaluate nutrition claims.
*Core Category: [30] Life & Physical Sciences*

**NUTR 2333 - Commercial Food Production I**
*Credit Hours: 3.0*
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly NUTR 2233; NUTR 2333 Food Science I  Prerequisite: NUTR 2332.*
*Corequisite: NUTR 2133.*
*Description*
Introduction to general principles of food, food preparation, basic cooking techniques, use of commercial equipment, food/kitchen safety and sanitation, and the relationship between food, chemistry, and microbiology.

**NUTR 3101 - Dietetics as a Profession**
*Credit Hours: 1.0*
*Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: declared major in nutrition.*
*Description*
Overview of dietetics profession, including the development of a professional portfolio, career options in dietetics, and application to post-baccalaureate programs.

**NUTR 3135 - Commercial Food Production II Lab**
*Credit Hours: 1.0*
*Lecture Contact Hours: 0  Lab Contact Hours: 1  Formerly NUTR 3235 Commercial Food Production Lab; NUTR 3135 Commercial Food Production Lab  Prerequisite: Junior standing, NUTR 2133, NUTR 2333.*
*Corequisite: NUTR 3335.*
*Description*
Laboratory experiences in quantity foods processing and merchandising, menu planning, menu analysis, cost analysis, and procurement.

**NUTR 3320 - Seminar in Nutrition Research**
NUTR 3330 - Management in Food and Nutrition Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly NUTR 4337
Prerequisite: junior standing and NUTR 2332.
Description
Analysis of research methods in the field of nutrition.

NUTR 3334 - Advanced Nutrition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HDCS 3334
Prerequisite: junior standing and NUTR 2332.
Description
Overview of nutrition and food systems management with emphasis in operational and management functions. Includes management principles, accounting, clinical management, financial management, and human resources.

NUTR 3335 - Commercial Food Production II
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 1  Prerequisite: NUTR 2133, NUTR 2333, and Junior Standing.
Corequisite: NUTR 3135.
Description
Lecture and lab experiences that offer an overview of quality foods processing and merchandising, menu planning, menu analysis, cost analysis, and procurement.

NUTR 3336 - Nutritional Pathophysiology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and NUTR 2332, BIOL 1334, BIOL 1134, BIOL 1344, and BIOL 1144.
Description
Diseased and other abnormal physiological processes of various pathological conditions involving the cardiovascular and metabolic systems and their relationship to diet and nutrition.

NUTR 3340 - Nutrition In The Life Cycle
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HDCS 3340
Prerequisite: junior standing and NUTR 2332.
Description
Changes in nutritional needs from infancy through advanced age. Changes in absorption, metabolism, and utilization of nutrients throughout the life cycle.

NUTR 4101 - Dietetics as a Profession II
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: NUTR 2332, NUTR 3101, and Declared Major in Nutrition.
Description
Continuation of Dietetics as a Profession I including exploring career options in nutrition and dietetics, completion of a professional portfolio, resume writing, interviewing skills, and application to post graduate programs.

NUTR 4201 - Dietetics as a Profession II
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: NUTR 2332, NUTR 3101, and declared major in Nutrition.
Description
Continuation of Dietetics as a Profession I including exploring career options in nutrition and dietetics, completion of a professional portfolio, resume writing, interviewing skills, and application to post graduate programs.

Additional Fee N
NUTR 4312 - Nutrition Assessment & Planning
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing and prior completion or concurrent enrollment in NUTR 3336.
Description
Determination of nutritional status of individuals, including dietary assessment and anthropometric techniques. Emphasis on diet modification, counseling, documentation, and provision of care.

NUTR 4333 - Medical Nutrition Therapy - Cardiovascular
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing NUTR 3336 and NUTR 4312.
Description
Medical nutrition therapy in the management of cardiovascular and renal diseases, diabetes, obesity, and digestive disorders.

NUTR 4334 - Community Nutrition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HDCS 4334
Prerequisite: junior standing and NUTR 2332.
Description
Assessment of the nutritional needs of population groups. Application of nutritional epidemiology and overview of nutritional programs and interventions available in the community.

NUTR 4345 - The Obesity Epidemic
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing.
Description
Investigation of public health, policy, and environmental correlates of obesity prevention and control in the U.S.

NUTR 4346 - Research in Nutrition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly NUTR 4346 Research in Obesity and Weight Management
Prerequisite: junior standing and NUTR 2332.
Description
Overview of the research process. Critical analysis of current research in nutrition.

NUTR 4347 - Medical Nutrition Therapy - Metabolic
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and NUTR 3336 and NUTR 4312
Description
Medical nutrition therapy in the management of liver, gall bladder, respiratory, cancer, and infectious disease states.

NUTR 4348 - Introduction to Nutritional Counseling
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing and NUTR 2332.
Description
Overview of principles and techniques of effective counseling methods as well as nutrition education and behavior change theories.

NUTR 4349 - Public Policy in Nutrition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: NUTR 2332
Description
Overview of public policies in government agencies related to nutrition.

NUTR 4351 - Gerontology and Nutrition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing and NUTR 2332.
Description
Explore nutrition related factors that affect the aging population.
NUTR 4352 - Child and Adolescent Nutrition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing and NUTR 2332.
Description
Explore infant, toddler, school-aged children, and adolescent feeding guidelines and practices for normal nutrition and those at nutritional risk.

NUTR 4353 - Cultural Competency for Nutrition Professionals
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing and NUTR 2332.
Description
Explore the meaning of practicing as a culturally competent nutrition practitioner.

NUTR 4396 - Selected Topics in Nutrition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HDCS 4396  Prerequisite: Junior standing and NUTR 2332.
May be repeated for a maximum of nine hours when topics vary.
Note: May be repeated for a maximum of nine hours when topics vary.

Human Resources Development

HRD 3310 - Talent Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 1300 or Writing in the Disciplines.
Description
Processes needed to facilitate a strategic approach to talent planning, development and management.

HRD 3340 - Principles of Human Resource Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HRD 4340 Introduction to Training and Development  Prerequisite: HDCS 1300 or a Writing in the Disciplines equivalent.
Description
Overview of human resource development theories, concepts, applications and careers.

HRD 3346 - Performance Assessment & Evaluation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HRD 4346 Needs Assessment in Human Resource Development  Prerequisite: HRD 3340 or consent of Program Coordinator.
Description
Methods to assess talent development needs and evaluate impacts of learning and development interventions. Typically Offered: Fall & Spring

HRD 3350 - Workforce Diversity and Globalization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HDCS 1300 or Writing in the Disciplines equivalent.
Description
Trends, concepts and initiatives to develop talent in a diverse and global workforce.

HRD 3351 - Instructional Design for Human Resource Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HRD 3351 Instructional Design for the Training Environment  Prerequisite: junior standing or consent of instructor.
Description
Systematic planning and development of instructional programs for learning and performance improvement. Typically Offered: Fall
HRD 4301 - Global Leadership in Training and Development  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.  
Description  
Analysis of models of change management, knowledge management, and benchmarking as they apply to performance improvement.

HRD 4344 - Designing E-Learning Applications  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly HRD 4344 Technology Applications in Human Resource Development  
Prerequisite: ITEC 1301.  
Description  
Computer-based instruction and evaluation, authoring languages, and systems in a training environment.

HRD 4350 - Organization Development & Consulting  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRD 3340 or consent of Program Coordinator.  
Description  
Introduction to organizational change theories, concepts, interventions and the role of consulting.

HRD 4352 - Facilitation Strategies  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or consent of instructor.  
Description  
Facilitation strategies in small group, team, and training settings to support learning, development and performance improvement.

HRD 4396 - Internship in Human Resource Development  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: HRD major and senior standing.  
Description  
The study of human resource development through a supervised practicum in an organization.

HRD 4397 - Selected Topics in Human Resources Development  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair.  
May be repeated for credit when topics vary.

India Studies

INDI 2397 - Selected Topics in India Studies  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1303.  
Description  
Topics in India studies.  
May be repeated for credit when topics vary.

INDI 3355 - Yoga and Philosophy  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304.  
Description  
Examination of the four different streams of Yoga, one of which incorporates physical postures with particular attention to the Sutras and the Gita. Discussion of contemporary issues related to yoga’s evolution, including modern-day practices.

INDI 3356 - Comparative Modernisms: The Global South  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304.  
Description  
Comparative study of the aesthetics and literatures of modernism as they have developed in South Asia and Latin America during the twentieth
century and into the twenty-first century. Authors to be considered include Joyce, Tagore, Borges, Rushdie, Donoso and Rao and others, in order to consider a comparative global modernism that includes, but goes beyond, European and U.S. definitions.

**INDI 3372 - Indian Film: Bollywood and Beyond**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304.
Description
Exploration of the history, development, and evolution of Indian Film since Partition, the Golden Age, and New Wave through essay and film.

**INDI 3378 - Debating India and the World**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
A survey of South Asian literatures to analyze the themes of nationalism, language politics, caste, class, gender, sexuality, Partition, migration, diaspora, and modernity by using novels, poetry, ghazals, short stories, essays, and Dalit testimonies to interrogate subjectivity, regionality, aesthetics, cultures, cosmopolitanism, and politics while examining what "modernism" means to writers locally and globally.

**INDI 3379 - Media & Post-Millennial Writings in India**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
A survey of literature and films by Indian, Pakistani and Sri Lankan writers, as well as writers of South Asian descent living in North America and the UK to debate about the category of Post-Millennial Literatures, postcolonial theory, world literature, and translation studies by sampling Dalit testimonies, tech-literature, social media, graphic novels, films, and mythological tales of a post-2000 South Asia.

**INDI 3397 - Selected Topics in India Studies**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304.
Description
Topics in India studies.
May be repeated for credit when topics vary.

**INDI 3398 - Independent Study**
Credit Hours: 3.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Approval of chair

**INDI 4397 - Selected Topics in India Studies**
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304.
Description
Topics in India studies.
May be repeated for credit when topics vary.

**INDI 4398 - Independent Study**
Credit Hours: 3.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 0.0  Prerequisite: Approval of chair.

**Industrial Design**

**INDS 1360 - Visual Thinking**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Industrial Design major, or consent of college advisor.
Description
Visual thinking and visualization processes using diverse materials and media. Emphasis on creative and critical thinking through hands-on drawing exercises and explorations.
Additional Fee Y
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 1501</td>
<td>Industrial Design Studio II</td>
<td>5.0</td>
<td>2</td>
<td>9 Prerequisite: ARCH 1500 and Industrial Design major.</td>
<td>Basic principles of industrial design and 2D/3D visual communication skills. Students must pass the freshman portfolio review to successfully complete the course.</td>
<td></td>
</tr>
<tr>
<td>INDS 2160</td>
<td>Materials and Manufacturing Methods</td>
<td>1.0</td>
<td>0.0</td>
<td>3.0 Prerequisite: NDS 2260 or consent of advisor.</td>
<td>Understanding large volume production, material specification and manufacturing processes common in the industrial design field. Emphasis on plastic manufacturing and integration with CAD modeling.</td>
<td></td>
</tr>
<tr>
<td>INDS 2165</td>
<td>Design Research Methods I</td>
<td>1.0</td>
<td>1.0</td>
<td>0.0 Prerequisite: INDS major or consent of advisor.</td>
<td>Introduction to fundamental methods of design research with an emphasis on surveys, questionnaires, and market research.</td>
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</tr>
<tr>
<td>INDS 2170</td>
<td>Digital Sketch Techniques I</td>
<td>1.0</td>
<td>1</td>
<td>0 Prerequisite: IND 1360 or Industrial Design major or consent of advisor.</td>
<td>Visual thinking and visualization processes using digital media and computer sketch tablets.</td>
<td></td>
</tr>
<tr>
<td>INDS 2260</td>
<td>Materials and Fabrication Methods</td>
<td>2.0</td>
<td>1.0</td>
<td>3.0 Prerequisite: INDS 1501 or consent of advisor.</td>
<td>Hands-on exploration of the creative possibilities of low-volume production, material exploration and fabrication methods. Investigation through prototyping techniques involving various plastics, woods, metals and casting materials.</td>
<td></td>
</tr>
<tr>
<td>INDS 2270</td>
<td>Digital Sketch Techniques II</td>
<td>2.0</td>
<td>2</td>
<td>0 Prerequisite: IND 2170 or consent of advisor.</td>
<td>Visual thinking and visualization processes using digital media and computer sketch tablets. Emphasis on creative workflow management and enhancing efficiencies in the ideation process.</td>
<td></td>
</tr>
<tr>
<td>INDS 2298</td>
<td>Independent Study</td>
<td>2.0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDS 2340</td>
<td>Visual Communication</td>
<td>3.0</td>
<td>2</td>
<td>3 Formerly IND 2340 Visual Communication I</td>
<td>Visual language and creative design problem solving with two-dimensional software programs, including Adobe Illustrator, InDesign and Photoshop.</td>
<td></td>
</tr>
<tr>
<td>INDS 2341</td>
<td>Computer Aided Industrial Design I</td>
<td>3.0</td>
<td>2</td>
<td>3 Prerequisite: IND 2340.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Description
Introduction to the process and methodology of Computer Aided Industrial Design (CAID) utilizing modeling and rendering software as learning tools.

Additional Fee Y

INDS 2355 - Design History I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: credit for or concurrent enrollment in ENGL 1304.

Description
Survey of the history of design and art from the age of the industrial revolution to the postwar period with emphasis on the influence of cultural, philosophical, and technical forces.

Core Category: [50] Creative Arts

INDS 2356 - Design History II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: Credit for or concurrent enrollment in ENGL 1304.

Description
Contemporary design and art with emphasis on the influence of cultural, philosophical, and technical forces.

Additional Fee Y

INDS 2360 - Materials and Methods I
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3 Prerequisite: INDS major or consent of instructor.

Description
Understanding materials, fabrication and manufacturing processes common in the industrial design field. Investigation through prototyping techniques involving plastics, wood, metal, and castable materials.

Additional Fee $2.00 Fee Type Lab Fee

INDS 2362 - Visual Presentation
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3 Prerequisite: INDS 1360 and INDS 2340 or consent of instructor.

Description
Advanced visual thinking and visualization processes with an emphasis on board design, process booklet and design portfolio development. Emphasis on publication design and systematic data organization.

INDS 2397 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: Consent of college advisor and instructor.

Note: May be repeated for credit when topics vary.

Additional Fee N

INDS 2500 - Industrial Design Studio III
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9 Prerequisite: INDS 1501 and INDS 1360.

Description
Basic problem solving with an emphasis on the relationship between form and function.

Additional Fee Y Fee Type Lab Fee

INDS 2501 - Industrial Design Studio IV
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9 Prerequisite: INDS 2500.

Description
Development of creative design problem solving with appropriate design processes. Students must pass a portfolio review to successfully complete the course and to proceed to INDS 3500.

Additional Fee Y

INDS 3160 - Design Issues I
INDS 3198 - Independent Study

Credit Hours: 1.0
Lecture Contact Hours: 1.0  Lab Contact Hours: 0.0  Prerequisite: IND 2501 or consent of advisor.

Description
Reading and discussions of sustainable and universal design movement and practices.

INDS 3265 - Design Research Methods II

Credit Hours: 2.0
Lecture Contact Hours: 2.0  Lab Contact Hours: 0.0  Prerequisite: IND 2165 or consent of advisor.

Description
Human-centered methods of design research. Formulating, analyzing, and synthesizing information into an actionable design goal. Emphasis on qualitative research methods and application through the design process.

INDS 3340 - Computer Aided Industrial Design II

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: IND 2341 or consent of college advisor.

Description
Development of advanced modeling, rendering and animation techniques for rapid, high-quality design visualization.

INDS 3341 - Design Interaction

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: IND 2501 or consent of instructor.

Description
Fundamentals of interaction and experience design. Emphasis on human-machine interaction, programmable interfaces, and the application of digital technology to physical objects and environments.

INDS 3360 - Human Factors

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: IND major or consent of instructor.

Description
Survey of anthropometry, perception, and man-machine interface. Focuses on the use and application of existing human factors to case studies.

INDS 3365 - Design Research Methods

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: IND major or consent of instructor.

Description
Theories and methods of design research. Emphasis on quantitative and qualitative research methods and their applications.

INDS 3370 - Advanced Design Systems

Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: IND 2341 or consent of advisor.

Description
Advanced CAD/CAM/CAE and product life cycle management systems in the context of product development. Topics include product data quality, parametric modeling, synchronous technology, and digital mock-ups.

INDS 3397 - Selected Topics

Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of college advisor and instructor.

Note: May be repeated for credit when topics vary.

Additional Fee Y
INDS 3500 - Industrial Design Studio V
Credit Hours: 5.0
Lecture Contact Hours: 2 Lab Contact Hours: 9 Prerequisite: INDs 2501 and passing portfolio review.
Description
Introduction to diverse research methods of identifying human perceptions and behaviors to explore creative design ideas for user-centered design.
Additional Fee Y Fee Type Lab Fee

INDS 3501 - Industrial Design Studio VI
Credit Hours: 5.0
Lecture Contact Hours: 2 Lab Contact Hours: 9 Prerequisite: INDs 3500.
Description
Integration of diverse design methods and techniques to develop innovative products. Analysis of product content and context, including social, cultural, and environmental elements.

INDS 4180 - Design Internship
Credit Hours: 1.0
Lecture Contact Hours: 0 Lab Contact Hours: 1 Prerequisite: INDs 3500 and prior written approval from the director.
Description
Application of design knowledge and techniques through work experience at design consultancies or related companies. Requires employer evaluation.
Additional Fee Y

INDS 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0 Lab Contact Hours: 0

INDS 4260 - Design Issues II
Credit Hours: 2.0
Lecture Contact Hours: 2.0 Lab Contact Hours: 0.0 Prerequisite: INDs 3160 or consent of advisor.
Description
Reading and discussions of important contemporary design issues, ideas, trends, movements, and criticism to understand the relationship of design to society and culture. Senior project proposal will be developed and proposed for INDs 4501.

INDS 4360 - Design Issues
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: INDs 3501.
Description
Reading discussions of important design issues, ideas, trends, movement, and criticism in contemporary ideas to understand the relationship of design to society and culture.

INDS 4361 - E-Portfolio
Credit Hours: 3.0
Lecture Contact Hours: 2 Lab Contact Hours: 3 Prerequisite: INDs 3500 or consent of instructor.
Description
Establish a portfolio strategy, storyline, artist statement, skill evaluation and action plan to gain employment in the industrial design field. Creating a consistent visual language and identity for content across interactive digital and print media.
Additional Fee Y Fee Type Lab Fee

INDS 4365 - Design Practice and Business
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: INDs 4500.
Description
Comprehensive aspects of design practice including planning and managing design projects. Legal and ethical issues associated with the design practice and product development.
Additional Fee Y

INDS 4380 - Design Internship
Credit Hours: 3.0  
Lab Contact Hours: 3  
Prerequisite: IND 3500 and prior written approval from the director.

Description
Application of design knowledge and techniques through work experience at design consultancies or related companies. Requires employer evaluation.

Additional Fee Y

INDS 4500 - Industrial Design Studio VII
Credit Hours: 5.0  
Lab Contact Hours: 9  
Prerequisite: IND 3501.

Description
Systematic process of generating and solving a design problem. Emphasizes interdisciplinary learning through complex design problems in selected industries.

Additional Fee $2.00  
Fee Type Lab Fee

INDS 4501 - Industrial Design Studio VIII
Credit Hours: 5.0  
Lab Contact Hours: 9  
Prerequisite: IND 4500.

Description
Develop senior project with an emphasis on systematic and human-centered design. Student's design process and final design are presented at the juried graduation exhibition.

Additional Fee Y

Industrial Engineering

INDE 2331 - Computer Applications for Industrial Engineers
Credit Hours: 3.0  
Lab Contact Hours: 0  
Prerequisite: ENGI 1100 and 1331.

Description
Structured programming in Visual Basic with numerical analysis applications in industrial engineering. Introduction to computer aided drafting software.

Additional Fee Y

INDE 2333 - Engineering Statistics I
Credit Hours: 3.0  
Lab Contact Hours: 0  
Prerequisite: MATH 1432;

Description
ENGR majors must also have credit for CHEE 1331, CIVE 1331 , ECE 1331 , INDE 1331 , MECE 1331 or equivalent and permission of chair. Probability and statistical inference for engineering applications; probability distributions, estimation, statistical tests, and reliability theory.

INDE 2397 - Selected Topics
Credit Hours: 3.0  
Lab Contact Hours: 0  
Prerequisite: None.

Note: Course may be repeated when topics vary.

Additional Fee N

INDE 3310 - Statistical Process Quality Control and Improvement
Credit Hours: 3.0  
Lab Contact Hours: 0  
Prerequisite: INDE 2333.

Description
Methods and philosophy of statistical process control; Control charts for variables and attributes; CUSUM and EWNA control charts; Process and measurement system capability analysis; Lot-by-lot acceptance sampling for attributes; Continuous quality improvement tools, and six-sigma.

Additional Fee Y

INDE 3330 - Financial and Cost Management
Credit Hours: 3.0  
Lab Contact Hours: 0  
Prerequisite: INDE 1331.
Methods for collecting, organizing, presenting, interpreting, managing, and controlling of financial and cost management related information for decision making in enterprises.

**INDE 3333 - Engineering Economy I**
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: INDE 2333 and 3330.
Description
Time value of money, depreciation, after tax evaluation, decisions under uncertainty and risk. Economic evaluation of engineering alternatives and proposals.
Additional Fee Y

**INDE 3362 - Computer Aided Design/ Computer Aided Manufacturing**
Credit Hours: 3.0
Lecture Contact Hours: 2 Lab Contact Hours: 2 Prerequisite: INDE 1331 and INDE 3432.
Description
Computer aided design, computer aided manufacturing, and manufacturing database systems.

**INDE 3364 - Engineering Statistics II**
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: INDE 2333.
Description
Statistical inference for two samples; Simple and multiple linear regression models; The analyses of variance (ANOVA); Completely randomized single-factor experiments; The random effects model; Randomized complete block design; Factorial experiments; Response surface methods and designs.
Additional Fee Y

**INDE 3381 - Linear Optimization**
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: INDE 2331 and MATH 3321.
Description
Matrices and simultaneous equations, simplex algorithm, primal-dual methods, sensitivity analysis, integer programming, and industrial applications of linear programming.

**INDE 3382 - Stochastic Models**
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: INDE 2333.
Description
Probability models, Markov chains, inventory models, queueing theory, game theory, and dynamic programming.

**INDE 3397 - Selected Topics**
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: None.
Note: Course may be repeated when topics vary.
Additional Fee N

**INDE 3399 - Senior Honors Thesis**
Credit Hours: 3.0
Lecture Contact Hours: 0 Lab Contact Hours: 0

**INDE 3432 - Manufacturing Processes**
Credit Hours: 4.0
Lecture Contact Hours: 3 Lab Contact Hours: 3 Prerequisite: PHYS 1321 and CHEM 1372.
Description
Introduction to manufacturing systems, engineering manufacturing processes, design and machining of components.

**INDE 4111 - Industrial Engineering Seminar**
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: senior standing in industrial engineering and credit for or concurrent enrollment in INDE 4331.

Description
Speakers, reports, and discussion of current industrial engineering topics. Emphasis on technical report writing.

INDE 4315 - Supply Chain Design and Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 3381.

Description
Logistics network, inventory and demand management, value of information, distribution channels coordination, global supply chain, and related information technology.

INDE 4320 - Computer Integrated Manufacturing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 2333 and INDE 3362.

Description
CIM system concepts and technology. Integration of manufacturing planning, design and operation. Integration with other MRP, ERP, SCM, CRM systems. Issues for implementation of trends and directions of CIM.

INDE 4331 - Analysis of Industrial Activities
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGI 2304, INDE 3364, and INDE 3432.

Description
Analysis of production systems to determine systems capacity and capacities in situations involving complex mechanical-human interactions. Establishment of production standards. Problems in instrumentation and recording.

INDE 4334 - Engineering Systems Design
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 3333.

Corequisite: Credit for or concurrent enrollment in INDE 4369.

Description
Applications of analytical, experimental, and computational techniques in open-ended problems supplied by industry and faculty.

INDE 4337 - Human Factors and Ergonomics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 4331.

Description
Measurement and evaluation of human-machine systems; techniques and procedures for developing and applying principles of human factors engineering to system design.

INDE 4346 - Big Data and Analytics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 3310 and 3364.

Description
Fundamental techniques and tools used to design and analyze large volumes of data, data analytics concepts, collection, filtering and classifications using statistical techniques, data mining algorithms and techniques for big data analytics, use of graphical data explorations and visualization.

INDE 4369 - Facilities Planning and Design
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 3432 and credit for or concurrent enrollment in INDE 4331.

Description
Planning and design of production systems, man-machine systems, and related systems in other operational environments.

INDE 4370 - Discrete Event Simulation
INDE 4372 - Operation Control
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: INDE 3381, INDE 3382, and INDE 4369.
Description
Design of systems to control production, inventories, and other processes in industry. Development of planning, coordination, and control of specific operations, with an emphasis on computerized data processing.

INDE 4374 - Industrial Supervision
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: INDE 4369.
Description
Tools and scientific methods necessary to better understand the role of human behavior in complex sociotechnical systems such as cognitive processes of organizational behavior, dynamics of organizational behavior, leadership, and innovation.

INDE 4388 - Engineering Leadership and Entrepreneurism
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: ENGI 2304.
Description
Entrepreneurism, business planning, cost classifications, accounting and management information systems, finance, cash management, human resources and culture, ethics, and team building.

Note: Course may be repeated when topics vary.

INDE 4397 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: None.

Note: Course may be repeated when topics vary.

INDE 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0 Lab Contact Hours: 0

INDE 5397 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: None.

Note: Course may be repeated when topics vary.

Information Systems Technology

ITEC 1301 - Introduction to Computer Application Technology
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Formerly OCTE 1301
Prerequisite: credit for or concurrent enrollment in ENGL 1303 and MATH 1310 or equivalents.
Description
Introduction to computer and information technologies and their application in the workplace.

Integrated Reading and Writing

IRW 1300 - Integrated Reading and Writing
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: None.  
Corequisite: Must be taken concurrently with ENGL 1303.  
Description  
Development of college-level reading and academic writing through practice in reading strategies and the writing process. Course satisfies the requirement for developmental reading and developmental writing.  
Note: May not be used to satisfy any degree requirements at the university. Course may be offered as a pre-requisite only during Summer term.  
TCCNS Equivalent: IRW 1300

Interdisciplinary Art

IART 1300 - The Arts in Society  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: None.  
Description  
An interdisciplinary undergraduate seminar examining the ways in which the arts impact and interact with culture, society and place. Team-taught by McGovern College of the Arts faculty members from the Art, Music, Theatre, and Dance departments, the course will focus on a global city, country, or region as a context for analyzing how the arts impact the historical and sociocultural lives of people at various moments throughout history. In the mini-semester immediately following the course, an optional learning-abroad unit will be offered during which students and faculty will travel to and experience first-hand the city, country, or region that formed the focus of the seminar.  
Note: Optional Study Abroad experience related to course content will be offered in the following mini-term.  
Core Category: (40) Language, Phil, Culture  
Additional Fee: N

IART 3300 - Introduction to Interdisciplinary Art  
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Completion of Creative Arts Core and Junior standing or consent of instructor.  
Description  
Introduction to the history, theory and forms of: visual art (painting, drawing, sculpture, photo, media) performing arts (music, dance, theatre) literature (including poetry) and the ways in which these disciplines intersect and diverge from one another.

IART 3395 - Selected Topics in Interdisciplinary Arts  
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 3  
Prerequisite: IART 3300, or consent of instructor.  
Description  
Readings and discussion of topics in interdisciplinary arts.  
May be repeated for credit with topics vary.

IART 4300 - Collaboration Among the Arts  
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: IART 3300, or consent of instructor.  
Description  
Innovative collaborative projects that utilize and integrate multiple disciplines including but not limited to visual, writing, music, theatre and dance. Students will develop processes to work together across disciplines.

Interdisciplinary Liberal Arts and Social Sciences

ILAS 2198 - Independent Study  
Credit Hours: 1.0  

ILAS 2350 - Knowledge and Methods  
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304.  
Description  
This introductory course surveys the cognitive methods pertaining to our understanding of diverse disciplines (including natural sciences, mathematics, philosophical logic, social sciences, cultural studies, and the arts). Its aim is to raise students' awareness of the distinctive research
methods of the diverse disciplines associated with their chosen minors.

Core Category: [40] Language, Philosophy, & Culture

ILAS 2360 - Cosmic Narratives
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Narrative history of the Universe from its beginnings to the present emphasizing relevance of cosmic narratives to the human situation.
Core Category: [40] Language, Philosophy, & Culture

ILAS 3150 - Liberal Studies Internship Practicum
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 1  Prerequisite: ENGL 1304 and approval of Director of Liberal Studies.
Description
Independent study option to document acquired experience in an approved internship program for credit towards fulfillment of the Liberal Studies Practicum requirement.
Typically Offered: Contact your academic advisor

ILAS 3350 - Power Writing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly ILAS 2351 Power Writing  Prerequisite: ENGL 1304.
Description
Develop effective writing with a focus on organizational, business and cross-cultural contexts.

ILAS 3396 - Selected Topics in Interdisciplinary Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of instructor.
May be repeated for credit when topics vary.

ILAS 3398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: consent of dean.

ILAS 4350 - Interdisciplinary Problem Solving
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and Junior standing.
Description
This capstone course helps students to achieve a meaningful synthesis of their three distinct minors. It is centered on substantive social ‘problem-solving’ methodologies as applied through the particular minors completed by each student. Students will thus work on a research project that comprehensively integrates their chosen minors. This course is individually customized around each students specific program of study.

Interdisciplinary Natural Sciences & Mathematics

IDNS 1101 - Physics 1301 Workshop
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Additional Fee Y

IDNS 1102 - Physics 1302 Workshop
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Additional Fee Y

IDNS 1111 - Physics 1321 Workshop
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Prerequisite: None.
Additional Fee Y
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
<th>Corequisite</th>
<th>Description</th>
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<tr>
<td>IDNS 1112</td>
<td>Physics 1322 Workshop</td>
<td>1.0</td>
<td>0</td>
<td>3</td>
<td>Prerequisite: None.</td>
<td>Y</td>
<td>This course is taught using interactive learning. Students will work collaboratively on supplemental material for academic enhancement and mastery.</td>
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<tr>
<td>IDNS 1130</td>
<td>Precalculus SEP Workshop</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: None.</td>
<td>Y</td>
<td>This course is taught using interactive learning. Students will work collaboratively on supplemental material for academic enhancement and mastery.</td>
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<tr>
<td>IDNS 1131</td>
<td>Calculus I SEP Workshop</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: None.</td>
<td>Y</td>
<td>This course is taught using interactive learning. Students will work collaboratively on supplemental material for academic enhancement and mastery.</td>
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<tr>
<td>IDNS 1132</td>
<td>Calculus II SEP Workshop</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: None.</td>
<td>Y</td>
<td>This course is taught using interactive learning. Students will work collaboratively on supplemental material for academic enhancement and mastery.</td>
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<td>IDNS 1141</td>
<td>Chemistry I SEP Workshop</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>Prerequisite: None.</td>
<td>Y</td>
<td>This course is taught using interactive learning. Students will work collaboratively on supplemental material for academic enhancement and mastery.</td>
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<td>This course is taught using interactive learning. Students will work collaboratively on supplemental material for academic enhancement and mastery.</td>
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<td>IDNS 1147</td>
<td>Freshman Interest Group</td>
<td>1.0</td>
<td>1</td>
<td>0</td>
<td>Description</td>
<td>Y</td>
<td>Designed to create a central-support system for freshmen through connections with peers, staff/faculty and university programs that benefit academic and personal development. May not be used to satisfy degree requirements.</td>
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<td>IDNS 1231</td>
<td>Calculus I Workshop</td>
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<td>Additional Fee</td>
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<tr>
<td>IDNS 1232</td>
<td>Calculus II Workshop</td>
<td>2.0</td>
<td>0</td>
<td>6</td>
<td>Additional Fee</td>
<td>Y</td>
<td></td>
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</table>
IDNS 1233 - Calculus III Workshop  
Credit Hours: 2.0  
Lecture Contact Hours: 0  Lab Contact Hours: 6  Additional Fee: Y

IDNS 1300 - STEM Intervention Workshop  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Consent of instructor.  
Description:  
Development of exemplary study habits and skills related to STEM disciplines; structure, organization and management of classroom materials; examination of major choice relative to skills and motivations; time use behaviors; formation of execution of academic success plan.

IDNS 2133 - Calculus III SEP Workshop  
Credit Hours: 1  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.  
Corequisite: MATH 2433.  
Description:  
Students will work collaboratively on supplemental material for academic enhancement and mastery.  
Note: This course is taught using interactive learning.

IDNS 2197 - Top-Natrld Sci & Mth  
Credit Hours: 1.0  
Lecture Contact Hours: 1  Lab Contact Hours: 0

IDNS 2297 - Top-Natrld Sci & Mth  
Credit Hours: 2.0  
Lecture Contact Hours: 2  Lab Contact Hours: 0

IDNS 3121 - Engineering Math SEP Workshop  
Credit Hours: 1  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.  
Corequisite: MATH 3321.  
Description:  
Students will work collaboratively on supplemental material for academic enhancement and mastery.  
Note: This course is taught using interactive learning.

IDNS 3131 - Organic Chemistry I SEP Workshop  
Credit Hours: 1  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.  
Corequisite: CHEM 3331.  
Description:  
Students will work collaboratively on supplemental material for academic enhancement and mastery.  
Note: This course is taught using interactive learning.

IDNS 3132 - Organic Chemistry II SEP Workshop  
Credit Hours: 1  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.  
Corequisite: CHEM 3332.  
Description:  
Students will work collaboratively on supplemental material for academic enhancement and mastery.  
Note: This course is taught using interactive learning.

IDNS 4391 - Ethics in Science  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or registration in 12 hours of natural science courses.  
Description:  
Links historical cases of ethics to present science standards and practices.
IDNS 4392 - History of 20th Century Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and credit for or enrollment in 12 hours of natural science courses
Description
- Analyzes central issues in the evolution of science during the past century.
Core Category: [81] Writing in the Disciplines

IDNS 4393 - Advanced Science Ethics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: IDNS 4391 or consent of instructor.
Description
Includes a semester long practicum observing ongoing animal or human subject experiments. In-depth discussions of problems in scientific ethics, including issues encountered by students during practicum.

IDNS 4397 - Selected Topics - Natural Sciences and Mathematics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of instructor.
May be repeated with approval of department chair.

Interior Architecture

INAR 2501 - Interior Architecture Design Studio IV
Credit Hours: 5.0
Lecture Contact Hours: 2  Lab Contact Hours: 9  Prerequisite: ARCH 2500 and credit for or concurrent enrollment in ARCH 2328 and passing portfolio review.
Description
- Development of design process and communication media; qualifying and quantifying aspects of interior building design.

INAR 3300 - History of Interior Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ARCH 2350 and 2351.
Description
- History and theory of interior architecture, including cultural, political, economic, and environmental influences. Introduction to the important role of "the existing" in interior architecture through a global survey of designers, works, history, theory, and contemporary influences including philosophy, fine and applied art and broader material culture.
Additional Fee: Y

INAR 3310 - Materials & Methods of Interior Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Description
- Construction systems, advanced and emerging technologies and materials, scheduling, budgeting, sustainability, and life safety issues for architectural interiors.

INAR 3360 - Human Factors in Interior Architecture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INAR 2501.
Description
- Survey of theory and case studies in human factors engineering (anthropometry, ergonomics), environmental behavior (proxemics) and psychology, perception, color, light and acoustics' effects on occupant health safety, welfare, and experience.
Additional Fee: N

INAR 3397 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of ARCH college advisor.
May be repeated for credit when topics vary.

INAR 3500 - Interior Architecture Design Studio V
Credit Hours: 5.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 9  
Prerequisite: INAR 2501 and permission of the Dean.

Description
Interior building design with an emphasis on spatial organization, context within an architectural concept, and constructional systems.

Additional Fee $2.00 Fee Type Lab Fee

**INAR 3501 - Interior Architecture Design Studio VI**

Credit Hours: 5.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 9  
Prerequisite: INAR 3500 or equivalent.

Description
A continuation of INAR 3500 with emphasis on the development of diverse building programs in individual studios.

**INAR 4198 - Independent Study**

Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Maybe repeated for credit.

**INAR 4360 - Practice of Interior Architecture**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: INAR 3501.

Description
Office operations and project administration in the practice of interior architecture.

**INAR 4393 - Senior Project Preparation**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: INAR 3501.

Description
Senior project topic development and written project proposal.

**INAR 4398 - Independent Study**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Maybe repeated for credit.

**INAR 4500 - Interior Architecture Design Studio VII**

Credit Hours: 5.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 9  
Prerequisite: ARCH 2350, 2351, and INAR 3501.

Description
Large scale building interior design factors, including programming, and the human and environmental impact of individual design applications in the built environment.

Additional Fee $2.00 Fee Type Lab Fee

**INAR 4501 - Interior Architecture Design Studio VIII**

Credit Hours: 5.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 9  
Prerequisite: ARCH 2350, 2351, and INAR 4500.

Description
Medium to large scale building interior design factors, including detailed design development and technical documentation.

**International Business**

**INTB 3350 - Introduction To International Business**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Overview of economic, political, legal and social concepts, institutions, and events that affect the conduct of business in a global operating environment.

Note: Students may not receive credit for both INTB 3350 and 3354.
INTB 3355 - Global Environment of Business
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly INTB 3355 The Political Economy of Globalization
Prerequisite: junior standing and ECON 2301 or ECON 2304 and ECON 2305. Students may not receive credit for both INTB 3352-3353 and 3355. Students with either INTB 3352 or 3353 may substitute that course for INTB 3355.

Description
Political issues and economic trends that influence and are influenced by the process of globalization, and an analysis of how globalization interacts with the nation-state and economic institutions.

INTB 4397 - Selected Topics in Inb
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: Approval of chair or program director; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
May be repeated for credit when topics vary.

Note: May be repeated for credit when topics vary.

INTB 4398 - Independent Study
Credit Hours: 3.0

Italian

ITAL 1301 - First-Year Italian I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: concurrent enrollment in ITAL 1101. Credit for ITAL 1301 may not be applied to a degree by students who have credit for ITAL 1501.

Description
Credit for ITAL 1301 may not be applied to a degree by students who have credit for ITAL 1501. Introduction to modern spoken and written Italian.

ITAL 1302 - First-Year Italian II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: ITAL 1301/ITAL 1101 or ITAL 1501 and concurrent enrollment in ITAL 1502.

Description
Credit for ITAL 1302 may not be applied to a degree by students who have credit for ITAL 1502. Introduction to modern spoken and written Italian.

ITAL 1501 - Elementary Italian I
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2
Description
May not be taken for credit by students who have successfully completed two or more years of high school Italian. Credit for ITAL 1501 may not be applied to a degree by students who have credit for ITAL 1301/ITAL 1101.
TCCNS Equivalent: ITAL 1511

ITAL 1502 - Elementary Italian II
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2
Prerequisite: ITAL 1501 or equivalent.

Description
Credit for ITAL 1502 may not be applied to a degree by students who have credit for ITAL 1302/ITAL 1102. Understanding, speaking, reading, and writing Italian. Emphasis on oral expression and listening comprehension.
TCCNS Equivalent: ITAL 1512

ITAL 1601 - Accelerated Italian
Credit Hours: 6.0
Lecture Contact Hours: 6  Lab Contact Hours: 0
Prerequisite: ENGL 1304.

