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The College of Arts and Sciences is a community of scholars dedicated to the idea that educated people are the basis of a just and free society. The essences of education are a capacity for and an appreciation of social change within a context of prior human achievement. The faculty of the Arts and Sciences strive to instill in their students a history of human ideas, a sense of love for learning, and an understanding of the means that scholars have used in their search for beauty and order in the natural world.

The education provided by the disciplines of the Arts and Sciences is the foundation upon which the lives and professions of our students are built, and the basis from which personal growth occurs. The College of Arts and Sciences takes as its goal a melding of the natural, humanistic and social philosophies into a comprehensive whole that encourages the development of new ideas and new approaches to the understanding of our universe.

Great universities provide direction for their communities and service for their needs. The faculty of the Arts and Sciences as well as the staff, who support and encourage their work, explore their scholarly interests within the home and community created by the academic society. It is the responsibility of scholars to share their discoveries for the betterment of society. Thus, the Arts and Sciences embrace disciplines that strive to make immediate use of knowledge in the service of social goals as well as disciplines whose discoveries contribute to the fund of basic information that is the stepping stone of applied knowledge.

General Information
The College of Arts and Sciences Dean's Office is located in Cooper Hall (CPR), Room 107. For additional information about the College, visit our web site at http://www.cas.usf.edu. Information regarding advising, admission to the College, graduation requirements, special programs, and departments follows.

Community Initiative
Universities have become major actors in today's knowledge-based society. As such they can no longer remain secluded ivory towers, removed from the social problems that surround them. Recognizing this, the College of Arts and Sciences launched the Community Initiative, a new focus that identifies the community outside the university as an integral part of its educational mission to acquire, disseminate, and apply knowledge. The Community Initiative develops concrete and integrated efforts to link the teaching, research, and service components of our College with the interests and needs of residential, community-based organizations and businesses in the local area. Two major components of the Community Initiative are the Urban Studies Certificate Program and the Community Experiential Learning (CEL) Program. The Urban Studies Certificate gives students the opportunity to supplement their education and training with a focus on the urban world around them. Through the Community Experiential Learning (CEL) Program, students can explore the relationship between their classroom learning and the broader community as they do community-based independent research or internships.

Honors Program
The College of Arts and Sciences offers undergraduate honors programs in Anthropology, Classics, Communication, English, Geology, Mathematics, Philosophy, Psychology, Religious Studies, and Sociology. Students interested in one of these honors programs should consult the appropriate department for further information.

COMMUNITY EXPERIENTIAL LEARNING PROGRAM
The Community Experiential Learning (CEL) Program offers students the opportunity to explore the relationship between their classroom learning and the broader community. With faculty guidance, students design their own community experiences and receive between one and four academic credit(s) upon completion. Students may choose to work as an intern with a community organization/agency or to explore a community issue through independent research. The community can be as close as a neighborhood just beyond the campus or on the other side of the world.

Students may participate in CEL anytime during their academic career. Good standing at the university and a 2.0 GPA is required for acceptance into the Program. CEL courses are offered throughout the entire year. Ideally, students should plan their CEL projects during the term prior to their implementation, but they can be added at any time during the term. Information may be obtained from Kim Lersch, School of Public Affairs, at klersch@usf.edu.

Institute for the Study of Latin America and the Caribbean (ISLAC)
Location/Phone: Faculty Office Building (FAO) 286; (813) 974-3547
Web Address: http://islac.usf.edu
Contact Email: plezama@usf.edu
The mission of ISLAC is to promote the study of Latin America and the Caribbean, in collaboration with USF's strategic plan for internationalization. ISLAC is an academic unit devoted to interdisciplinary research and teaching focused on economic, social, political and cultural formations in Latin America and the Caribbean and among the Hispanic/Latino populations in North America. ISLAC has 72 affiliate faculty members who are drawn from social science, humanities, arts, and human services fields, including, but not limited to, history, languages and literature.
humanities, anthropology, political science, sociology, economics, business, geography, public administration, fine arts, public health, education and behavioral and community sciences.

ISLAC offers a certificate in Latin America and Caribbean Studies open to undergraduate students enrolled in any USF major and a Graduate Certificate in LACS, open to USF graduate students and non-degree seeking students who have already obtained a BA. ISLAC also offers a Masters of Arts (M.A.) in Latin America and Caribbean Studies. All ISLAC academic programs are interdisciplinary, flexible and applied.