Description
Accelerated grammar course covering ITAL 1501 and ITAL 1502. Geared toward Spanish-speaking students. Taught in Italian.
Note: Students can take ITAL 1601 after taking ITAL 1501. After completing ITAL 1601, students cannot take ITAL 1502.
ITAL 2101 - Intermediate Italian Conversation I
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: ITAL 1302, ITAL 1502, or ITAL 2301, or consent of instructor.
Description
Can not be used to satisfy 2000-level language requirement. May be taken concurrently with ITAL 2301 or ITAL 2302. Intensive practice in spoken Italian.
May be repeated for credit with consent of instructor.

ITAL 2102 - Intermediate Italian Conversation II
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: ITAL 1302, ITAL 1502, or ITAL 2301, or consent of instructor.
Description
Cannot be used to satisfy 2000-level language requirement. May be taken concurrently with ITAL 2301 or ITAL 2302. Intensive practice in spoken Italian.
May be repeated for credit with consent of instructor.

ITAL 2301 - Second Year Italian I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ITAL 1102 and ITAL 1302 or equivalent.
Description
Grammar review, selected readings, conversation, and composition.

ITAL 2302 - Second-Year Italian II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ITAL 2301 or equivalent.
Description
Grammar review, selected readings, conversation, and composition.

ITAL 2601 - Accelerated Italian Second Year
Credit Hours: 6.0
Lecture Contact Hours: 6  Lab Contact Hours: 0  Prerequisite: ITAL 1501 and 1502 or ITAL 1601.
Description
Second Year Italian Language taught in one semester. Taken after ITAL 1501 and 1502 or ITAL 1601, it fulfills language requirement.
Note: Students can take ITAL 2601 after taking ITAL 2301. After completing ITAL 2601, students cannot take ITAL 2302.

ITAL 3302 - Reading in Italian Literature since Eighteenth Century
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ITAL 2302 or equivalent.
Description
Masterpieces of Italian literature from eighteenth century to present.

ITAL 3303 - Italian Conversation and Composition
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ITAL 2302 or equivalent.
Description
Discussions and composition in Italian on subjects of everyday life and current questions.

ITAL 3304 - Culture of Italy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ITAL 2302 or equivalent.
Description
Overview of the culture of Italy through readings about its history, art, society, and politics. Taught in Italian.

ITAL 3305 - Italian Culture Through Films
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Italian History and Culture through significant moment in the history of Italian cinema.

**Note:** Taught in English

**Core Category:** [40] Language, Philosophy, & Culture

**ITAL 3306 - Italian Cinema**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly ITAL 3306 Italian Culture Through Films**  
**Prerequisite:** ENGL 1304.

**Description**  
Introduction to significant works of Italian cinema as expression of Italian Culture.

**Note:** Taught in English

**Core Category:** [40] Language, Philosophy, & Culture

**ITAL 3307 - Italian Renaissance**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**  
Texts from Italian Renaissance are read in conjunction with current scholarship and modern theorists.

**Note:** Taught in English.

**Core Category:** [81] Writing in the Disciplines

**ITAL 3308 - Italian Heritage**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**  
The Italian American Experience in literature, cinema, visual arts, and music. Taught in English.

**Core Category:** [40] Language, Philosophy, & Culture

**ITAL 3309 - Women Writers and Filmmakers of Modern Italy**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** ENGL 1304.

**Description**  
Seminal works of women writers and filmmakers of modern Italy are read and screened in conjunction with current scholarship on Italian modernity and gender studies.

**Note:** Taught in English.

**Core Category:** [81] Writing in the Disciplines

**ITAL 3335 - Survey of Italian Literature**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly ITAL 2305**  
**Prerequisite:** ENGL 1304.

**Description**  
Classic texts of Italian literature in English translation.

**Note:** Taught in English

**Core Category:** [40] Language, Philosophy, & Culture

**ITAL 3336 - Survey of Italian Literature in Translation**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly ITAL 2305**  
**Prerequisite:** ENGL 1304.

**Description**  
Selected masterpieces of Italian literature in translation. Taught in English; papers written in English.

**Core Category:** [40] Language, Philosophy, & Culture

**ITAL 3396 - Sel Tops-Ital Lang,Cult & Lit**

**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0
ITAL 3397 - Topics in Italian Literature in Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: May not apply as foreign language credit. Taught in English. May be repeated for credit when topics vary.

ITAL 3398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: ITAL 2301-2302 or equivalent and approval by chair.

ITAL 4304 - Italian Culture in English Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description: Survey of Italian art, history, government, civilization in the European-Mediterranean context, immigration and current issues. Taught in English.

ITAL 4305 - Teaching Italian as a Foreign Language
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description: Advanced grammar and teaching methodology. Satisfies College of Education requirements for Italian teacher certification. Taught in Italian.

ITAL 4307 - Italian Renaissance
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description: Texts from Italian Renaissance are read in conjunction with current scholarship and modern theorists. Taught in English.

ITAL 4308 - Dante and His World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description: The life and times of Dante Alighieri, his major works, impact on Western culture, and legacy today.
Note: Taught in English.
Core Category: [81] Writing in the Disciplines

ITAL 4397 - Topics in Italian Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ITAL 2302 or consent of instructor.
Description: Selected topics in Italian literature.
May be repeated for credit when topics vary.

ITAL 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval by chair.

Japanese

JPNS 1501 - Elementary Japanese I
Credit Hours: 5.0
Lecture Contact Hours: 5  Lab Contact Hours: 0  Description: Restricted to nonnative speakers of Japanese. Listening comprehension, oral communication, reading and writing. TCCNS Equivalent: JAPN 1511

JPNS 1502 - Elementary Japanese II
Credit Hours: 5.0
Lecture Contact Hours: 5  Lab Contact Hours: 0  Prerequisite: completion of JPNS 1501 in the twelve months immediately prior to enrollment or by
placement exam.

**Description**
Expansion of the listening and oral skills previously acquired. Listening comprehension, oral communication, reading and writing.
TCCNS Equivalent: JAPN 1512

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<th>Course Title</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
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<td>Intermediate Japanese I</td>
<td>3.0</td>
<td>3</td>
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<td>Successful completion of JPNS 1502 in the twelve months immediately prior to enrollment or by placement exam.</td>
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<td>JPNS 2302</td>
<td>Intermediate Japanese II</td>
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<td>Successful completion of JPNS 2301 in the twelve months immediately prior to enrollment or by placement exam.</td>
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<td>JPNS 2502</td>
<td>Intermediate Japanese II</td>
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<td>0</td>
<td>Successful completion of JPNS 2501 in the twelve months immediately prior to enrollment or by placement exam.</td>
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</tbody>
</table>

**Jewish Studies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>JWST 2372</td>
<td>The Bible and Modern Pop Culture</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>None.</td>
</tr>
<tr>
<td>JWST 2380</td>
<td>Introduction to Jewish Studies</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGL 1304</td>
</tr>
<tr>
<td>JWST 3371</td>
<td>Women in the Hebrew Bible/Old Testament</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>None.</td>
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<tr>
<td>JWST 3373</td>
<td>Jews in the Ancient World</td>
<td></td>
<td></td>
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</tbody>
</table>

**Core Category:** [40] Language, Philosophy, & Culture

**Additional Fee:** N
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.

Description
Overview of Jewish history from the Hellenistic period through the rise of the rabbis (c. 4th century B.C.E.–4th century C.E.). Topics covered include the Maccabean Revolt and Hasmonean Dynasty, Herodian Dynasty, Dead Sea Scrolls, sectarianism, the rise of Christianity, and the destruction of Jerusalem in 70 C.E. Throughout the semester, students will sample the Jewish literature produced during this period, including biblical materials, Apocrypha, Pseudepigrapha, and rabbinic texts.

JWST 3374 - Jewish Film
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304

Description
Jewish culture, tradition, and history through film.

JWST 3380 - American Jewish Culture
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303

Description
Exploration of American Jewish culture from Eastern European immigration to the present. Analysis of literature, film, popular materials and everyday practices that illustrate the transformation of Jewish immigrants into American Jews.

JWST 3384 - Jewish Women Biography
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303

Description
Study of Jewish women’s history through the ages and across cultures.

JWST 3385 - History of the Jewish People
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303

Description
This course will explore Jewish history from the time of Abraham to the mid Twentieth Century.

JWST 3386 - Jewish Mysticism
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303

Description
This course surveys Jewish mystical ideas, beliefs and experiences, emphasizing five different types of Jewish mysticism as well as a chronological view of its development.

JWST 3397 - Selected Topics Jewish Studies
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.

Description
Topics in Jewish Studies.
Note: May be repeated when topics vary.
Additional Fee N

JWST 4380 - Jewish Expulsion and Aftermath, After 1492
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303

Description
Study of events leading to the expulsion of Jews from Spain in 1492 and its consequences.

Kinesiology

KIN 1304 - Public Health Issues in Physical Activity and Obesity
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 1  Description
Analysis of the effect of obesity and physical activity on disease risk and the effect of aerobic exercise on weight control and health promotion.
Core Category: [80] Social & Behavioral Sciences

KIN 1352 - Foundations of Kinesiology, Health, and Fitness
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly KIN 1252 Foundations of Kinesiological Studies
Prerequisite: none
Description
Introductory information on and historical backgrounds of the fields of kinesiology, health, and fitness. Students will assess their own health and fitness levels.

KIN 2108 - Weight Training and Aerobic Fitness
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Description
Theoretical aspects of techniques and practices for weight training and aerobic fitness.

KIN 3301 - Design and Evaluation of Physical Activity Programs
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in KIN 1352.
Description
Design and evaluation of physical education and activity programs.

KIN 3303 - Sports Communication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and KIN 3360
Description
The role of sports communication and how it highlights the importance of sports, the cultural identities of those engaged in sports communication, and industry practices.

KIN 3304 - Human Structure and Function
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Six hours of Biology.
Description
Anatomy and its application to human performance.

KIN 3305 - Sociological and Cultural Aspects of Kinesiology and Sport
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: KIN 1352
Corequisite: Sophomore Standing.
Description
Social and cultural issues relevant to health and human performance in exercise and sport environments.

KIN 3306 - Physiology of Human Performance
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: sophomore standing and six hours of biology.
Description
The changes in physiological functions resulting from physical activity.

KIN 3309 - Biomechanics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: KIN 1352, PHYS 1301, and six semester hours of biology.
Description
Anatomy and mechanical principles in movement skills.

KIN 3325 - Sports Therapy and Athletic Training
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: KIN 3309.
Description
Introduction to athletic training, conditioning procedures, manual modalities, taping techniques.

KIN 3350 - Psychological Aspects of Sports and Exercise
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: KIN 1352 or consent of instructor.
Description
Theories and principles of sport and exercise psychology.

KIN 3360 - Professional Preparation for Sport Administration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and KIN 1352 and KIN 3305.
Description
Development of skills and strategies for the administration of sport and physical activity programs.

KIN 3370 - Sport Facility Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and KIN 3305.
Description
Managing sports-related facilities.

KIN 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

KIN 4190 - Sport Administration Seminar
Credit Hours: 1.0
Lecture Contact Hours: 1.0  Lab Contact Hours: 0.0  Prerequisite: Sport Admin Major, KIN 3360, and completion of 75 credit-hours.
Description
To be taken the semester before internship. Analysis of management, organizational structure, and strategic planning in sport organizations; current issues in sport management; career planning; internship placement.

KIN 4198 - Independent Study
Credit Hours: 1.0

KIN 4298 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

KIN 4300 - Physical Activity in Older Adults
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly KIN 4397 Physical Activity in Older Adults
Prerequisite: KIN 1352.
Description
Aging and age-related changes of the human body and the upper limit of older adult physical performance; emphasis on physical activity and other lifestyle choices in modifying the aging process.

KIN 4301 - Workplace Wellness
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly KIN 4397 Workplace Wellness
Prerequisite: KIN 1352 and KIN 3301.
Description
Strategies for changing employee health behaviors and worksite cultural norms. Implementation, marketing, cost-effectiveness and cost-benefit analysis of worksite wellness programs.
KIN 4302 - Fitness and Human Sexuality  
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly KIN 4397 Fitness and Human Sexuality  
Prerequisite: KIN 1352.  
Description  
Relationship of, and contribution to fitness has on human sexuality. Emphasis on how exercise, nutrition, psychological wellness, aging, and weight control influence sexual health and performance.

KIN 4303 - The Obesity Epidemic  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Description  
Course investigates public health, policy, and environmental correlates of obesity prevention and control in the US.

KIN 4310 - Measurement Techniques in Human Performance  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing and MATH 2311 or PSYC 3301.  
Description  
Quantitative methods in the construction and utilization of instruments used in health and human performance.

KIN 4315 - Motor Learning and Control  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: KIN 3306 and KIN 3309.  
Description  
Biomechanical neurophysiological and psychological elements of the motor learning and control processes.

KIN 4330 - Child and Adolescent Obesity  
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: KIN 1352.  
Description  
Overview of the assessment, determinants, prevention, and treatment of child and adolescent obesity.

KIN 4340 - Sport Governance  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing, KIN 3360, and KIN 4355.  
Description  
Identifying governing bodies in amateur/professional sports, their organizational structure, authority, requirements for membership, sanctions and appeals, and the influence of outside political organizations.

KIN 4345 - Economic and Financial Aspects of Sport  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly KIN 4345 Sports, Health and Fitness Program Financing  
Prerequisite: junior standing, ACCT 2301, ECON 2304, and KIN 3360.  
Description  
Funding strategies, investments, budget development, and capital project planning in sport administration.

KIN 4350 - Sport Marketing  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing and KIN 3305 or MARK 3336; or nine hours of the KIN core.  
Description  
Application of marketing theory to the sports industry and the use of sport in promotion.

KIN 4355 - Administration of Sport and Physical Activity  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly KIN 4355 Organization and Administration of Athletics  
Prerequisite: junior standing and KIN 3360 or nine hours of KIN core.  
Description  
Principles of management for exercise, fitness, and sport programs.
KIN 4360 - Adaptive Athletics Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Must have instructor approval to enroll.
Description
Developing opportunities for sport for people with disabilities. Students enrolled are required to promote disability sport and participate in
developing and planning a disability sport event, including event planning and management, budgeting, resource allocation, sponsorship acquisition,
and public relations management.

KIN 4365 - Legal and Ethical Aspects of Sport
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly KIN 4365 Regulatory and Ethical Aspects of Sport
Prerequisite: junior standing and KIN 3305.
Description
Legal and ethical considerations in sport administration.

KIN 4370 - Exercise Testing
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 1  Prerequisite: KIN 1352, KIN 3206 , and KIN 4310.
Description
Laboratory and field testing procedures for use in exercise assessment and prescription.
Additional Fee Y

KIN 4390 - Internship in Physical Education
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing, consent of instructor and department chair.
Description
Concurrent enrollment required. Intern placement in exercise and sport programs consistent with program focus.

KIN 4391 - Internship in Physical Education
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing, consent of instructor and department chair.
Description
Concurrent enrollment required. Intern placement in exercise and sport programs consistent with program focus.

KIN 4397 - Selected Topics in Health and Physical Education
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair.
May be repeated for credit when topics vary.

KIN 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Approval of chair.

KIN 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

KIN 4690 - Internship in Sport Administration 1
Credit Hours: 6.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 6.0  Prerequisite: Instructor Approval and KIN 4190
Corequisite: Senior Status.
Description
Supervised internship with community, interscholastic, intercollegiate, amateur, or professional sport industry organization. Supervised by a
university faculty member with support from sport industry agency personnel.

KIN 4691 - Internship in Sport Administration 2
Credit Hours: 6.0  
Lecture Contact Hours: 0.0  
Lab Contact Hours: 6.0  
Prerequisite: Instructor Approval and KIN 4190  
Corequisite: Senior Status and KIN 4690  
Description: Supervised internship with community, interscholastic, intercollegiate, amateur, or professional sport industry organization. Supervised by a university faculty member with support from sport industry agency personnel.

Latin

LATN 1301 - Elementary Latin I  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Description: Fundamentals of classical Latin grammar including short introductory readings from representative authors.  
TCCNS Equivalent: LATI 1311

LATN 1302 - Elementary Latin II  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Description: Fundamentals of classical Latin grammar including short introductory readings from representative authors.  
TCCNS Equivalent: LATI 1312

LATN 2301 - Intermediate Latin I  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: LATN 1302 or equivalent.  
Description: Reading and translation of selections from major authors with special attention to grammar and style. First semester: prose; second semester: verse.  
TCCNS Equivalent: LATI 2311

LATN 2302 - Intermediate Latin II  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: LATN 1302 or equivalent.  
Description: Reading and translation of selections from major authors with special attention to grammar and style. First semester: prose; second semester: verse.  
TCCNS Equivalent: LATI 2312

LATN 2398 - Independent Study  
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: LATN 2301; 2302 or equivalent and approval by chair.

LATN 3301 - Readings in Latin Literature I  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: LATN 2302 or equivalent.  
Description: Readings and critical discussion of works of one major author or one genre per semester.

LATN 3302 - Readings in Latin Literature II  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: LATN 2302 or equivalent.  
Description: Readings and critical discussion of works of one major author or one genre per semester.

LATN 3398 - Independent Study  
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: LATN 2301; 2302 or equivalent and approval by chair.

LATN 4398 - Independent Study
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: LATN 3301; 3302 and approval of chair.  
Note: Cr. 3 per semester or more by concurrent enrollment.

Latin American Studies

LAST 3300 - Latin American Studies: Interdisciplinary Perspectives
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304 and junior standing or permission of professor.  
Description  
An interdisciplinary introduction to the history, cultures, and languages of Latin America. The course develops an appreciation of the richness, complexity, and diversity of Latin America as well as an appreciation for the different ways that various disciplines study the region and they many countries contained within it. Topics include the region’s indigenous past, religious traditions, linguistic diversity, economic development, gender relations, political structures, popular culture, and social dynamics.  
Core Category: [83] Writing in the Disciplines

LAST 3396 - Selected Topics in Latin American Studies
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing or consent of instructor.  
Description  
Selected topics in Latin American Studies.  
May be repeated for credit when topics vary.

LAST 4396 - Selected Topics in Latin American Studies
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: junior standing or consent of instructor.  
Description  
Selected topics in Latin American Studies.  
May be repeated for credit when topics vary.

LAST 4398 - Independent Study
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: Students work on independent research projects to complete the LAST minor.

Management

MANA 3335 - Introduction to Organizational Behavior and Management
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
Description  
General management functions and the role of individual, group, and organizational behavior in the management process.  
Note: Credit for both MANA 3335 and MANA 3333: 3334 cannot be applied toward a degree.

MANA 3399 - Senior Honor Thesis
Credit Hours: 3.0  
Prerequisite: approval of the department chair and the Bauer College's Office of Undergraduate Business Programs.

MANA 4310 - Behavioral Finance
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: (also FINA 4310 ) FINA 3332 and STAT 3331 or equivalents; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.  
Description  
Examination of individual decision behavior within a financial market context. Evaluation of psychological explanations for market movements and anomalies. Emphasis on the application of psychological principles to decision making behavior.
MANA 4330 - Introduction to Strategic Human Resource Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335 or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
A survey of human resource utilization and management with an emphasis on the strategic fit between HRM and other organizational functions and processes.

MANA 4331 - Current Issues Human Res Mgmt
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent, and MANA 4330 or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Topics of current interest and emerging issues in human resource management, including implications for research and applications.

MANA 4333 - Current Issues in Mgmt
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Analysis of current issues in management with an emphasis on problem solving, innovation, and organizational change.

MANA 4336 - Legal and Ethical Environment of HR Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
A survey of federal and state employment and labor relations laws and discussions of the ethical contexts in which organizations satisfy their human resource management needs.

MANA 4337 - Stress and Work
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Causes, impact, prevention, and management of stress in work settings.

MANA 4338 - Performance Management Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent, and MANA 4330 or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Performance measurement and management systems.

MANA 4341 - Leading Organizational Change
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Processes of planned organizational change at the individual level with emphasis on design, intervention methods, and evaluation of change programs.

MANA 4346 - Leadership Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**
Effective leadership in dyads and groups-strategically across hierarchical levels as well as beyond organizational boundaries.

**MANA 4347 - Ethics and Corp Soc Respon.**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.*

**Description**
Role of ethics and social responsibility in the management of public and private sector organizations.

**MANA 4348 - Global Leadership**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.*

**Description**
Roles of global leaders, the competencies they need to develop, the challenges they face, and the personal and organizational aspects of becoming a global leader.

**MANA 4350 - International Management**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.*

**Description**
Students may not receive credit for both MANA 4350 and INTB 4350. Managerial effectiveness and its implications for global organizations.

**MANA 4353 - Mgmt Training and Career Devel**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent and MANA 4330 or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.*

**Description**
Practices and trends in training and development in organizations, including skills training, coaching and mentoring, leadership training, and motivational techniques.

**MANA 4354 - Equal Employment Opportunity Commission Internship**
Credit Hours: 3  
*Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: MANA 3335 or equivalent and prior approval of instructor; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.*

**Description**
Students will learn about federal law regarding equal opportunity in the workplace.

**MANA 4355 - Selection and Staffing**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent, and MANA 4330 or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.*

**Description**
Selection and staffing methods and practices in organizations, including evaluation of the impact of selection on individual and organizational performance.

**MANA 4356 - Managing Diversity**
Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.*

**Description**
The effects of changing global worker demographics on the effective management of organizations.
MANA 4358 - Compensation and Benefits
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, or equivalent, and MANA 4330 or equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
The design and management of organizational compensation and benefits programs, including the strategic role of rewards in individual and organization performance.

MANA 4385 - Introduction to Strategic Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335, and ECON 2304; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Developing and understanding strategies for competing in various types of industry structures. Examination of corporate decisions by analysis of such issues as industry evolution, competitor profiles, and entry/exit barriers.

MANA 4396 - Management Internship
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MANA 3335 and approval of department chair.
Description
Enhancement of concepts and techniques learned in the classroom through work experience directly related to the profession. Written report required.

MANA 4397 - Selected Topics in Mana
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of chair or program director; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
May be repeated when topics vary.
Note: May be repeated when topics vary.

MANA 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: senior standing and approval of chair.

MANA 4399 - Senior Honor Thesis
Credit Hours: 3.0
Prerequisite: approval of the department chair and the Bauer College's Office of Undergraduate Business Programs.

Management Information Systems

MIS 3360 - Systems Analysis and Design
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Methods for analyzing information needs and designing, evaluating, and implementing computer-based information systems. Structures and adaptive techniques for analysis and design.

MIS 3370 - Information Systems Development Tools
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Completion of or concurrent enrollment in MIS 3360; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Survey of development options in commercial application systems, including structured methods and programming tools.
MIS 3371 - Transaction Processing Systems I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Completion of or concurrent enrollment in MIS 3360; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Transaction driven information systems including system design, file design, program structure, and internal control.

MIS 3376 - Business Applications of Database Management I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Completion of or concurrent enrollment in MIS 3360; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Transaction driven information systems including system design, file design, program structure, and internal control.

MIS 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair and the Bauer College's Office of Undergraduate Business Programs.

MIS 4372 - Transaction Processing Systems II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly DICS 4371
Prerequisite: MIS 3371; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Development and implementation of transaction processing systems with emphasis on operating systems and programming considerations.

MIS 4374 - Information Technology Project Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MIS 3360, 3370, 3371, 3376; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Management of information technology projects.

MIS 4378 - Admin of Computer-Based MIS
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 1  Prerequisite: MIS 3360; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Developing and managing computer-based management information systems. MIS departmental organizational structures, information systems planning, and managing system development projects.

MIS 4381 - Management of Information Security
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Models and techniques for managing and controlling the security of an organization's information assets.

MIS 4386 - Business Applications of Database Management II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MIS 3376; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Techniques for implementing the logical design of business database applications using current database development tools.

MIS 4390 - Energy Trading Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Computer technologies, processes and practices in support of energy commodity trading with emphasis on the US domestic market.

MIS 4397 - Selected Topics in Management Information Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of department chair or program director; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program. May be repeated when topics vary.

Note: May be repeated when topics vary.

MIS 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  May not be repeated for credit.

MIS 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of department chair and the Bauer College's Office of Undergraduate Business Programs.

MIS 4477 - Network and Security Infrastructure
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 1  Prerequisite: MIS 3360; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Coordination of the hardware and software components of data communications systems including laboratory experience.

Marketing

MARK 3336 - Introduction to Marketing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Analysis of the political, social, legal, and economic environments. Formulation of strategies and tactics for the design, pricing, channels, and promotion of products/services.

MARK 3337 - Professional Selling
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing.

Description
Basic concepts of selling.

MARK 3339 - Marketing Strategy & Planning
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3336; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Choosing marketing strategies and developing marketing plans.

MARK 3399 - Senior Honor Thesis
Credit Hours: 3.0  Prerequisite: approval of department chair and Bauer College's Office of Undergraduate Business Programs.
MARK 4197 - Selected Topics in Marketing
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0

MARK 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0 May not be repeated for credit.

MARK 4298 - Independent Study
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 May not be repeated for credit.

MARK 4332 - Social Media Marketing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MARK 3336; good academic standing; and pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Using social media in marketing programs.

MARK 4333 - Search Engine Marketing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MARK 3336; good academic standing; pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Search engine optimization and management of pay per click advertising.

MARK 4338 - Marketing Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: STAT 3331 or equivalent and MARK 3336; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Overview of research methods and information needs for marketing decisions.

MARK 4339 - Marketing Analytics
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: BUSI 2305 or STAT 3331, and MARK 3336; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Use of analytical tools to guide marketing decisions.

MARK 4362 - Applied Buyer Behavior
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MARK 3336; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
The applications of buyer behavior in the execution of marketing strategy.

MARK 4363 - International Marketing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MARK 3336; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Concepts and strategies in international marketing.

MARK 4365 - Introduction to Digital Marketing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MARK 3336; good academic standing; pre-business major with advisor approval,
declared business major, or if required for a declared minor or special program.

Description
Conceptual and technological issues related to digital marketing.

MARK 4367 - Advertising and Promotion Mgt
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3336; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Concepts and problems in advertising decisions.

MARK 4368 - Pricing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: STAT 3331 or equivalent and MARK 3336; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

Description
Concepts and issues in pricing.

MARK 4373 - Advanced Professional Selling
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3337 and approval of coordinator.

Description
Advanced selling including negotiation skills and buying behavior.

MARK 4374 - Sales Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3337 and approval of coordinator.

Description
Managing sales personnel, defining sales territories, sales forecasting, and budgeting issues.

MARK 4375 - Key Account Selling
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3337 and approval of coordinator.

Description
Selling to key accounts and complex enterprises. Account segmentation, strategic account plans, and the complex sales cycle.

MARK 4376 - Sales CRM
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly MARK 4376 Sales Force Automation  Prerequisite: MARK 3337 and approval of program coordinator.

Description
Strategies, methodology and software used to manage customer relationships and support and enhance selling and sales management.

MARK 4377 - Sales for Social Impact
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3337 and approval of program coordinator.

Description
Selling and sales force management in the context of social enterprises.

Note: This course is open to non-business students in the Program for Excellence in Selling.

MARK 4378 - Selling Financial Services
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3337 and approval of program coordinator.

Description
Selling and sales force management in the context of financial services.

Note: This course is open to non-business students in the Program for Excellence in Selling.
MARK 4379 - Personal Branding
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3337.
Description
Skills development and career development strategies for sales careers. Personal assessment of values, creation of vision, mission and SWOT analysis to incorporate into building Personal Brand using social media, resumes, presentation and interviewing skills.

MARK 4380 - Digital Selling
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3337 and approval of program coordinator.
Description
Use of digital tools to enhance selling effectiveness.

MARK 4390 - Marketing for Non-Profit Orgs
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MARK 3336; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Marketing for nonprofit organizations that are both mission and market driven.
Note: Taught as a practicum involving projects for nonprofit organizations.

MARK 4396 - Marketing Internship
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: junior standing and approval of department chair.
Description
Enhancement of concepts and techniques learned in the classroom. Written report required.

MARK 4397 - Selected Topics in Mkt
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Approval of chair or program director; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program. May be repeated when topics vary.
Note: May be repeated when topics vary.

MARK 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: may not be repeated for credit.

MARK 4399 - Senior Honor Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair and Bauer College's Office of Undergraduate Business Programs.

Mathematics

MATH 1100 - Developmental Math
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Corequisite: MATH 1310  or MATH 1311  or MATH 1312  or MATH 1313  or MATH 2311 .
Description
Individualized instructional support for students who are not college ready in mathematics. Topics will vary depending on student skill level and pathway.
Note: This course is intended for students who have not attained a satisfactory college readiness score in mathematics. Students must co-enroll in MATH 1310 or MATH 1311 or MATH 1312 or MATH 1313 or MATH 2311.

MATH 1300 - Fundamentals of Mathematics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
A survey of precollege algebra. Topics include signed numbers, operations with algebraic expressions, first-degree equations and inequalities in one variable, factoring, the Cartesian coordinate system, systems of first-degree equations in two variables solved by graphical and algebraic means, exponents and radicals, an introduction to quadratic equations, and stated problems. This course may not be used to satisfy any degree requirements.

**Note:** This course is intended for students who have not attained a satisfactory college readiness score in mathematics.

**MATH 1310 - College Algebra**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
Description
Quadratic equations, inequalities, logarithmic and exponential functions, graphs, elements of theory of equations, systems of equations.

**Note:** This course is designed to prepare students for MATH 1330 Pre-calculus and MATH 1431 Calculus I. Students with prior credit in MATH 1330 or MATH 1431 will not be allowed to enroll or receive credit in MATH 1310.

**Core Category:** [20] Mathematics  
TCCNS Equivalent: MATH 1314

**MATH 1311 - Elementary Mathematical Modeling**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
Description
Functions, graphs, rates of change, mathematics of finance, optimization, and mathematics of decision making.

**Note:** This course is an introduction to Mathematics for students in the Humanities, Social Sciences, and Fine Arts. May not apply to course or GPA requirements for a major or minor in the College of Natural Sciences and Mathematics. Students may not receive credit for both MATH 1310 and MATH 1311.

**Core Category:** [20] Mathematics  
TCCNS Equivalent: Math1332

**MATH 1312 - Introduction to Mathematical Reasoning**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
Description
Principles of logic and proof, set theory, formal and informal geometry.

**Note:** May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics.

**Core Category:** [20] Mathematics and [90] Math/Reasoning  
TCCNS Equivalent: MATH 1351

**MATH 1313 - Finite Math with Applications**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
Description
Systems of linear equations, introduction to linear programming, mathematics of finance, topics in probability and statistics.

**Note:** Students with prior credit for MATH 2331 will not receive credit for MATH 1313. May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics.

**Core Category:** [20] Mathematics and [90] Math/Reasoning  
TCCNS Equivalent: MATH 1324

**MATH 1314 - Calculus for Business and the Life Sciences**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
Prerequisite: MATH 1310 or MATH 1311 or MATH 1313 or MATH 2311 or a satisfactory score on a placement examination.

**Description**
Curve sketching and graphical analysis, differentiation and integration of elementary functions, topics in functions of several variables, applications in business and the natural and social sciences.

**Note:** Students with prior credit for MATH 1431 will not be permitted to enroll in or receive credit for MATH 1314. May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics.

**Core Category:** [20] Mathematics and [90] Math/Reasoning  
TCCNS Equivalent: MATH 1325

**MATH 1330 - Precalculus**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  Lab Contact Hours: 0*  
Prerequisite: Credit for MATH 1310 with a grade of C- or higher, or a satisfactory score on a placement examination.
Description
This course concentrates on the various subjects that are important to the study of MATH 1431 Calculus I and MATH 1432 Calculus II, including a review of functions (polynomial, rational, exponential, logarithmic functions), trigonometry, conic sections, vectors in plane, and polar coordinates.

Note: Students with prior credit in MATH 1432 may not receive credit for MATH 1330.

TCCNS Equivalent: MATH 2312

MATH 1431 - Calculus I
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: Credit for MATH 1330 with a grade of C- or higher, or a satisfactory score on a placement examination.

Description
Calculus of rational functions, limits, derivatives, applications of the derivative, antiderivatives, the definite integral with applications, mean value theorem, fundamental theorem of calculus, and numerical integration.

TCCNS Equivalent: MATH 2413

MATH 1432 - Calculus II
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: Credit for MATH 1431 with a grade of C- or higher.

Description
Calculus of transcendental functions: additional techniques and applications of integration, indeterminate forms, improper integrals, Taylor’s formula, and infinite series.

Core Category: [90] Math/Reasoning
TCCNS Equivalent: MATH 2414

MATH 1450 - Accelerated Calculus
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: At least one semester of advanced placement high school calculus and placement out of MATH 1330

Description
An accelerated calculus sequence. MATH 1451 will include topics normally covered in MATH 1432 and MATH 2433.

Note: Credit may not be received for both MATH 1450 and MATH 1431. Students with credit in MATH 1451 may not enroll in or receive credit for either MATH 1432 or MATH 2433.


MATH 1451 - Accelerated Calculus
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 2  Prerequisite: MATH 1450. An accelerated calculus sequence.

Description
MATH 1451 will include topics normally covered in MATH 1432 and MATH 2433.

Note: Course Notes: Students with credit in MATH 1451 may not enroll in or receive credit for either MATH 1432 or MATH 2433.

Core Category: [90] Math/Reasoning

MATH 2131 - Linear Algebra Labs with MATLAB
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: Credit for, or concurrent enrollment in, MATH 2331.

Description
This course is intended for Math majors. These labs reinforce key concepts of linear algebra using a variety of class-tested MATLAB exercises. No prior knowledge of, or experience with, MATLAB is required. MATLAB commands will be introduced gradually.

MATH 2303 - Concepts in Algebra
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1312 or MATH 1313.

Description
Mathematical systems: classical and abstract algebra, systems of numeration, and basic number theory.

Note: May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics.
MATH 2311 - Introduction to Probability and Statistics
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Description**  
Probability, correct probabilistic reasoning, distributions, graphical and descriptive methods, sampling estimation, hypotheses and statistical inference.  
**Note:** May not apply to course or GPA requirements for a major or minor in the College of Natural Sciences and Mathematics. Students with prior credit for MATH 3338 or MATH 3339 may not enroll in or receive credit for MATH 2311.  
**Core Category:** [20] Mathematics and [90] Math/Reasoning  
TCCNS Equivalent: MATH 1342

MATH 2331 - Linear Algebra
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** credit for or concurrent enrollment in MATH 1432.  
**Description**  
Solutions of systems of linear equations, matrices, vector spaces, linear transformations, similarity, eigenvalues and eigenvectors.  
TCCNS Equivalent: MATH 2318

MATH 2433 - Calculus III
Credit Hours: 4.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 3  **Prerequisite:** MATH 1432.  
**Description**  
Calculus of functions of several variables: calculus of vector-valued functions, partial differentiation, multiple integrals.  
TCCNS Equivalent: MATH 2415

MATH 3303 - Elements of Algebra and Number Theory
Credit Hours: 3  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** Three hours of 1000-2000 level Mathematics, excluding MATH 1300.  
**Description**  
Topics in number theory and abstract algebra.  
**Note:** May not apply to course or GPA requirements for a major or minor in Natural Sciences and Mathematics.

MATH 3304 - Mathematical Analysis
Credit Hours: 3  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** Three hours of 1000-2000 level Mathematics, excluding MATH 1300.  
**Description**  
Basic concepts of calculus including limits, derivatives, and integrals; selected applications.  
**Note:** May not apply to course or GPA requirements for a major or minor in Natural Sciences and Mathematics.

MATH 3305 - Formal & Informal Geometry
Credit Hours: 3  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** Three hours of 1000-2000 level Mathematics, excluding MATH 1300.  
**Description**  
Review of ruler and compass construction, formal axiomatic systems, finite geometries. Euclid's Elements, non-Euclidean geometry, analytic and transformational geometry.  
**Note:** May not apply to course or GPA requirements for a major or minor in Natural Sciences and Mathematics.

MATH 3306 - Problem-Solving in Mathematics
Credit Hours: 3  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** Three hours of 1000-2000 level Mathematics, excluding MATH 1300.  
**Description**  
Strategies for solving problems in mathematics: reduction to smaller problems; analogy in mathematics; conjecture and proof; the processes of abstraction, generalization, and specialization.  
**Note:** May not apply to course or GPA requirements for a major or minor in Natural Sciences and Mathematics.

MATH 3307 - Statistical Applications
Credit Hours: 3  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** Three hours of 1000-2000 level Mathematics, excluding MATH 1300.
Description
Basic probability, sampling, statistical prediction, and process control.

Note: May not apply to course or GPA requirements for a major or minor in Natural Sciences and Mathematics.

MATH 3311 - Functions and Modeling
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1432 and CUIN 1101.

Description
Ideas and activities that reinforce interrelationships among topics in mathematics, especially as taught in secondary education. Recurrent themes will be the use of transformations, data analysis methods, and technology.

MATH 3321 - Engineering Mathematics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1432.

Description
Students may not receive credit for both MATH 3321 and MATH 3331. First order ordinary differential equations and initial value problems; higher order differential equations; vector spaces, matrices, determinants, eigenvectors and eigenvalues; applications to systems of first order equations; Laplace transforms.

MATH 3325 - Transition to Advanced Mathematics
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly MATH 3397 Transitions to Advanced Math
Prerequisite: Credit for MATH 1451 or MATH 2433 or MATH 2331 or MATH 3321 with a grade of C- or higher.

Description
An introduction to proof in mathematics: logic, sets, relations, functions and cardinality, a first look at epsilon-delta methods of proof. Writing and communication of mathematical ideas will be emphasized.

MATH 3330 - Abstract Algebra
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2331 and 3325.

Description
An introduction to groups and rings: groups, subgroups, quotients, products, homomorphisms and isomorphisms, ideals, integral domains and division rings.

MATH 3331 - Differential Equations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and MATH 2331.

Description
Systems of ordinary differential equations; existence, uniqueness and stability of solutions; initial value problems; bifurcation theory; Jordan form; higher order equations; Laplace transforms. Computer assignments are required.

Note: Students may not receive credit for both MATH 3321 and MATH 3331.

MATH 3333 - Intermediate Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and 3325.

Description
A rigorous treatment of single variable calculus: topological properties of the real numbers, limits, continuity, differentiation, Riemann integration, the fundamental theorems of calculus, sequences and series.

MATH 3334 - Advanced Multivariable Calculus
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3333.

Description
Basic theory underlying multivariable calculus: a brief overview of the topology of n-space, limits, continuity and differentiation of functions of several variables, Taylor's theorem, the inverse and implicit function theorems, integration.

MATH 3335 - Vector Analysis
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 2433.

Description
Algebra and calculus of vectors, vector differential operators, Green's and Stokes' theorems, curvilinear coordinates, tensors.

MATH 3336 - Discrete Mathematics
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 2331

Description
Topics selected from logic, set theory, combinatorics, and graph theory.

MATH 3338 - Probability
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 1432.

Description

MATH 3339 - Statistics for the Sciences
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 1432.

Description
Graphical and descriptive methods in statistics, probability, random variables and distributions, sampling, estimation, hypothesis testing, regression, analysis of variance, exploratory and diagnostics, statistical computing.

Note: Students may not receive credit for both MATH 3339 and MATH 3349.

MATH 3340 - Introduction to Fixed Income Mathematics
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 1432.

Description
Bonds and bank certificates of deposit, arbitrage, bond and annuity valuation, total return, market risk, risk management, term structure construction, liability management.

MATH 3349 - Inferential Statistics
Credit Hours: 3
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 3338.

Description
Basic principles for statistical inference with practical applications of data. Includes point estimation, confidence intervals, hypothesis testing, ANOVA and simple linear regression. Includes use of statistical software.

Note: Students may not receive credit for both MATH 3339 and MATH 3349.

MATH 3363 - Introduction to Partial Differential Equations
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 2433 and either MATH 3321 or MATH 3331.

Description
Partial differential equations and boundary value problems, Fourier series, the heat equation, vibrations of continuous systems, the potential equation, spectral methods.

MATH 3364 - Introduction to Complex Analysis
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 2433.

Description
The complex number system, analytic functions, the Cauchy integral theorem, series representation, residue theory, and conformal mapping.

MATH 3379 - Introduction to Higher Geometry
MATH 3396 - Senior Research Project
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3325, and six additional hours of 3000-4000 level Mathematics and approval of Department Chair. Must have at least 3.25, GPA in all Mathematics coursework.
Description
Directed research project culminating in a departmentally approved report.
Note: Both MATH 3396 and MATH 4396 must be satisfied in order for either to apply to a degree.

MATH 3397 - Selected Topics in Mathematics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of instructor.
May be repeated with approval of department chair.

MATH 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.
Description
Both Math 3399 and MATH 4399 must be satisfied in order for either to apply to a degree.

MATH 4151 - Mathematics Internship
Credit Hours: 1
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: MATH major with junior standing or higher and prior written permission of the Department Chair or designee.
Description
Enhancement of concepts and techniques learned in the classroom through work experience directly related to the mathematics profession.
Note: Employer evaluation, written report, and presentation are required to obtain credit.

MATH 4309 - Mathematical Biology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BIOL 3301 and MATH 3331.
Description
Topics in mathematical biology, epidemiology, population models, models of genetics and evolution, network theory, pattern formation, and neuroscience.
Note: Students may not receive credit for both MATH 4309 and BIOL 4309.

MATH 4310 - Biostatistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3339, and BIOL 3306.
Description
Statistics for biological and biomedical data, exploratory methods, generalized linear models, analysis of variance, cross-sectional studies, and non-parametric methods.
Note: Students may not receive credit for both MATH 4310 and BIOL 4310.

MATH 4315 - Graph Theory with Applications
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3325 or MATH 3336 and three additional hours at the MATH 3000-4000 level.
Description
Introduction to basic concepts, results, methods, and applications of graph theory.

MATH 4320 - Introduction to Stochastic Processes
MATH 4322 - Introduction to Data Science and Machine Learning
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3338.
Description
Generating functions, discrete and continuous versions of Poisson and Markov processes, branching and renewal processes, introduction to stochastic calculus and diffusion.

MATH 4323 - Data Science and Statistical Learning
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3339.
Description
Theory and applications for such statistical learning techniques as linear and logistic regression, classification and regression trees, random forests, neutral networks. Other topics might include: fit quality assessment, model validation, resampling methods. R Statistical programming will be used throughout the course.

MATH 4331 - Introduction To Real Analysis I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3333.
Description
Study of metric spaces and real-valued functions. Topics include: convergence of sequences, continuity and uniform continuity of functions, sequences and series of functions, differentiation, and Riemann-Stiljies integration.

MATH 4332 - Introduction to Real Analysis II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 4331.
Description
Further development and applications of concepts from MATH 4331. Topics may vary depending instructor’s choice; possibilities include: Fourier series, point-set topology, measure theory, function spaces, or dynamical systems.

MATH 4335 - Partial Differential Equations I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3331, or equivalent, and three additional hours of 3000-4000 level Mathematics.
Description
Initial and boundary value problems, waves and diffusions, reflections, boundary values, Fourier series.

MATH 4339 - Multivariate Statistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3349.
Description
Multivariate analysis is a set of techniques used for analysis of data sets that contain more than one variable, and the techniques are especially valuable when working with correlated variables. The techniques provide a method for information extraction, regression, or classification. This includes applications of data set using statistical software.

MATH 4350 - Differential Geometry I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and six additional hours of 3000-4000 level Mathematics.
Description
Curves in the plane and in space, global properties of curves and surfaces in three dimensions, the first fundamental form, curvature of surfaces,
Gaussian curvature and the Gaussian map, geodesics, minimal surfaces, Gauss' Theorem Egregium, The Codazzi and Gauss Equations, Covariant Differentiation, Parallel Translation.

MATH 4351 - Differential Geometry II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 4350
Description
Continuation of the study of Differential Geometry from MATH 4350. Holonomy and the Gauss-Bonnet theorem, introduction to hyperbolic geometry, surface theory with differential forms, calculus of variations and surfaces of constant mean curvature, abstract surfaces (2D Riemannian manifolds).

MATH 4355 - Mathematics of Signal Representation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and six additional hours of 3000-4000 level Mathematics.
Description
Fourier series of real-valued functions, the integral Fourier transform, time-invariant linear systems, band-limited and time-limited signals, filtering and its connection with Fourier inversion, Shannon's sampling theorem, discrete and fast Fourier transforms, relationship with signal processing.

MATH 4362 - Theory of Differential Equations and Nonlinear Dynamics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3331, or equivalent, and three additional hours of 3000-4000 level Mathematics.
Description
ODEs as models for systems in biology, physics, and elsewhere; existence and uniqueness of solutions; linear theory; stability of solutions; bifurcations in parameter space; applications to oscillators and classical mechanics.

MATH 4364 - Introduction to Numerical Analysis in Scientific Computing
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: MATH 3331 or MATH 3321.
Description
Root finding, interpolation and approximation, numerical differentiation and integration, numerical linear algebra, numerical methods for differential equations.

MATH 4365 - Numerical Methods for Differential Equations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3331, or equivalent, and three additional hours of 3000-4000 level Mathematics.
Description
Numerical differentiation and integration, multi-step and Runge-Kutta methods for ODEs, finite difference and finite element methods for PDEs, iterative methods for linear algebraic systems and eigenvalue computation.

MATH 4366 - Numerical Linear Algebra
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2331, or equivalent, and six additional hours of 3000-4000 level Mathematics.
Description
Conditioning and stability of linear systems, matrix factorizations, direct and iterative methods for solving linear systems, computing eigenvalues and eigenvectors, introduction to linear and nonlinear optimization.

MATH 4377 - Advanced Linear Algebra I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2331 and MATH 3325, and three additional hours of 3000-4000 level Mathematics.
Description
Linear systems of equations, matrices, determinants, vector spaces and linear transformations, eigenvalues and eigenvectors.

MATH 4378 - Advanced Linear Algebra II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 4377.
Description
Similarity of matrices, diagonalization, Hermitian and positive definite matrices, normal matrices, and canonical forms, with applications.

MATH 4380 - A Mathematical Introduction to Options
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and MATH 3338.
Description
Arbitrage-free pricing, stock price dynamics, call-put parity, Black-Scholes formula, hedging, pricing of European and American options.

MATH 4383 - Number Theory and Cryptography
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: MATH 3330 or MATH 3336.
Description
Divisibility theory, primes and their distribution, theory of congruences and application in security, integer representations, Fermat’s Little Theorem and Euler’s Theorem, primitive roots, quadratic reciprocity, and introduction to cryptography.

MATH 4388 - History of Mathematics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3333.
Description
The history of mathematics and its impact on civilization from the ancient world to modern times, critical events in the development of mathematics, notable mathematicians and the importance of their discoveries.
Core Category: [81] Writing in the Disciplines

MATH 4389 - Survey of Undergraduate Mathematics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3331, 3333, and three hours of 4000-level Mathematics.
Description
A review of some of the most important topics in the undergraduate mathematics curriculum.
Note: Restricted to Math Majors.

MATH 4396 - Senior Research Project
Credit Hours: 3.0
Prerequisite: MATH 3396 and approval of department chair.
Description
Directed research project culminating in a departmentally approved report.
Note: Both MATH 3396 and MATH 4396 must be satisfied in order for either to apply to a degree.

MATH 4397 - Selected Topics in Mathematics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 3333 or consent of instructor.
Description
Selected topics in Mathematics.
May be repeated with approval of chair.

MATH 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Approval of Department Chair.
Note: Cr. 3 per semester or more by concurrent enrollment.

MATH 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: MATH 3399 and approval of department chair.
Description
Both MATH 3399 and MATH 4399 must be satisfied in order for either to apply to a degree.

Mechanical Engineering
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Prerequisite</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MECE 1100</td>
<td>Introduction to Mechanical Engineering</td>
<td>1.0</td>
<td>0</td>
<td>3</td>
<td></td>
<td>Topics in mechanical engineering, computational tools, ethics, intellectual property, technical writing and presentation.</td>
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<tr>
<td>MECE 2334</td>
<td>Thermodynamics</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>CHEM 1112, CHEM 1332, MATH 2433 and PHYS 1322.</td>
<td>Fundamental concepts of heat and work, simple substances, energy analysis, first and second laws, thermodynamics of state and power cycles.</td>
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<tr>
<td>MECE 2336</td>
<td>Mechanics I</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGI 1300 and credit for or concurrent enrollment in MATH 2433.</td>
<td>Fundamentals of vector mechanics applied to systems of forces, resultants, free body diagrams, equilibrium and analysis of frames, machines and other structures. Centroids of areas, center of mass and moments of inertia. TCCNS Equivalent: ENGR 2301</td>
</tr>
<tr>
<td>MECE 2361</td>
<td>Introduction to Mechanical Design</td>
<td>3.0</td>
<td>2</td>
<td>3</td>
<td>ENGL 1100 and MECT 1330 or equivalent.</td>
<td>Introduction to engineering design. Individual and group projects.</td>
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<tr>
<td>MECE 3245</td>
<td>Materials Science Laboratory</td>
<td>2.0</td>
<td>1</td>
<td>3</td>
<td>MECE 3345.</td>
<td>Experiments in materials science and engineering topics.</td>
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<tr>
<td>MECE 3336</td>
<td>Mechanics II (Dynamics)</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>ENGI 1311, CIVE 2330 or MECE 2336, MATH 2433.</td>
<td>Kinematics and dynamics of particles and rigid bodies, and introduction to mechanical vibrations.</td>
</tr>
<tr>
<td>MECE 3338</td>
<td>Dynamics and Control of Mechanical Systems</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>MECE 2361 and MECE 3336.</td>
<td>Design of system parameters and feedback control gains to satisfy transient and steadystate response specifications for mechanical systems. Transfer functions, time and frequency response, vibration isolation, automatic control systems. Design project required.</td>
</tr>
<tr>
<td>MECE 3345</td>
<td>Materials Science</td>
<td>3.0</td>
<td>3</td>
<td>0</td>
<td>MECE 2334, CHEM 1332 and CHEM 1112.</td>
<td>Properties of materials described by and related to materials structure. Emphasis on mechanical properties of materials.</td>
</tr>
<tr>
<td>MECE 3360</td>
<td>Experimental Methods</td>
<td>3.0</td>
<td>2</td>
<td>2</td>
<td>ECE 3336, ENGI 2304, MECE 1331, MECE 2334, and MECE 3336.</td>
<td></td>
</tr>
</tbody>
</table>
Sensors, transducers, signal conditioning, data acquisition and data analysis. Measurement of length, strain, force, temperature, pressure, and velocity.

**MECE 3363 - Introduction to Fluid Mechanics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** MECE 2334, MECE 3336, and credit for or concurrent enrollment in MATH 3363.  
**Description**  
Fluid properties, control volume and differential balance equations, viscous and irrotational flows, dimensional analysis, laminar and turbulent flows.

**MECE 3369 - Solid Mechanics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** MECE 3336 and credit for or concurrent enrollment in MATH 3363.  
**Description**  
Intermediate studies of the principles of stress analysis, buckling, energy methods, and the theories of failure; includes practical applications.

**MECE 3371 - Numerical Methods for Mechanical Engineers**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** MECE 1331, MECE 3336, MECE 3369, and MATH 3363.  
**Description**  
Solution of mechanical engineering problems using computational methods.

**MECE 3381 - Introduction to Finite Element Methods for Mechanical Engineers**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** MECE 3369 and credit for or concurrent enrollment in MATH 3363.  
**Description**  
Introduction to theory and practice of the finite element method. One-dimensional, two-dimensional, and three-dimensional elements in selected applications are studied. Extensive work with commercial FEM software.

**MECE 3399 - Senior Honors Thesis**  
**Credit Hours:** 3.0  
**Prerequisite:** approval of department chair.

**MECE 3400 - Introduction to Mechanics**  
**Credit Hours:** 4.0  
**Lecture Contact Hours:** 4  
**Lab Contact Hours:** 0  
**Prerequisite:** PHYS 1321 and credit for or concurrent enrollment in MATH 3321.  
**Description**  
Not for mechanical engineering majors. Statics of bodies, analysis of deformation and stress in elastic solids subject to bending and torsion, dynamics of particles, and mechanical vibrations.

**MECE 4198 - Independent Study**  
**Credit Hours:** 1.0

**MECE 4298 - Independent Study**  
**Credit Hours:** 2.0

**MECE 4331 - Design of Machine Elements**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Formerly** MECE 5331 Machine Design  
**Prerequisite:** MATH 3363 and credit for or concurrent enrollment in MECE 3381.  
**Description**  
General mechanical design considerations and processes, including materials, stress analysis, deflection, statistical analysis, failures resulting from both static and variable loading. Design of mechanical elements.

**MECE 4340 - Mechanical Engineering Capstone I**
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 6  
Prerequisite: MECE 3338, MECE 3345, MECE 3360, MECE 3381 and credit for or concurrent enrollment in MECE 4331 and MECE 4364.

Description
Students propose and begin team projects offered by industry and faculty. Professionalism, research methodologies, and technical communications.

MECE 4341 - Mechanical Engineering Capstone II
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 2  
Prerequisite: MECE 4340 and MECE 4364.

Description
Complete and defend team projects begun in MECE 4340.

MECE 4343 - Thermal Design
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly MECE 3334 Thermodynamics II  
Prerequisite: MECE 2334 and credit for or concurrent enrollment in MECE 4364.

Description
Power and refrigeration cycles, mixture of ideal gases, basic combustion processes, equilibrium, thermodynamics of compressible flow, thermal system design.

MECE 4364 - Heat Transfer
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MATH 3363 and MECE 3363.

Description
Steady and unsteady heat conduction; heat transfer by forced and free convection, radiation, and/or phase change; numerical solutions, and heat transfer system synthesis.

MECE 4371 - Thermal-Fluids Laboratory
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: MECE 3360 and MECE 4364.

Description
Experimental aspects of fluid mechanics and heat transfer; fluid behavior and fluid properties, flow variables and their measurement; temperature and heat transfer measurement; design and execution of student experiments.

MECE 4372 - Mechanics-Controls-Vibration Laboratory
Credit Hours: 3.0  
Lecture Contact Hours: 1.5  
Lab Contact Hours: 3  
Prerequisite: MECE 3360 and 3338. Experimental methods to study dynamic response of structures and process systems.

Description
Course includes design of control systems and modification of laboratory hardware.

MECE 4398 - Independent Study
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: approval of chair.

MECE 4399 - Senior Honors Thesis
Credit Hours: 3.0  
Prerequisite: approval of department chair.

MECE 4498 - Independent Study
Credit Hours: 4.0

MECE 4598 - Independent Study
Credit Hours: 5.0
MECE 5120 - Nanomaterials Engineering Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 2 Prerequisite: ECE 5119 or CHEE 5119 or MECE 5119, enrollment in MECE 5320, and consent of instructor.
Description
Engineering of nanomaterials with emphasis on structural, optical, photonic, magnetic, and electronic materials. Experimental design, synthetic and analytical characterization will be emphasized.

MECE 5307 - Fracture of Structural Materials
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MECE 3245 and senior standing in Mechanical Engineering.
Description
Methods of materials characterization for fracture-resistant or fracture-safe design.

MECE 5319 - Introduction to Nanotechnology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MECE 3338, concurrent enrollment in 5119, or consent of instructor.
Description
Field of nanotechnology. Fundamental concepts underlying various nanotechnologies which serves as a leveling course.

MECE 5320 - Introduction to Nanomaterials Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ECE 5319 or CHEE 5319, concurrent enrollment in MECE 5120, or consent of instructor.
Description
Engineering of nanomaterials with emphasis on structural, optical, photonic, magnetic, and electronic materials. Synthetic methods and analytical characterization with design for applications will be emphasized.

MECE 5321 - Nanoscale Design & Fabrication
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Formerly MECE 5321 Design and Fabrication of Nanoscale Devices
Prerequisite: ECE 5320 or CHEE 5320 or MECE 5320, concurrent enrollment in MECE 5121, or consent of instructor.
Description
Design and fabrication at the nanoscale. Effects of nanoscale phenomena on device scaling; technological advantages and challenges. Design, fabrication, metrology, and device integration at nanoscale.

MECE 5332 - Introduction to Continuum Mechanics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MECE 3245, MECE 3363, MECE 3369, and senior standing in Mechanical Engineering.
Description
Vector and tensor analysis, kinematics of deformation, stress, the balance laws of physics, and basic constitutive theory with applications to elastic solids and viscous fluids.

MECE 5339 - Introduction to Engineering Alloys
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MECE 3245 and senior standing in Mechanical Engineering.
Description
Structure and properties of metal alloys; selection of alloys for various engineering applications; metallographic examinations; scanning electron microscope fractography.

MECE 5363 - Fluid Mechanics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MECE 3363, and senior standing in mechanical engineering.
Description
Flow in piping systems, boundary layers and bluff body flows, inviscid flow, and turbomachinery.

MECE 5367 - Control System Analysis and Design
MECE 5388 - Intelligent Structural Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MECE 3245, MECE 3338, and senior standing in Mechanical Engineering.
Description
Modeling, designing, and control of intelligent structures using various smart materials such as piezoceramics, shape memory alloys, magnetorheological (MR) fluid, and fiber optical sensors.

MECE 5397 - Selected Topics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MECE 3338 and senior standing in mechanical engineering.
Description
Analysis and design of control systems in mechanical engineering, stability and time response, controller design, state variable approach.

Mechanical Engineering Technology

MECT 1330 - Engineering Graphics
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: computer knowledge or consent of instructor.
Description

MECT 1364 - Materials and Processes I
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Description

MECT 1365 - Elements of Materials and Processes
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: None.
Description
Survey of manufacturing processes. Application of machine tools, measuring tools, and primary processes to the manufacturing cycle. May not apply to the Mechanical Engineering Technology Degree. Students may not receive credit for MECT 1364 and MECT 1365.

MECT 2354 - Introduction to Mechanics
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in PHYS 1301 and PHYS 1101 and MATH 1431 or equivalents.
Description
Static equilibrium conditions of forces, moments, friction, centroids, trusses, and moments of inertia.

MECT 3118 - Fluid Mechanics Application Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in MECT 3318.
Description
Laboratory experiments using standard measuring devices for performing hydraulic and pneumatic tests, noncompressible fluid piping systems, turbines, and pump stations.

MECT 3155 - Strength of Materials Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in MECT 3355.
Description
Experimentation to determine the mechanical properties of materials including tensile strength, hardness, creep, and toughness.

MECT 3318 - Fluid Mechanics Applications
MECT 3330 - Advanced Engineering Graphics
Credit Hours: 3.0
Lecture Contact Hours: 2   Lab Contact Hours: 3   Prerequisite: MECT 1330.
Description
Advanced applications of mechanical drafting & 3D modeling/assembly via commercial CAD software.

MECT 3331 - Applied Thermodynamics
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: Grade of C- or better in MATH 1431 and PHYS 1302 and 1102 or equivalents.
Description
Heat and energy conversions and properties of gases and liquids. First and Second Laws of Thermodynamics and applications. Thermodynamic power cycles and applications.

MECT 3341 - Computer-Aided Drafting
Credit Hours: 3.0
Lecture Contact Hours: 2   Lab Contact Hours: 3   Prerequisite: C- or better in ELET 2300 or ENGI 1331 or equivalents and MATH 1330.
Description
Computer-aided drafting and design (CAD) systems and computer graphics hardware and software. Selection and evaluation of CAD systems.

MECT 3342 - Elements of Plant Design
Credit Hours: 3.0
Lecture Contact Hours: 2   Lab Contact Hours: 3   Prerequisite: Grade of C- or better in MECT 1330, MECT 3318, and MECT 3331.
Description
Piping design problems associated with heat exchangers, pumps, horizontal and vertical vessels, pipeways, and plant layouts. Design concepts used in preparation of piping arrangement, elevation, and isometric drawings.

MECT 3345 - Fundamentals of Power Generation Technology
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: TECH 1325 and MECT 3331 or consent of instructor.
Description
Concept of designing power plant systems by incorporating various renewable and non-renewable energy sources for better energy efficiency, emerging efficient clean power technology.

MECT 3355 - Strength of Materials
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: Grade of C- or better in MECT 2354 and MATH 1432.
Description
Stresses, strains, torsion, shear and moment in beams. Bending and combined stresses. Analysis of columns.

MECT 3358 - Dynamics of Mechanisms
Credit Hours: 3.0
Lecture Contact Hours: 2   Lab Contact Hours: 3   Prerequisite: Grade of C- or better in MECT 1330, MECT 2354 and MATH 1432.
Description
The motion of particles and rigid bodies, including forces, mass acceleration, work, and energy. Analysis of devices, including four-bar linkages, sliders, and gear trains.

MECT 3360 - Automated Manufacturing Systems
Credit Hours: 3.0
Lecture Contact Hours: 2   Lab Contact Hours: 3   Prerequisite: Grade of C- or better in MECT 1364.
Description
Automated manufacturing process planning and analysis, including CNC programming, robotics, and elements of computer-aided manufacturing.

MECT 3362 - Industrial Work Measurement
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3 Prerequisite: Grade of C- or better in MECT 1364 and MATH 1330.
Description
Workplace design and analysis, methods of work measurement, operating procedures, time standards, productivity measurement and improvement. Man-machine interaction and cost analysis.
Additional Fee Y

MECT 3364 - Materials and Processes II
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3 Prerequisite: MECT 1364.
Description
Advanced machining and manufacturing methods for metal, plastic and composite materials.

MECT 3365 - Computer-Aided Design I
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3 Prerequisite: Grade of C- or better in MECT 3355, MECT 1330, and MECT 1364 or equivalents.
Description
Use of computer-aided design software in the design and engineering of machinery, machine components, and mechanical systems.

MECT 3366 - Lean Manufacturing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MECT 1364.
Description
Principles and practices of manufacturing methodologies based on maximizing value and minimizing waste in the manufacturing processes.

MECT 3367 - Quality Control Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: Prerequisites: Grade of C- or better in MECT 1364 and MATH 1330 or equivalents.
Description
Statistical analysis of data to establish quality control systems for manufacturing facilities.

MECT 3368 - Economic Analysis of Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: MATH 1431.
Description
Principles of investment economic analysis, decision-making among alternatives, and replacement analysis. Inflation, depreciation, cost concepts, bond, and income tax considerations.

MECT 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: approval of Thesis Advisor.
Description
Undergraduate thesis.
May be repeated for credit.

MECT 4172 - Materials Technology Laboratory
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3 Prerequisite: concurrent enrollment in MECT 4372.
Description
Experiments of materials behavior including hardenability, effect of heat treatment on strength, microstructure and ductility.
Additional Fee $2.00 Fee Type Lab Fee

MECT 4188 - Ethics in Engineering Technology
MECT 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.
Description
Ethical considerations and value judgments related to management, engineering, and engineering technology decisions.

MECT 4275 - Senior Design Project I
Credit Hours: 2.0
Lecture Contact Hours: 1  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in MECT 3358, 3342, 3365.
Description
Design, modeling, testing and validation processes. Complete design process from research through conceptualization to generation of final design and documents.
Additional Fee Y

MECT 4276 - Senior Design Project II
Credit Hours: 2.0
Lecture Contact Hours: 1  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in MECT 4275.
Description
Formulation, construction and/or fabrication work. Refining, experimenting, and testing of models considering alternatives. Analyzing results, preparing and submitting design documents including a project report.
Additional Fee Y

MECT 4323 - Applications in Stress Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C- or better in MECT 3355 and MATH 1432 or equivalents.
Description
Combined stress systems, nonsymmetrical loadings, structural joints and pressure vessels, beams and columns of composite materials, fatigue and impact applications.
Additional Fee Y

MECT 4326 - Fundamentals of Offshore Systems
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in MECT 3358 and MECT 3365.
Description
Structural aspects of offshore systems and their dynamic properties. Basic theory in design and applications of theory to practical examples.
Additional Fee Y

MECT 4328 - Fundamentals of Pipeline Design
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in MECT 3365 and MECT 4372.
Description
Pipeline mechanical design using the limit-state based strength method; flow assurance and material selection; pipeline stability, corrosion, and construction; inspection, monitoring, and maintenance of pipelines.
Additional Fee Y

MECT 4330 - Valve Design
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C- or better in MECT 3365.
Description
Valve design analysis and development, featuring a complete design package for a valve per ASME 16.34, API Spec 6A, or 6D code.
Additional Fee Y

MECT 4331 - Heat Transfer Applications
MECT 4332 - Fundamentals of Drilling Technology
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in MECT 3318.
Description
Drilling rig components design and operation, circulating systems, well control and monitoring systems. Drill bit hydraulics, drilling mud composition, properties and functions. Experimental methods and software data analysis.
Additional Fee Y

MECT 4337 - Downhole Drilling Tools & Technology
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: C- or better grade in MECT 3355 and MECT 4332.
Description
Selection of drilling tools and technology for drilling. Design and execution of complex well plans.
Additional Fee Y

MECT 4341 - Materials Selection & Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C- or better in MECT 3365 and MECT 4372.
Description
Material selection as part of the design process; material properties, process and process selection, hybrid materials, and case studies.
Additional Fee Y

MECT 4343 - Thermal Processing and Post-Processing of Materials
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C- or better in MECT 3331 and MECT 4372.
Description
Thermodynamic phenomena occurring during materials processing. Heat effects during solidification, phase transformation, recrystallization, and other postprocessing effects. Technologies to monitor phase transformations, recrystallization, and implications on materials characteristics.
Additional Fee Y

MECT 4345 - Fundamental & Applications of Fuel Cell
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEM 1301 and TECH 1325 or consent of instructor.
Description
Comprehensive knowledge on Fuel Cell Technology, an emerging new and efficient alternative clean energy technology.

MECT 4350 - Principles of Mechatronics
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in ELET 2307, MECT 3358 or equivalents.
Description
Kinematics of mechanisms and machines. Electrical drives and characteristics. Automatic controls and interfacing. Microprocessor assimilation into electro-mechanical systems.
Additional Fee Y

MECT 4360 - Fundamentals of Biomechanics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C- or better in MECT 3318 and MECT 3355.
Description
Cardiovascular, skeletal and muscular systems: physiology, biomechanics, mechanical measuring techniques, relevance to health care field, tissue engineering, growth and remodeling, biofluid mechanics, and solid mechanics.
Additional Fee Y
MECT 4361 - Cardiovascular Mechanics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C- or better in MECT 3331, MECT 3355, and MECT 3358.
Description
Healthy/diseased cardiovascular physiology, histology, cellular and extracellular matrix relations, solid mechanics, hemodynamics, applied thermodynamics, constitutive formulations, kinematics, mechanotransduction, growth and remodeling, and treatment of cardiovascular disease
Additional Fee Y

MECT 4364 - Smart Manufacturing Systems Design
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: MECT 3360.
Description
Design principles and applications of complex automated manufacturing & materials handling systems, including IoT (Internet of Things) and data analytics for smart manufacturing.

MECT 4365 - Computer-Aided Design II
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in MECT 3365.
Description
Advanced computer-aided design software to integrate the design of system components and assemblies.
Additional Fee Y

MECT 4367 - Industrial Maintenance and Reliability
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MECT 3367.
Description
Industrial maintenance, replacement, and reliability. Inspection methods, data collection and analysis, and decision making in the maintenance and replacement planning.

MECT 4368 - Simulation of Manufacturing Systems
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: MECT 3367.
Description
Simulation modeling and analysis with application to manufacturing and service systems.

MECT 4372 - Materials Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Grade of C- or better in MECT 3355 and concurrent enrollment in MECT 4172.
Description
Structure and property relationships of materials including metals, ceramics, and polymers. Behavior of materials with emphasis on manufacturing processes and applications.

MECT 4384 - Manufacturing Systems Control
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Grade of C- or better in MECT 3360 or equivalent.
Description
Manufacturing systems including layout, maintenance, material handling, and controls. Lean manufacturing, cost analysis, and manufacturing economics.
Additional Fee Y

MECT 4394 - Selected Topics in Mechanical Engineering Technology
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 3  Prerequisite: Approval of department chair.
May be repeated for credit when topics vary
Note: May be repeated for credit when topics vary.
MECT 4397 - Selected Topics in Mechanical Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair.
May be repeated for credit when topics vary.

MECT 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

MECT 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of Thesis Advisor.
Description
Undergraduate thesis.
May be repeated for credit.

Mexican American Studies

MAS 2340 - Introduction to Mexican American Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of director of Mexican American Studies.
Description
Significant aspects of the Chicano experience.

MAS 3340 - The Development of the Mexican American Urban Community
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
An interdisciplinary approach to the origin and development of Mexican American neighborhoods in urban regions from the 20th century to the present. The course will focus on demographic and structural urbanization and how this has influenced the quality of life of this community in various settings.
Core Category: [40] Language, Philosophy, & Culture

MAS 3341 - Mexican American Experience Through Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: six semester credit hours of sophomore-level English.
Description

MAS 3342 - Mexican Immigration To the US
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
An interdisciplinary analysis of the immigration from Mexico to the United States. It will include critical discussions of historical, literary, and ethnographic accounts.
Core Category: [81] Writing in the Disciplines

MAS 3343 - Latino Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
Social, psychological, political and historical factors that impact the psychological development of Latinos in the United States.

MAS 3344 - Research Methods in Mexican American Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior level ranking (60 sch).
Description
Training in different research methodologies used to explore the Mexican American/Latina/o population and its experiences. Students will conduct
their own research.

Note: The course may be repeated twice when the research topics change.

**MAS 3345 - Latino Leadership, Activism & Organizing**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Sophomore level.
Description
Exploration of the Latino/a community efforts to bring about social change. Theories of social change; social, political, cultural and economic aspects of the Latino experience, grassroots community organizing, leadership and tactics.
Core Category: [81] Writing in the Disciplines

**MAS 3346 - Latinas in the United States**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Mexican American women and other Latinas’ roles in the broader Latino community. Examination of Latina history, politics, contemporary activism, art, literature, theater, film, music and the intersectionality of race/ethnicity, gender, class, sexuality and citizenship.

**MAS 3347 - Latino American Popular Music**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Sophomore standing.
Description
Examination of how US based Latino communities create, maintain, and re-create cultural connections, and how musicians express these experiences through songs and music.

**MAS 3348 - Pre-Columbian Life and Religion in Mexico**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Sophomore level.
Description
Pre-Columbian Aztec civilization and religion from Empire to contemporary Mexico.

**MAS 3395 - Sel Top Mexican American Stdy**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.
May be repeated for credit when topics vary.

Note: May be repeated for credit when topics vary.

**Military Science**

**MSCI 1125 - Physical Readiness Training**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: students must provide CC 139-r and DA 3425 signed by physician prior to attendance.
Description
Open to all students. Utilizes Army fitness techniques; develops strength, flexibility and endurance; develops self-confidence through leadership training and physical activities.

**MSCI 1126 - Physical Readiness Training**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: students must provide CC 139-r and DA 3425 signed by physician prior to attendance.
Description
Open to all students. Utilizes Army fitness techniques; develops strength, flexibility and endurance; develops self-confidence through leadership training and physical activities.

**MSCI 1131 - Intermediate Physical Fitness**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: students must provide CC 139-r and DA 3425 signed by physician prior to attendance.
Description
Physically and mentally demanding activities designed to challenge students through team building exercises to improve strength and stamina utilizing Army fitness techniques. Students compete for Ranger Challenge Team positions.

**MSCI 1210 - Introduction to the Army**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 2  
**Prerequisite:** Department approval required; students must provide CC Form 139-R and DA 3425 prior to attendance.  
**Description**  
MSCI 1210 focuses on introduction to the Army and critical thinking. It introduces Cadets to the Army and the Profession of Arms. Students will examine the Army Profession and what it means to be a professional in the U.S. Army. The overall focus is on developing basic knowledge and comprehension of the Army Leadership Requirements Model while gaining a complete understanding of the Reserve Officers¿ Training Corps (ROTC) program, its purpose in the Army, and its advantages for the student. Cadets also learn how resiliency and fitness supports their development as an Army leader. Includes a weekly lab facilitated by MS III Cadets and supervised by Cadre.

**MSCI 1220 - Foundations of Agile & Adaptive Leadership**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 2  
**Prerequisite:** Department approval required; students must provide CC Form 139-R and DA 3425 prior to attendance.  
**Description**  
MSCI 1220 introduces Cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, time management, goal setting, and stress management relate to leadership, and the Army profession. Cadets learn the basics of the communications process and the importance for leaders to develop the essential skills to effectively communicate in the Army. Includes a weekly lab facilitated by MS III Cadets and supervised by Cadre.

**MSCI 2210 - Leadership & Decision Making**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 2  
**Prerequisite:** Department approval required; students must provide CC Form 139-R and DA 3425 prior to attendance.  
**Description**  
MSCI 2210 focuses on leadership and decision making. The course adds depth to the Cadets understanding of the Adaptability Army Learning Area. The outcomes are demonstrated through Critical and Creative Thinking and the ability to apply Troop Leading Procedures (TLP) to apply Innovative Solutions to Problems. The Army Profession is also stressed through leadership forums and a leadership self-assessment. Students are then required to apply their knowledge outside the classroom in a hands-on performance-oriented environment during Leadership LABs (team building exercises, LTXs, VBS exercises). Includes a weekly lab facilitated by MS III Cadets and supervised by Cadre.

**MSCI 2220 - Army Doctrine & Team Development**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 2  
**Prerequisite:** Department approval required; students must provide CC Form 139-R and DA 3425 prior to attendance.  
**Description**  
MSCI 2220 focuses on Army doctrine and team development. The course begins the journey to understand and demonstrate competencies as they relate to Army doctrine. Army Values, Teamwork, and Warrior Ethos and their relationship to the Law of Land Warfare and philosophy of military service are also stressed. The ability to lead and follow is also covered through Team Building exercises in small units up to squad level. Students are then required to apply their knowledge outside the classroom in a hands-on performance-oriented environment during Leadership LABs (team building exercises, LTXs, VBS exercises). Includes a weekly lab facilitated by MS III Cadets and supervised by Cadre.

**MSCI 3310 - Training Management and the Warfighting Functions**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 2  
**Prerequisite:** Department approval required.  
**Description**  
MSL 3310 focuses on training management and the warfighting functions. It is an academically challenging course were you will study, practice, and apply the fundamentals of Training Management and how the Army operates through the Warfighting functions. At the conclusion of this course, you will be capable of planning, preparing, and executing training for a squad conducting small unit tactics. Includes a lab per week using peer facilitation overseen by MSLIVs, supervised by ROTC Cadre.

**MSCI 3320 - Applied Leadership in Small Unit Operations**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 2  
**Prerequisite:** Department approval required.
MSCI 3320 - Independent Study
Credit Hours: 3.0

MSCI 3398 - Leadership Development and Assessment Course
Credit Hours: 4.0
Prerequisite: MSCI 3320 or consent of the chair.

Description
Off-campus field training practicum stressing application of leadership management with emphasis on tactical and special military skills. Places students in demanding and stressful leadership situations.

MSCI 4310 - The Army Officer
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: Department approval required.

Description
MSCI 4310 focuses on development of the Army Officer. It is an academically challenging course were you will develop knowledge, skills, and abilities to plan, resources, and assess training at the small unit level. You will also learn about Army programs that support counseling subordinates and evaluating performance, values and ethics, career planning, and legal responsibilities. At the conclusion of this course, you will be familiar with how to plan, prepare, execute, and continuously assess the conduct of training at the company or field grade officer level. Includes a lab per week overseeing MSLIII lesson facilitation and supervised by ROTC Cadre.

MSCI 4320 - Company Grade Leadership
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: Department approval required.

Description
MSCI 4320 is an academically challenging course were you will develop knowledge, skills, and abilities required of junior officers pertaining to the Army in Unified Land Operations and Company Grade Officer roles and responsibilities. This course includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a mid-term exam, and an Oral Practicum as the final exam. The Oral Practicum explores your knowledge of how you will be prepared for the 20 Army Warfighting Challenges (AWFC) covered throughout the ROTC Advanced Course. Successful completion of this course will assist in preparing you for your BOLC B course and is a mandatory requirement for commissioning Includes a lab per week overseeing MSLIII lesson facilitation and supervised by ROTC Cadre.

MSCI 4398 - Independent Study
Credit Hours: 3.0

Music

MUED 2342 - Music for Children
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Formerly MUSI 2342.
Prerequisite: ENGL 1304.

Description
Study covers the elements of music, and musical materials and teaching concepts appropriate for children in grades K-4.

Core Category: [50] Creative Arts
Additional Fee N Fee Type Music Concert/Perf Pass

MUSI 1000 - Freshman Seminar
Credit Hours: 0.0
Lecture Contact Hours: 1  Lab Contact Hours: 0 Prerequisite: Admission as music major by audition.
Description
To provide a forum for freshman music students addressing campus-wide, music school-specific, and professional issues of major importance to their success.

Additional Fee N

MUSI 1100 - Marching Band
Credit Hours: 1.0
Lecture Contact Hours: 6  Lab Contact Hours: 0  Prerequisite: Auditions required for percussion and color guard only.
Description
Marching Band.
Note: May be repeated for credit.

MUSI 1102 - Wind Ensemble
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 5  Prerequisite: admission by audition.
May be repeated for credit.

MUSI 1103 - Cougar Brass
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 1  Prerequisite: admission by audition.
Description
Does not fulfill the requirements for large ensemble for music majors.
May be repeated for credit.

MUSI 1110 - Jazz Orchestra
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 4  Prerequisite: admission by audition.
May be repeated for credit but no more than four semesters may be used to satisfy the requirements for large ensemble music majors.

Additional Fee $2.00 Fee Type Class/Music Laboratory

MUSI 1120 - University Chorus
Credit Hours: 1
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None; no audition required.
Description
Choruses that are open to all singers, whether novice or experienced. Section 1: This chorus consists of soprano and alto voices only. Section 2: This chorus consists of tenor and bass voices only.
May be repeated for credit.

Note: May be repeated for credit.

MUSI 1121 - Concert Chorus
Credit Hours: 1
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Audition required.
Description
Choruses for singers with music-reading skills. Section 1: This chorus consists of soprano and alto voices only. Section 2: This chorus consists of tenor and bass voices only.
May be repeated for credit.

Note: May be repeated for credit.

MUSI 1122 - Concert Chorale
Credit Hours: 1
Lecture Contact Hours: 1  Lab Contact Hours: 4  Prerequisite: Audition required.
Description
This is a soprano/alto/tenor/bass mixed chorus.
Note: May be repeated for credit.
MUSI 1140 - Orchestra
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 5 Prerequisite: admission by audition.
May be repeated for credit.

Additional Fee $2.00 Fee Type Class/Music Laboratory

MUSI 1160 - Group Piano I
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 1 Prerequisite: admission as music major.
Description
Introduction to piano playing for music majors without previous keyboard training.

MUSI 1161 - Group Piano II
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 1 Prerequisite: admission as music major.
Description
Introduction to piano playing for music majors without previous keyboard training.

MUSI 1170 - Aural Skills I
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0 Prerequisite: Admission as music major by audition and credit for, or enrollment in, MUSI 1310.
Description
Introduction to solfege, melodic and harmonic dictation. Aural skills exercises in diatonic materials, simple meters.
Additional Fee Y

MUSI 1171 - Aural Skills II
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 1 Prerequisite: MUSI 1170 and credit for or enrollment in MUSI 1311.
Description
Continuation of MUSI 1170, through modal mixture and diatonic sevenths; compound meter; decorative chromaticism; alto clef.

MUSI 1220 - Class Piano I
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0 Prerequisite: None.
Description
Essentials of piano playing for students without previous instruction.
May be repeated for credit.