The Institute fosters greater knowledge of Latin America and the Caribbean, and Latino issues by providing research support for USF faculty and students, and through partnerships with community organizations and other USF departments to sponsor lectures and cultural events. ISLAC faculty and staff are engaged with USF administration to strengthen community ties and to advance the internationalization of USF programs, research, curricula, faculty and students.

Admission Requirements

Admission to the College of Arts and Sciences is open to students who have been accepted to the University of South Florida and who declare a major in a particular field. Mass Communications is a limited access degree program and has additional requirements listed under "Departments and Programs."

Undergraduate students must submit a formal application for admission into the College. This usually occurs during orientation and advising for new students. This application is available online for current students at http://www.cas.usf.edu/declare. Students preparing for a science or mathematics career must plan their courses carefully because of the sequential nature of the curricula. Students seeking entrance into a health professional school or the medical technology internship program require specialized counseling, therefore, immediate application for admission into the College is strongly recommended.

Information on admission criteria, departments, majors, programs, advising and other services of the College may be obtained from the Office of Graduate and Undergraduate Studies (BEH 201), College of Arts and Sciences, University of South Florida, Tampa, Florida 33620, or visit our web site at http://www.cas.usf.edu.

College Requirements

The College of Arts and Sciences offers two undergraduate degrees: Bachelor of Arts and Bachelor of Science.

IT IS EACH STUDENT’S RESPONSIBILITY TO MEET GRADUATION REQUIREMENTS:

Core Curriculum Requirements of 36 hours credit:

EXIT Course Requirements
1. Complete at least 120 accepted semester hours, 124 for Mass Communications, with a minimum USF cumulative GPA and overall GPA of 2.0.
2. Maintain major GPA of 2.0 in USF coursework. Note: In Anthropology, English and Mass Communications students must have a 2.50 major GPA in USF coursework.
3. Complete the Foreign Language Entrance Requirement and students pursuing a B.A. degree must complete the Foreign Language Exit Requirement.
4. Students enrolling in USF must satisfy the Writing (Communication) and Mathematics (Computation) Requirements, formerly known as Gordon Rule. Transfer students who enter the University of South Florida with 60 or more semester hours from a regionally accredited institution are considered to have met the communication portion of the Writing (Communication) and Mathematics (Computation) Requirements, formerly known as Gordon Rule.
5. Complete 36 hours of General Education Core Courses and Foundations of Knowledge and Learning Core Curriculum Requirements.
6. Physical Education coursework is limited to two (2) semester hours.
7. ROTC courses are limited to nine (9) semester hours.
8. When double majoring, a maximum of two (2) departmental courses or eight (8) credit hours may be used to satisfy requirements between majors. Students should check with the college and respective departments when pursuing more than one major/degree. The only exception whereby a student may apply more than eight (8) credit hours of overlapping coursework to their majors/degrees are those students who pursue double majors or two degrees between the College of Education and the College of Arts and Sciences.
   • The College of Arts and Sciences defines a "major" as those courses taught by the department where the major is housed.
   • In the case of interdisciplinary programs (Biomedical Sciences, Interdisciplinary Natural Sciences, Health Sciences, International Studies, Environmental Science and Policy, French International Studies & Business Concentration, Spanish International Studies & Business Concentration and Interdisciplinary Social Sciences) overlapping coursework between double majors requires prior approval.
9. Maximum of 20 hours of S/U option. S/U contracts must be negotiated in writing within the first three (3) weeks...
of the term. None of the 20 credits may be taken in the student's major unless S/U is the only grading option. Coursework fulfilling the Foundations of Knowledge and Learning Core Curriculum Requirements and the Writing (Communication) and Mathematics (Computation) Requirements, formerly known as Gordon Rule, may not be taken S/U.

10. The Audit option is available only during the first 5 days of classes.

11. Complete at least 9 semester hours at a Florida public university in the Florida State University System during summer terms if entering USF with fewer than 60 semester hours.

12. "D" grades are not acceptable in the major and supporting sciences for all natural sciences majors (Biomedical Sciences; Cell Biology, Microbiology, and Molecular Biology; Health Science; Integrative Biology; Interdisciplinary Natural Sciences; Medical Technology; Chemistry; Geology; Math; and Physics). "D" grades are not acceptable for the major area in Anthropology, Communication, English, Geography, History, Humanities, Mass Communications, Philosophy, Psychology, and Sociology.