Note: Open to all students except music majors.
Additional Fee $55.00 Fee Type Music Concert/Perf Pass

MUSI 1300 - Fundamentals of Music
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Description
Primarily for non-music majors. Does not require any musical background. Does not fulfill any degree requirement for music major. An introduction to music through a study of its melodic, rhythmic, and harmonic elements.
Additional Fee $55.00 Fee Type Music Concert/Perf Pass

MUSI 1301 - Rudiments of Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: Music majors only or consent of instructor.
Description
A non-degree applicable preparatory music theory course including a study of its melodic, rhythmic, and harmonic elements of music.

MUSI 1310 - Theory I
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition and passing grade on the theory entrance exam.  

Description  
Review of musical rudiments; harmony and voice-leading through submediant and mediant chords; figured bass; cadences and phrase structure; basic analysis; elementary composition.  

Additional Fee Y

MUSI 1311 - Theory II  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: MUSI 1310.  

Description  
Harmony and voice-leading through modal mixture, secondary dominants and modulation; periodic structures; further analysis and composition.

MUSI 2101 - Vocal Diction  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
Prerequisite: Admission as music major by audition.  

Description  
Study of pronunciation of texts in vocal music.  
Note: May be repeated for credit.

MUSI 2160 - Group Piano III  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 1  
Prerequisite: MUSI 1161 or by advanced placement.  

Description  
Development of the ability to use the piano in a functional way for analysis, accompanying, and arranging.

MUSI 2161 - Group Piano IV  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 1  
Prerequisite: MUSI 1161 or by advanced placement.  

Description  
Development of the ability to use the piano in a functional way for analysis, accompanying, and arranging.

MUSI 2170 - Aural Skills III  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 1  
Prerequisite: MUSI 1171 and passing grade on Aural Skills Proficiency Exam I; credit for or concurrent enrollment in MUSI 2210.  

Description  
Tenor clef; secondary dominants; elementary modulation; more advanced rhythmic problems, including borrowed divisions.

MUSI 2171 - Aural Skills IV  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 1  
Prerequisite: MUSI 2170 and credit for or concurrent enrollment in MUSI 2214.  

Description  
Advanced chromaticism; remote modulation; quintuple meters; introduction to twentieth century materials, including modes and multimeter

MUSI 2188 - Keyboard Skills and Collaborative Techniques  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 1  
Prerequisite: Admission as music major by audition.  

Description  
Techniques for developing skills in sight reading, keyboard harmony, rhythmic training, and accompanying.  
Note: May be repeated for a maximum of four semester hours.

MUSI 2210 - Theory III  
Credit Hours: 2.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: MATH 1310, MUSI 1311, and passing grade on Theory Proficiency Exam II.
Description
Harmony and voice-leading through linear chords, the Neapolitan and augmented sixths, advanced modulation, ninth chords; binary form; more advanced modulation and composition

MUSI 2214 - Techniques of Music Since 1900
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Formerly MUSI 3210
Prerequisite: MATH 1310; MUSI 2210 and passing grade on Theory Proficiency Exam III.
Description
Study of compositional practices of the twentieth century and later, through analysis and composition exercises.

MUSI 2302 - Listening to Jazz
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Introduction to jazz listening and jazz history through the study of specific works in historical and cultural contexts.
Core Category: [50] Creative Arts

MUSI 2361 - Music and Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Admission as music major by audition, MUSI 1311 and ENGL 1304.
Description
An introduction to the traditional musics of selected cultures.
TCCNS Equivalent: 1309
Additional Fee Y

MUSI 2362 - History of Music I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 2361.
Description
Survey of western classical music from the Middle Ages through the Baroque period.
Core Category: [50] Creative Arts

MUSI 3110 - Jazz Improvisation
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 1  Prerequisite: consent of instructor.
May be repeated for credit.

MUSI 3160 - Advanced Sight Reading for Keyboard Players
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: MUSI 1311.
Description
Advanced techniques in reading

MUSI 3215 - Introduction To Large Forms
Credit Hours: 2
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: MUSI 2214 and a passing grade on Theory Proficiency Exam IV and Aural Skills Proficiency Exam II.
Description
Introduction to the study of larger musical forms of the eighteenth through twentieth centuries; introduction to the analysis of contrapuntal textures.

MUSI 3216 - Analysis
Credit Hours: 2
Lecture Contact Hours: 2  Lab Contact Hours: 0  Formerly MUSI 4211
Prerequisite: MUSI 2214.
Description
Analysis of selected musical literature.

MUSI 3240 - Organ Literature
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0

MUSI 3241 - Organ Literature
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0

MUSI 3261 - Keyboard Harmony
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: MUSI 1311.
Description
Theory at the keyboard, harmonization, improvisation, figured bass, and keyboard techniques.

MUSI 3300 - Listening to Music Masterworks
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
An introduction to the masterworks of Western music from Gregorian chant to the present.
Core Category: [50] Creative Arts
Additional Fee $55.00  Fee Type Music Concert/Perf Pass

MUSI 3301 - Listening to World Music
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
An introduction to the folk and traditional musics of selected world cultures.
Core Category: [50] Creative Arts

MUSI 3303 - Popular Music in the Americas Since 1840
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Historical survey of popular music styles from the U.S., Mexico, the Caribbean, and Latin America from 1840 to the present.
Core Category: [81] Writing in the Disciplines

MUSI 3363 - History of Music II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 2362.
Description
Survey of western classical music from the Classical period through Wagner.

MUSI 3364 - History of Music III
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3363.
Description
Survey of western classical music from Wagner to the present.

MUSI 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of the director of the School of Music.
May be repeated for credit.

MUSI 4100 - Chamber Music
MUSI 4102 - Acting for Opera
Credit Hours: 1.0
Lecture Contact Hours: 1   Lab Contact Hours: 2 Prerequisite: consent of instructor.
Description
Basics of acting in a solo situation with the added dimension of music. Topics include physical awareness, improvisation, focus, gesture, dramatic and musical analysis, and style of presentation in auditions and concerts. Lecture, presentations, critiques, and in-class exercises.

MUSI 4104 - New Music Ensemble
Credit Hours: 1.0
Lecture Contact Hours: 1   Lab Contact Hours: 2 Prerequisite: admission by audition only; approval of student's applied instructor and/or area coordinator.
Description
May count as chamber music with approvals. May not serve as advanced music elective or advanced music history/literature elective. May be repeated for a maximum of four semester hours.

MUSI 4112 - Chamber Music - Woodwinds
Credit Hours: 1.0
Lecture Contact Hours: 1   Lab Contact Hours: 1 Prerequisite: concurrent enrollment in applied instruction in winds.
Description
May not serve as advanced music elective for music majors. May be repeated for credit beyond degree requirements with approval of the director of the School of Music.

MUSI 4114 - Chamber Music - Brass
Credit Hours: 1.0
Lecture Contact Hours: 1   Lab Contact Hours: 1 Prerequisite: concurrent enrollment in applied instruction in brass.
Description
May not serve as advanced music elective for music majors. May be repeated for credit beyond degree requirements with approval of the director of the School of Music.

MUSI 4120 - Percussion Ensemble
Credit Hours: 1.0
Lecture Contact Hours: 1   Lab Contact Hours: 1 Prerequisite: concurrent enrollment in applied percussion.
Description
May not serve as advanced music elective for music majors. May be repeated for credit beyond degree requirements with approval of the director of the School of Music.

MUSI 4122 - Electronic Composition
Credit Hours: 1.0
Lecture Contact Hours: 1   Lab Contact Hours: 1 Prerequisite: composition majors studying at the 3000-level or by consent of Composition Area Coordinator.
Description
Basic composition techniques in electronic music; an historic overview and study of significant works of electronic music.

MUSI 4197 - Selected Topics in Music
Credit Hours: 1.0
Lecture Contact Hours: 2   Lab Contact Hours: 0 Prerequisite: Consent of instructor.
May be repeated with approval of director of the School of Music.

MUSI 4198 - Independent Study
MUSI 4220 - Choral Conducting I
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: MUSI 2214 and MUSI 2171.
Description
Fundamental aspects of gesture in choral conducting, particularly physiology, preparation, the proper execution of beat patterns, cuing, and releases. Introduces rudimentary score marking and score study.

MUSI 4230 - Instrumental Conducting I
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: MUSI 2211 and MUSI 2214.
Description
Fundamental aspects of gesture in instrumental conducting, hierarchical listening, ensemble sound production and pitch, collective breathing techniques, basic score study, and rehearsal planning and pacing.

MUSI 4250 - Performance Pedagogy
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: junior standing in applied music (MUSA).

MUSI 4298 - Independent Study
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of director of the School of Music.
May be repeated for credit.

MUSI 4301 - Modal Counterpoint
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3215 or consent of instructor.
Description
Contrapuntal techniques prior to the eighteenth century.

MUSI 4302 - Eighteenth Century Counterpoint
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3215 or consent of instructor.
Description
Contrapuntal techniques of the eighteenth century.

MUSI 4304 - Chromatic Harmony
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3215 or consent of instructor.
Description
Analyses and written exercises of extended tonal and early nontonal music.

MUSI 4307 - Analysis of Rhythm and Meter
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 2214 and passing grade on Theory Proficiency Exam IV and Aural Skills Proficiency Exam II. Music UGRD Majors Only.
Description
The study of meter and large-scale rhythm. Repertoire includes tonal, post-tonal, and popular Western music.

MUSI 4312 - Orchestration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 2214 and junior standing in composition, or consent of instructor.
Description
Instruments of the orchestra, including ranges, transpositions, and characteristics; basics of scoring for small and large instrumental ensembles.
MUSI 4317 - Analysis of Jazz and Popular Music
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 2214 and passing grade on Theory Proficiency Exam IV and Aural Skills Proficiency Exam II. Music UGRD Majors Only.
Description
A study of musical works from jazz and popular repertoires from perspectives of music theory, performer interaction, and meaning in social/historical context.

MUSI 4330 - Advanced Instrumental Conducting
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Undergraduate standing in music and consent of instructor.
Description
Advanced theory and practical techniques for the conductor of orchestral ensembles.

MUSI 4342 - Music for Children
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Elements, representative master composer compositions, and song literature for children.
Note: May not serve as an advanced elective for music majors.

MUSI 4357 - Music in the Seventeenth Century
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Genres and styles of music from Monteverdi though Buxtehude and their relationship to the culture that produced it.

MUSI 4358 - Music of Bach and Handel
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Life, times, and selected musical works by the two most famous composers from the late Baroque: G. F. Handel and J. S. Bach.

MUSI 4360 - Haydn, Mozart, Beethoven, and the Classical Style
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Music of the late eighteenth century with emphasis on the Viennese school of Haydn, Mozart, and Beethoven.

MUSI 4361 - Music of the Romantic Period I (1800 - 1848)
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Biographical, critical, cultural, and theoretical contexts for early romantic music by composers such as Schubert, Rossini, Berlioz, and Chopin, extending from Beethoven's middle period (ca. 1803) to the revolutions of 1848-9.

MUSI 4363 - Music of the Romantic Period II (1848 - 1914)
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Biographical, critical, cultural, and theoretical contexts for late romantic music by composers such as Wagner, Brahms, Tchaikovsky, and Mahler, extending from the revolutions of 1848-9 through 1910.

MUSI 4364 - Music in the Twentieth Century I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
First semester covers the years 1900 - 1945.

MUSI 4365 - Contemporary Concert Music
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Examines concert music composers, works, and organizations of the last 50 years.

MUSI 4366 - Music in the United States
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3300 or MUSI 3364 or consent of instructor.
Description
A social, historical, and stylistic survey of American music from the Pilgrims to the present, including popular music in all periods.

MUSI 4370 - Art Song Repertoire
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Introduction to song repertoire includes fusion of poetry and music, composers' song styles and signature musical characteristics grouped by national categories including German, French, American, British, Italian, Spanish, and Russian.
Note: Not an advanced literature elective.

MUSI 4371 - Analysis of Art Song
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 2214 and passing grade on Theory Proficiency Exam IV and Aural Skills Proficiency Exam II. Music UGRD Majors Only.
Description
This course examines the nineteenth-century German art song of the Lied tradition, through analysis of German Romantic poetry, chromatic harmony, text setting, text expression, form, and performance analysis.

MUSI 4378 - History of Jazz I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
An overview of jazz history from its beginnings through the Swing Era.

MUSI 4379 - History of Jazz II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Survey of performance practices after 1940 including Bebop, Cool, Hard Bop, Post-Bop, the Avant-garde, and Jazz-Rock Fusion.

MUSI 4380 - Opera Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
Survey of opera literature from its Baroque era beginnings through the present day.

MUSI 4382 - Symphonic Music
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.
Description
The birth of the orchestra and a survey of its repertoire from the eighteenth century to the present.

MUSI 4386 - Choral Literature
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.

Description
Choral literature, including sources, editions, stylistic considerations, and appropriate performance practices from each of the major periods of music history.

MUSI 4388 - Piano Literature
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MUSI 3364.

Description
Examination of piano literature from the 17th century to the 20th century.

MUSI 4397 - Selected Topics in Music
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: (Music Theory) MUSI 3215 or consent of instructor; (Music Literature) MUSI 3364 and consent of instructor.

May be repeated with approval of director of the School of Music.

Note: May be repeated with approval of director of the School of Music.

MUSI 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Approval of director of the School of Music.

May be repeated for credit.

Note: May be repeated for credit.

MUSI 4399 - Senior Honors Thesis
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of the director of the School of Music.

May be repeated for credit.

Music Education

MUED 2320 - Computers for Musicians
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly MUSI 2320.

Prerequisite: Music major or minor.

Description
Introduction to the use of computers and related technology for musicians, including notation, music theory, composition, presentation, and general integrated software applications.

Additional Fee Y

MUED 3100 - Woodwinds
Credit Hours: 1.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Formerly MUSI 3100.

Description
May not serve as an advanced music elective. Class studies in woodwind instruments primarily for music education - instrumental majors.

Additional Fee Y

MUED 3101 - Woodwinds
Credit Hours: 1.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Formerly MUSI 3101.

Description
May not serve as an advanced music elective. Class studies in woodwind instruments primarily for music education - instrumental majors.

Additional Fee Y
MUED 3102 - Brasses
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Formerly MUSI 3102.
Description
May not serve as an advanced music elective. Class studies in brass instruments primarily for music education - instrumental majors.
Additional Fee Y

MUED 3103 - Brasses
Credit Hours: 1.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Formerly MUSI 3103.
Description
May not serve as an advanced music elective. Class studies in brass instruments primarily for music education - instrumental majors.
Additional Fee Y

MUED 3104 - Strings
Credit Hours: 1.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Formerly MUSI 3104.
Prerequisite: Approval of the School of Music.
Description
May not serve as an advanced music elective for music majors.
Additional Fee Y

MUED 3105 - Strings
Credit Hours: 1
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Approval of the School of Music.
Note: May not serve as an advanced music elective for music majors.

MUED 3106 - Percussion
Credit Hours: 1.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Formerly MUSI 3106.
Prerequisite: Approval of the School of Music.
Description
May not serve as an advanced music elective for music majors.
Additional Fee Y

MUED 3107 - Basic Vocal Techniques
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 1  Formerly MUSI 3107.
Prerequisite: Consent of instructor.
Description
May not be used as an advanced music elective. Class studies in vocal methods and materials for music certification.
Note: May be repeated for credit.
Additional Fee Y

MUED 3108 - Piano for Choral Directors
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 1  Formerly MUSI 3108.
Prerequisite: Pass piano proficiency exam or consent of instructor.
Description
May not be used as an advanced music elective. Develop piano skills for the choral ensemble including accompanying, transposition, and score reading and reduction.
Additional Fee Y

MUED 3320 - Introduction to Education in Music
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: Admission as music major by audition and admission to teacher education program.
Description
Principles of teaching and learning music in education settings; focus on teaching/learning processes; structure, organization, and management of schools. School observations will be made in accordance with state-mandated, site-based requirements.

**Additional Fee** Y

**MUED 4221 - Choral Conducting II**

Credit Hours: 2.0  
*Lecture Contact Hours: 2  *Lab Contact Hours: 0  *Formerly MUSI 4221.

**Prerequisite:** MUSI 4220.

**Description**
Builds on skills acquired in MUSI 4220 and examines the execution of dynamics and character in the conducting gesture. Continues the discussion of comprehensive score study.

**Additional Fee** Y

**MUED 4231 - Instrumental Conducting II**

Credit Hours: 2.0  
*Lecture Contact Hours: 2  *Lab Contact Hours: 0  *Formerly MUSI 4231.

**Prerequisite:** MUSI 4230.

**Description**
Builds on skills acquired in MUSI 4230 with greater emphasis on score study, and the rehearsal techniques and diagnostic skills necessary for developing successful instrumental ensembles.

**Additional Fee** Y

**MUED 4305 - General Music in Elementary and Secondary Schools**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  *Lab Contact Hours: 3  *Prerequisite: MUED 3320.

**Description**
Teaching strategies for the elementary and secondary general music classes in the public schools. Includes observations, microteaching, preparation, and presentation of materials.

**MUED 4340 - Elementary and Middle School Instrumental Administration**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  *Lab Contact Hours: 0  *Formerly MUSI 4340.

**Prerequisite:** MUED 3320.

**Description**
Recruiting methods, materials and organization applicable to the beginning band/orchestra program; wind instrument instruction and student accountability. May not be used as an advanced music elective.

**Additional Fee** Y

**MUED 4343 - Materials for Children's Choirs Grades 4-12**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  *Lab Contact Hours: 0  *Formerly MUSI 4343.

**Prerequisite:** MUSI 4221, MUED 3320, and EPSY 3300.

**Description**
May not be used as an advanced music elective. Performance practices, vocal techniques, and music literature.

**Additional Fee** Y

**MUED 4344 - MS/JS/HS Instrumental Administration and Ensemble Techniques**

Credit Hours: 3.0  
*Lecture Contact Hours: 3  *Lab Contact Hours: 0  *Formerly MUSI 4344.

**Prerequisite:** MUSI 4231, MUED 3320 and MUSI 4340.

**Description**
May not be used as an advanced music elective. Performance practices, instrumental techniques, and music literature.

**Additional Fee** Y

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**National Security Studies**

**NSS 2342 - Introduction to National Security Studies**
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.  

Description
Introduction to intelligence and security needs, problems, and risk confronted by private and governmental organizations and national and homeland security.

NSS 4345 - Capstone-National Security Studies
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.  

Description
Capstone course for National Security Studies minor.
Typically Offered: Spring

Naval Science

NAVY 1301 - Naval Orientation
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  

Description
Naval traditions and customs, seamanship, naval organization and missions, and the fundamental concepts of sea power.

NAVY 1302 - Seapower and Maritime Affairs
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  

Description
Selected topics in the history, importance, and impact of sea power on modern civilization.

NAVY 2301 - Leadership Management
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  

Description
Principles and concepts of management, organization, leadership, information systems, and decision making.

NAVY 2302 - Naval Engineering - Naval Ship Systems I
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  

Description
Ship propulsion systems, auxiliary systems, steering systems, electrical power distribution, ship design, ship stability and damage control measures.

NAVY 3301 - Navigation
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Corequisite: NAVY 3311.  

Description
Coastal piloting, celestial and electronic ship navigation, involving nautical astronomy, navigational aids, satellite, and inertial systems.

NAVY 3302 - Naval Operations
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  

Description
Ship movements, formations, and fleet operations, including Rules of the Road, maneuvering board, tactical publications, and communications.

NAVY 3303 - Evolution of Warfare
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  

Description
Evolution of the conduct of warfare. Strategy, tactics, weapons, organizations, and military leaders/thinkers.

NAVY 3310 - Fundamentals of Maneuver Warfare
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  

Description
A detailed look at broad aspects of warfare and their interactions with maneuver warfare doctrine. Specific focus on the United States Marine Corps as the premier maneuver warfare fighting institution.
NAVY 4301 - Naval Weapons - Naval Ship Systems II
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: NAVY 1301.

Description
Theory and employment of weapons systems. Detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives. Physical aspects of radar and underwater sound are described in detail.

NAVY 4302 - Leadership and Ethics
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: NAVY 2301.

Description
Leadership principles, with particular emphasis on ethics, human resources management, military law and discipline, and administration.

Nursing

NURS 3230 - Nursing Professional Role I
Credit Hours: 2.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0

Description
This course will allow the student to compare past professional experiences with nursing practice. The art and science of professional nursing is examined from historical and contemporary perspectives, including the philosophy and theoretical foundations that define professional nursing practice.

NURS 3247 - Pharmacology for Collaborative Nursing Practice
Credit Hours: 2.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 0  
Prerequisite: Admission to the College of Nursing
Corequisite: Credit for or concurrent enrollment in NURS 3631 and NURS 3633.

Description
A foundational overview of pharmacology emphasizing the basics of drug knowledge including pharmocotherapeutics, pharmacodynamics and pharmacokinetics. Drug therapy for all age groups is incorporated.

NURS 3310 - Professional Role Development and Practice Issues
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0

Description
Focuses on the socialization of the student to the baccalaureate essentials for professional practice. Roles of the nurse, historical and theoretical foundations, and nursing philosophy and standards that define professional nursing are explored.

NURS 3311 - Health Assessment Across the Life Span
Credit Hours: 3.0  
Lecture Contact Hours: 2  
Lab Contact Hours: 3  
Prerequisite: Admission to the College of Nursing.

Description
Presents health and cultural assessment concepts for individuals and families across the life span, building upon skills acquired in an initial licensure program. Emphasis is on history taking, data collection, and critical analysis of health and illness. Students practice clinical assessment skills in a laboratory setting.

NURS 3312 - Fundamental Concepts of Care
Credit Hours: 3.0  
Lecture Contact Hours: 45  
Lab Contact Hours: 0  
Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 4521.

Description
This course focuses on utilization of the nursing process as a systematic approach to provide safe, evidenced based foundational care to adult patient.

Additional Fee N

NURS 3313 - Fundamental Clinical
Credit Hours: 3.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 90  
Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 4521.
Corequisite: NURS 3312 Fundamental Concepts. Credit for or concurrent enrollment in: NURS 3314 Pharmacology.
**Description**
This course focuses on utilization of the nursing process as a systematic approach to provide safe, evidenced based foundational care to adult patient.

**Additional Fee** N

**NURS 3314 - Pharmacology**
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 45  
**Lab Contact Hours:** 0  
**Prerequisite:** NURS 3310, NURS 3311, NURS 3315, NURS 4521.  
**Corequisite:** Credit for or Concurrent Enrollment In: NURS 3312, NURS 3313.

**Description**
A foundational overview of pharmacology emphasizing the basics of drug knowledge including pharmacotherapeutics, pharmacodynamics, and pharmacokinetics. Drug therapy across the lifespan is incorporated.

**Additional Fee** N

**NURS 3315 - Pathophysiology**
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Description**
Focuses on the pathophysiological basis of disease processes. Central concepts include symptoms, treatment, and prognosis across the lifespan. Mechanism and principles that underlie pathogenesis provide a basis for evidence-based practice.

**NURS 3331 - Nursing Professional Role II**
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** NURS 3230

**Description**
An open discussion forum to enable development of skills focusing on management principles and theories to provide professional nursing leadership.

**NURS 3332 - Nursing Professional Role III**
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** NURS 3331.

**Description**
This course focuses on political, legal, ethical and advocacy issues affecting health care and professional nursing practice.

**NURS 3337 - Reading and Interpreting Scientific Literature**
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** Statistics Course.

**Description**
The study of statistical procedures and scientific methods to enable critique of nursing research, use of scientific literature and evaluation of evidence-based nursing practice.

**NURS 3440 - Introduction to Evidence-Based Nursing Practice**
**Credit Hours:** 4.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 3  
**Prerequisite:** Admission to the College of Nursing.  
**Corequisite:** Credit for or concurrent enrollment in NURS 3631 and NURS 3633.

**Description**
Provides foundational overview of evidence-based nursing practice, health assessment, pathophysiology, and beginning data collection strategies. History, physical examination, data collection and critical analysis in situations of health and illness are emphasized.

**NURS 3631 - Nursing Process for Symptom Management**
**Credit Hours:** 6.0  
**Lecture Contact Hours:** 6  
**Lab Contact Hours:** 0  
**Prerequisite:** Admission to the College of Nursing.  
**Corequisite:** Credit for or concurrent enrollment in NURS 3247, NURS 3440, NURS 3633.

**Description**
Focus is on the utilization of the nursing process as a systematic approach to symptom management and psychosocial care of patients across the life span.

**NURS 3633 - Clinical Nursing Practice I**
NURS 3634 - Clinical Nursing Practice II
Credit Hours: 6.0
Lecture Contact Hours: 0  Lab Contact Hours: 18  Prerequisite: Credit for or concurrent enrollment in NURS 3440, NURS 3631, and NURS 3247.

Description
This course provides clinical practice opportunities in acute care and psychiatric settings to enable the beginning student to acquire basic symptom management and communication skills.

NURS 3636 - Nursing Process for Collaborative Practice I
Credit Hours: 6.0
Lecture Contact Hours: 6  Lab Contact Hours: 0  Prerequisite: NURS 3631, NURS 3633.
Corequisite: NURS 3634.

Description
Course provides clinical practice opportunities in acute care and maternal/child settings to enable the student to acquire intermediate nursing care skills.

NURS 3735 - Clinical Nursing Practice III
Credit Hours: 7.0
Lecture Contact Hours: 0  Lab Contact Hours: 21  Prerequisite: NURS 3634, NURS 3636.
Corequisite: NURS 3737.

Description
Focuses on care of the older adult, adult, child, and child bearing families experiencing alterations in tissue integrity and healthcare needs.

NURS 3737 - Nursing Process for Collaborative Practice II
Credit Hours: 7.0
Lecture Contact Hours: 7  Lab Contact Hours: 0  Prerequisite: NURS 3634, NURS 3636.
Corequisite: NURS 3735.

Description
Focuses on health promotion, prevention, and management of complex health problems across the life span of patients, families and communities.

NURS 4211 - Mental Health Concepts of Care
Credit Hours: 2.0
Lecture Contact Hours: 30  Lab Contact Hours: 0  Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 4521.
Corequisite: NURS 4213 Credit for or Concurrent Enrollment in: NURS 3312, NURS 3313.

Description
This course focuses on utilization of the nursing process as a systematic approach to symptom management and evidence based care of patients with alterations in mental health.

Additional Fee

NURS 4212 - Informatics in Health Care
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: Admission to Nursing.

Description
Introduces students to basic concepts and tools associated with the structure, management and communication of information to support the role of the nurse as a knowledge worker. Emphasis will be placed on use of clinical information systems, electronic health records and telecommunication technologies in nursing.

NURS 4213 - Mental Health Care Clinical
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 90  Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 4521.
Corequisite: NURS 4211 Credit for or concurrent enrollment in: NURS 3312, NURS 3313, NURS 3314.
Description
This course provides clinical practice opportunities to enable the beginning student to acquire basic symptom management and communication skills to care for adults, families, and communities with alternations in mental health.

Additional Fee N

NURS 4215 - Maternal, Newborn, and Women
Credit Hours: 2.0
Lecture Contact Hours: 30  Lab Contact Hours: 0  Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 3312, NURS 3313, NURS 3314.

Description
This course focuses on collaborative care of the women, newborn, and child bearing families.

Additional Fee N

NURS 4216 - Perioperative Nursing Clinical Elective
Credit Hours: 2.0
Lecture Contact Hours: 1  Lab Contact Hours: 3  Prerequisite: NURS 3631.

Description
Focuses on the role of the nurse in the Perioperative setting. Emphasizes aspects of communication, asepsis, and patient safety within the Perioperative setting. Designed to be an elective course for and limited to undergraduate baccalaureate nursing students.

NURS 4217 - Maternal, Newborn, and Women's Health Clinical
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 90  Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 3312, NURS 3313, NURS 3314.
Corequisite: NURS 4215 and credit for or concurrent enrollment in: NURS 4316, NURS 4417.

Description
This course provides clinical practice opportunities in infant and childbearing settings to enable the student to acquire intermediate nursing care skills.

Additional Fee N

NURS 4218 - Emergency Nursing
Credit Hours: 2.0
Lecture Contact Hours: 1.0  Lab Contact Hours: 3.0  Prerequisite: NURS 3631 - Nursing Process for Symptom Management.

Description
Focus on emergency/trauma care of patients. Introduction to concepts and skills required in Emergency Department settings. Clinical work in assigned facility.

Note: Clinical 32 hours in assigned facility.

NURS 4219 - Pediatric Concepts of Care
Credit Hours: 2.0
Lecture Contact Hours: 30  Lab Contact Hours: 0  Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 3313, NURS 3312, NURS 3314, NURS 4521.
Corequisite: NURS 4221 and credit for or concurrent enrollment in: NURS 4316, NURS 4417.

Description
This course focuses on interdisciplinary care of the pediatric patient and family.

Additional Fee N

NURS 4220 - Clinical Decision Making
Credit Hours: 2.0
Lecture Contact Hours: 2.0  Lab Contact Hours: 0.0  Prerequisite: NURS 3631.

Description
Review of fundamental concepts of nursing care required for licensure examination and entry into the practice of professional nursing. Includes assessment of cognitive deficits, planning and implementation of needed remediation.

NURS 4221 - Pediatric Clinical
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 3313, NURS 3312, NURS 3314, NURS 4521.
Corequisite: NURS 4219, and credit for or concurrent enrollment in: NURS 4316, NURS 4417.
This course provides clinical practice opportunities in well child, chronic, and acute care settings to enable the student to acquire intermediate nursing care skills for pediatric patients.

**NURS 4297 - Special Topic in Nursing**  
Credit Hours: 2.0  
Lecture Contact Hours: 2.0  
Lab Contact Hours: 0.0  
Description  
Approved by Instructor

**NURS 4312 - Leadership and Management in Professional Nursing Practice**  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: NURS 3310 or NURS 3230  
Description  
Focuses on leadership theories and management principles to provide the foundation for professional nursing administration. Contemporary workplace issues impacting the nurse leader are explored.  
Core Category: (81) Writing in the Disciplines (CAO)

**NURS 4314 - Nursing Research**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Statistic Course.  
Description  
Introduces the research process and presents research methods commonly used by nurse researchers. The importance of critical appraisal of nursing research and appropriate utilization of research findings in professional nursing practice are emphasized.

**NURS 4316 - Medical Surgical Concepts of Care**  
Credit Hours: 3.0  
Lecture Contact Hours: 45  
Lab Contact Hours: 0  
Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 3313, NURS 3312, NURS 3314, NURS 4521.  
Description  
This course focuses on utilization of the nursing process as a systematic approach to symptom management and psychosocial care of adult patients.

**NURS 4318 - High Acuity Concepts of Care**  
Credit Hours: 3.0  
Lecture Contact Hours: 45  
Lab Contact Hours: 0  
Prerequisite: NURS 4521, NURS 3311, NURS 3315, NURS 3312, NURS 3313, NURS 4211, NURS 4213, NURS 3314, NURS 4316, NURS 4417.  
Corequisite: NURS 4419 and credit for or concurrent enrollment in NURS 4215/4217 or NURS 4219/4221.  
Description  
This course focuses on management of complex health problems in the adult population.

**NURS 4322 - Policy and Ethics in Professional Nursing Practice**  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  
Lab Contact Hours: 0.0  
Prerequisite: NURS 3310 or NURS 3230.  
Description  
This course focuses on policy, legal, ethical and advocacy issues affecting health care and professional nursing practice.

**NURS 4417 - Medical Surgical Clinical**  
Credit Hours: 4.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 99  
Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 3312, NURS 3313, NURS 3314, NURS 4521.  
Corequisite: NURS 4316.  
Description  
This course provides clinical practice opportunities in acute care settings to enable the student to acquire intermediate nursing care skills for adult patients.

**NURS 4419 - High Acuity Clinical**
NURS 4520 - Concept Integration in Patient Care Management
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 6  Prerequisite: NURS 3310, NURS 3311, NURS 3315, NURS 4312, NURS 4314, NURS 4322, NURS 4521.
Description
Focuses on integration of principles for interdisciplinary care management of patients, families, and populations across practice settings. Allows opportunities for knowledge synthesis in the provision of nursing care in varied settings utilizing the decision-making process. Expansion of the professional clinical role by demonstrating entry level competencies of BSN graduate roles to coordinate continuous quality care through the utilization of evidence-based practice in patient care management across practice setting is emphasized. Clinical instruction is individualized and focuses on application of the nursing process in direct care, teaching, interventions, and assessment of the clinical site for individuals and families.

NURS 4521 - Community Health Nursing
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 6  Prerequisite: Credit for or Concurrent Enrollment in NURS 3310, NURS 3311, NURS 3315.
Description
This course introduces the concept of community as client. The focus is on providing culturally appropriate care to populations within the public health frame work. Allows opportunities for knowledge synthesis in the provision of nursing care in community-based and community health settings. Clinical instruction focuses on application of the nursing process to families, groups, communities and populations.

Optometry

OPTO 1300 - Introduction to Health Professions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Introduction to health care delivery systems in the U.S. with emphasis on the role of various professions (e.g., optometry, medicine, osteopathy, dentistry, pharmacy, nursing, podiatry, social work, clinical psychology, allied health professions). For students considering careers in the health professions.

Petroleum Engineering

PETR 1111 - Introduction to Petroleum Engineering
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: Engineering undergraduate standing or consent of program.
Description
Overview of petroleum industry and petroleum engineering including nature of oil and gas reservoirs, petroleum exploration and drilling, formation evaluation, completion and production, reservoir mechanics, and improved oil recovery.

PETR 2111 - Petroleum Petrophysics Lab
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 2  Prerequisite: Credit for or concurrent enrollment in PETR 2311.
Description
Laboratory study of lithology, porosity, effective permeability, relative permeability, fluid saturations, capillary characteristics, compressibility, rock stress and rock-fluid interactions.

PETR 2311 - Reservoir Petrophysics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 1331, MATH 1432, PHYS 1321, Credit for or concurrent enrollment in MATH 2433, PETR 1111, PETR 2111 and PHYS 1322.
Description
Systematic theoretical and laboratory study of lithology, porosity, effective permeability, relative permeability, fluid saturations, capillary characteristics, compressibility, rock stress and rock-fluid interactions.

**PETR 2313 - Reservoir Fluids**
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 1  Prerequisite: CHEM 1332, MATH 2433, PETR 2111, PETR 2311, PHYS 1322.
Corequisite: Credit for or concurrent enrollment in MECE 2334 and MATH 3321.
Description
Evaluation and correlation of physical properties of reservoir fluids.

**PETR 3310 - Petroleum Production Economics**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and 3321, PETR 2313 and 3362.
Description
Estimation of initial reservoir contents; production forecasting; versus time, primary, secondary and tertiary methods; evaluation of costs and risks versus expected rewards; and various US and international contracting techniques.

**PETR 3315 - Introduction to Well Logging**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and 3321, PETR 2313 and PHYS 1322.
Description
Modern well logging methods and engineering. Integration of cores with well logs.

**PETR 3318 - Drilling Engineering I**
Credit Hours: 3
Lecture Contact Hours: 2  Lab Contact Hours: 1  Prerequisite: MATH 3321, MECE 3400, and PETR 2313.
Corequisite: Credit for or concurrent enrollment in PETR 3363.
Description
Drilling systems and fluids, pressure loss calculations, well cementing, prediction of flow rates and pressure drop through conduits, calculation of static and flowing bottomhole pressures, well deliverability, artificial lift.

**PETR 3321 - Petroleum Pressure Transient Testing**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PETR 3362.
Description
Determination of reservoir permeability, pressure, and structural features from analysis of transient pressure data.

**PETR 3362 - Reservoir Engineering I**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and 3321, and PETR 2313.
Description
Rock and fluid properties, P-V-T behavior of crude oil and natural gas, fundamentals of fluid flow through porous media, reservoir energy.

**PETR 3363 - Fluid Mechanics for Petroleum Engineers**
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 2333, MATH 3321, MECE 2334, Petroleum Engineering Major.
Description
Foundations of petroleum fluid mechanics, fluid statics, kinematics, laminar and turbulent flow; macroscopic balances; dimensional analysis and flow correlations. Radial flow into a wellbore.

**PETR 3372 - Petroleum Production Operation**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 2433 and 3321, and PETR 2313.
Description
Subsurface production fundamentals for producing oil and gas wells with technical emphasis on reservoir inflow, multiphase outflow through the wellbore and surface piping to the separation facility, and artificial life methods.
PETR 4301 - Reservoir Characterization and Modeling
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 3363 and PETR 3362.
Description
Modern reservoir characterization techniques including geostatistical methods designed to capture the influence of geology on fluid flow storage. Derivation of the system of PDEs for fluid flow in porous media.

PETR 4311 - Petroleum Capstone Project I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 3363, PETR 3315, PETR 3318, PETR 3362 and PETR 3372.
Description
Applications of analytical, experimental, and computational techniques in open-ended petroleum engineering problems.

PETR 4312 - Petroleum Capstone Project II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PETR 4311 in previous semester and credit for or concurrent enrollment in PETR 3310, PETR 3321 and PETR 4301.
Description
Determination of rock porosity, permeability, density, fluid saturation, capillary pressure, compressive and tensile strength, and mechanical properties of rocks. Applications of analytical, experimental, and computational techniques to open-ended petroleum engineering problems.

PETR 5302 - Reservoir Engineering II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PETR 3362, 3313, and 2311.
Description
Capillary pressures; vertical distribution of gas, oil, and water; relative permeability and fractional flow relationships; Buckley-Leverett equation and linear displacement efficiency of gas and water drives: areal and vertical sweep.

PETR 5350 - Natural Gas Engineering
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PETR 3362.
Description
Comprehensive study of natural gas engineering. Supply of natural gas including exploration, production unconventional resources, transportation, processing, conversion, and fuel cells.

PETR 5352 - Shale Reservoirs
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PETR 3315, PETR 3318, PETR 3362, and PETR 3372.
Description

PETR 5397 - Selected Topics
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CHEE 3363 or equivalent, and senior or graduate standing in engineering.
Description
May be repeated for credit when topics vary.

Pharmacy Interdepartmental

PHAR 2362 - Principles of Drug Action
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
A critical examination of man's environment with particular emphasis on the mechanism of drug action and the benefits and risks of drug usage and exposure to chemicals.
Core Category: [30] Life & Physical Sciences
Philosophy

PHIL 1301 - Introduction to Philosophy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly PHIL 1340
Prerequisite: ENGL 1303.
Description
Introduction to philosophy: issues such as the nature and extent of knowledge, the objectivity of scientific theories, the rationality of theistic belief, and human freedom.
Core Category: [40] Language, Philosophy, & Culture
TCCNS Equivalent: PHIL 1301

PHIL 1305 - Introduction to Ethics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
A historical introduction to the main problems and questions of moral philosophy.
Core Category: [40] Language, Philosophy, & Culture
TCCNS Equivalent: PHIL 2306

PHIL 1321 - Logic I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310.
Description
Techniques for analyzing statements and evaluating arguments, primarily through use of the apparatus of modern symbolic logic.
Note: May not be taken for credit by students who already have credit for PHIL 2321.
Core Category: [90] Math/Reasoning
TCCNS Equivalent: PHIL 2303

PHIL 1334 - Minds and Machines
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
Perspectives on issues from recent sciences of the mind: Is human psychology a product of evolution? Does thought depend on language? Is our visual world constructed by our brains?
Core Category: [81] Writing in the Disciplines

PHIL 1361 - Philosophy and the Arts
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303
Description
Introduction to philosophical topics in the visual and performing arts, including criticism, interpretation, moral issues, and cultural contexts.
Core Category: [50] Creative Arts

PHIL 2321 - Logic II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHIL 1321 or consent of instructor.
Description
Predicate logic with identity, and selected topics, including an introduction to metalogic.

PHIL 3304 - History of Seventeenth Century Philosophy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.
Description
Philosophy of the seventeenth century: Descartes, Spinoza, Liebniz, and Locke.

PHIL 3305 - History of Eighteenth Century Philosophy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.

Description
Philosophy of the eighteenth century: Hume, Berkeley, and Kant.

PHIL 3321 - Logic III
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHIL 2321 or its equivalent.

Description
Formalized theories and their properties: consistency, completeness, and decidability.

PHIL 3332 - Philosophy of Language
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.

PHIL 3333 - Metaphysics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.

Description
Theories of being.

PHIL 3334 - Philosophy of Mind
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: six semester hours in philosophy or consent of instructor.

Description
The mind body problem, perception, personal identity, consciousness, and freedom.

PHIL 3335 - Theory of Knowledge
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.

Description
Theories of knowledge.

PHIL 3342 - Philosophy of Mathematics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHIL 2321.

Description

PHIL 3344 - Philosophy of Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.

PHIL 3349 - Philosophy of the Social Sciences
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: 3 hours in Philosophy or consent of instructor.

Description
Philosophical issues arising in such social sciences as psychology, archaeology, anthropology, and economics. May be repeated for credit with approval of department chair when topics vary.

PHIL 3350 - Ethics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.

Description
Selected problems in moral philosophy.
PHIL 3351 - Contemporary Moral Issues
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: 3 semester hours in philosophy or consent of instructor.
Description
Philosophical analysis of contemporary issues such as abortion, affirmative action, the treatment of animals, capital punishment, euthanasia, and famine relief.

PHIL 3354 - Medical Ethics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.
Description
Moral problems in the practice of medicine and in the design of health care systems.

PHIL 3355 - Political Philosophy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.

PHIL 3356 - Feminist Philosophy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.
Description
An investigation of the major issues and approaches of feminist philosophy.

PHIL 3357 - Punishment
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.
Description
This course examines a range of philosophical theories of punishment, paying close attention to what these theories presume about human agency and responsibility.

PHIL 3358 - Classics in the History of Ethics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Analysis of central works in the history of philosophical ethics, by selected authors such as Plato, Aristotle, Hobbes, Butler, Hume, Kant, Mill, and Sidgwick.
May be repeated for credit with approval of department chair when authors vary.

PHIL 3361 - Philosophy of Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy or consent of instructor.

PHIL 3371 - Depiction, Narration, and Critical Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy not including PHIL 1321, PHIL 2321, or consent of instructor.
Description
Representation in the plastic and literary arts, and its relationship to critical theory.

PHIL 3375 - Law, Society, and Morality
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy.
Description
An introduction to philosophy of law. Topics include the nature, function, and moral evaluation of law and legal systems.

PHIL 3376 - Philosophy and the Scientific Revolution
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours in philosophy and junior standing, or consent of instructor.
**Description**
Philosophical issues at the heart of the scientific revolution of the sixteenth and seventeenth centuries.

**PHIL 3377 - Philosophy of Religion**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Prerequisite: three semester hours in philosophy or consent of instructor.

**PHIL 3382 - Medieval Philosophy**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Prerequisite: three semester hours in philosophy or consent of instructor.

**PHIL 3383 - History of Ancient Philosophy**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Prerequisite: three semester hours in philosophy or consent of instructor.

**PHIL 3386 - History of Nineteenth Century Philosophy**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Prerequisite: three semester hours in Philosophy or consent of instructor.

**PHIL 3387 - History of American Philosophy**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Prerequisite: three semester hours in philosophy or consent of instructor.

**PHIL 3388 - History of Twentieth Century Philosophy**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Prerequisite: three semester hours in philosophy or consent of instructor.

**PHIL 3395 - Selected Topics in Phil**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Prerequisite: six semester hours in philosophy or consent of instructor.  
May be repeated for credit with approval of chair.

**PHIL 3398 - Independent Study**
Credit Hours: 3.0

**PHIL 3399 - Senior Honors Thesis**
Credit Hours: 3.0  
Prerequisite: approval of department chair.

**PHIL 4198 - Independent Study**
Credit Hours: 1.0

**PHIL 4398 - Independent Study**
Credit Hours: 3.0

**PHIL 4399 - Senior Honors Thesis**
Credit Hours: 3.0  
Prerequisite: approval of department chair.
Physical Education Basic Instruction Program

PEB 1101 - Role of Exercise and Fitness on Health
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
Analysis of physical fitness and cardiovascular disease risk and the development of an individualized exercise program for health promotion.

PEB 1102 - Indoor Cycling
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
Proper techniques of cycling to maintain or improve cardiovascular and neuromuscular health through instructor guided activities and assignments.

PEB 1107 - Hatha Yoga
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
Hands-on instruction of yoga postures, movements, breathing exercises, and relaxation techniques with an introduction to its supporting philosophies.

PEB 1120 - Beginning Swimming
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
The teaching of beginning and advanced swimming techniques.
May be repeated for credit when topics vary.

PEB 1130 - Golf
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
The concepts and skills involved in a variety of recreational and individual sports.
May be repeated for credit when topics vary.

PEB 1135 - Beginning Karate
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
The concepts and skills involved in a variety of recreational and individual sports.
May be repeated for credit when topics vary.

PEB 1144 - Basketball
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
The teaching of skills and concepts of various team sports.
May be repeated for credit when topics vary.

PEB 1146 - Soccer
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
The teaching of skills and concepts of various team sports.
May be repeated for credit when topics vary.

PEB 1149 - Beginning Volleyball
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
The teaching of skills and concepts of various team sports.
May be repeated for credit when topics vary.

PEB 1151 - Weight Training
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
Understanding and development of fitness through a variety of exercise activities.
May be repeated for credit when topics vary.

PEB 1152 - Fitness and Weight Control
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
Understanding and development of fitness through a variety of exercise activities.
May be repeated for credit when topics vary.

PEB 1153 - Conditioning
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
Understanding and development of fitness through a variety of exercise activities.
May be repeated for credit when topics vary.

PEB 1154 - Rhythmic Aerobics
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Description
Understanding and development of fitness through a variety of exercise activities.
May be repeated for credit when topics vary.

PEB 4197 - Selected Topics
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0

Physics

PHYS 1101 - General Physics Laboratory I
Credit Hours: 1.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 3.0  Prerequisite: Credit for or concurrent enrollment in PHYS 1301.
Description
Experiments in mechanics. Credit may not be applied toward degree for both PHYS 1101 and PHYS 1121.
TCCNS Equivalent: PHYS 1101
Additional Fee $2.00 Fee Type Lab Fee

PHYS 1102 - General Physics Laboratory II
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: credit for or concurrent enrollment in PHYS 1302.
Description
Experiments in thermodynamics, electricity, magnetism, and optics. Credit may not be applied toward a degree for both PHYS 1102 and PHYS 1122.
TCCNS Equivalent: PHYS 1102
Additional Fee $2.00 Fee Type Lab Fee

PHYS 1121 - University Physics Laboratory I
Credit Hours: 1.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 3.0  Prerequisite: Credit for or concurrent enrollment in PHYS 1321.
Description
Experiments in mechanics and wave motion. Credit may not be applied toward a degree for both PHYS 1121 and PHYS 1101.
TCCNS Equivalent: PHYS 2125
Additional Fee $2.00 Fee Type Lab Fee

PHYS 1122 - University Physics Laboratory II
Credit Hours: 1.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 3.0  Prerequisite: Credit for or concurrent enrollment in PHYS 1322.
Description
Experiments in thermodynamics, electricity, magnetism, and optics. Credit may not be applied toward a degree for PHYS 1122 and PHYS 1102.
TCCNS Equivalent: PHYS 2126

**Additional Fee** $2.00 Fee Type Lab Fee

**PHYS 1301 - Introductory General Physics I**

Credit Hours: 3.0

Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: MATH 1330 or equivalent.

**Description**
First semester of a two part non-calculus-based course covering mechanics of one- and two-dimensional motion, dynamics, energy, momentum, rotational dynamics and kinematics, statics, gravity, oscillations, waves and fluids.

**Note:** Primarily for majors other than physics and engineering. Credit may not be applied toward a degree for both PHYS 1301 and PHYS 1321.

**Core Category:** [30] Life & Physical Sciences

TCCNS Equivalent: PHYS 1301

**PHYS 1302 - Introductory General Physics II**

Credit Hours: 3.0

Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: PHYS 1301.

**Description**
Second semester of a two part non-calculus-based course covering thermodynamics, electricity, magnetism, electromagnetic waves, optics, and modern physics.

**Note:** Primarily for majors other than physics and engineering. Credit may not be applied toward a degree for both PHYS 1302 and PHYS 1322

**Core Category:** [30] Life & Physical Sciences

TCCNS Equivalent: PHYS 1302

**PHYS 1305 - Introductory Astronomy - The Solar System**

Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in MATH 1310 or MATH 1311.

**Description**
Introduction to history and development of astronomy from pre-Greek times through the modern eras. Keller’s laws, Newton's laws, recent experimental results from planetary and interplanetary probes, origin and evolution theories for the solar system.

**Note:** May not apply to course or GPA requirements for a major or minor in the College of Natural Sciences and Mathematics.

**Core Category:** [30] Life & Physical Sciences

**PHYS 1306 - Introductory Astronomy - Stellar and Galactic Systems**

Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in MATH 1310 or MATH 1311.

**Description**
Introduction to optics, atomic physics, nuclear physics, and current astrophysical measurement techniques; stellar structure and evolution; galactic structure and evolution; cosmology.

**Note:** May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics.

**Core Category:** [30] Life & Physical Sciences

**PHYS 1321 - University Physics I**

Credit Hours: 3.0

Lecture Contact Hours: 3.0  Lab Contact Hours: 1.0  Prerequisite: Credit for or concurrent enrollment in MATH 1432.

**Description**
First semester of a two part calculus-based course covering mechanics of one- and two-dimensional motion, dynamics, energy, momentum, rotational dynamics and kinematics, statics, gravity, oscillations, waves and fluids.

**Note:** Primarily for science and engineering majors. Credit may not be applied toward degree for both PHYS 1321 and PHYS 1301.

**Core Category:** [30] Life & Physical Sciences

TCCNS Equivalent: PHYS 2325

**Additional Fee** $2.00 Fee Type Lab Fee

**PHYS 1322 - University Physics II**

Credit Hours: 3.0

Lecture Contact Hours: 3.0  Lab Contact Hours: 1.0  Prerequisite: PHYS 1321 and credit for or concurrent enrollment in MATH 2433.

**Description**
Second semester of a two part calculus-based course covering thermodynamics, electricity, magnetism, electromagnetic waves, optics, and modern physics.
**Note:** Primarily for science and engineering majors. Credit may not be applied toward degree for both PHYS 1322 and PHYS 1302.

**Core Category:** [30] Life & Physical Sciences  
TCCNS Equivalent: PHYS 2326  
**Additional Fee** $2.00  
**Fee Type** Lab Fee

**PHYS 3110 - Seminar in Advanced Laboratory Analysis**  
**Credit Hours:** 1.0  
**Lecture Contact Hours:** 1  
**Lab Contact Hours:** 0  
**Prerequisite:** PHYS 1122 and PHYS 1322.  
**Description**  
A lecture course to accompany the advanced physics laboratory. Lectures in systemic and random error analysis, basic mechanical and electrical measurement techniques, elementary circuit analysis, graphical and computer analysis of data and general principles of experimental and laboratory technique.  
May not be repeated for credit.

**PHYS 3112 - Modern Optics Laboratory**  
**Credit Hours:** 1.0  
**Lecture Contact Hours:** 0.0  
**Lab Contact Hours:** 3.0  
**Prerequisite:** Credit for or concurrent enrollment in PHYS 3110 and PHYS 3312.  
**Description**  
Experiments in geometric optics, interference, diffraction, polarization, holography, Fourier transform optics, graded index optics, and nonlinear optics.

**PHYS 3214 - Advanced Laboratory II**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Formerly** PHYS 3114  
**Prerequisite:** PHYS 1122, PHYS 1322, PHYS 3313 and PHYS 3315.  
**Description**  
Measurement of e and contemporary experiments in superconductivity, optical spectroscopy, blackbody radiation, alpha-radiation, ESR, and chaotic systems.  
**Additional Fee** $2.00  
**Fee Type** Lab Fee

**PHYS 3305 - Introduction to Astrophysics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** PHYS 3315 and MATH 3331 or consent of instructor.  
**Description**  
Experimental techniques; stellar structure and evolution; galactic astronomy and cosmology; space research with emphasis on the most recent results from interplanetary spacecraft.

**PHYS 3309 - Intermediate Mechanics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** MATH 3331 and PHYS 1322.  
**Description**  
Particle and rigid body dynamics, moving coordinates, variational principles, Lagrange and Hamilton's formalisms, small oscillations, mechanics of continuous media.

**PHYS 3312 - Modern Optics**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** PHYS 1322 or, with consent of instructor, PHYS 1302 and MATH 2433.  
**Description**  
Geometric optics, optical instruments, electromagnetic waves, interference, diffraction, polarization, lasers, holography, Fourier transform optics, and nonlinear optics.

**PHYS 3313 - Advanced Laboratory I**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 3  
**Prerequisite:** PHYS 1122, PHYS 1322 and credit for or concurrent enrollment in PHYS 3110 and PHYS 3315.  
**Description**  
Measurement of e/m, h/e, g; contemporary experiments in microwave diffraction and interference, quantized energy levels, energy distribution of beta-radiation, and chaotic systems.
Core Category: [81] Writing in the Disciplines
Additional Fee $2.00 Fee Type Lab Fee

PHYS 3315 - Modern Physics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: PHYS 1301 and PHYS 1302, or PHYS 1322, and credit for or concurrent enrollment in MATH 3331.
Description
The fundamental concepts of quantum physics and relativity. Applications to atomic structure and spectra, black body radiation, solid state physics, and nuclei.

PHYS 3316 - Quantum Mechanics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: PHYS 3315.
Description
Fundamental concepts of quantum mechanics: wave properties, uncertainty principles, Schroedinger equation, and operator and matrix methods.

PHYS 3327 - Thermal Physics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: PHYS 3309.
Description
The laws of thermodynamics, elementary probability theory, kinetics and Brownian motion, equilibrium statistical mechanics of ideal systems; statistical origins of heat, temperature, and entropy are stressed.

PHYS 3396 - Senior Research Project
Credit Hours: 3.0
Prerequisite: Directed research project culminating in a departmentally approved report. PHYS 3396 and PHYS 4396 must be satisfied in order for any to apply to a degree.

PHYS 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.
Description
PHYS 3399 and PHYS 4399 must be satisfied in order for any to apply to a degree.

PHYS 4151 - Physics Internship
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0 Prerequisite: Physics major with junior or higher standing; written permission of Department Chair.
Description
Enhancement of concepts and techniques learned in the classroom and laboratory through work experience directly related to the chemistry profession.
Note: Employer evaluation and written report required.

PHYS 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: approval of chair.

PHYS 4297 - Selected Topics-Physics
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0

PHYS 4298 - Independent Study
Credit Hours: 2.0

PHYS 4321 - Intermediate Electromagnetic Theory I
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHYS 1322 and MATH 3363.

**Description**
Electrostatics, magnetostatics.

**PHYS 4322 - Intermediate Electromagnetic Theory II**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHYS 4321.

**Description**
Maxwell's equations, solutions of Maxwell's equation for unbounded and bounded problems, radiation, and special relativity.

**PHYS 4337 - Introduction to Solid State Physics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHYS 1322 and PHYS 3315; or consent of instructor.

**Description**
Lattices, reciprocal lattice and diffraction; thermal and elastic properties; cohesive energy of solids; electrons in metals; semiconductors; superconductivity; magnetism.

**PHYS 4340 - Research Methods**
Credit Hours: 3.0  
Lecture Contact Hours: 2  Lab Contact Hours: 2  Prerequisite: CUIN 3351 and one of CHEM 1111, CHEM 1117, BIOL 1161, BIOL 1162, PHYS 1101, PHYS 1121 or equivalent, or consent of instructor.

**Description**
Students perform four independent inquiries, combining skills from mathematics and science to solve research problems.

**PHYS 4342 - Science By Inquiry**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: CUIN 3351 and either PHYS 1301 or PHYS 1321.

**Description**
This course is designed to build students' deeper conceptual understanding of science concepts and pedagogical knowledge through a process of guided inquiry.

**PHYS 4345 - Physics for Pre-Service Teachers**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: EDUC 3301 or CUIN 3321.

**Description**
Course for preservice teachers designed to build content knowledge and effective pedagogical approaches to teaching science. Students will engage in discovery-learning modules and integrate the TEKS into their science lessons.

**PHYS 4350 - Computational Physics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHYS 3315, MATH 3331, and COSC 1306.

**Description**
Simulation of classical and quantum mechanical problems on digital computers using numerical and modern programming techniques.

**Additional Fee** Y

**PHYS 4356 - Introduction to Particle Physics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHYS 3316.

**Description**
Basic building blocks of matter, quarks and leptons, and their interactions; symmetry principles, such as discrete symmetries (C, P and T) and flavor symmetries based on the SU(N) groups; violation of some of the symmetries, such as parity symmetry in weak interactions. Phenomenology will be summarized in the framework of the Standard Model.

**PHYS 4360 - Suborbital Methods in Space and Atmospheric Physics**
Credit Hours: 3  
Lecture Contact Hours: 3  Lab Contact Hours: 2  Prerequisite: MATH 1431 Calculus I.
**PHYS 4370 - Nanophysics**
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PHYS 1322 Univ Phys II.

**Description**
Theory and principles of a broad range of characterization methods ranging from proximal probes to optical techniques used to study the world at the nanoscale level.

**PHYS 4396 - Senior Research Project**
Credit Hours: 3.0
Prerequisite: Directed research project culminating in a departmentally approved report. PHYS 3396 and PHYS 4396 must be satisfied in order for any to apply to a degree.

**PHYS 4397 - Selected Topics-Physics**
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Senior standing and consent of instructor. Such topics as solid state, nuclear, theoretical, and space physics.
May be repeated for credit when topics vary.

**Note:** May be repeated for credit when topics vary.

**PHYS 4398 - Independent Study**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

**PHYS 4399 - Senior Honors Thesis**
Credit Hours: 3.0
Prerequisite: PHYS 3399 and approval of department chair.

**Description**
PHYS 3399 and PHYS 4399 must be satisfied in order for any to apply to a degree.

**PHYS 4421 - Electronic Devices and Their Applications**
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 3  Prerequisite: PHYS 1122 or consent of instructor.

**Description**
Electronic circuits and devices with applications to scientific research.

**Additional Fee** $2.00  Fee Type Lab Fee

**PHYS 4498 - Independent Study**
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

**Policy**

**POLC 4342 - Political Economy and Ethics of Market Processes**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.

**Description**
Explores the relation between citizens and market processes in basic market mechanism concepts, the role of government in market processes, and the ethics and morality in market processes.

**Additional Fee** N

**Political Science**
POLS 1107 - Texas Constitution and Government
Credit Hours: 1.0
Lecture Contact Hours: 1  Lab Contact Hours: 0  Formerly POLS 1107 Federal and Texas Constitution
Prerequisite: by permission only.
Description
Introduction to history and politics of the Texas Constitution and government. Emphasis on functions, structure characteristics, impacts, amendment procedures and political philosophy that underlie written constitution and Texas government.
Note: Enrollment limited to students who have completed 6 hours of Core Government.
Core Category: [70] Government/Political Science

POLS 1333 - Introduction to Political Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Description
General introduction to the study of politics, the various subfields in the discipline, and the variety of approaches.

POLS 1335 - World Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: credit for or concurrent enrollment in ENGL 1303 or consent of instructor.
Description
Analysis of the major conflicts of contemporary world politics from a social science perspective.

POLS 1336 - U.S. and Texas Constitution and Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 2333
Description
Introduction to the constitutions and politics of the United States and Texas, emphasizing constitutional structure, federalism, separation of powers, limited government, public opinion, elections, and civil liberties. (Introductory category)
Core Category: [70] Government/Political Science
TCCNS Equivalent: GOVT 2306

POLS 1337 - U.S. Government: Congress, President, and Courts
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 2334
Description
Introduction to the institutions of government with an emphasis on the congress, the president, and the federal courts. (Introductory category.)
Core Category: [70] Government/Political Science
TCCNS Equivalent: GOVT 2305

POLS 1393 - Selected Topics in Political Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: None.
Description
Special Topics in Political Science.
Note: May be repeated for credit when topics vary.

POLS 2336 - U.S. and Texas Constitutions, Politics, and Institutions
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 1
Description
Constitutions and politics of the United States and Texas, emphasizing constitutional structure; executive, legislative, and judiciary institutions, state and federal; limited government, public opinion, elections, and civil liberties.
Core Category: [70] Government/Political Science

POLS 2340 - Greek Classics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Prerequisite: ENGL 1303 and 1304 or equivalent.
Description
One or more texts in ancient political philosophy. (Introductory category.)
POLS 2346 - The Politics of Greek Theatre
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
A study of the influence of Greek comedy and tragedy on the politics of democratic Athens. (Introductory category.)
Core Category: [50] Creative Arts

POLS 3309 - Democratization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337.
Description
Uses theories of democracy to analyze how democratic institutions function in developing and developed countries. Examines factors that promote democratization, and challenges of democratic consolidation.

POLS 3310 - Introduction to Political Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
Analysis of the texts of political theory from Plato to present to address enduring problems of politics.
Core Category: [81] Writing in the Disciplines

POLS 3311 - Introduction to Comparative Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
Theory and methodology of comparative politics. (Introductory category.)
Core Category: [80] Social & Behavioral Sciences

POLS 3312 - Arguments, Data, and Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
Learn how experts use surveys, experiments, and observations to test claims about politics and policy outcomes.
Core Category: [90] Math/Reasoning

POLS 3313 - Introduction to International Relations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Approaches to international politics, power, the nation-state and nationalism, diplomacy, causes of conflict, sources of interdependence, international law and organization.

POLS 3314 - Introduction to Public Administration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
The political environment of public administration and its basic concepts, structures, and processes in the United States.

POLS 3315 - International Organization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Impact of world politics on international organization and influence of international organization on foreign policy.

POLS 3316 - Statistics for Political Scientists
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310, POLS 1336, and 1337 or equivalent, or consent of instructor.
Description
Statistical analysis of quantitative data in political science. Applied to elections, public policy, business, industry, and economics, facilitating student usage of relevant software for evaluating quantitative data.
Core Category: [90] Math/Reasoning

POLS 3318 - Introduction to Public Policy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
The nature and functions of public policy, policy institutions and processes, and policy evaluations with a primary focus on the United States.

POLS 3319 - Politics of Social Policy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 3380  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Public policy initiatives in areas of civil rights, welfare, education, human resources, and housing, including criteria for evaluating proper impact.

POLS 3320 - Government and Politics in Great Britain
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 4320  Prerequisite: POLS 1336 and POLS 1337 or equivalents, or consent of instructor.

POLS 3321 - Politics of Mexico
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Study of contemporary Mexican politics identifying key players, institutions, and factors involved in Mexico's political development.  Typically Offered: Spring

POLS 3322 - Introduction to Latin American Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 4322  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Major political systems of Latin America.

POLS 3323 - Introduction to the Government and Politics of India
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Introduction to Indian national government, elections, public opinion, political parties, interest groups, foreign relations, Indian political history, and contemporary challenges and issues.

POLS 3324 - Government and Politics in Contemporary Germany
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent or consent of instructor.
Description
Historical and geographical perspectives on recurrent issues in contemporary German politics, such as territorial boundaries, strength of the central state, and appropriate institutions for ensuring democratic stability.

POLS 3325 - Government and Politics of Russia and the Commonwealth
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 4325  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
(see also: Comparative Politics category)
POLS 3326 - Government and Politics in the Middle East  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly POLS 4326  
Prerequisite: POLS 1336 and POLS 1337 or equivalents, or consent of instructor.  
Description  
Cultural and socioeconomic underpinnings of politics; political structures and processes of different states and their international relations.  

POLS 3328 - Politics of the Developing Areas  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 3311 or POLS 3313.  
Description  
Major problems of political, socioeconomic, and cultural development in selected areas of Africa, Asia, and Latin America.  

POLS 3329 - The Nations of Europe  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337 or equivalents, or consent of instructor.  
Description  
Survey of the governments of Europe.  

POLS 3330 - International Political Economy: Policy-Making in a Global World  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly POLS 3330 Comparative Political Economy  
Prerequisite: POLS 1336 and POLS 1337 or equivalents, or consent of instructor.  
Description  
Analysis of business-government relations and challenges to the state in a globalized world from an international and comparative perspectives.  

POLS 3331 - American Foreign Policy  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly POLS 4341  
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.  
Description  
The foreign policy-making process and factors influencing U.S. international behavior, especially since World War II.  

POLS 3333 - Comparative Elections  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.  
Description  
Current political controversies and effects of campaign and election rules on political competition and election outcomes in the United States and other modern democracies. (Comparative Politics category.)  

POLS 3335 - Political Terrorism  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337 or equivalents, and POLS 3313, or consent of instructor.  
Description  
Terrorism as a form of political extremism; structure, dynamics, and tactics of major terrorist groups throughout the world; threat to the United States and methods of counter-terrorism.  

POLS 3336 - Globalization  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337.  
Description  
Examines the political implications of growing economic interdependence, including reciprocal relations between global economy and national/local politics, economics, and society.  

POLS 3340 - Ancient and Medieval Political Thought  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
An examination of the political theories and institutions of the ancient world, with emphasis on works by Plato, Aristotle, Thucydides, Xenophon.
Core Category: [40] Language, Philosophy, & Culture

POLS 3341 - Foundations of Modern Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
A survey of major works of political theory from 16th through 19th centuries, including Machiavelli, Hobbes, Locke, Hume, Rousseau, Marx.

POLS 3342 - Liberalism and Its Critics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
Examination of political theories in the liberal tradition, focusing on protection of individual freedoms against social demands, maintenance of socio-economic equality, and idea of state Neutrality.
Core Category: [40] Language, Philosophy, & Culture

POLS 3343 - Democratic Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
A critical examination of the theoretical principles and practical conditions for popular control of government, with particular attention to the historical foundations and development of democracy.

POLS 3344 - International Law and the Law of War
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Introduction to legal principles and procedures of recognized public international law and laws of war.

POLS 3345 - National Security Law
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Constitutional and Congressional allocation and judicial review of war-making powers, security issues and organizations, control/oversight of intelligence gathering and covert operations, terrorism, the use of the military.

POLS 3346 - Human Rights
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Exploration of the scope, protection, and enforcement of international human rights and the politics surrounding their protection.

POLS 3347 - Multiculturalism in Theory and Practice
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
An examination of political theories that grapple with how we should treat cultural, religious, racial, and gender differences in a multicultural and pluralistic world.

POLS 3348 - Left, Right, and Center
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Study of the principles of conservative and progressive politics political theories and their historical roots.
Core Category: [81] Writing in the Disciplines
POLS 3349 - Foundations in American Political Thought
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Introduction of fundamental questions in American political experience. Emphasis on period from Founding to Civil War.
Core Category: [81] Writing in the Disciplines

POLS 3350 - Public Law - Political Theory
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
The philosophical and theoretical underpinnings of Anglo-American legal system, and its impact on public policy, separation of powers, and constitutional change.

POLS 3351 - Law in Literature and Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: POLS 1336, and 1337, or Consent of Instructor.
Description
Study of how literature and film change and reflect laws and the practice of law.

POLS 3352 - Immigration: Politics and Policy in the U.S.
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: POLS 1336 and POLS 1337.
Description
Provides a general understanding of the importance of immigration as a national interest. Discusses the theories, institutions, and actors that shape policy in the U.S. Also, addresses historical and contemporary debates on policy and changing public opinion.
Additional Fee N

POLS 3353 - Policy and Administration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Formerly POLS 3389
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
The role of administrative agencies in policy formation and implementation. Topics include agency organization, procedures, political influences, interpersonal behavior, and compliance.

POLS 3354 - Law and Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Formerly POLS 4354
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
How the values and attitudes of society influence the content and enforcement of the law, and how changes in the law causes changes in society.
Core Category: [80] Social & Behavioral Sciences

POLS 3355 - Judicial Process
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Formerly POLS 4355
Prerequisite: POLS 1336.
Description
Development and operations of courts and related institutions; impact of judicial decisions upon the political system.

POLS 3356 - Introduction to Constitutional Law
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Formerly POLS 4356
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
American constitutional law using major Supreme Court cases and other materials.
POLS 3357 - Constitutional Law: Civil Liberties
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 4357
Prerequisite: POLS 3356.
Description
American constitutional principles related to the area of civil rights and civil liberties.

POLS 3358 - Judicial Behavior
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 4359
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Judicial decision-making process in single-judge and collegial courts; interaction among judges on collegial courts.

POLS 3359 - Criminal Justice
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Workings of the criminal justice system. Examines their victims, communities, and the police.

POLS 3360 - Politics and Mass Media
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Impact of the mass media coverage on American political institutions, the election process, and public opinion in general and the appropriate role of media and news in a society.

POLS 3361 - Politics and Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
An examination of enduring political problems through the study of classic works of literature.

POLS 3362 - Political Campaign Management
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Description
A nuts-and-bolts of how to begin and manage a political campaign throughout and up until election day. The applied elements will include real world examples and experiences.

POLS 3363 - Groups in the Political Process
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Organizational characteristics of interest groups; types of political interest groups; strategy and tactics of group politics; impact on policy and the political system in general.

POLS 3364 - Legislative Processes
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336.
Description
Organization, operation, behavior, and functions of American legislatures; emphasis usually on Congress.

POLS 3365 - Polls, Public Opinion, and American Democracy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1337, or equivalent, or consent of instructor.
Description
Reliability of polls predictions, use by public officials on publically preferred policies, and whose opinions are followed and whose are ignored and why. Analysis the methods of polling and effect on the results.

**POLS 3366 - Political Parties**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1337.

Description
History and organization of political parties in the United States; function of parties for the political system; electoral base of American political parties.

**POLS 3367 - United States Campaigns and Elections**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly POLS 3367 Presidential Elections
Prerequisite: POLS 1337.

Description
Using both historic and current elections to examine strategies candidates employ, the role of money and media, and how voters respond.

**POLS 3368 - Race, Gender and Ethnic Politics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337 or equivalents, or consent of instructor.

Description
Examines the roles, strategies and different levels of success minority groups and women have had in the American political system.

**POLS 3369 - The Presidency**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336.

Description
Role of the president and the bureaucracy in policy-making, emphasizing the influence of the man on the office and the office on the man.

**POLS 3370 - State Government and Politics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.

Description
Problems facing the states in the 20th century; roles of the legislature and governor; party systems, finances, and taxation; nature of governmental policies.

**POLS 3371 - Introduction to Urban Politics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.

Description
The city and its environment including social, economic, and governmental problems resulting from increased urbanization.

**POLS 3372 - Latino Politics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.

Description
Analysis of the cultural, economic, sociological, and psychological roots of the political life of Latinos and their impact on current political struggles.

**POLS 3373 - Inside Texas Politics**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: POLS 1336, and 1337, or Consent of Instructor.

Description
Advanced approach to Texas politics from before the Texas revolution to today. Examines the roots of the State's political culture, scandals, battles over policy, party shifts, voting trends, and the characters that have shaped Texas.

**POLS 3375 - Health Policy and Politics**
POLS 3376 - Black Political Thought
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalents, or consent of instructor.
Description
Explores the lives and writings of prominent African Americans to explore how black political thought has evolved and developed.

POLS 3380 - Political Economy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Study of systems for allocating scarce resources. Consideration of the strength and weaknesses of market solutions and political solutions to allocation questions.

POLS 3381 - Political Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
Survey of the psychological approaches to the study of mass political behavior including authoritarianism, cognitive dissonance, and functional theories. (American Politics category.)

POLS 3382 - Politics and Religion in South Asia
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly POLS 3382 The Strategy of Politics
Prerequisite: POLS 1336 and 1337 or equivalent, or permission of instructor.
Description
Examination of caste politics, ethnic conflicts, social movements, gender hierarchy, and regionalism and their influence of religion on electoral behavior, governance, policy-making, social movements, and political crises.

POLS 3385 - Introduction to Law
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Legal reasoning, legal processes, and seven different fields of law. Allows a realistic assessment of the properties, advantages, and shortcomings the legal system.

POLS 3386 - Criminal Law and the Criminal Justice System
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337.
Description
Study of criminal justice system, crimes, and defenses in the United States.

POLS 3387 - Politics in Film and Television
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
An examination of enduring political problems through the study of film and television and the effects of each on the American public and electorate.

POLS 3389 - European Union Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
Political and economic institutions of the European Union.
POLS 3390 - Women in Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Study of women's roles in the political system beginning with the attainment of suffrage and continuing through current problems of mobilization and recruitment to office.

POLS 3391 - Political Scandals
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
Examination of contemporary American political scandals.

POLS 3394 - Selected Topics in Political Theory and Methodology
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
New topics in political theory or methodology.

POLS 3395 - Selected Topics in American Government
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
New topics in the U.S. government and politics.

POLS 3396 - Selected Topics in Comparative Politics and International Politics
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
New topics comparative and international politics.

POLS 3397 - Selected Topics in Public Law
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
New topics in U.S. and Comparative Public Law

POLS 3399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: approval of department chair.
Description
POLS 3399 and POLS 4399 must be satisfied in order for any to apply to a degree.

POLS 4198 - Independent Study
Credit Hours: 1.0

POLS 4298 - Independent Study
Credit Hours: 2.0

POLS 4328 - Party Politics in Latin America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalents, or consent of instructor.
Description
Comparative introduction to party politics and democratic governance in Latin America with emphasis on problems of democratic consolidation and economic development in the region.
POLS 4333 - Islam and Democracy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalents, or consent of instructor.
Description
Focuses on the evolution of democratic Islamic thinking and its compatibility with Western notions of democracy.

POLS 4334 - Strategy in International Relations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
Survey of strategic approach to international relations using game theory to examine roles of individual choice and strategic interaction in war, crisis-bargaining, economic cooperation, international institutions, and terrorism.

POLS 4340 - Intelligence Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337, or equivalent, or consent of instructor.
Description
Fundamentals of collection and evaluation of intelligence information.

POLS 4341 - Risk Analysis and Assessment
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337, or equivalent, or consent of instructor.
Description
Complexities of assessments, perceptions, and decision making regarding threats to commercial/national/homeland security.

POLS 4342 - Political Economy and Ethics of the Market Processes
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
Description
Explores the relation between citizens and market processes in basic market mechanism concepts, the role of government in market processes, and the ethics and morality in market processes.

POLS 4343 - Causes and Politics of War
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalents.
Description
Comparative analysis of the causes of armed conflict throughout history and the role that human nature and politics play.

POLS 4344 - Equal, Just & Democracy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
An examination of alternative standards of equality, justice, and democracy, with an emphasis on how economic, political, and social benefits and burdens are distributed in the context of current controversies such as affirmative action, compensatory education, and the governance of science. (Political Theory category.)

POLS 4346 - Greek Political Thought
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304; POLS 1336 and POLS 1337 or equivalent; and POLS 3310 or POLS 3343, or consent of instructor.
Description
A study of Greek political thought of the fifth and fourth centuries B.C. This course emphasizes analytical writing. (Political Theory category.)

POLS 4347 - Religion and Politics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and POLS 1337 or equivalent, or consent of instructor.
Description
Explores religion/political interaction from the Enlightenment to present. Includes secularism, separation of church/state, political liberalism, attempts to accommodate different religions, and Islamic scholars on the relationship of religion and politics. Typically Offered: Fall

**Additional Fee N**

**POLS 4348 - Contemporary Islamic Political Thought**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Description**
Survey of trends in Islamic political thought including Islamic Modernism, Political Islam, and contemporary liberal Muslim political thinkers.

**POLS 4349 - International Energy Politics**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Description**
History, major issues, and trends in international utilization, production, management, and distribution of energy from both an international relations and comparative political standpoint.

**POLS 4350 - Political Economy of War**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** POLS 1336, and 1337, or consent of instructor.  
**Description**
Examines the intersection of economic and security issues in international relations, specifically how economics affects war and war economics.

**POLS 4365 - National Defense Policy**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** POLS 1336 and POLS 1337 or equivalent, or consent of instructor.  
**Description**
The evolution of U.S. national defense strategy and policy making.

**POLS 4366 - Constitutional Design**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** POLS 1336 and 1337 or equivalents, or consent of instructor.  
**Description**
Study of the history and theory of constitutionalism - ancient and modern - and practical conditions of constitutional governance, with special attention to American constitutional tradition.

**POLS 4390 - Government Internship**
Credit Hours: 3.0  
**Lecture Contact Hours:** 1  **Lab Contact Hours:** 6  **Prerequisite:** POLS 1336 and POLS 1337 or equivalent, and consent of instructor.  
**Description**
Internships in offices of selected local, state, and national government officials and correlated readings.

**POLS 4391 - Internships in International Affairs**
Credit Hours: 3.0  
**Lecture Contact Hours:** 0  **Lab Contact Hours:** 6  **Prerequisite:** POLS 1336 and 1337 or equivalent and consent of instructor.  
**Description**
Internships in offices or for officials of selected local, state, national, and international U.S. government and international corporations.

**POLS 4394 - Sel Top-Pol Theory/Meth**
Credit Hours: 3.0  
**Lecture Contact Hours:** 3  **Lab Contact Hours:** 0  **Prerequisite:** POLS 1336 and 1337 or equivalents, or consent of instructor.  
**Description**
(Political Theory and Methodology categories.) May be repeated for credit when topics vary.

**POLS 4395 - Sel Top-Am Govt/Urb Pol**
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
May be repeated for credit when topics vary. (American Politics category.)

Note: May be repeated for credit when topics vary. (American Politics category.)

POLS 4396 - Sel Top-Comp & Intl Pol
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalents, or consent of instructor.
Description
(Comparative and International Politics categories.)
May be repeated for credit when topics vary.

POLS 4397 - Selected Topics in Public Law and Public Administration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: POLS 1336 and 1337 or equivalent, or consent of instructor.
May be repeated for credit when topics vary. (Public Administration and Public Law categories.)

POLS 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair. (Departmental category.)

POLS 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: POLS 3399 and approval of department chair.
Description
POLS 3399 and 4399 must be satisfied in order for any to apply to a degree.

POLS 4498 - Independent Study
Credit Hours: 4.0

POLS 4598 - Independent Study
Credit Hours: 5.0

Psychology

PSYC 1300 - Introduction to Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in ENGL 1303 or equivalent.
Description
Principles and theories of psychology including methodology and brief analysis of major content areas ranging from development, perception, and learning to motivation/emotion, personality, and social processes.
Core Category: [80] Social & Behavioral Sciences
TCCNS Equivalent: PSYC 2301

PSYC 2301 - Introduction to Methods in Psychology
Credit Hours: 3.0
Lecture Contact Hours: 2  Lab Contact Hours: 2  Prerequisite: PSYC 1300.
Description
Understanding the evaluation of research in psychology, including the conceptual basis of descriptive and inferential statistics and design techniques.
Additional Fee $7.00  Fee Type Course/Lab Fee

PSYC 2335 - Introduction to Health Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300.
Description
Interaction of psychosocial and physical factors in health and illness with emphasis on relevant research, health care delivery and health policy.

PSYC 2344 - Cultural Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly PSYC 4344
Prerequisite: PSYC 1300.
Description
Relationship between ethnicity, socialization, personality, behavior issues related to current race relations.
Core Category: [81] Writing in the Disciplines

PSYC 2350 - Child Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly PSYC 3360
Prerequisite: PSYC 1300.
Description
Intellectual and social development in children and the factors that affect this process.
Core Category: [80] Social & Behavioral Sciences
TCCNS Equivalent: PSYC 2308

PSYC 2351 - Psychology of Adolescence
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly PSYC 3361
Prerequisite: PSYC 1300.
Description
Theory and research of normal adolescent behavior.
Core Category: [80] Social & Behavioral Sciences

PSYC 2380 - Introduction to Social Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300.
Description
Issues and findings in social behavior, interpersonal influences, group membership, and the relations between persons and social systems.