13. Complete all major course requirements.

14. Complete a minimum of 42 hours of upper-level courses (numbered 3000 or above).

15. Thirty (30) of the last 60 semester hours must be completed at the USF System Institution (home institution) to fulfill the residency requirement.

16. Biomedical Sciences; Cell Biology, Microbiology, and Molecular Biology; Chemistry; Economics; English; Integrative Biology; Interdisciplinary Natural Sciences; Mass Communications; Mathematics; Physics; Political Science; Religious Studies; and Sociology have established minimum major course hours to be taken in residency at USF. See the department section of the catalog for these credit-hour requirements. In addition, all students who have majors outside the natural sciences must take a minimum of 80 hours outside of the major department.

Following are the undergraduate academic programs offered by the College of Arts & Sciences:

**Bachelor of Arts (B.A.)**

Africana Studies (AFA)

Anthropology (ANT)

Chemistry (CHM)

  Biochemistry/Biotechnology (CBY)

  Health Professions (CHH) (suspended)

Classics-Latin/Greek (CLS)

Communication (SPE)

Economics (ECO)

English (ENG)

  Creative Writing (CRW)

  Literary Studies (LTS)

  Professional Writing, Rhetoric & Technology (PRT)

French (FRE)

  International Studies and Business (IFB)

Geography (GPY)

  General Geography (GGG)

  Human Geography (USG)

  Physical Geography (PGG)

Geology (GLY)

German Studies (GMS)

History (HTY)

  Humanities and Cultural Studies (HCS)

  American Studies (AMSC)

  Film and New Media Studies (FMSC)

  Humanities (HUMC)

Interdisciplinary Classical Civilizations (ICC)

Interdisciplinary Social Sciences (ISS)

Africana Studies (AFA)

American Studies (AMS)

Anthropology (ANT)

Communication (SPE)

Criminology (CCJ)

Economics (ECO)

Environmental Science and Policy (ESP)

Geography (GPY)

Gerontology (GEY)

History (HTY)

  Humanities and Cultural Studies (HSC)

  Information Studies (IFS)

  International Studies (INT)

  Interpreter Training (TIS)

  Language, Speech, and Hearing (SAH)

  Latin American, Caribbean, & Latino Studies (LAS)

  Mass Communications (COM)

  Multidisciplinary Behavioral Sciences (MDS)

  Political Science (POL)

  Psychology (PSY)

  Public Administration (PAD)

  Public Health (PUB)

  Religious Studies (REL)

  Sociology (SOC)

  Women's and Gender Studies (WGS)

International Studies (INT)

Italian (ITA)

Mass Communications (COM)

  Advertising (ADV)

  Broadcast News (NWS)

  Broadcast-Program and Production (PGM)

  Journalism-Magazine (MAG)

  Journalism-News-Editorial (JOU)

  Public Relations (PUR)

Mathematics (MTH)

  Applied/Computational Mathematics (ACM)

  General Mathematics (GMM)

  Pure Mathematics (PMM)

  Philosophy (PHI)

  Physics (PHY)

  Political Science (POL)

  Psychology (PSY)

  Religious Studies (REL)
### Bachelor of Science (B.S.)

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<td>Biomedical Sciences (BMS)</td>
<td>Health Management (HLM)</td>
<td>Health Management and Health Information Technology (HMT)</td>
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<td>Cell and Molecular Biology (CAM)</td>
<td>Health Management and Information Technology (HMT)</td>
<td>Social and Behavioral Health Sciences (HBS)</td>
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<tr>
<td>Chemistry (CHS)</td>
<td>Health Management and Health Information Technology (HMT)</td>
<td>Social and Behavioral Health Sciences and Aging Health Studies (HAS)</td>
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<td>Environmental Biology (ENB)</td>
<td>Health Management and Health Information Technology (HMT)</td>
<td>Social and Behavioral Health Sciences and Health Information Technology (HST)</td>
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<td>Environmental Microbiology (EMB)</td>
<td>Health Management and Health Information Technology (HMT)</td>
<td>Social and Behavioral Health Sciences and Health Management (HMG)</td>
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<td>Environmental Science and Policy (ESP)</td>
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<td>Information Studies (IFS)</td>
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<td>Health Management and Health Information Technology (HMT)</td>
<td>Data Science and Analytics (IDSC)</td>
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<td>Health Sciences (HLS)</td>
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<td>Health Informatics (IHIC)</td>
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<td>Information Science and Technology (ISTC)</td>
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<td>Health Management and Health Information Technology (HMT)</td>
<td>Information Security (IISC)</td>
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<td>Biological Health Sciences (HBH)</td>
<td>Health Management and Health Information Technology (HMT)</td>
<td>Integrative Animal Biology (IAB)</td>
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<td>Biological Health Sciences and Aging Health Studies (HBA)</td>
<td>Health Management and Health Information Technology (HMT)</td>
<td>Interdisciplinary Natural Sciences (INS)</td>
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<td>Marine Biology (MRN)</td>
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<td>Biological Health Sciences and Health Management (HBM)</td>
<td>Health Management and Health Information Technology (HMT)</td>
<td>Medical Technology (MET)</td>
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### Accelerated Degree Programs