PSYC 3301 - Introduction to Psychological Statistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310.
Description
Introduction to statistical principles and strategies for research on behavior.
Core Category: [90] Math/Reasoning

PSYC 3310 - Industrial-Organization Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300.
Description
Applications of psychological theory and methodology to the problems of recruiting, selecting, training, and motivating individuals in organizational settings.
Core Category: [81] Writing in the Disciplines

PSYC 3325 - Psychology of Personality
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Description
Required for all psychology majors. Theories of personality and their applications to current individual and societal psychological problems.

PSYC 3331 - Psychology of Gender
Credit Hours: 3.0  
*Lecture Contact Hours: 3*  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  

**Description**  
Empirically based gender differences as they impact individual and social behaviors, roles and public policy.  

**Additional Fee** Y

**PSYC 3334 - Psychology & Law**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3*  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  

**Description**  
Presentation and critique of research on human behavior in, or regulated by, legal institutions. Includes a survey of criminal procedure and an analysis of the legal techniques for predicting dangerousness and inferring intent.  

**Additional Fee** Y

**PSYC 3337 - Psychology of Human Sexuality**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3*  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  

**Description**  
Empirical studies regarding adult sexual behaviors, the physiology of sexual behaviors and sexual disorders.  

**Additional Fee** Y

**PSYC 3338 - Psychology of Older Adults**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3*  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  

**Description**  
Lifespan, research-based perspective of the biopsychosocial stages of older adulthood, age 55 and over.  

**Additional Fee** Y

**PSYC 3339 - Introduction To Clinical Psychology**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3*  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  

**Description**  
Survey of the science and practice of clinical psychology and its specialty areas, including discussions or diagnoses and evaluations, empirically-validated interventions and prevention strategies for use with clinical populations.  

**Additional Fee** Y

**PSYC 3341 - Physiological Psychology**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3*  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  

**Description**  
Structural, electrical, and chemical properties of the nervous systems as they relate to behavior, including consideration of current research methods and techniques.  

**Additional Fee** Y

**PSYC 3347 - Problems of Normal Life**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3*  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  

**Description**  
Examines psychological issues and decisions, stressing characteristics of modern living. Presents and discusses coping strategies used to manage these problems.  

**Additional Fee** Y

**PSYC 3350 - Introduction to Cognitive Psychology**  
Credit Hours: 3.0  
*Lecture Contact Hours: 3*  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  

**Description**  
An information-processing approach to human functioning introducing topics in memory, language, thought, judgment, and skilled performance.  

**Additional Fee** Y
PSYC 3351 - Health Psychology Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Assessment of the connection between social psychological theory and research based applications in health related settings; combines traditional lectures and readings with participation in actual field intervention projects.

Additional Fee Y

PSYC 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Open to students with a minimum 3.00 grade point average based on a minimum of 90 semester hours and a psychology grade point average of 3.20. Qualified student selects faculty member to supervise the topic choice and writing of the thesis. PSYC 3399 and 4399 must be satisfied in order for any to apply to a degree.

Additional Fee Y

PSYC 4198 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Independent student projects supervised by a faculty member. Forty-five hours of work on the project are expected for each semester hour of credit.
Note: May be repeated, but no more than six semester hours may count toward psychology major 30-hour requirement.

Additional Fee Y

PSYC 4298 - Independent Study
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Independent student projects supervised by a faculty member. Forty-five hours of work on the project are expected for each semester hour of credit.
Note: May be repeated, but no more than six semester hours may count toward psychology major 30-hour requirement.

Additional Fee Y

PSYC 4301 - Psychology and the Arts
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Explores the arts as source material for understanding those parts of the psyche which are unknown, and how they become known. This course is an open Honors course.

Additional Fee Y

PSYC 4302 - The Psychology of Humor
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Analysis of humor including what makes jokes funny, how they are constructed, and their typologies. Concentration on humor as social commentary, and the historical bases behind the social content.

Additional Fee Y

PSYC 4303 - Advanced Seminar in Psychological Research
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Designing and conducting a psychology research project, including; translating ideas into a research question, research design, measures and materials, data analysis and interpretation, ethical concerns, and writing a psychology manuscript.

Additional Fee Y
PSYC 4304 - History and Systems  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  
Description 
Approaches of major figures and schools to the abiding philosophical, theoretical, and conceptual issues in psychology.  
Additional Fee Y

PSYC 4305 - Persuasion & Behavior  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  
Description 
Social psychological theory analysis and application to social communication, self concept, attitude and behavior change, and information processing.  
Additional Fee Y

PSYC 4306 - Community Service Practica  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  
Description 
Direct experience in the application of psychological theory to a community service program.  
Note: May be repeated once for credit.  
Additional Fee Y

PSYC 4307 - Research Practica  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  
Description 
Intensive experience on a research project which culminates in the production of a scholarly effort such as a professional article or presentation.  
Note: May be repeated once for credit.  
Additional Fee Y

PSYC 4310 - Positive Psychology  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, and PSYC 3301, or consent of instructor.  
Description 
Introduction to character strengths, hope and optimism, mindfulness, curiosity, resilience and healthy aging, and positive aspects of mental health.  
Additional Fee N

PSYC 4311 - Close Relationships  
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, and PSYC 3301, or consent of instructor.  
Description 
Basic theory and research in the psychological study of close relationships with an emphasis on adult romantic relationships. Topics include attraction, relationship cognitions, love and intimacy, sexuality, conflict, divorce, and relationship maintenance strategies.

PSYC 4315 - Human Motivation  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.  
Description 
Research and theory on human motivation and its relationship to outcomes including achievement, interest, creativity in school, sports, the workplace, self-development, self-esteem, emotions, and mental and physical health.  
Typically Offered: Fall and Spring  
Additional Fee N

PSYC 4320 - Theories of Intervention  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
PSYC 4321 - Abnormal Psychology
Credit Hours: 3.0
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  **Prerequisite:** PSYC 1300 and six additional credit hours in psychology.

**Description**
Behaviors considered deviant or pathological and the various approaches to understanding and treating them.

**Core Category:** [81] Writing in the Disciplines

PSYC 4322 - Behavior Modification
Credit Hours: 3.0
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  **Prerequisite:** PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

**Description**
Applied operant behavior theory; operant and respondent paradigms, case studies, and current issues in behavior therapy.

**Additional Fee** Y

PSYC 4341 - Brain & Behavior
Credit Hours: 3.0
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  **Prerequisite:** PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

**Additional Fee** Y

PSYC 4343 - Perception
Credit Hours: 3.0
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  **Prerequisite:** PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

**Description**
Perception in vision and related senses; including sensory processes and organization, motion and space perception, pattern recognition, perceptual learning and development, and sensory-motor coordination.

**Additional Fee** Y

PSYC 4345 - Emotion & Motivation
Credit Hours: 3.0
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  **Prerequisite:** PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

**Description**
Basic concepts of emotions and motivation in both their normal and abnormal mode, with emphasis on their psychological bases.

**Additional Fee** Y

PSYC 4347 - Tests and Measurements
Credit Hours: 3.0
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  **Prerequisite:** PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

**Description**
Assessment tests used in education, industry, psychology; determination and interpretation of reliability and validity; laboratory experience with several tests.

**Additional Fee** Y

PSYC 4350 - Applied Cognitive Psychology
Credit Hours: 3.0
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  **Prerequisite:** PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

**Description**
Applications of cognitive psychology and cognitive science. Emphasis on cognitive approach to learning, thinking, instructional design and communication.

**Additional Fee** Y

PSYC 4352 - Human Memory
Credit Hours: 3.0
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  **Prerequisite:** PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Description
Analysis of empirical evidence and theoretical issues regarding human memory. Topics include organization, coding, and levels of processing.

Additional Fee Y

PSYC 4354 - Brain and Behavior
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Relationship between the structure and function of the human central nervous system and the behavior of both normal and impaired individuals.

Additional Fee Y

PSYC 4360 - Child Abuse: Interdisciplinary Perspective
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Dynamics of child maltreatment, consequences of abuse for victims and society, and the impact and limitations of current interventions and public policy.

Additional Fee Y

PSYC 4361 - Parent-Child Relations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Theory and research on parent-child relations from infancy through adolescence with emphasis on parental influence on children’s social, emotional, and cognitive development.

Additional Fee Y

PSYC 4363 - Abnormal Child Psych
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Introduction to childhood psychopathology, in the context of normal child development, with emphasis on psychological factors responsible for deviations.

Additional Fee Y

PSYC 4371 - Organizational Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Theory and research on work motivation, leadership, and related aspects of group behavior in organizations.

Additional Fee Y

PSYC 4372 - Interviewing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Skill development in personnel interviewing; includes tape-recorded practice interviews and discussion of theoretical issues and research findings.

Additional Fee Y

PSYC 4373 - Personnel Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.

Description
Psychological knowledge and methods applied to personnel problems of selection and training, including job behavior description and evaluation, assessment strategies, employee development, and fair employment concerns.

Additional Fee Y
PSYC 4380 - Applied Social Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Description
Application of social psychological theory and research to significant social issues.
Additional Fee Y

PSYC 4387 - African American Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Description
The psychological experience and contribution of African Americans in a multi-cultural world.
Additional Fee Y

PSYC 4397 - Selected Topics in Psychology
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Note: May be repeated, but no more than six semester hours may count toward 30-hour psychology major requirement.

PSYC 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Description
Independent student projects supervised by a faculty member. Forty-five hours of work on the project are expected for each semester hour of credit.
Note: May be repeated, but no more than six semester hours may count toward psychology major 30-hour requirement.
Additional Fee Y

PSYC 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Description
Qualified student selects faculty member to supervise the topic choice and writing of the thesis. PSYC 3399 and 4399 must be satisfied in order for any to apply to a degree.
Additional Fee Y

PSYC 4498 - Independent Study
Credit Hours: 4.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Description
Independent student projects supervised by a faculty member. Forty-five hours of work on the project are expected for each semester hour of credit.
Note: May be repeated, but no more than six semester hours may count toward psychology major 30-hour requirement.
Additional Fee Y

PSYC 4598 - Independent Study
Credit Hours: 5.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: PSYC 1300, PSYC 2301, PSYC 3301 (or equivalent), or consent of instructor.
Description
Independent student projects supervised by a faculty member. Forty-five hours of work on the project are expected for each semester hour of credit.
Note: May be repeated, but no more than six semester hours may count toward psychology major 30-hour requirement.
Additional Fee Y

Quantitative Social Science

QSS 2300 - Statistical Concepts and Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: MATH 1310 or equivalent.
Description
Introduction to descriptive statistics, probability and sampling theory, and inferential statistics. Emphasis on applying quantitative techniques to practical problems in public policy, political behavior, and social psychology.

**QSS 3301 - Regression Analysis**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: QSS 2300 or equivalent.
Description

**QSS 3302 - Research Design**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: QSS 2300 or equivalent, or consent of instructor.
Description
Designing, executing, and evaluating a research project. Data collection techniques in the social sciences, including experiments, surveys, archives and census data, and field research. Identifying and framing research questions. Research ethics.

**QSS 3303 - Research Quality Assurance**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: QSS 3302 or equivalent.
Description
Assessment, measurement, and interpretation of data. Methods for assuring datasets and databases are accurate, accessible, consistent, reliable, secure, and timely.

**QSS 4393 - Quantitative Social Science Research Project**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Directed research project requiring original data collection and data analysis. May be repeated for credit.

**QSS 4397 - Selected Topics in Quantitative Social Science**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: QSS 2300 or equivalent, junior or senior standing, and consent of instructor.
Description
Selected topics in Quantitative Social Sciences. May be repeated for credit when topics vary.

**QSS 4398 - Independent Study in Quantitative Social Science**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Special problems requiring individualized instruction. May be repeated for credit.

**Religious Studies**

**RELS 1301 - Introduction to Religious Studies**
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304  Core Category: [40] Language, Philosophy, & Culture
Description
Comparative, interdisciplinary, and thematic approach to the study of religion, including analysis of Western and non-Western rituals, art, language, systems of thought and practices.

**RELS 2310 - The Bible and Western Culture I**
Credit Hours: 3.0  Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Bible as a primary document of Western culture, basic to the understanding of the western philosophical, literary, cultural, and scientific tradition. Focus on ideas developed in Hebrew Bible (Old Testament) and their literary, philosophical and political impact.

Core Category: [40] Language, Philosophy, & Culture

RELS 2311 - The Bible and Western Culture II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Bible as a primary document of Western culture, basic to the understanding of the western philosophical, literary, cultural, and scientific tradition. Focus on ideas developed in the New Testament and their literary, philosophical and political impact.
Core Category: [40] Language, Philosophy, & Culture

RELS 2330 - Judaism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly RELS 3310  Prerequisite: ENGL 1304
Description
Judaism from the post-biblical era to the present, including ancient, medieval, and rabbinic literature, philosophy, and mysticism; Jewish responses to modernity and the Holocaust; American and Israeli Judaism.
Core Category: [40] Language, Philosophy, & Culture

RELS 2335 - Rabbinic Biblical Interpretation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.
Description
Exploration of Rabbinic biblical interpretation in its socio-historical, literary, and theological contexts, including primary sources in translation, intertextuality, the nature of interpretation and role of biblical interpretation in contemporary society.
Additional Fee Y

RELS 2340 - Introduction to Hinduism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Historical and conceptual introduction to Hinduism: ancient and classical forms in addition to their modern manifestations, including forms these traditions take in the United States.
Core Category: [81] Writing in the Disciplines

RELS 2345 - Sacred Texts and Mythologies of India
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Examination of Hindu texts and narratives about the nature of the universe and the self, various deities, genealogies of important kings and heroes and descriptions of cosmology and geography.

RELS 2350 - Introduction to Islam
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or ENGL 1310 .
Description
Introduction to Islam from its origins in the Koran, the Hadith, the Sunna, to its later interpreters; impact of Muslim ideas on politics, law, and culture in diverse societies. modern manifestations, including forms these traditions take in the United States.
Core Category: [81] Writing in the Disciplines

RELS 2360 - Introduction to Buddhism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or ENGL 1310 .
Description
Introduction to Buddhist thought, practice, culture(s), and history. Traces the historical development of Buddhism and examines a variety of Buddhist
traditions. Assessments for Social Responsibility and Personal Responsibility

Core Category: [81] Writing in the Disciplines

RELS 2372 - The Bible and Modern Pop Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Explore the making of modern representations and interpretations of the Bible. We will discuss biblical citations, interpretations, and reimaginings in a variety of forms, including art, literature, movies, music, comics, Internet culture, and advertising. Lectures will center on modern interactions with specific biblical texts, such as the creation narrative, the flood stories, the biography of King David, and the character of Jezebel. Students will also learn from one another; each student will be tasked with finding and presenting to the class a pop culture representation of a biblical text.
Core Category: [40] Language, Philosophy & Culture
Additional Fee N

RELS 2380 - Religion and Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or ENGL 1310 .
Description
Introduction to the study of religions and their portrayal in film; exploration of two-way pervasion of religion and culture and identity.

RELS 2396 - Sel Topics Religious Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent.
Note: May be repeated for credit when topics vary.
Additional Fee N

RELS 3320 - Ritual and Performance
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and ANTH 2302 or RELS 1301
Description
Introduction to the anthropology of ritual and performance theory in comparative cultural and historical perspectives through a series of concrete ethnographic case studies focusing on ritual in religious experience.

RELS 3323 - Continuities: Jewish and Christian Texts and Traditions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and Major or minor in Religious Studies or consent of instructor.
Description
Detailed historical study of the evolution of Jewish rituals and beliefs and how they shaped early Christianity. This course explores the continuing relevance of Judaism, and provides the necessary tools for an in-depth understanding of fundamental Christian concepts.

RELS 3325 - Paul of Tarsus: His Life and Letters
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: RELS 1301 Intro to Religious Studies.
Description
This course offers a detailed historical study of the life of Paul of Tarsus, who is known as one of the Christian apostles. It explores how a persecutor of early Christians could become one of their strongest proponents. Special attention will be given to the interplay of the life of Paul and his major writings.

RELS 3330 - Christianity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Christianity from the post-biblical era to the present, including church fathers, heresies, medieval Christian philosophy, Greek and Latin churches, the reformation, modern and American Christianity.

RELS 3331 - Spiritual and Artistic Traditions of Orthodox Christianity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304; Major or minor in Religious Studies or consent of instructor.
Description
Study of the ritual traditions, music and visual arts of the Eastern Orthodox Church, the world's second largest branch of Christianity.

RELS 3334 - Us and Them: Ethical Decision-Making in Complex Cultures
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Examination of how diverse religions and other cultural belief systems create structures of exclusion and inclusion, tolerance and intolerance, obligation and responsibility in ethical decision-making.

RELS 3335 - Black Atlantic Religions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and ANTH 2302 or RELS 1301
Description
African religious traditions and rituals in the Americas, considering the role and legacy of slavery, as well as the challenges of freedom. Genesis and transformation of Afro-American cultural forms.

RELS 3336 - Caribbean Societies and Cultures
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and ANTH 2302 or RELS 1301
Description
Caribbean societies and cultures in historical and anthropological perspectives on the bonds that unite and distinguish these island and mainland peoples.

RELS 3337 - Theologies from the Margins
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Emphasizes a comparative study of liberation theologies with a focus on Christianity in the United States and on gender, race, and sexuality.

RELS 3339 - Secularisms and Atheisms
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Examines the non-religious history of the United States, the various forms of non-belief or alternative belief, and the everyday life of religious "nones."

RELS 3342 - Religion, Politics, and History
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Examines intersections of religion and politics to study the United States and its history. Possible topics to include censorship, civil religion, demographic changes, economics, gender, laws, politicians, schools, sexuality, race, popular culture representations, and/or rituals.

RELS 3355 - Yoga and Philosophy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Examination of the four different streams of Yoga, one of which incorporates physical postures with particular attention to the Sutras and the Gita. Discussion of contemporary issues related to yoga’s evolution, including modern-day practices.

RELS 3360 - Muslim-Christian Relations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or ENGL 1310.
Description
Historical and comparative overview of Christian-Muslim relations, discussing the significant events and developments. Exploration of key issues that divide Christians and Muslims. Paradigm of relating past, present, and future.
RELS 3366 - History of Magic, Witchcraft and the Occult
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Historical survey of magic, witchcraft and occult ideas, practices and representations. Typically Offered: Fall

RELS 3370 - The Bible and Modern Science
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or ENGL 1310.
Description
Detailed study of the reciprocal influence of modern science and the interpretation of the Bible. Critical examination of contemporary theories of their relationship.
Note: The same assignment will be used to assess all noted competency areas.
Core Category: [81] Writing in the Disciplines

RELS 3371 - Women in the Hebrew Bible/Old Testament
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Study of female characters and voices in the Hebrew Bible (Old Testament), about the places in the Bible where we would expect to hear women's voices but only hear those of men, and about interpretation of the Bible by female and feminist scholars.
Core Category: [40] Language, Philosophy & Culture [81] Writing in the Discipline

RELS 3373 - Jews in the Ancient World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Overview of Jewish history from the Hellenistic period through the rise of the rabbis (c. 4th century B.C.E.-4th century C.E.). The Maccabean Revolt and Hasmonean Dynasty, Herodian Dynasty, Dead Sea Scrolls, sectarianism, the rise of Christianity, and the destruction of Jerusalem in 70 C.E through Jewish literature produced during this period: biblical materials, Apocrypha, Pseudepigrapha, and rabbinic texts.

RELS 3375 - Christianity and Ethics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or ENGL 1310.
Description
Comparison of ethics from a Christocentric perspective and a philosophical perspective. Relationship between Christian thought and western philosophical traditions with regard to classical and contemporary moral issues and their relation to current political and social issues.

RELS 3376 - Themes in Comparative Religion
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and RELS 1301
Description
Religions in comparative contexts.
Approval of instructor required for repeat credit. Typically Offered: Fall

RELS 3377 - Belief and Unbelief: The Search for Meaning
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Historical survey of ideas related to the search for meaning in religious and non-religious contexts. Typically Offered: Fall

RELS 3380 - Introduction to Asian Religions
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304 or equivalent.

Description
Survey of religious and philosophical traditions of Asia focusing on the traditions of Buddhism, Hinduism, Taoism, Confucianism, Jainism, Shinto, and Sikhism.

**RELS 3381 - Global Hinduism**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Cross-Listed As: ANTH 3381

Prerequisite: ENGL 1304 or ENGL 1310.

Description
Examine diversity of Hindu practices outside India; compare Hindu practices/beliefs around the world; introduce paradigms, theories in religious studies, anthropology, sociology to understand how local/global cultures shape communities and religious practices. Assessments for Social Responsibility and Personal Responsibility.

Core Category: [81] Writing in the Disciplines

**RELS 3382 - Politics and Religion in South Asia**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304

Description
Focus on ethno-religious conflicts in South Asia from a historical and contemporary perspective; Effect of religion on electoral and party politics of nations in South Asia.

Typically Offered: Fall

**RELS 3386 - Comparative Study of Buddhism and Christianity**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304 or equivalent.

Description
This course explores the origins and compares the historical, geographical, and scriptural developments of Buddhism and Christianity. It concentrates on the similarities and differences between these two traditions with regard to universal nature of human needs and drives, religious perspectives such as the concepts of body and soul, the relationship between humans and the divine, and religious disciplines and their descriptions relating to food, clothing, gender roles, ritual practices, and the belief systems.

**RELS 3396 - Sel Topics Religious Studies**

Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304 or equivalent.

Note: May be repeated for credit when topics vary.

**RELS 3398 - Independent Study**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Requires approval of Director of Religious Studies or CCS Chair.

Typically Offered: Fall

**RELS 4350 - Religious Studies Internship Practicum**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Description
Independent study option to document acquired experience in an approved internship program in fulfillment of the Religious Studies Practicum requirement.

May be repeated for elective credit.

Note: Requires approval of Director of Religious Studies or CCS Chair.

Typically Offered: Fall

**RELS 4360 - Clash of Civilizations**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304 or equivalent.

Description
Reading and critical analysis of the so called "clash of civilizations" debate focusing on how religion contributes to the clash and the putative possibility that religion might contribute to the amelioration of the problem.

**RELS 4395 - Religious Studies Senior Research Seminar**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304  
Description  
A capstone research option in fulfillment of the Religious Studies Practicum requirement.  
Typically Offered: Contact Your Academic Advisor

**RELS 4396 - Sel Topics Religious Studies**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1304 or equivalent.  
May be repeated for credit when topics vary.

**RELS 4398 - Independent Study**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Requires approval of Director of Religious Studies or CCS Chair.  
Typically Offered: Fall

**Russian**

**RUSS 1501 - Beginning Russian I**

Credit Hours: 5.0  
Lecture Contact Hours: 5  
Lab Contact Hours: 0  
Description  
Credit for both RUSS 1301 and 1501 may not be applied toward a degree. Instruction in understanding, speaking, reading, and writing Russian, including practice sessions and laboratory drills.  
TCCNS Equivalent: RUSS 1511

**RUSS 1502 - Beginning Russian II**

Credit Hours: 5.0  
Lecture Contact Hours: 5  
Lab Contact Hours: 0  
Prerequisite: RUSS 1301 and RUSS 1501 or equivalent.  
Description  
Credit for both RUSS 1302 and 1502 may not be applied toward a degree. Instruction in understanding, speaking, reading, and writing Russian, including practice sessions and laboratory drills.  
TCCNS Equivalent: RUSS 1512

**RUSS 2301 - Second-Year Russian I**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: RUSS 1302 or RUSS 1502 or equivalent.  
Description  
Grammar review, selected readings, conversation, and composition.

**RUSS 2302 - Second-Year Russian II**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: RUSS 2301 or equivalent.  
Description  
Further grammar review, selected readings, conversation, and composition.

**RUSS 2303 - A Survey of Russian Literature in English**

Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: ENGL 1303 or equivalent.  
Description  
No knowledge of Russian is required. First semester: beginnings to 1881; second semester: 1881 to the present.  
Note: Course cannot be applied toward foreign language requirement.

**RUSS 2304 - A Survey of Russian Literature in English**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or equivalent.

Description
No knowledge of Russian is required. First semester: beginnings to 1881; second semester: 1881 to the present.

Note: Course cannot be applied toward foreign language requirement.

RUSS 2398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: RUSS 1301 ; 1302 or equivalent and approval of chair.

RUSS 3304 - Post-Soviet Russia
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: RUSS 2302 or equivalent.

Description
Study of contemporary Russian culture and society through film, television, and the popular press. Taught in Russian.

RUSS 3307 - Soviet and Post-Soviet Cinema: Collapse of the Soviet Realm and Revival of National Identity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Analysis of Soviet and post-Soviet films within their historical, cultural, and aesthetic context with emphasis on the collapse of the Soviet realm and revival of national identity. Taught in English.

RUSS 3398 - Special Problems
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0

RUSS 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

Secondary Education

SEDE 4311 - Teaching Social Studies in the Secondary School
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Education program.

Description
Methods and techniques specific to teaching social studies in the secondary school.

SEDE 4312 - Teaching English in the Secondary School
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: admission to Teacher Education program.

Description
Methods and techniques specific to teaching English in the secondary school.

Social Work

SOCW 3330 - Nonprofit Financial Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and consent of instructor.

Description
Principles of financial management and budgeting in nonprofit human services organizations.

SOCW 3354 - Nonprofit Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing and consent of instructor.
**Description**
Theories, skills, and methods for effective planning and managing in nonprofit human services organizations.

**SOCW 4301 - Internship in Human Services**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SOC 3318, senior standing and consent of instructor.

**Description**
Supervised field experience in management of non-profit youth and human services. May be repeated once for credit.

**Note:** May be repeated once for credit.

**Additional Fee** Y

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**Sociology**

**SOC 1300 - Introduction to Sociology**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Description
Major theories, methods; and findings pertaining to the study of societies, institutions, organizations, and groups. The interrelationships of society, culture, and personality.

Core Category: [80] Social & Behavioral Sciences  
TCCNS Equivalent: SOCI 1301

**SOC 3300 - Introduction to Sociological Theory**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SOC 1300 or consent of instructor.

Description
Analysis of major sociological theorists from the late 19th century to the present; current theoretical issues.

Core Category: [81] Writing in the Disciplines

**Additional Fee** Y

**SOC 3301 - Introduction to Sociological Research**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SOC 3400 or equivalent. Preference given to declared major or minor in SOC.

Description
The logic of social research and an overview of foundational methods in the social sciences.

**SOC 3311 - Sociology of Law**
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SOC 1300.

Description
An examination of the institution of law as it actually operates in society: how legal institutions are structured, how people use law, how it affects us, and how it can be changed.

**SOC 3312 - Sociology of Deviance**
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SOC 1300.

Description
An examination of the social and structural causes of behavior that violate the norm and how society responds to the people it defines as criminal, crazy, strange, immoral, and sick.

**SOC 3313 - Criminology**
Credit Hours: 3  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SOC 1300.

Description
A review of the scientific knowledge of the social dimensions of crime and criminal behavior: its nature and extent, its causes and prevention.
SOC 3314 - Juvenile Delinquency
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
A look into the extent and causes of unlawful behavior among minors and the system of social control developed to manage it.

SOC 3315 - Sexuality and Society
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: SOC 1300 or consent of instructor.
Description
The sociocultural determinants of psychosexual development; the incorporation of the sexual in contemporary institutions and values. Special emphasis on sexual deviants and sexual minorities.
Core Category: (81) Writing in the Disciplines (CAO)

SOC 3316 - Sociology of Sport
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Introduction to sociological perspectives in the study of sport.

SOC 3321 - African American Family
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300 or consent of instructor.
Description
Historical and sociological analysis of the African American family with emphasis on its structure, function, and unique characteristics.

SOC 3324 - Hispanic Identity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Historical, sociocultural, and structural aspects of the construction of identity among Hispanics in contemporary U.S. society.

SOC 3326 - Immigration in US Society
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: SOC 1300.
Description
Patterns of immigration since World War II and resulting societal change.

SOC 3327 - Race and Ethnic Relations in the United States
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Theories of intergroup relations explored in terms of the experiences of racial and cultural groups in the United States. Topics include group identity and politics, ascriptive inequality and discrimination, and cultural pluralism.

SOC 3328 - Race and Ethnicity in World Perspective
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Experiences of racial and ethnic groups of diverse nations in comparative perspective.

SOC 3330 - Introduction to Social Psychology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Perspectives concerning the nature of social man; the explication of a model relating social institutions to character and personality.
SOC 3340 - Sociology of Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Socio-cultural study of themes, production, and distribution of cinema. How film reflects the values and attitudes of society: moral codes, minority groups, family and marital arrangements, sexuality and deviance.

SOC 3341 - Organizations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
This course surveys the sociology literature on formal organizations, thereby introducing students to both the internal workings of organizations and the external pressures that act on them. Particular attention will be paid to the underlying motives of organization, the different types of organization, and the role of organizations in society.

SOC 3342 - Sociology of Work
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: three semester hours of sociology or consent of instructor.
Description
Modern industrialism as social behavior; work groups as social systems; assumption and values with regard to the meaning and place of work in American society.

SOC 3343 - Social Movements
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Characteristics and constructive processes of crowds, publics, and organizations as agents of social change; case studies of specific movements.

SOC 3344 - Sociology of Aging
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
An examination of the personal, interpersonal, and cultural dimensions of aging.

SOC 3345 - Sociology of Death and Dying
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300 or consent of instructor.
Description
Social factors and processes that affect attitudes toward death, dying, grief, and bereavement.

SOC 3346 - Qualitative Research Methods
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300 or consent of instructor.
Description
Experience in participant-observation, interviewing, visual ethnography, and other field-research skills with emphasis on computer usage.

SOC 3349 - Sociology of Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Contemporary theories on how knowledge and culture affect the construction of social reality.

SOC 3350 - Sociology of the Body
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Description
Theoretical and empirical literature on the social body, including social constructivist interpretations and research on body work, "deviance," resistance, and medicalization.
May be repeated for credit.
SOC 3351 - Social Class and Mobility in America
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Class, race, and sex inequalities in power, prestige, and life chances viewed in the context of American occupational structure and social mobility processes.
Core Category: [81] Writing in the Disciplines

SOC 3352 - Population Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
Theory and methods in the study of human populations. Fertility, mortality, migration, trends of world population change, population and the environment and population and economic development.

SOC 3353 - Health Disparities in Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.
Description
An introductory course to the sociological study of health disparities. The principal goal of this course is to gain an overall understanding of the social contributions to health and how this varies by the different social categories we observe in society.

SOC 3355 - Sociology of India
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Historical and sociological perspectives on religion, caste-structure, rural social structure, secularism, kinship and marriage, impact of urbanization in India today.

SOC 3357 - Urban Sociology
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: SOC 1300.
Description
Critical analysis of urban social life, including theories of the city, urban social problems, and contemporary trends.

SOC 3360 - Sociology of Food
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: SOC 1300 or consent of instructor.
Description
Differing perspectives on food practices as they relate to social structure, social systems and sociocultural meanings with an emphasis on contemporary food movements and globalization.
Note: Course instruction for this section takes place both in a classroom face-to-face environment during the scheduled time and additionally by electronic means.
Core Category: (81) Writing in the Disciplines (CAO)

SOC 3361 - Sociology of Gender and Food
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300 or consent of instructor.
Description
This course focuses on the social relationship of gender with social structure, systems, institutions, and cultural values related to food, eating and drink. The course will explore whether and to what extent the study of food and drink presents itself as a particularly insightful means of understanding gender dynamics, divisions and the construction of gendered identity. Because food and drink is part of our daily routine, the hybrid component of the course will allow students the opportunity to apply concepts to their lives as they revisit their eating habits, their family routines, their grocery stores, their restaurants and their on-campus eating patterns.

SOC 3362 - Sociology of Religion of India
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: ENGL 1304
Description
Sociological approaches to the study of religion in Indian society. Spiritual thought in Hindu society, native belief systems and imported religions and their consequences for socio-political integration.

SOC 3365 - Sociology of Education
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: SOC 1300.
Description
Issues confronting American education, including desegregation, student achievement, teacher morale, student dropout behaviors, and teacher turnover.

SOC 3366 - Sociology of Art
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: SOC 1300 or permission of instructor.
Description
Sociological approaches to the study of art worlds, artists, objects. The roles objects and producers can play within society are also explored.

SOC 3370 - Popular Music and Society
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: SOC 1300 or consent of instructor.
Description
Application of sociological theory and methods to the analysis of post- World War II popular music as a social institution with emphasis on its cultural, technological, organizational, political, and mass media contexts.

SOC 3371 - Sociology of the Family
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: three semester hours in sociology or anthropology, or consent of instructor.
Description
The family as an institution; general structures and functions; variation and types of American society.

SOC 3372 - Mexican American Family
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: SOC 1300.
Description
Historical, cultural, and social trends of the diverse living arrangements of Mexican Americans in contemporary U.S. society.

SOC 3373 - Comparative Family Structures
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: SOC 1300 or consent of instructor.
Description
Historical and cross-national variations, with attention to differences between U.S. racial/ethnic groups and the impact of industrialization upon family changes.

SOC 3375 - Religion and Society
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0   Prerequisite: SOC 1300.
Description
Conceptual problems; a typology of churches; examination of the interdependence of religious and other institutional structures.

SOC 3378 - Sociology of Visual Culture
Credit Hours: 3.0
Lecture Contact Hours: 3.0   Lab Contact Hours: 0.0   Prerequisite: SOC 1300.
Description
Critical analysis of use of photographs and other images in contemporary society, from mass media to social media to interpersonal communication.
Note: Computer required for course. For technology resources, visit http://www.uh.edu/infotech. For more information on off-campus location computer labs, visit http://www.uh.edu/distance/locations.

SOC 3380 - Introduction to the Sociology of Health Care
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300 or consent of instructor.

Description
Social factors in genesis and development of disease; health practitioners and practices in cross-cultural perspective; the modern American medical and other health care professions.

SOC 3382 - Sociology of Drug Use and Recovery
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300 or consent of instructor.

Description
Institutional processes shaping the definitions of and responses to substance abuse. Gender, racial, and economic influences on substance usage and recovery.

SOC 3385 - Sociology of World Religions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300 or consent of instructor.

Description
Knowledge of the world's religious systems, social-structural factors associated with their origins and development and the impact on contemporary societies.

SOC 3388 - Visual Sociology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300 or consent of instructor.

Description
Uses of still or moving images as a means to collect social data, enhance interviews, and disseminate findings.

SOC 3390 - Sociology of Gender
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC 1300.

Description
Contemporary gender role stereotypes and their effects on childhood socialization, major social institutions, interpersonal relationships; social movements and changing gender roles.

SOC 3392 - Sociology of Latinos in Houston
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly SOC 3397 Sociology of Latinos in Houston; Soc 3397 Hispanics in Houston
Prerequisite: SOC 1300 or consent of instructor

Description
A sociological examination of Mexican Americans and other Latinos in Houston focusing upon history, demographics, education, politics, culture, and relations with other groups in the city of Houston.

SOC 3395 - Careers in Sociology
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: SOC 1300.

Description
Using a sociological perspective, the course explores careers available to students with a Bachelor's degree in Sociology; we accomplish this through readings, guest speakers, and research about careers in the private/for-profit sector, nonprofit(foundations, public sector (city, county, state, and federal government), and academia (including graduate school).

SOC 3397 - Sel-Topics in Sociology
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Three semester hours in sociology or consent of instructor.

May be repeated for credit when topics vary.
Note: May be repeated for credit when topics vary.

**SOC 3398 - Independent Studies in Sociology**
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  May be repeated once for credit.

**SOC 3399 - Senior Honors Thesis**
Credit Hours: 3
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: 3.25 cumulative GPA and a 3.50 in sociology courses in residence. Completion of SOC 1300, SOC 3300, SOC 3301, SOC 3400, and approval of undergraduate advisor or chair.
Note: Must complete SOC 4399 for Honors credit.

**SOC 3400 - Introduction to Social Statistics**
Credit Hours: 4.0
Lecture Contact Hours: 3  Lab Contact Hours: 2  Prerequisite: SOC 1300, MATH 1310 or equivalent; preference given to declared major or minor in SOC.
Description
Descriptive and inferential statistics used in sociological research. Data analysis using a personal computer.
Additional Fee $2.00  Fee Type Lab Fee

**SOC 4383 - Senior Seminar in Sociology**
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SOC major, senior standing, six hours from: SOC 3300, SOC 3301, or SOC 3400, and nine hours of 3000-4000 level SOC course work.
May be repeated for credit when topics vary.
Note: May be repeated for credit when topics vary.

**SOC 4394 - Internship in Sociology**
Credit Hours: 3.0
Description
Supervised field experience.
May not be repeated for credit.

**SOC 4399 - Senior Honors Thesis**
Credit Hours: 3
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: 3.25 cumulative GPA and 3.50 in sociology courses in residence, completion of SOC 1300, SOC 3300, SOC 3301, and SOC 3400 and approval of the undergraduate advisor or chair.
Note: Must complete two semesters for Honors credit.

**Spanish**

**SPAN 1501 - Elementary Spanish I**
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2  Prerequisite: Placement Exam within a semester prior to enrollment.
Description
Heritage Learners of Spanish are not eligible to enroll. Basic oral, listening, reading and writing skills in Spanish.
TCCNS Equivalent: SPAN 1511

**SPAN 1502 - Elementary Spanish II**
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2  Prerequisite: SPAN 1501 or equivalent with a minimum grade of C- in twelve months prior or by placement exam.
Description
Students with two years or more of high school Spanish within the past five years or heritage learners of Spanish are not eligible to enroll. Credit for SPAN 1502 may not be applied toward a degree by students who have credit for SPAN 1505. Continued basic oral, listening, reading, and writing
skills.
TCCNS Equivalent: SPAN 1512

SPAN 1505 - Intensive Elementary Spanish
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: two or more years of high school Spanish within the past five years or placement by exam.

Description
Heritage learners not eligible to enroll. Credit for SPAN 1505 may not be applied toward a degree by students who have credit for SPAN 1502.
Designed for students who enter with two or more years of high school Spanish or equivalent, but are not prepared to do work at the intermediate level, and students with strong proficiency in another romance language. Intensive practice in oral, listening, reading, and writing skills.

SPAN 1507 - Intensive Elementary Spanish for Heritage Learners
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: Placement by exam or by Director of Basic Language Program.

Description
Designed for students from a Spanish-speaking background. Literacy development in Spanish with emphasis on vocabulary. Intensive reading, writing, and speaking.

SPAN 2198 - Independent Study
Credit Hours: 1.0

SPAN 2301 - Intermediate Spanish I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: successful completion of SPAN 1502 or SPAN 1505 with a minimum grade of C- in twelve months immediately prior to enrollment or by placement exam immediately prior to enrollment.

Description
Heritage speakers not eligible to enroll. Continued development of oral expression and listening comprehension with increased emphasis on reading and writing skills.
TCCNS Equivalent: SPAN 2311

SPAN 2302 - Intermediate Spanish II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: successful completion of SPAN 2301 with a minimum grade of C- in twelve months immediately prior to enrollment or by placement exam immediately prior to enrollment.

Description
Heritage speakers of Spanish not eligible to enroll. Cultural and literary readings, composition, and grammar review.
TCCNS Equivalent: SPAN 2312

SPAN 2307 - Spanish for Hispanic Heritage Learners I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: placement by exam or by Director of Basic Language Program. Credit for both SPAN 2307 and SPAN 2301 may not apply to a degree.

Description
Designed for Hispanic students and other students from a Spanish-speaking background. Basic skills in reading, spelling, and composition.

SPAN 2308 - Spanish for Hispanic Heritage Learners II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: completion of SPAN 2307 with a minimum of C- or placement exam.

Description
Credit for both SPAN 2308 and SPAN 2302 may not apply to degree. Continued development of reading and writing skills, and control of formal Spanish.

SPAN 2398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0 Prerequisite: SPAN 1502 or SPAN 1505 or equivalent or approval of chair.
SPAN 2605 - Intensive Intermediate Spanish for Honors
Credit Hours: 6.0
Lecture Contact Hours: 6  Lab Contact Hours: 0  Prerequisite: honors standing and successful completion of SPAN 1505H or score of 400 or higher on Placement Exam immediately prior to enrollment.
Description
Intermediate Spanish for potential Spanish majors, minors, and highly-motivated students in other areas of study; development of oral expression and listening comprehension with increased emphasis on reading and writing skills and knowledge of Hispanic cultures.

SPAN 2610 - Intensive Intermediate Spanish
Credit Hours: 6.0
Lecture Contact Hours: 6  Lab Contact Hours: 0  Prerequisite: Completion of SPAN 1502 or SPAN 1505 with a minimum grade of C- or placement by exam.
Description
Designed for Second Language learners. Heritage speakers not eligible to enroll. Continued development of oral expression and listening comprehension with increased emphasis on reading and writing skills.
Note: Credit for both SPAN 2610 and SPAN2301/2302 may not apply to a degree.

SPAN 2615 - Intensive Intermediate Spanish for Heritage Learners
Credit Hours: 6.0
Lecture Contact Hours: 6  Lab Contact Hours: 0  Prerequisite: Completion of SPAN 1507 with a minimum grade of C- or placement by exam.
Description
Designed for Hispanic heritage learners and other students from a Spanish-speaking background at the intermediate level. Development of reading and writing skills and control of formal Spanish.
Note: Credit for both SPAN 2615 and SPAN2307/2308 or 2301/2302 may not apply to a degree.

SPAN 3198 - Independent Study
Credit Hours: 1.0

SPAN 3301 - Spanish Oral Communication for Critical Thinking
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 2302 or by placement exam within a semester prior to enrollment.
Description
For students who have learned Spanish as a foreign language. Heritage learners of Spanish should enroll in SPAN 3307. Intensive oral practice in groups, class debates and analytical discussions. Exercise critical thinking skills through the analysis of different texts and other forms of cultural production.

SPAN 3302 - Advanced Spanish for Non-Heritage Learners
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 2302 in the twelve months prior to enrollment or by placement exam within a semester prior to enrollment.
Description
Heritage Learners of Spanish are not eligible to enroll. Cultural and literary readings, composition, and grammar review. Expansion of oral, written, aural, and reading skills through the communicative approach.

SPAN 3305 - Spanish Grammar Review
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 2302 or SPAN 2308.
Description
Review of the fundamental grammatical structures with an emphasis on those aspects of the language which are problematic for students.

SPAN 3306 - Introduction to the Study of the Spanish Language
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3302 or SPAN 3308.
Description
Basic concepts of Spanish linguistics.
SPAN 3307 - Public Speaking in Spanish  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 2308 or SPAN 3301 or placement by examination.  
Description: Intensive practice in composition, strategy and delivery of speeches in Spanish. Recommended for students going into the professions, and for professionals who must use Spanish in formal and professional settings.

SPAN 3308 - Written Communication for Hispanic Heritage Learners  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 2308 or placement test. Credit for both SPAN 3302 and SPAN 3308 may not apply to a degree.  
Description: Designed for students from a Spanish-speaking background. Intensive practice in the writing of Spanish in formal and informal styles.

SPAN 3311 - Advanced Composition and Creative Writing  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3302 or SPAN 3308 or by placement exam within a semester prior to enrollment.  
Description: Intensive practice in advanced Spanish writing in a variety of formal and informal styles. Writing production of most common types, from reports to essays to creative works.

SPAN 3312 - Fundamentals of English/Spanish Translation  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.  
Description: Development of fundamental skills in translating texts from a variety of genres from English into Spanish and vice versa.

SPAN 3331 - Mexican-American Literature  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.  
Description: Literature in Spanish language produced by people of Mexican origin in what is today the United States from the Colonial Period to the present.  
Note: Taught in Spanish  
Core Category: [40] Language, Philosophy, & Culture

SPAN 3339 - Spanish for the Global Professions  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3302 & SPAN 3308.  
Description: All-skills course in the language of various professions, formal varieties of Spanish, the lexicon, language structures, and discourse devices required for communicating effectively in the professional world.  
Additional Fee: Y

SPAN 3341 - Language of Business and Trade  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 2308 or SPAN 3301 and SPAN 3302.  
Description: Spanish terminology for management, marketing, finance, accounting, and international trade.

SPAN 3342 - Cross-Cultural Business Contexts: U.S./Latin America  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307, and SPAN 3302 or SPAN 3308.  
Description: Cultural values, attitudes, and perceptions that affect U.S./Latin American business negotiations and operations.

SPAN 3343 - Spanish for the Health Professions
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3302 or SPAN 3308.

Description
Acquisition of vocabulary, grammar and cultural knowledge necessary for the health professional, by providing skills to communicate effectively with the Spanish-speaking clientele. Writing, listening, reading and speaking practice.

Additional Fee Y

SPAN 3345 - Hispanic Folklore of the Southwest  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.

Description
An introduction to the folklore of the people of Hispanic descent in the Southwest United States.

SPAN 3350 - Women in Hispanic Literature  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.

Description
Major Hispanic female writers from 1637 to the present.

SPAN 3373 - Spanish Culture and Civilization  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly SPAN 4373
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.

Description
Survey of the cultural history of Spain and its relation to major world cultural and political movements. Analysis of major cultural, social, and political topics.

Note: Taught in Spanish.
Core Category: [40] Language, Philosophy, & Culture

SPAN 3374 - Spanish American Culture and Civilization  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Formerly SPAN 4374
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308; ENGL 1304.

Description
Survey of the cultural history of Spanish America. Analysis of major cultural, social, literary, and political topics.

Note: Taught in Spanish.
Core Category: [40] Language, Philosophy, & Culture

SPAN 3375 - United States Hispanic Culture and Civilization  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.

Description
Survey of the cultural history of Hispanics in the United States. Analysis of major cultural, social, literary, and political topics.

Note: Taught in Spanish.
Core Category: [40] Language, Philosophy, & Culture

SPAN 3384 - Introduction to Hispanic Literature  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.

Description
Readings in narrative, poetry, drama, and essay.

Note: Taught in Spanish.
Core Category: [81] Writing in the Disciplines

SPAN 3386 - Screen Memories: Spanish Culture Through Film  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.

Description
Study of major Spanish films in their social, historical, and aesthetic contexts.

**Core Category:** [50] Creative Arts

**SPAN 3394 - Selected Topics in Spanish**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.  
May be repeated for credit when topics vary.

**SPAN 3398 - Independent Study**
Credit Hours: 1.0  
Lecture Contact Hours: 0  
Lab Contact Hours: 0  
Prerequisite: SPAN 2301 and SPAN 2302 or SPAN 2307 and SPAN 2308 or equivalent and approval of chair.

**SPAN 3399 - Senior Honors Thesis**
Credit Hours: 3.0  
Prerequisite: approval of department chair.  
Description  
SPAN 3399 and SPAN 4399 must be satisfied in order for any to apply to a degree.

**SPAN 4198 - Independent Study**
Credit Hours: 1.0

**SPAN 4298 - Independent Study**
Credit Hours: 2.0

**SPAN 4311 - Survey of Spanish Literature to 1700**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3384.  
Description  
Major Spanish writers and literary movements from the Middle Ages to 1700.

**SPAN 4313 - Advanced English/Spanish Translation**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3312.  
Description  
Development of professional skills in translation. Advanced techniques and processes in translation of English/Spanish professional documents.

**SPAN 4321 - Survey of Spanish-American Literature I**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3384.  
Description  
Colonial to Modernismo.

**SPAN 4322 - Survey of Spanish-American Literature II**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3384.  
Description  
Modernismo to present.

**SPAN 4337 - Contemporary Spanish-American Literature**
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: SPAN 3384.  
Description  
Readings of outstanding works by contemporary Spanish-American writers, excluding Mexican.
SPAN 4339 - Spanish-American Short Story
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: SPAN 3384.
Description
Study of Spanish-America's classic short stories as well as its outstanding short stories and their writers.

SPAN 4341 - Advertising and Public Relations for the Latino/a Market
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: SPAN 3341.
Description
Business communications; documentation; reports and proposals; contracts and agreements; business representation; translation and interpretation and other aspects of business etiquette in the Hispanic world.
Additional Fee Y

SPAN 4343 - Health and Society in the Hispanic World
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: SPAN 3343.
Description
Professional training on the health professions. Cultural values, attitudes, and perceptions that affect U.S./Latin American health and society.

SPAN 4356 - Spanish Grammar for Teachers
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.
Description
Rules of Spanish syntax, morphology, and phonology for language teachers.

SPAN 4357 - Spanish Phonetics
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Formerly SPAN 3303 Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.
Description
Description of Spanish sounds, phonetic transcription, comparative analysis of Spanish and English sounds, improvement of Spanish pronunciation.

SPAN 4365 - Spanish-English Contrastive Structures
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.
Description
Applied Linguistics in Spanish; second-language learning problems; contrastive analysis of Spanish and English.

SPAN 4366 - History of the Spanish Language
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: SPAN 3301 and SPAN 3302, or SPAN 3307 and SPAN 3308.
Description
History of Spanish from Latin to Modern Spanish; development of the sound, grammatical, and lexical systems of the language.

SPAN 4367 - U.S. Hispanics and Language
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: SPAN 3301 and SPAN 3302, or SPAN 3307 and SPAN 3308.
Description
A sociolinguistic approach to the Spanish spoken in the U.S. in its contact situation with English.

SPAN 4368 - Mexican Literature in the Twentieth Century
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: SPAN 3384.
Description
Twentieth-century Mexican writing emphasizing the literary expression of the formation of a Mexican national consciousness.
SPAN 4369 - Contemporary Spanish Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3384.
Description
Twentieth-century Spanish writing emphasizing the close analysis of representative works.

SPAN 4371 - Techniques of Teaching Spanish
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3301 or SPAN 3307, SPAN 3302 or SPAN 3308, and SPAN 3305.
Description
Techniques of teaching Spanish for students who are elementary or secondary teacher education majors, or who have designated Spanish as one of their teaching fields.

SPAN 4372 - Literature and the Visual Arts in Modern Spain
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3384.
Description
Study of major artistic movements in nineteenth and twentieth century Spain as interpreted through different modes of artistic expression.

SPAN 4374 - Teaching Spanish to Heritage Learners
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3301 and SPAN 3302, or SPAN 3307 and SPAN 3308.
Description
Heritage language education with an emphasis on teaching Spanish to the English/Spanish bilingual student of Hispanic heritage.

SPAN 4387 - Literary and Legal Translation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3312.
Description
Professional training on translation techniques that are appropriate in the legal and literary fields.

SPAN 4388 - Images of Women in Spanish-American Film and Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3302 and SPAN 3384.
Description
A survey of Latin American films focusing on representation of women in movies and literature.

SPAN 4391 - Latin American and Latino Cultural Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: a 3000-level Spanish language literature course.
Description
May apply to a minor in Latin American studies and minor in world cultures and literatures. May not be applied toward a degree by students who have credit for MCL 4392. Theoretical perspectives on Latin American and Latino cultural processes; their expression in literature, the arts and everyday life.

SPAN 4396 - Topics in Spanish Language and Linguistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3301 or SPAN 3307 and SPAN 3302 or SPAN 3308.
Description
Topics in Spanish language, dialects, and linguistic theory. May be repeated when topics vary.

SPAN 4397 - Topics in Hispanic Writing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPAN 3384.
May be repeated with approval of chair.
SPAN 4398 - Independent Study
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

SPAN 5395 - Selected Topics in Span Linguistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PB standing.
Description
Varied topics dealing with Spanish language, dialects, and linguistic theory.
May be repeated for credit when topics vary.

SPAN 5396 - Selected Topics in Hispanic Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: PB standing.
Description
Varied topics dealing with Peninsular, Latin American, and U.S. Hispanic Literature.
May be repeated for credit when topics vary.

Special Populations

SPEC 3360 - Individuals with Disabilities
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Formerly EPSY3360 Individuals with Disabilities
Description
Disabilities and disability law for educational and professional settings.

SPEC 3361 - Behavior: Interventions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Credit for or concurrent enrollment in SPEC 3360.
Description
Process approach to behavioral intervention planning for individuals and groups. Extensive use of case studies to address needs of diverse populations.
Additional Fee Y

SPEC 4353 - Technology in Special Populations
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly EPSY 4353 Technology in Special Populations
Prerequisite: SPEC 3360.
Description
Knowledge and skills of professionals working in special education to support students with special needs with classroom technology and assistive technology.

SPEC 4362 - Behavior: Evidence-Based Decisions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Credit for or concurrent enrollment in SPEC 3360.
Description
Behavioral observation, assessment, data collection tools, and evidenced-based decisions are presented and practiced. Behavioral analyses are applied in a variety of school, home, and professional settings.
Additional Fee Y

SPEC 4363 - Instructional Interventions
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Credit for or concurrent enrollment in SPEC 3360.
Description
Process approach to instructional planning for individuals/groups. Assessment, accommodations, modifications, IEP development, ARD process, and lesson design/development. Extensive use of case studies to address the needs of diverse populations.
Additional Fee Y
SPEC 4364 - Gifted and Talented Instruction
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Formerly CUIN 4363 Gifted and Talented Instruction
Prerequisite: Major or minor in College of Education.
Description
Issues, principles, instruction, and assessment related to differentiating curriculum for gifted and talented students.

SPEC 4365 - Data-Based Individualization of Instruction
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SPEC 3360 (may be concurrent).
Description
Evidence-based instructional strategies for addressing the learning needs of students with disabilities. Data-based individualization of intervention in the areas of reading, written language, and mathematics. Tools for progress monitoring and making educational decisions are discussed.

SPEC 4367 - Consultation Strategies and Coaching
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly EPSY 4367 Consultation Strategies and Coaching
Prerequisite: SPEC 3360.
Description
Theories and strategies for use with individuals, children, parents, teachers, administrators and others are presented and practiced. Focus on application of skill sets that address the needs of diverse populations.

SPEC 4391 - Student Teaching in Special Education
Credit Hours: 3.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 12.0  Formerly EPSY 4391 Student Teaching in Special Ed
Prerequisite: Admission to Teacher Education program and approval of advisor.
Description
Supervised observation and student teaching in general and special education assignments.

SPEC 4392 - Student Teaching in Special Education
Credit Hours: 3.0
Lecture Contact Hours: 0.0  Lab Contact Hours: 12.0  Formerly EPSY 4392 Student Teaching in Special Ed
Prerequisite: Admission to Teacher Education program and approval of advisor.
Description
Supervised observation and student teaching in general and special education assignments.

SPEC 4397 - Selected Topics in Special Populations
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Consent of instructor.
Description
Selected topics in special populations; topics vary.
May be repeated for credit when topics vary.

Statistics

STAT 3331 - Statistical Analysis for Business Applications I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: BUSI 2305 or alternative with a grade of C or higher; academic good standing; and pre-business major with advisor approval, declared business major, or if required for a declared minor or special programs.
Description
Random variables and their probability distributions; sampling distributions; point and interval estimation; hypothesis testing; correlation and linear regression.

Supply Chain and Logistics Technology
SCLT 2362 - Intro To Logistics Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly LOGT 1362
Description
Functions, processes and objectives of the logistics operation. Industrial distributor and its relationship to other channel members.

SCLT 2380 - Distribution Channels
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly LOGT 3380
Description
Organization and operations of distribution channels with emphasis on vendor evaluation, value analysis, complex pricing, promotional strategies, and execution issues.

SCLT 3340 - Geography for Global Supply Chain
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0
Description
Impact of geography on the broad patterns of global, regional and city scale logistics; the importance of geography on logistics systems within global trade organizations.

SCLT 3375 - Maritime Operations
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SCLT 2362.
Description
In-depth analysis for maritime transportation and its role in the global supply chain. Focuses on port and vessel attributes and activities, and import/export operations as they relate to commerce.

SCLT 3376 - Global Trade Intermediaries
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SCLT 2362.
Description
In-depth analysis for critical intermediaries in a supply chain system, their operations and relationships to business partners, and factors for them to achieve superior supply chain performances.

SCLT 3381 - Industrial and Consumer Sales
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly LOGT 3381
Prerequisite: Junior standing or consent of instructor.
Description
Analysis of consumer bases, product knowledge and applications, benefits selling, competition analysis, and strategies and methods appropriate to inside/outside sales.

SCLT 3384 - Logistics Tech and Processes
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly LOGT 3384
Prerequisite: SCLT 2362 and either junior standing or consent of instructor.
Description
Capacity allocation, facility and flow design, retrieval mechanisms, and inventory control systems; impacts on service and cost performance.

SCLT 3385 - Transport Economics and Policy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SCLT 2362 and ECON 2304.
Description
Cost structures and service capabilities of the major modes of transportation. History and effects of regulatory policies of carriers and shippers.

SCLT 3387 - Procurement
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly LOGT 3387
Prerequisite: SCLT 2362 or HDCS 3303.

Description
Purchasing functions including vendor analysis, negotiations, value analysis, systems contracts, public purchasing, organization, personnel, policies, competitive bids, and ancillary functions.

SCLT 3389 - Transportation Law
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SCLT 2380 and TLIM 3360.

Description
Regulatory and procedural requirements pertaining to domestic and international freight transportation.

SCLT 4312 - Inventory & Materials Handling
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SCLT 3384, and SCLT 3387, or consent of instructor.

Description
Recognition and utilization of mechanical and automated handling systems, tools, and techniques required for the movement and storage of materials within a logistics operation.

SCLT 4375 - Global Supply Chain
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SCLT 3384 or SCLT 3385.

Description
Relationships among international trade specialists, global distribution channels, and governments using international documentation, terms of trade, financial, and legal resources.

SCLT 4380 - Quality Systems
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly LOGT 4380
Prerequisite: SCLT 2362 and TMTH 3360

Description
Quality techniques and systems with an emphasis on statistical analysis.

SCLT 4387 - Financial Evaluation For Supply Chain Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Junior standing.

Description
Identification of costs and financial risk associated with supply chain structures and operations to optimize business value.

SCLT 4389 - Practicum in Supply Chain and Logistics Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly LOGT 4389
Prerequisite: Second semester senior standing in Supply Chain and Logistics Technology major or consent of department.

Description
Team approach to research-oriented problems in the field of logistics technology.

SCLT 4396 - Internship in Supply Chain and Logistics Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of department.

Description
Internship under faculty supervision.

Supply Chain Management

SCM 3301 - Supply Chain Management Fundamentals
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: MATH 1313 ; good academic standing; and one or more of the following: pre-business major with advisor approval, or declared business major, or if required for a declared minor or special program.
Description
Concepts and techniques used to plan, source, make and deliver products and services meeting customer needs in a global environment. Topics include supply chain strategy, forecasting, inventory management, logistics, and operations management, among others.

SCM 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair and the Bauer College’s Office of Undergraduate Business Programs.

SCM 4301 - Logistics Management
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: A grade of C+ or better in SCM 3301, a grade of C or better in STAT 3331, and credit for or concurrent enrollment in SCM 4330 or approved equivalent; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Introduction to the principal concepts and methods used in shipping, storing and delivering products and services. Topics include customer service, transportation, inventory, warehouse management, demand forecasting, facility types/layout and emerging trends in business logistics.

SCM 4302 - Energy Supply Chain
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly SCM 4390  Prerequisite: SCM 3301; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Overview of the physical supply chain that brings energy (oil, natural gas, electricity, nuclear, and alternative forms) from sources to customers, including operations and information management requirements.

SCM 4311 - Project Management
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: SCM 3301; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Management of large-scale and complex one-time ventures. Topics include organizational design, work breakdown structure, network analysis, cost and schedule control, and software application.

SCM 4330 - Business Modeling and Decision Analysis
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: A grade of C+ or better in SCM 3301 and a grade of C or better in STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Application of spreadsheet tools to develop decision-making models, analyze the relevant information, and recommend solutions to business problems. Includes applications in marketing, distribution, product assortment, forecasting, inventory, data analysis and financial planning, among others.
Note: Students cannot receive credit for both BZAN 3310 Introduction to Business Analytics and SCM 4330 Business Modeling and Decision Analysis.

SCM 4350 - Strategic Supply Management
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: A grade of C+ or better in SCM 3301 and a grade of C or better in STAT 3331; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.
Description
Study of processes and procedures for identifying product and service requirements, identifying potential suppliers, negotiating purchase contracts, planning and control of requisitions, vendor development and certification, and performance evaluation of supply systems.

SCM 4351 - Strategic Sourcing and Spend Analysis
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: Junior standing; SCM 4330 and SCM 4350; good academic standing; and one or
more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**

Seven-step strategic sourcing process. Topics include spend analysis, supplier rationalization, leveraged spend, maverick spend and spend leakage, cost analytic models, and Kraljic's portfolio matrix.

**SCM 4362 - Demand and Supply Integration**

**Credit Hours:** 3.0  
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  _Prerequisite:_ SCM 4301; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**

Strategies for demand and supply integration. Topics include: planning and control systems, forecasting, postponement, rapid replenishment, Toyota production system, seasonal planning, requirements and distribution system design, and information technology applications.

**SCM 4367 - Process and Quality Management**

**Credit Hours:** 3.0  
_Lecture Contact Hours: 3.0_  _Lab Contact Hours: 0.0_  _Prerequisite:_ SCM 4330; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**

Application of process design, measurement, analysis and improvement techniques to enhance the operating capabilities of organizations in both service and manufacturing environments, and managing process change within those organizations.

**SCM 4380 - Enterprise Resource Planning**

**Credit Hours:** 3.0  
_Lecture Contact Hours: 3.0_  _Lab Contact Hours: 0.0_  _Prerequisite:_ SCM 4330 and credit for or concurrent enrollment in SCM 4362 good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**

Theory, concepts, and practices associated with ERP systems, which integrate business processes to support decision making. Provides hands-on experience using SAP R/3 and business intelligence tools.

**SCM 4385 - Supply Chain Analytics**

**Credit Hours:** 3.0  
_Lecture Contact Hours: 3.0_  _Lab Contact Hours: 0.0_  _Prerequisite:_ SCM 4330 and credit for or concurrent enrollment in SCM 4362; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**

Supply chain modeling and design using computer simulation, optimization and forecasting software/tools. Applications include service system design, demand planning, transportation planning, facility network design, scarce resource allocation and others. Focus on problem definition, modeling, data collection and preparation, computer solution, and interpreting and communicating results.

**SCM 4390 - Supply Chain Strategy**

**Credit Hours:** 3.0  
_Lecture Contact Hours: 3.0_  _Lab Contact Hours: 0.0_  _Prerequisite:_ SCM 4350 and credit for or concurrent enrollment in SCM 4362; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

**Description**

Examines how to align supply chain processes to best support market product and service needs with the intent of enhancing market competitiveness. Topics include product development, technology management, corporate valuation, product and process matrix, sustainability, global logistics strategy and others.

**SCM 4397 - Selected Topics in Supply Chain Management**

**Credit Hours:** 3.0  
_Lecture Contact Hours: 3_  _Lab Contact Hours: 0_  _Prerequisite:_ Approval of department chair; good academic standing; and one or more of the following: pre-business major with advisor approval, declared business major, or if required for a declared minor or special program.

May be repeated when topics vary.

**Note:** May be repeated for credit when topics vary.
SCM 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  May not be repeated for credit.

SCM 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: approval of department chair and the Bauer College's Office of Undergraduate Business.

Systems Engineering

SYSE 3301 - Fundamentals of Systems Engineering
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 2331.
Description
This course introduces students to fundamental principles and methods of systems engineering and their applications to the development and management of complex systems. The course defines the scope of and methods that systems engineers must acquire to design, develop and manage large-scale engineering systems. These include defining systems, systems development life cycle, systems modelling & testing and systems engineering management.

SYSE 3315 - Systems Architecture & Design
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGI 2304.
Corequisite: SYSE 3301.
Description
This course will study and contrast various important architectural frameworks, representations, tools, and methodologies to provide scalable and flexible approaches for enterprises operating in dynamic and complex environments. System architecting tools and framework will be discussed and demonstrated. Other topics include analysis of architectural alternatives, architecture modelling languages and the use of model-driven architectures, validation of the architecture with stakeholders.

SYSE 3340 - Systems Integration, Verification and Validation
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SYSE 3315.
Description
This course introduces students to the use of systems engineering principles and best practices of systems and systems-of-systems verification and validation (V&V). V&V activities, process, and methodologies will be examined as they apply across the system development life cycle. Systems V&V helps ensure that the designed system meets the intended requirements and specifications and assess and validate solutions to deliver promised outcomes to customers. Students will learn the activities, techniques, and processes for defining and classifying requirements, assessing proposed solutions, and performing solution validation.

SYSE 3355 - Systems Thinking
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SYSE 3301.
Description
This course introduces students to a set of tools and techniques that systems engineers can use to better understand, control and improve the performance of engineering and other complex systems. The tools include system identification and delineation, system leverage points, causal loops and feedback, delays and oscillations, mental models and unintended consequences, emergent properties, patterns, events, and self-organization. Students will learn systems thinking is about understanding an issue by analyzing the whole, rather than the parts and how systems thinking explains the conflicting behavior of individuals, departments, businesses, and countries.

SYSE 4111 - Systems Engineering Seminar
Credit Hours: 1
Lecture Contact Hours: 1  Lab Contact Hours: 0  Prerequisite: SYSE 3301.
Corequisite: INDE 4331.
Description
The Systems Engineering (SE) seminar series will be presented by recognized academic or industrial experts in a variety of fields of SE and related disciplines.
SYSE 4320 - Project Management of Complex Systems
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 3333 and SYSE 3355.
Description
This course introduces methods and tools for planning and managing complex product and system development projects. This course focuses on the preparation, planning, monitoring and adaptation of projects. Students will not only learn both traditional project management (PM) tools and methods, but also advanced PM concepts for managing complex systems.

SYSE 4330 - Healthcare Systems Engineering
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SYSE 3355.
Description
This course introduces important components of healthcare system and examines healthcare operations from systems engineering perspective. Topics include patient flow, patient safety, capacity management, inventory management and logistics, lean thinking, healthcare system performance measures and healthcare policy. Students will have chance to apply industrial and systems engineering tools to improve healthcare system and have better understanding of the role of systems engineering in addressing healthcare issues. This course emphasizes how different parts of the system interact with one another and to consider how changes made to one part of a healthcare system can have unintended consequences on other parts of the system.

SYSE 4332 - Healthcare Informatics and Analytics
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: SYSE 4330.
Corequisite: INDE 4364 (Engineering Data Analytics).
Description
This course provides students an overview of the field of healthcare informatics and analytics by introducing them to the optimal use of health data, information technology and data analytics in healthcare systems. Topics include health information technology, electronic health records data, personal health records, informatics applications, security, privacy and confidentiality in electronic healthcare system, health data analytics and visualization, etc.

SYSE 4334 - Systems Engineering Capstone Design
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: INDE 3333, SYSE 3340, SYSE 3355.
Description
This course requires students to apply the knowledge and techniques gained from the systems engineering curriculum to address and solve open-ended problem(s) supplied by project sponsors. The capstone design project represents a substantive application and evaluation of coursework covered in the systems engineering program.

Technical Mathematics

TMTH 3360 - Applied Technical Statistics
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TMTH 3360 Technical Statistics
Prerequisite: ITEC 1301 and six semester hours in mathematics.
Description
Collection, analysis, presentation, interpretation of numerical data; probability, sampling, quality control with special emphasis on application.
Core Category: [90] Math/Reasoning

Technology

TECH 1313 - Impact of Modern Technology on Society
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: credit for or concurrent enrollment in communication and mathematics Core courses.
Description
Impact of modern technology on ethical, legal, moral, cultural and social behavior standards of society. Basic social/behavioral scientific research methods and review of the technologies.
Core Category: [80] Social & Behavioral Sciences
TECH 1325 - Energy For Society  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Description  
The development of new frontiers in energy technology as well as recent advances in conventional technology for societal needs.

TECH 3365 - Applications of Discrete Methods in Technology  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ITEC 1301 or equivalent.  
Description  
Application of discrete methods in technology with an emphasis on computer applications.

TECH 3366 - Applications of Numerical Methods in Technology  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ELET 2300 and MATH 1431 or equivalents.  
Description  
Applications of numerical methods to engineering technology problems.

TECH 4310 - Future of Energy and the Environment  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303 or ENGL 1304.  
Description  
Social patterns that will drive alternative energy and environmental conditions in the future.

Theatre  

THEA 1111 - Production  
Credit Hours: 1.0  
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: acceptance to the major by audition/portfolio review and consent of instructor.  
Description  
Service on one crew per semester on a rotating basis, developing students' skills in all phases of production.  
May be repeated for credit.

THEA 1112 - Production  
Credit Hours: 1.0  
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: acceptance to the major by audition/portfolio review and consent of instructor.  
Description  
Service on one crew per semester on a rotating basis, developing students' skills in all phases of production.  
May be repeated for credit.

THEA 1329 - Voice and Articulation for Non-Majors  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Description  
Developing a clear speaking voice, including work on projection, resonance, and articulation.

THEA 1331 - Introduction to the Theatre  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Description  
Students will gain a genuine appreciation for the art and craft of theatre by reading, attending, and writing critically about plays.  
Core Category: [50] Creative Arts  
TCCNS Equivalent: DRAM 1310

THEA 1332 - Fundamentals of Theatre  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: acceptance to the major by audition/portfolio review and consent of instructor.  
Description  
Critical appreciation and practice of live theatre, emphasizing the synthesis of acting, direction, and design in the context of contemporary theatrical
production.

Core Category: [50] Creative Arts

THEA 1338 - Acting I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: acceptance to THEA major by audition/portfolio review, concurrent enrollment in THEA 1332, and consent of instructor.
Description
Beginning level study of scene work, monologues, script analysis, and techniques of character development.
TCCNS Equivalent: DRAM 1351

THEA 1339 - Acting II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332, THEA 1338, and consent of instructor.
Description
Character development and text analysis, concentrating on truth and honesty in acting via scene work and monologues.
TCCNS Equivalent: DRAM 1352

THEA 1340 - Fundamentals of Acting
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: None.
Description
Theory and practice of acting explored through exercises, scenes, and the viewing of plays.
Additional Fee Y

THEA 2100 - Theatre Education Internship
Credit Hours: 1.0
Lecture Contact Hours: 0  Lab Contact Hours: 6  Prerequisite: acceptance to the THEA major by audition/portfolio review and consent of instructor.
Description
Assisting a theatre instructor in an educational setting, by coaching students in directing, acting in theatre skills.

THEA 2223 - Makeup for Actors
Credit Hours: 2.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332 & THEA 1338.
Description
Introduction of basic stage makeup materials, methods, and techniques with an emphasis on applications for theatre and film.

THEA 2320 - Acting III
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1339 and consent of instructor.
Description
Character and scene work through the use of space/body isolations and objects and emotional experimentation.

THEA 2321 - Acting IV
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 2320 and consent of instructor.
Description
Principles of Shakespearean verse and prose for actors and directors. Text analysis of sonnets and plays for solo performance and scene work.

THEA 2332 - Voice and Movement for the Actor I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332, THEA 1338, THEA 1339, and consent of instructor.
Description
Development of the actor’s voice and body, including vocal and physical warm-up techniques.
THEA 2335 - Scenic Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: acceptance to the THEA or DAN major by audition/portfolio review and consent of instructor.
Description
Fundamental principles and elements of theatrical design.

THEA 2336 - Lighting and Sound Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 2  Prerequisite: acceptance to the THEA major by audition/portfolio review and consent of instructor.
Description
Introduction to materials, tools, and techniques used in theatrical scenery construction and rigging.
TCCNS Equivalent: DRAM 1330

THEA 2342 - Dramatic Structures and Genres
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332, THEA 1339, ENGL 1303, completion of or/ concurrent enrollment in ENGL 1304, and instructor consent.
Description
Survey of the fundamental aspects of dramatic structures and theatrical genres. Critical approaches for a better understanding of how given plays accomplish their theatrical goals.

THEA 2344 - American Drama
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of instructor.
Description
Survey of drama in the United States from the seventeenth century to the present, representing a broad variety of periods, styles, and perspectives.
Core Category: [81] Writing in the Disciplines

THEA 2350 - Movement for the Actor II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 2332 and consent of instructor.
Description
Developing stage combat skills and integrating to performance work. Final scenes viewed by an adjudicator from the Society of American Fight Directors. Students may qualify for professional recognition of skills.

THEA 2373 - Costume Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 2  Prerequisite: acceptance to the THEA or DAN major by audition/portfolio review and consent of instructor.
Description
Introduction to materials, tools, and techniques used in theatrical costume construction.
Additional Fee $2.00 Fee Type Theatre/Laboratory

THEA 2380 - Voice for the Actor II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 2332 and consent of instructor.
Description
Continued development of the actor’s voice, as well as developing clear stage speech, Standard British, and the International Phonetic Alphabet.
THEA 2382 - Stage Management I
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: THEA 1332 and THEA 2334.
Description
Introduction to the principles and practices of stage management in educational and professional theatre.

THEA 2383 - Stage Management II
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: THEA 2334 or consent of instructor.
Description
Practical methodology and resources for the stage manager; applied organizational techniques.

THEA 2390 - Technical Drawing
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 2335 and consent of instructor.
Description
Techniques of drafting for scenic and lighting design.

THEA 3283 - Stage Management III
Credit Hours: 2.0
Lecture Contact Hours: 2  Lab Contact Hours: 0  Prerequisite: THEA 2383 or consent of instructor.
Description
Advanced stage management methodology; research and discussion in script analysis, rehearsal and performance skills.

THEA 3302 - Playwriting Workshop: Realism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332: Fundamentals of Theatre
Description
Examines realism as a theatrical style; focuses on writing multiple theatrical pieces in the realist mode.

THEA 3303 - Playwriting Workshop: Non-Realism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332: Fundamentals of Theatre
Description
Examines stylistic alternatives to theatrical realism; focuses on writing multiple experimental theatrical pieces outside the tradition of realism.

THEA 3304 - Playwriting Workshop: Myth & Ritual
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332: Fundamentals of Theatre.
Description
Examines the influence of myth and ritual on theatrical storytelling; focuses on writing multiple dramatic pieces based on source material drawn from myths and rituals.

THEA 3305 - Playwriting Workshop: Comedy
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332: Fundamentals of Theatre.
Description
Examines comedy as a theatrical style; focuses on writing multiple pieces of comic writing, including sketch comedy and a comedic one-act play.

THEA 3308 - Creative Collaboration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332: Fundamentals of Theatre.
Description
Examines both established and emergent performance styles by exploring collaborative forms of adaptation, devising, and other performance methodologies.

THEA 3309 - Performance Studies Seminar
THEA 3320 - Acting V
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332: Fundamentals of Theatre.
Description
Combines performance scholarship with anthropology in cross-disciplinary explorations of both aesthetic and social performance.

THEA 3321 - Acting VI
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 2321 and consent of instructor.
Description
Study regarding audition appearance, attitude, research, rehearsal, and performance of scenes, songs, monologues, and movement.

THEA 3322 - Musical Theatre for Actors
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 3320, concurrent enrollment in THEA 3321, and consent of instructor.
Description
Developing performance skills for musical theater.

THEA 3332 - Directing I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 1332, THEA 2342, and consent of instructor.
Description
Fundamental principles, techniques, and philosophy of stage direction resulting in a class presentation of short, student-directed scenes.

THEA 3333 - Directing II
Credit Hours: 3.0
Prerequisite: THEA 3332 or consent of instructor.
Description
Advanced techniques of direction; development of the conceptual approach to directing; script analysis and direction of one act plays or single acts drawn from contemporary dramatic literature.

THEA 3335 - History of the Theatre I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 2344 and consent of instructor.
Description
Survey of theatrical theory and practice from Ancient Greece through the Early Modern Era with special attention paid to cultural, philosophical, and religious contexts.

THEA 3336 - History of the Theatre II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 3335 and consent of instructor.
Description
Survey of theatrical theory and practice from the eighteenth century to the present with particular focus on historical avant-garde movements and contemporary world drama.

THEA 3350 - Movement for the Actor III
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 2350 and consent of instructor.
Description
Development of the acting process through physical acting techniques including mask work and movement analysis methods to detail character physicality.
THEA 3362 - Costume Design for the Stage  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  
Prerequisite: THEA 2334, and consent of instructor.  
Description  
Costume design with an emphasis on various genres of theatrical production.

THEA 3364 - Costume History  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  
Prerequisite: None.  
Description  
Cultural, sociological and aesthetic influences on western clothing from antiquity to present.

THEA 3371 - History of Architecture, Interiors, and Decorative Arts  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Prerequisite: THEA 2335, THEA 2336, THEA 2373, and consent of instructor.  
Description  
Survey of the styles of architecture, decor, and furniture from antiquity to the present, with emphasis on applications in theatrical design.

THEA 3372 - Digital Design Techniques  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Prerequisite: THEA 2334, THEA 2335, THEA 2336, THEA 2373, and consent of instructor.  
Description  
Study and use of software, tools, and techniques to create, capture, and manipulate images for scenic, lighting, and costume designers.

THEA 3374 - Intelligent Lighting  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Prerequisite: THEA 3387 and consent of instructor.  
Description  
Study and use of intelligent lighting fixtures and control console programming.

THEA 3375 - Costume Technology & Applied Crafts  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  
Prerequisite: THEA 2334, THEA 2373, and consent of instructor.  
Description  
Study and use of craft skills, materials, and techniques used in costume construction, millinery, and properties.

THEA 3376 - Advanced Drafting  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Prerequisite: THEA 2390 and consent of instructor.  
Description  
Study and use of Computer Assisted Drafting (CAD) and its application in theatre.

THEA 3379 - Stage Design for Educators  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Prerequisite: THEA 1332 and consent of instructor.  
Description  
Study and application of the process of designing scenery, costumes, and lighting for the theatre educator.

THEA 3380 - Voice for the Actor III  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  
Prerequisite: THEA 2380 and consent of instructor.  
Description  
Continued development of the actor’s voice, clear stage speech, Standard British, rhetoric, and the International Phonetic Alphabet.

THEA 3384 - Scene Painting  
Credit Hours: 3.0  
Description
Theory and practice of painting theatrical scenery. Materials, tools, and techniques used in painting textural and illusionistic scenery through demonstrations and applied projects.

**THEA 3385 - Scenic Design**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** THEA 2334, and consent of instructor.  
**Description**  
Theory, practice, and history of scenic design. Development and communication of ideas, script analysis, visual research, and design concepts.

**THEA 3386 - Theatre Sound Design**  
**Credit Hours:** 3.0  
**Description**  
The use of reproduced and reinforced sound in theatre production, including traditional methods, current technology, and the techniques and practical skills of sound design.

**THEA 3387 - Lighting Design**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3.0  
**Lab Contact Hours:** 0.0  
**Prerequisite:** THEA 2334, THEA 2336, THEA 2390, and consent of the instructor.  
**Description**  
Examination of the principles, theories, equipment, and technology utilized in lighting for the stage; Color, light sources, control systems, and script analysis.

**THEA 3388 - Advanced Stagecraft**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** THEA 2335 or consent of instructor.  
**Description**  
An intensive study of scenic practices, particularly relating to set and property construction, costuming, light execution, and box office procedures.