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<td>B.S. Biomedical Sciences/M.A. Science Education</td>
<td>B.A. Humanities and Cultural Studies/M.A. Film and New Media Studies</td>
<td>B.S. Integrative Animal Biology/M.A. Science Education</td>
</tr>
<tr>
<td>B.S. Biology/M.S. Biology (non-thesis)</td>
<td>B.S. Integrative Animal Biology/M.A. Science Education</td>
<td>B.S. Interdisciplinary Natural Sciences/M.A. Science Education</td>
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<tr>
<td>B.A. Chemistry/M.A. Science Education</td>
<td>B.S. Integrative Animal Biology/M.A. Science Education</td>
<td>B.S. Interdisciplinary Natural Sciences/M.A. Science Education</td>
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<tr>
<td>B.S. Chemistry/M.S. Biomedical Engineering</td>
<td>B.A. English with a concentration in Literary Studies/M.A. Literature</td>
<td>B.S. Marine Biology/M.A. Science Education</td>
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<td>B.A. Economics/M.A. Economics</td>
<td>B.S. Integrative Animal Biology/M.A. Science Education</td>
<td>B.S. Microbiology/M.S. Microbiology</td>
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<tr>
<td>B.A. English with a concentration in Literary Studies/M.A. Literature</td>
<td>B.S. Integrative Animal Biology/M.A. Science Education</td>
<td>B.A. Physics/M.A. Science Education</td>
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<td>B.S. Environmental Biology/M.A. Science Education</td>
<td>B.S. Integrative Animal Biology/M.A. Science Education</td>
<td>B.A. Religious Studies/M.A. Religious Studies</td>
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<td>B.S. Environmental Microbiology/M.A. Science Education</td>
<td>B.S. Integrative Animal Biology/M.A. Science Education</td>
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### Honors Programs

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<tr>
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<td>Philosophy</td>
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<tr>
<td>Classics-Latin/Greek</td>
<td>Political Science</td>
<td>Psychology</td>
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<td>Communication</td>
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### Minors

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<td>Africana Studies (AFA)</td>
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<td>American Studies (AMS)</td>
<td>Creative Writing (CRW)</td>
<td>Economics (ECO)</td>
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<td>Environmental Policy (ESP)</td>
<td>Film and New Media Studies (FNMS)</td>
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<td>Astronomy (AST)</td>
<td>Environmental Policy (ESP)</td>
<td>French (FRE)</td>
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<td>Biomedical Anthropology (BAN)</td>
<td>Environmental Policy (ESP)</td>
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<td>Chinese Language (CHN)</td>
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### COLLEGE OF ARTS & SCIENCES

**UNIVERSITY OF SOUTH FLORIDA 2016-2017 UNDERGRADUATE CATALOG**

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<th>Major</th>
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<td>Urban Studies (UST)</td>
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<td>Microbiology (MIC)</td>
<td>Women's and Gender Studies (WGS)</td>
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### Certificates

- Africana Literatures
- Agricultural Sustainability and Food Biosecurity
- Arabic Language and Culture
- Asian Studies
- Film Studies
- Food Studies
- India Studies
- Italian Studies
- Japanese
- Latin American and Caribbean Studies
- Modern Western European Studies
- National Intelligence
- Russian Studies