**THEA 3393 - Applied Stage Management Techniques**  
**Credit Hours:** 3.0  
**Lecture Contact Hours:** 3  
**Lab Contact Hours:** 0  
**Prerequisite:** THEA 3283 or consent of instructor.  
**Description**  
Application of Stage Management techniques and discussion of process.

**THEA 3399 - Senior Honors Thesis**  
**Credit Hours:** 3.0  
**Prerequisite:** approval of department chair.  
**Description**  
THEA 3399 and THEA 4399 must be satisfied in order to apply to a degree.

**THEA 4198 - Independent Study**  
**Credit Hours:** 1.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 0  
**Prerequisite:** approval of chair.

**THEA 4283 - Seminar in Stage Management**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0  
**Prerequisite:** THEA 3393 or consent of instructor.  
**Description**  
Discussion of practical challenges, problems, and solutions encountered in current productions.

**THEA 4297 - Selected Topics**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 2  
**Lab Contact Hours:** 0

**THEA 4298 - Independent Study**  
**Credit Hours:** 2.0  
**Lecture Contact Hours:** 0  
**Lab Contact Hours:** 0  
**Prerequisite:** approval of chair.
THEA 4305 - Theatre in Elementary & Secondary Schools
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: acceptance to the THEA major by audition/portfolio review and consent of instructor.

Description
Principles and general methods for teaching theatre in elementary and secondary schools. Integration of technology and cross-curricular components into the theatre curriculum.

THEA 4306 - Educational Theatre & Program Management in Schools
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: acceptance to the THEA major by audition/portfolio review and consent of instructor.

Description
Principles of structure, organization, and management of curricular, co-curricular, and extra-curricular theatre programs in schools.

THEA 4307 - Introduction to Educational Theatre
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: acceptance to the THEA major by audition/portfolio review and consent of instructor.

Description
Principles of teaching and learning theatre in educational settings, including curriculum development, planning, and structure. Instructional methods and strategies for building and managing theatre programs in schools.

THEA 4312 - Entering the Entertainment Industry
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Consent of instructor.

Description
Focus on the entering the entertainment industry for Playwriting/Dramaturgy, Production, and Stage Management students.

Additional Fee  Y

THEA 4313 - Advanced Playwriting
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly THEA 4331 Playwriting III
Prerequisite: Consent of instructor.

Description
Focus on writing an original one-act play under the guidance of a professional playwright.

THEA 4320 - Acting VII
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 3321 and consent of instructor.

Description
Practical experience in the television and film production process with an emphasis on acting for the camera and on new scripts.

THEA 4321 - Acting VIII
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 4320 and consent of instructor.

Description
Practical experience working with playwrights on new, unpublished plays through scene work, staged readings, and text readings. Continuation of work in acting for the camera.

THEA 4323 - Dramaturgy
Credit Hours: 3.0

Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: consent of instructor.

Description
Production-oriented research, text analysis, collaboration techniques, and season development.

THEA 4345 - Dramaturgy Practicum
Credit Hours: 3.0

Lecture Contact Hours: 0  Lab Contact Hours: 3  Prerequisite: THEA 2343 and consent of instructor.
Description
Study and practical application serving as the dramaturg or co-dramaturg for a production in the UH Theatre and Dance season.

THEA 4350 - Movement for the Actor IV
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 3350 and consent of instructor.
Description
Physical Theatre principles from past and present. Students will research, develop, design, produce, and perform an original Physical Theatre piece for public performance.

THEA 4352 - Senior Project Capstone
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 4313, THEA 4345, and consent of instructor.
Description
Capstone course for B.F.A. playwrights and dramaturgs. Individual or group projects will allow students to demonstrate a mastery of skill and knowledge in their chosen area of focus.

THEA 4367 - Costume Cutting and Draping
Credit Hours: 3.0
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: THEA 2334, THEA 2373, and consent of instructor.
Description
Techniques in flat pattern making and draping.

THEA 4380 - Voice for the Actor IV
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 3380 and consent of instructor.
Description
Continued development of the actor's voice through a variety of accents and dialects.

THEA 4390 - Acting Showcase: Capstone
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 4320, concurrent enrollment in THEA 4321, and consent of instructor.
Description
Capstone course for B.F.A. actors. Scene and monologue selection and rehearsals culminate in an Acting Showcase for professional auditions including agents, casting directors, artistic directors, and professional theaters.

THEA 4393 - Theatre Management
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: THEA 4383 or consent of instructor.
Description
Survey of principles and practices of theatre management for commercial, community, and non-profit theatre.

THEA 4397 - Drama Workshop
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0

THEA 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: approval of chair.

THEA 4399 - Senior Honors Thesis
Credit Hours: 3.0
Prerequisite: THEA 3399 and approval of department chair.
Description
THEA 3399 and 4399 must be satisfied in order to apply to a degree.

THEA 4600 - Advanced Theatre Education Internship
THEA 4693 - Professional Stage Management Internship
Credit Hours: 6.0
Lecture Contact Hours: 0  Lab Contact Hours: 6 Prerequisite: THEA 3393 or consent of instructor.
Description
Supervised internship performing duties in a professional company.

Vietnamese

VIET 1501 - Elementary Vietnamese I
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: restricted to nonnative speakers of Vietnamese.
Description
Listening comprehension, oral communication, reading and writing.

VIET 1502 - Elementary Vietnamese II
Credit Hours: 5.0
Lecture Contact Hours: 3  Lab Contact Hours: 2 Prerequisite: successful completion of VIET 1501 in the twelve months immediately prior to enrollment, or consent of instructor.
Description
Continued development of listening comprehension, oral communication, reading and writing.

VIET 2301 - Intermediate Vietnamese I
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: successful completion of VIET 1502 in the twelve months immediately prior to enrollment, or consent of instructor.
Description
Continued development of listening comprehension, oral communication, reading and writing.

VIET 2302 - Intermediate Vietnamese II
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: successful completion of VIET 2301 in the twelve months immediately prior to enrollment, or consent of instructor.
Description
Continued development of listening comprehension, oral communication, reading and writing.

VIET 3300 - The Global Vietnamese Diaspora
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
Theorizing and conceptualizing the dimensions, the characterizations, and the trajectories of the global diasporic Vietnamese community.

VIET 3331 - Introduction to Vietnamese Culture: Modernity and Media of Imagining
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
Introduction to modern Vietnamese culture with focus on the role of various media in the development of political consciousness.
Typically Offered: Spring

Women's, Gender, and Sexuality Studies
WGSS 2350 - Introduction To Women's Studies
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Formerly WOST 2350 - Introduction to Women's Studies
Prerequisite: ENGL 1304
Description
Gender dynamics and women's experiences, social roles and expressions across western and world societies in the arts, religion, history, literature, science, politics and the family.
Core Category: [40] Language, Philosophy, & Culture

WGSS 2360 - Introduction to GLBT Studies
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Formerly GLBT 2360 - Introduction to Gay, Lesbian, Bisexual, and Transgender Studies
Prerequisite: ENGL 1304
Description
GLBT people's experiences, social roles, identity formation, and expressions across different cultures and societies, in the arts, religion, history, literature, politics, and the family.
Core Category: [40] Language, Philosophy, & Culture

WGSS 3321 - Gender in Transnational Perspective
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: ENGL 1304 or equivalent. WGSS 2350 or WGSS 2360, or by permission of instructor.
Description
This course explores the impact of globalization on the gendered experiences of individuals in varied contexts around the world, with particular focus on women of color and sexual minorities.

WGSS 3322 - Intersectionalities of Race, Class, Age, Disability & Gender
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: ENGL 1304 or equivalent. WGSS 2350 or WGSS 2360, or by permission of instructor.
Description
This course explores the ways in which intersectionalities among gender and other identity markers, including race, class, age, and dis/ability, affect the experience, rights, privileges and opportunities afforded people in the US and other societies around the globe.

WGSS 3350 - Gender, Society & Feminist Theory
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: ENGL 1304 or equivalent. WGSS 2350 or WGSS 2360, or by permission of instructor.
Description
This foundational course explores the genealogy of writings essential to gender justice work, past and present. The course employs intersectionality as a framework for analysis of the ways in which race, sexuality, class, nation & dis/abilities inform individuals' experience of gender.

WGSS 3351 - Gender and Work
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: ENGL 1304.
Description
Prepares students to navigate workplace gender dynamics, in the US and globally. Considers genders history as a work-assignment system and the ongoing evolution of cultural norms and roles across all realms of work (paid & unpaid). Explores HR, economic, educational and workforce policies; job selection & pay patterns; work/life balance, housework, childcare and teamwork models; leadership; and outlooks for the future of work.
Additional Fee

WGSS 3360 - Sexuality and Queer Theory
Credit Hours: 3.0
Lecture Contact Hours: 3 Lab Contact Hours: 0 Prerequisite: ENGL 1304 or equivalent. WGSS 2350 or WGSS 2360, or by permission of instructor.
Description
An introduction to the fields of queer theory and sexuality studies.

WGSS 3395 - Selected Topics in Women's Studies
WGSS 3396 - Selected Topics GLBT Studies  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Formerly** WOST 3395 Selected Topics in Women's Studies  
May be repeated up to two times for credit when topics vary.

WGSS 3398 - Independent Study  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Formerly** WOST 3398 Independent Study  
**Prerequisite:** consent of director  
May be repeated for credit up to two times.

WGSS 4350 - Issues in Feminist Research  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** ENGL 1304 or equivalent. WGSS (3350 or 3360) AND (3321 or 3322) or permission of instructor and at least 2 WGSS approved croslisted electives.

**Description**  
This course provides students with a grounding in feminist research methods. The research for the course's major project assignment will normally be conducted in the Shuart Women's Archive in the UH Library, with exceptions as judged appropriate by the instructor.

WGSS 4360 - Capstone Internship Course  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Prerequisite:** ENGL 1304 or equivalent. WGSS 3350 or WGSS 3360 or permission of the instructor.  
Student should be a registered WGSS major and have completed all or most of their other required coursework for the major.

**Description**  
The WGSS Capstone Internship Course involves the student working in an approved gender-equity-focused local advocacy or service nonprofit or business. In addition the student will document their work and write a paper analyzing it within a disciplinary framework arranged in advance with the course's faculty supervisor. The student will hold at least 4 meetings with the faculty supervisor over the semester, and work regularly with a supervisor based in the nonprofit or business itself.

WGSS 4395 - Selected Topics in Women's Studies  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
**Formerly** WOST 4395 Selected Topics in Women's Studies  
May be repeated up to two times for credit when topics vary.

WGSS 4398 - Independent Study  
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
May be repeated up to two times for credit up to two times.

World Cultures and Literatures

WCL 1101 - Introduction to the Study of Languages  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
**Prerequisite:** none.

**Description**  
Introduction to linguistic features, concepts, and theories relevant to foreign language learners. Concurrent enrollment in a beginning-level foreign language course recommended but not required.

WCL 1102 - Introduction to World Cultures  
Credit Hours: 1.0  
Lecture Contact Hours: 1  
Lab Contact Hours: 0  
**Prerequisite:** none.
Introduction to themes, topics, and traditions in world literatures and cultures with emphasis on historical or contemporary transnational and global issues. Concurrent enrollment in a beginning-level foreign language course recommended but not required.

WCL 2351 - World Cultures Through Literature and Art
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304
Description
Works of literature, painting, film, to explain contemporary global/local developments, conflicts.
Core Category: [40] Language, Philosophy, & Culture

WCL 2352 - World Cinema
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Major cinematic works from Latin America, Asia, Middle-East, Europe, and Australia in relation to contemporary topics such as globalization and migrations.
Core Category: [40] Language, Philosophy, & Culture

WCL 2370 - Cultures of India
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Introduction and exploration of cultural diversity and identity of South Asia. Emphasis on transnationalism, modernity, and development.
Core Category: [40] Language, Philosophy, & Culture

WCL 2380 - Introduction to Jewish Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Introduction to Jewish culture through literature, history, and arts.

WCL 3341 - Early Islamic Society: Literature and Thought
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Study of texts reflecting various trends in religious, political, philosophical, social and economic developments in early Islamic Civilization.

WCL 3342 - Tales of East Asian Cities
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
An examination of the literary and visual representations of various cities in East Asia: Shanghai, Beijing, Hong Kong, Taipei, Tokyo and Seoul. Through close analyses of the fiction, films, and photographs that illuminate East Asian urbanism, we will extensively discuss the cultural representations of East Asian metropolises. Taught in English.

WCL 3346 - Terrorism: Past and Present
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
An exploration of the nature of terrorism, from its ancient origins through its postmodern evolution, through history, literature, and film.

WCL 3347 - Is Life Worth Living? A History of Nihilism
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Survey of key thinkers who have treated the nature and consequences of political and philosophical nihilism. Along with classical texts by Nietzsche, Dostoevsky, Kafka, and Conrad we will also read contemporary works by Camus and O'Connor.
WCL 3348 - Enlightenment Stories  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 or equivalent.  
Description  
Survey of key 18th century European philosophers focusing on their novels, treatises, and dialogues. Along with primary texts, course also includes secondary sources. Research paper based on original sources is required.  
Core Category: [81] Writing in the Disciplines  

WCL 3351 - Introduction to Latino Cultural Studies  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.  
Description  
Basic cultural dimensions of U.S. Latino communities through literature and the arts, including ethnic minority formation, immigration and transnational processes.  
Core Category: [40] Language, Philosophy, & Culture  

WCL 3355 - Goddesses and Other Divine Women  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.  
Description  
Goddesses and the divine feminine in ancient and modern religions.  

WCL 3356 - Comparative Modernisms: The Global South  
Credit Hours: 3.0  
Lecture Contact Hours: 3.0  Lab Contact Hours: 0.0  Prerequisite: ENGL 1304.  
Description  
Comparative study of the aesthetics and literatures of modernism as they have developed in South Asia and Latin America during the twentieth century and into the twenty-first century. Authors to be considered include Joyce, Tagore, Borges, Rushdie, Donoso and Rao and others, in order to consider a comparative global modernism that includes, but goes beyond, European and U.S. definitions.  

WCL 3364 - World TV  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.  
Description  
Major TV Series and Miniseries from Latin America, Asia, Africa, Middle East, Europe, and Australia concerning contemporary issues. TV Fiction as a global art form.  

WCL 3365 - World Fiction & Reportage  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.  
Description  
Recent works of transnational literature or national literature with transnational appeal, including both fiction and reportage that highlight world issues and global awareness.  

WCL 3366 - Latin American and Latino Film Studies  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.  
Description  
Latin American, Latino films, telenovelas and TV documentaries. Issues regarding immigration, urban/rural, ethnic, gender and class, border and transnational, poverty, violence, and aesthetics. Taught in English.  
Core Category: [50] Creative Arts  

WCL 3367 - National Cinema in a Global Perspective  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.  
Description  
National cinema in its relationship with global film industry, international production and transnational issues.
WCL 3368 - Pop Cultures and World Media
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Popular culture in its diverse forms with particular focus on visual media. Genres including films, music, reality television, social media, graphic novels, and literature.

WCL 3369 - Science Fiction in Literature and Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1303.
Description
Survey of science-fiction literature and film since 1945, including the Golden Age, the New Wave, Cyberpunk, and beyond.

WCL 3371 - Cities in Film and the Arts
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Cities and urban life worldwide from the advent of modernity to postmodernity and globalization, as expressed in visual arts, film, theory and literature.

WCL 3372 - Indian Film: Bollywood and Beyond
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Exploration of the history, development, and evolution of Indian Film since Partition, the Golden Age, and New Wave through essay and film.

WCL 3373 - Gender and Sexuality in World Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Introduction to representations of gender and sexuality in important films from Latin America, Asia, Africa, the Middle-East, Europe, and Australia, and to major developments in global feminist film theory.

WCL 3374 - Jewish Film
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Jewish culture, tradition, and history through film.

WCL 3375 - Black Cuba in Literature and Visual Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Black Cuban lives in literature and visual culture from 20th and 21st centuries.

WCL 3376 - Photography - Creating Visual Stories, Local and Global
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: WCL 2351 or WCL 2352 or consent of instructor.
Description
Globalization of Houston is documented and analyzed conducting a visual and textual ethnography.

WCL 3377 - The Modern Middle East: Literature, Politics, and Ideas
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Survey of major landmarks in the literature and thought of the Middle East after 1798, examining them in the context of the region's political history.
Note: Taught in English.
Core Category: [40] Language, Philosophy, & Culture

WCL 3378 - Debating India and the World
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
A survey of South Asian literatures to analyze the themes of nationalism, language politics, caste, class, gender, sexuality, Partition, migration, diaspora, and modernity by using novels, poetry, ghazals, short stories, essays, and Dalit testimonies to interrogate subjectivity, regionality, aesthetics, cultures, cosmopolitanism, and politics while examining what "modernism" means to writers locally and globally.

WCL 3379 - Media & Post-Millennial Writings in India
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
A survey of literature and films by Indian, Pakistani and Sri Lankan writers, as well as writers of South Asian descent living in North America and the UK to debate about the category of Post-Millennial Literatures, postcolonial theory, world literature, and translation studies by sampling Dalit testimonies, tech-literature, social media, graphic novels, films, and mythological tales of a post-2000 South Asia.

WCL 3380 - American Jewish Culture
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Exploration of American Jewish culture from Eastern European immigration to the present. Analysis of literature, film, popular materials and everyday practices that illustrate the transformation of Jewish immigrants into American Jews.

WCL 3384 - Jewish Women Through Biography
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Study of Jewish women’s history through the ages and across cultures.

WCL 3392 - Introduction to Latin American Cultural Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Basic dimensions of Latin American cultural processes. Focus on indigenous/Spanish/African/Asian heritages and transformations; including mestizaje, transculturation, hybridization. Globalization and transnational patterns.

WCL 3397 - Selected Topics in World Cultures & Literature
Credit Hours: 3
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Topics in world cultures and literature.
Note: May be repeated for credit when topics vary.

WCL 3399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Approval of department chair.
Additional Fee N

WCL 4301 - Culture and Communication: Methods in Linguistic Anthropology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing.
Description
Multiple methodologies that exist for researching language as a mode of communication and interaction within the field of linguistic anthropology.
WCL 4351 - Frames of Modernity I
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304 and WCL 2351 or WCL 2352 or permission of instructor.
Description
Major theoretical trends in Western & non-Western culture from the French Revolution to World War II.
Core Category: [81] Writing in the Disciplines

WCL 4352 - Frames of Modernity II - Postmodernity and Globalization
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Major cultural trends in World Cultures from WWII to the present time: Existentialism, Structuralism, Postmodernism, Deconstruction, Feminism, Cultural Studies, Postcolonial Studies, Globalization Studies, and Cultural Perspectives from Non-Western Areas.
Core Category: [81] Writing in the Disciplines

WCL 4353 - Frames of Modernity III: Classics and Modernity
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Use of ancient Greek and Roman concepts by modern and postmodern thinkers, artists, and authors. Taught in English.

WCL 4354 - Frames of Modernity IV: The Global South Before WWII
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304 and at least Junior level standing or consent of instructor.
Description
History of Ideas from the Global South Before WWII.

WCL 4355 - Frames of Modernity V: The Global South From WWII to Present
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304 and at least Junior level standing or consent of instructor.
Description
History of Ideas from the Global South WWII to present.

WCL 4356 - World Film & Film Theory
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
An introduction to the major trends in film criticism and film theory, from the 1920s to the present time, exemplified by classic world films that have generated critical debate.
Core Category: [81] Writing in the Disciplines

WCL 4362 - Seminar in Latin American and Latino Literatures
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Works of Latin American and Latino literature in translation in relation to other U.S. and worldwide literary works as well as different theoretical frames.

WCL 4363 - The Supernatural and Film
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Study of the Supernatural as represented in film.

WCL 4364 - History of Drama in Northern and Central Europe
Credit Hours: 3.0
Lecture Contact Hours: 3   Lab Contact Hours: 0  Prerequisite: senior standing or consent of instructor.
Description
Historical and critical analysis of European theater from the eighteenth to the twentieth centuries. Readings include dramas and theoretical essays as a means for understanding and representing cultural norms.

WCL 4365 - World Fiction & Reportage
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Recent works of transnational literature or national literature with transnational appeal, including both fiction and reportage that highlight world issues and global awareness.
Core Category: [81] Writing in the Disciplines

WCL 4367 - Voices from Exile and Diaspora
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and junior standing.
Description
Examines the experience of exile, displacement, and diaspora reflected in 20th-21st century literature and film and theoretical approaches to migration and diaspora.
Core Category: [81] Writing in the Disciplines

WCL 4374 - Sex and Gender in Antiquity
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304 and junior standing.
Description
Issues of sex and gender in ancient Greece and Rome through the study of literature, art, and science. Works of Latin American and Latino literature in translation and theoretical approaches to migration and diaspora.

WCL 4378 - Cultures of Dissent: A Global Perspective
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: junior standing or permission of instructor.
Description
Global opposition movements as reflected in literary, autobiographical, and theoretical writings of 19th through 21st century authors as well as in film and the visual arts.

WCL 4379 - Critical Theory and Globalization
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Intensive study of critical theory in light of globalization, migration shifts, and late 20th century social theory and literary criticism.

WCL 4381 - Seminar in Latin American and Latino Cultural Studies
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Key themes and debates regarding Latin American/Latino cultural processes in the arts, politics, and everyday life. Modernity/postmodernity, colonality/postcoloniality, globalization, urban, border, transnational, ethnic, genera, and subaltern perspectives. Taught in English.

WCL 4396 - Special Topics in World Cultures and Literature
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: ENGL 1304.
Description
Topics in cultural and literary theory, criticism and history, major cultural trends in postmodernity and globalization. May be repeated for credit when topics vary.

WCL 4398 - Independent Study
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0
WCL 4399 - Senior Honors Thesis
Credit Hours: 3.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Prerequisite: Approval of department chair.
Additional Fee N

Technology Leadership & Innovation Management

TLIM 3300 - Leadership and Innovation Fundamentals
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: Credit for or concurrent enrollment in TLIM 3363.
Description
Strategies, practices, and principles of Leadership and Innovation in the workplace with a focus on integrating the functional aspects of innovation.
Additional Fee N

TLIM 3330 - Innovation Principles
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in TLIM 3363 or other approved WID course.
Description
Methods and processes for creating innovations, leading disruptive change, and overview of innovation systems.

TLIM 3331 - Innovation Development
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: TLIM 3330.
Description
Generating innovative ideas; creative stimulus insights for technology and economic, social, and cultural trends; and a systematic approach to creativity.
Additional Fee N

TLIM 3340 - Organizational Leadership and Supervision
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 3340.
Prerequisite: Credit for or concurrent enrollment in TLIM 3363 (or WID for non majors).
Description
The supervisory process. Established practices and supporting knowledge of supervisory planning, leading, organizing, and controlling.
Additional Fee Y

TLIM 3345 - Human Resources in Technology
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 3345.
Prerequisite: Credit for or concurrent enrollment in TLIM 3340 or equivalent.
Description
Functions of personnel administration in human resource development, employee-supervisor relationships, interviewing, recruiting and selection techniques, and training programs.
Additional Fee Y

TLIM 3346 - Wage & Salary Administration
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 3346.
Prerequisite: TELS 2371.
Description
Concepts, principles, procedures, processes, and programs related to the design of an effective system of compensation.
Additional Fee Y

TLIM 3350 - Emergency Management Principles
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: C or better in TLIM 3340.
Description
Emergency management, preparedness, mitigation, response, and recovery; integration of local, state, federal and public sector resources; roles and responsibilities of law enforcement, fire service, emergency medical service, public works, public health, and others.

**TLIM 3355 - Project Management Principles**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 3355.  
Prerequisite: C or better in TLIM 3340.  
Description  
Project management processes: core knowledge and skills.

**TLIM 3360 - Law and Ethics in Technology & Innovation**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 2360.  
Prerequisite: C or better in TLIM 3340 or MANA 3335.  
Description  
General principles of business law and ethics related to contracts, property, agency, corporations, bankruptcy, mortgages, torts, and the Uniform Commercial Code with emphasis on technology and innovation.

**TLIM 3363 - Technical Communications**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 3363.  
Prerequisite: ENGL 1304 with grade of C or higher.  
Description  
Procedures and techniques of preparing technical memoranda, oral and written reports, manuals, and other source documents that fit the pattern of industrial and institutional communications.  
Core Category: [81] Writing in the Disciplines  
Additional Fee Y

**TLIM 3365 - Team Leadership**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 3365.  
Prerequisite: Credit for or concurrent enrollment in TLIM 3340 or equivalent.  
Description  
Roles, processes, and strategies for team leadership. Creation of collaborative climates for team performance, team member development, leading successful team meetings, and strategies for dealing with global and virtual teams.

**TLIM 3371 - Budgeting and Financial Principles**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 2371.  
Prerequisite: C or better MATH 1313.  
Description  
Concepts, procedures, and processes of recording and presenting financial data for industry. Budgeting, accounting systems, record keeping methodology, financial planning, and fiscal leadership.

**TLIM 3372 - Communication in Sci, Engr & Tech**
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 3372.  
Prerequisite: Three hours in communication course with a grade of C or higher; successful completion of computer application course (i.e. MS Word).  
Description  
Analysis of issues and trends in science, engineering, and technology to develop effective communication in the global workforce. Focus on oral and written communications, critical thinking, and research skills using computer-driven technologies.

**TLIM 4198 - Independent Study**
TLIM 4298 - Independent Study
Credit Hours: 2.0
Lecture Contact Hours: 0  Lab Contact Hours: 0  Formerly TELS 4298.
Prerequisite: Approval of chair.
Description
Individual projects under faculty sponsorship.
Additional Fee Y

TLIM 4335 - Communicating Innovation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: TLIM 3331.
Description
Communicating innovative concepts through the use of the narrative power of visual imagery. Combining elements of professional, technical, and creative writing.
Additional Fee N

TLIM 4340 - Commercializing Innovation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Prerequisite: TLIM 4335.
Description
Applying the scientific method to design experiments to evaluate and implement ideas. Determining the feasibility, sustainability, economics, and profitability of ideas.
Additional Fee N

TLIM 4341 - Production & Service Operation
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 4341.
Prerequisite: University approved statistics (TMTH 3360 or MATH 2311 or equivalent), MATH 1313 or TECH 3365, and C or better in TELS 3340.
Description
Planning and control of production and service operations. Product and service design, design of work systems, forecasting, scheduling, capacity planning, and inventory control.
Additional Fee Y

TLIM 4342 - Quality Improvement Methods
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 4342.
Prerequisite: MATH 1310 or 1313.
Description
Quality improvement methods for managing production and service operations. Concepts, methodologies, and tools of quality improvement, including quality theory, standards, design, control, and assurance.
Additional Fee Y

TLIM 4348 - Supervisor-Empl Relationships
Credit Hours: 3.0
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 4348.
Prerequisite: TELS 3340.
Description
Supervisor - employee relationships that affect the role of the supervisor in the industrial setting.
Additional Fee Y

TLIM 4349 - Organizational Dynamics
TLIM 4349 - Organizational Behavior
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: TLIM 3340.
Description
In-depth studies in organizational behavior as it relates to organizational development and supervision.
Additional Fee Y

TLIM 4350 - Occupational Safety & Environmental Health
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in TLIM 3340.
Description
History and evolution of occupational health and safety. Occupational Safety and Health Administration (OSHA) regulatory guidance and compliance, electrical, chemical, and hazardous material safety, ergonomic considerations, principles of toxicology, industrial hygiene, occupational medicine, and safety management.
Additional Fee Y

TLIM 4371 - Leading Change in the Workplace
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in TLIM 3340 or equivalent.
Description
For students preparing to assume the role and duties of a leader or supervisor in an organization. Role of leadership and supervisory knowledge and skills in the improvement of productivity and quality.
Additional Fee Y

TLIM 4372 - Proposal and Project Writing
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: PHIL 1321 and C or better in TLIM 3363 and TLIM 3355 and senior standing.
Description
Technical writing focusing on research and project proposals. Required for seniors in Leadership and Innovation as preparation for the senior project.
Additional Fee Y

TLIM 4377 - Practicum in Technology Leadership & Supervision
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: Senior standing.
Description
Directed individual study in technology leadership and supervision. Class presentations by students; instructor-led discussions of research methods.
Additional Fee Y

TLIM 4378 - Senior Project
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in TLIM 4341, TLIM 4342, TLIM 4371, TLIM 4372 and senior standing in major.
Description
Directed research project.
Additional Fee Y

TLIM 4390 - Current Issues in Leadership and Innovation
Credit Hours: 3.0  
Lecture Contact Hours: 3  
Lab Contact Hours: 0  
Prerequisite: C or better in TLIM 3340.
Description
Issues in leadership and innovation.
Additional Fee Y

TLIM 4396 - Internship in Organizational Leadership and Supervision
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 4396  
**Prerequisite:** Consent of department.  
**Description**  
Internship under faculty supervision.  
**Additional Fee** Y

**TLIM 4397 - Selected Topics in Organizational Leadership and Supervision**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  Formerly TELS 4397.  
**Prerequisite:** Approval of department.  
May be repeated for credit when topics vary.  

**Note:** May be repeated for credit when topics vary.  
**Additional Fee** Y

**TLIM 4398 - Independent Study**  
Credit Hours: 3.0  
Lecture Contact Hours: 0  Lab Contact Hours: 0  Formerly TELS 4398.  
**Prerequisite:** Approval of chair.  
**Description**  
Individual projects under faculty sponsorship.  
**Additional Fee** Y

**TLIM 5363 - Fundamental Written Communications**  
Credit Hours: 3.0  
Lecture Contact Hours: 3  Lab Contact Hours: 0  **Prerequisite:** Approval of department chair.  
**Description**  
For graduate students with weak communication skills to manage leveling requirements in their degree plan. For leveling use only, credit cannot be earned toward the degree plan.  
**Additional Fee** Y
Definition of Terms and Course Numbering

The Definition of Terms section provides a guide to the terminology of academic regulations, procedures, and course descriptions. The section entitled Course Numbering explains the significance of the course numbering system used at the University of Houston. This is generic information only; for specific course descriptions or degree requirements, see the appropriate department listing.

Definition of Terms

**Academic advising.** Process in which students interact with university staff/faculty advisors in decision-making, problem solving, and long-range planning related to the students' academic goals.

**Academic standing.** See Academic Standing section of this catalog.

- Good academic standing.
- Academic warning.
- Academic probation.
- Academic suspension.

**Academic warning.** Freshman students who earn less than a 2.00 grade point average in the first long term (i.e., Fall or Spring) of enrollment at UH are placed on academic warning. Students on academic warning are not on probation and cannot be suspended. Undeclared students on academic warning must be advised by advisors at Exploratory Studies at UH. Students with majors must be advised by advisors of their major departments. See Academic Standing section of this catalog.

**Advanced courses (upper level).** For undergraduate students, these normally are courses offered on the junior and senior levels (3000, 4000, and 5000 series).

**Attempted hours.** Course work for which a student earns a letter grade of *A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, I, S, U,* or *W*.

**Audit.** To take a course without credit. Approval required and fees assessed.

**Class schedule.** See Course Listings.

**College or school.** One of 17 major academic divisions within the university that offers specialized curricula.

**Core Curriculum.** Courses that must be taken by candidates for any bachelor’s degree. See Academic Regulations and Degree Requirements section of this catalog.

**Corequisite.** A course that must be taken at the same time as the course described.

**Course listings.** Online list of courses and sections for a specific term, including names of instructors; day, hour, and place of class meetings; and detailed enrollment (registration) procedures.

**Course load.** The number of semester hours for which a student enrolls in a given term.

**Credit (see semester hour).** Certification given for successful completion of academic work.

**Cumulative grade point average (see grade points).** The cumulative grade point average is based upon work taken at the University of Houston, including courses that are repeated, for which grade point values are assigned. The cumulative grade point average indicates overall performance and is computed by dividing the total number of grade points earned by the number of semester hours attempted, excluding hours for which a grade of *S, U, I,* or *W* is earned.

**Degree plan.** A statement of degree requirements, made no later than the time the student has accumulated 60 credit hours.
**Department.** Division of instruction within a college, such as Department of Chemistry in the College of Natural Sciences and Mathematics.

**Double major.** A baccalaureate degree with two majors. Both majors must be the same type of degree (e.g., B.A., B.S., B.F.A., etc.).

**Drop.** Official dropping of one or more, but not all, of the courses for which students are enrolled. Usually initiated by students but can be done in certain instances by faculty or other campus personnel. University policy and State law limit the number of drops a student may have in their college career. See also: Withdrawal

**Elective.** A course which is not specifically designated but which students choose to take as part of their degree plan.

**Enrollment (see registration).** Selection of classes and payment of tuition and fees.

**Former student.** A University of Houston student not enrolled in classes at UH for the term currently in session.

**Good academic standing.** An undergraduate student with a cumulative grade point average (GPA) of 2.00 or above is considered to be in good academic standing with the university. See Academic Standing section of this catalog.

**Grade points (see cumulative grade point average).** Points per semester hour assigned to passing grades, according to the numerical values of the grades.

**Graduate study.** Academic work toward the master’s or doctoral degree.

**Laboratory.** Descriptive of work other than class work, such as experimentation and practical application.

**Lecture.** A class session in which an instructor speaks on a specific topic.


**Major.** Primary field of study. Students may choose one or two.

**Major, unspecified.** This designation, which may be used by freshmen enrolling in certain colleges, indicates that students have selected the college, but not a specific major within the college.

**Minor.** Secondary field of study.

**Negative service indicator.** A hold placed on an account that prevents the student from receiving certain services pending resolution of any academic, disciplinary, or financial problem.

**Nonadvanced courses.** Courses offered on the freshman and sophomore levels (1000 and 2000 series).

**Noncredit course.** A course for which no credit can be earned.

**Overload.** Course load of more semester hours than students are normally permitted to schedule in a given period, requiring approval of the college dean.

**Petition.** A formal request to be filed at the appropriate office for a specific academic action, such as a waiver for a degree requirement.

**Postbaccalaureate.** Students who have degrees but are not enrolled in a formal graduate degree program.

**Prerequisite.** Requirement to be met before a certain course may be taken.

**Priority enrollment (registration).** The first cycle of computer-aided enrollment, which allows students to enroll well in advance of a term.

**Probation, academic or disciplinary.** A status resulting from unsatisfactory grades or conduct. See Academic Standing section of this catalog.
**Readmission.** Students on academic suspension must petition for permission to reenroll at the University of Houston. Readmission is neither automatic nor guaranteed.

**Records, permanent.** Cumulative record of students' courses, grades, credits, classification, address, student ID number, etc.

**Registration.** Enrollment for a term, including selection of classes and payment of tuition and fees.

**School or college.** One of 15 major academic divisions within the university that offers specialized curricula.

**Section.** A division of a course for instruction. A course may be taught in one or more sections or classes, depending on enrollment in the course.

**Semester hour.** Unit of measurement of college work. One semester hour is normally equivalent to one hour of class work or from two to six hours of laboratory work per week for a term.

**Seminar.** A small group of advanced students engaged in special study under the guidance of a faculty member.

**Stop (see negative service indicator).** Placed on an account pending resolution of any academic, disciplinary, or financial problem.

**Student number.** Students' MyUH ID numbers are their permanent identification numbers.

**Summer session.** Term of study during which courses are offered in sessions of various lengths. Each session (Summer Session 1, Summer Session 2, Summer Session 3, Summer Session 4) is equivalent to a semester in terms of class hours and credit granted.

**Suspension, academic or disciplinary.** A status in which students are not permitted to enroll for courses for a specified time period. See Academic Standing section of this catalog.

**Texas Common Course Numbering System (TCCNS).** A cooperative effort among Texas community colleges and universities to facilitate transfer of freshman and sophomore level general academic courses. Provides a shared, uniform set of course designations for students and advisors to use in determining both course equivalency and degree applicability of transfer credit on a statewide basis.

See the section on TCCNS in this catalog for UH equivalent courses. Texas Common Course Numbers are also indicated in the individual class course descriptions in brackets following the UH course number (i.e., 2304: [ECON 2302] Microeconomic Principles).

**Texas Higher Education Assessment (THEA).** An examination designed to provide diagnostic information about the reading, mathematics, and writing skills of each student.

**Texas Success Initiative (TSI).** A program to ensure that students enrolled in public colleges and universities possess the academic skills needed to perform effectively in college level course work. TSI includes an examination, Texas Higher Education Assessment (THEA), designed to provide diagnostic information about the reading, mathematics, and writing skills of each student.

**Transcript.** The record of an individual student, listing course work, grades earned, and credits received.

**Tuition and fee statement.** The statement of account will only be posted electronically in myUH.

**Undergraduate study.** Work taken toward a baccalaureate degree.

**Withdrawal.** Official withdrawal from all courses during a term at the university. Students usually initiate withdrawal; under certain circumstances faculty or other campus personnel may take this action. See also: Drop

**Course Numbering**

All courses are identified by instructional area and number. The first digit of the four-digit number indicates course level (1-freshman, 2-sophomore, etc.). The second digit corresponds exactly with the number of semester hours of credit given for the course. The third and fourth digits are for departmental use.
Nonadvanced hours for undergraduate students are courses in the 1000 and 2000 series. Advanced hours for undergraduate students are courses in the 3000, 4000, and 5000 series. Courses in the 6000 series and higher are primarily for graduate students and are listed in the university’s Graduate and Professional Studies catalog.

Each course listed shows the semester hours of credit assigned to that specific course, for example, Cr. 3, following the course title. This information is usually followed by hyphenated numbers such as (2-3), which designate lecture-laboratory hours. The first digit indicates the number of class hours per week in the lecture portion of the course. The second digit indicates the number of class hours per week reserved for the laboratory portion of the course.
Publication Archives

See notes below for additional information about the online archives as well as information on how to find print versions for Fall 2005 and earlier.

For archived catalogs Fall 2012 and forward, please choose from the drop-down menu at the top-right corner of the catalog home page.

Fall 2011 - Summer 2012
- Fall 2011 - Summer 2012 with Spring '12 Course Updates
- Fall 2011 - Summer 2012 Base_Catalog **

Fall 2010 - Summer 2011
- Fall 2010 - Summer 2011 with Spring '11 Course Updates
- Fall 2010 - Summer 2011 Base_Catalog **

Fall 2009 - Summer 2010
- Fall 2009 - Summer 2010 with Spring '10 Course Updates
- Fall 2009 - Summer 2010 Base_Catalog **

Fall 2008 - Summer 2009
- Fall 2008 - Summer 2009 with Spring '09 Course Updates
- Fall 2008 - Summer 2009 Base_Catalog **

Fall 2007 - Summer 2008
- Fall 2007 - Summer 2008 with Spring '08 Course Updates
- Fall 2007 - Summer 2008 Base_Catalog **

2005-2007
- 2005-2007 Fall '06 Update with Spring '07 Course Updates
- 2005-2007 Fall '06 Update
- 2005-2007 Base_Catalog **
- 2005-2007 Base PDF File Index **

2003-2005
- 2003-2005 Home Page
- 2003-2005 PDF File Index

2001-2003
- 2001-2003 Home Page

1999-2001
- 1999-2001 Home Page

** Please note: any Base Catalog information may have been superceded by updates.

Additional information:

Print versions of the catalog (Fall 2005-Summer 2007 and earlier) are archived at the central campus M.D. Anderson Memorial Library. Catalogs from Fall 2008 forward are **published online only**.

The online archives are presented for your reference. In cases of discrepancy between online archived catalog information - including .pdf files - and its corresponding print version, the print version is considered the official version. See also the online catalog disclaimer.

Always check page dates to insure that you are looking at the historical information you were seeking. Many archived pages contain links which may lead to information outside the archives, or which may link back to the current catalog’s information (e.g. course descriptions, etc.).

From within catalogs Fall 1999 through Summer 2009, you may select "Catalog Home" to find links back to the current catalog.

For the best results with .pdf files, you may wish to go to Adobe’s site to find the most current free Adobe Reader for your system.
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