### The following major is accepting no new admission because it was discontinued effective Fall 2016.

**B.A. American Studies**

### COLLEGE OF ARTS AND SCIENCES ADVISING INFORMATION

<table>
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<tr>
<th>Major</th>
<th>Advisor(s)</th>
<th>Email</th>
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<tbody>
<tr>
<td>Africana Studies (AFA)</td>
<td>Rahi Dayerizadeh</td>
<td><a href="mailto:AFAadvise@usf.edu">AFAadvise@usf.edu</a></td>
<td><a href="http://africanastudies.usf.edu/">http://africanastudies.usf.edu/</a></td>
</tr>
<tr>
<td>Anthropology (ANT)</td>
<td>Elicia Kimble</td>
<td><a href="mailto:AnthroAdvise@usf.edu">AnthroAdvise@usf.edu</a></td>
<td><a href="http://anthropology.usf.edu/undergrad/faq/">http://anthropology.usf.edu/undergrad/faq/</a></td>
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<td>Biology Degrees:</td>
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<tr>
<td>Cell and Molecular Biology (CAM)</td>
<td>Jessica Davis</td>
<td><a href="mailto:Bioadvise@usf.edu">Bioadvise@usf.edu</a></td>
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<td>Environmental Biology (ENB)</td>
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<td>Biomedical Sciences (BMS)</td>
<td>Lauren Albaum</td>
<td><a href="mailto:Chemadvise@usf.edu">Chemadvise@usf.edu</a></td>
<td><a href="http://chemistry.usf.edu/advising/">http://chemistry.usf.edu/advising/</a></td>
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<td>Chemistry B.A. (CHM) Concentration:</td>
<td>Ashley Dees</td>
<td><a href="mailto:Chemadvise@usf.edu">Chemadvise@usf.edu</a></td>
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<td>Anthony Iannelli</td>
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<td>Kristi Kirby</td>
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<td>Kelly Pearson</td>
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<tr>
<td>Classics (CLS)</td>
<td>Yury Riascos</td>
<td><a href="mailto:LanguagesAdvise@usf.edu">LanguagesAdvise@usf.edu</a></td>
<td><a href="http://languages.usf.edu/undergraduate/classics/">http://languages.usf.edu/undergraduate/classics/</a></td>
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### College of Arts & Sciences

#### 2016-2017 Undergraduate Catalog

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<th>Department</th>
<th>Advisor</th>
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<tr>
<td>Communication (SPE)</td>
<td>Andrea Sereno</td>
<td><a href="mailto:CommunicationAdvise@usf.edu">CommunicationAdvise@usf.edu</a></td>
<td><a href="http://communication.usf.edu/undergraduate/advising/">http://communication.usf.edu/undergraduate/advising/</a></td>
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<tr>
<td>Economics (ECO)</td>
<td>Ce'era Horton</td>
<td><a href="mailto:Econadvise@usf.edu">Econadvise@usf.edu</a></td>
<td><a href="http://economics.usf.edu/undergraduate/ba_econ/">http://economics.usf.edu/undergraduate/ba_econ/</a></td>
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<tr>
<td>- Professional Writing, Rhetoric &amp; Technology (PRT)</td>
<td>Sarah Ayers, Yury Riascos</td>
<td><a href="mailto:EnglishAdvise@usf.edu">EnglishAdvise@usf.edu</a></td>
<td><a href="http://english.usf.edu/ug/advising/">http://english.usf.edu/ug/advising/</a></td>
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<td>Environmental Science &amp; Policy (ESP)</td>
<td>Rene Alvarez</td>
<td><a href="mailto:GeoAdvise@usf.edu">GeoAdvise@usf.edu</a></td>
<td><a href="http://hennarot.forest.usf.edu/main/depts/geosci/ug/advising/">http://hennarot.forest.usf.edu/main/depts/geosci/ug/advising/</a></td>
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<td><a href="mailto:LanguagesAdvise@usf.edu">LanguagesAdvise@usf.edu</a></td>
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<td>Geography (GPY)</td>
<td>Rene Alvarez</td>
<td><a href="mailto:GeoAdvise@usf.edu">GeoAdvise@usf.edu</a></td>
<td><a href="http://hennarot.forest.usf.edu/main/depts/geosci/ug/advising/">http://hennarot.forest.usf.edu/main/depts/geosci/ug/advising/</a></td>
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<td>Geology - B.A. (GLY)</td>
<td>Rene Alvarez</td>
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<td>Health Sciences (HLS)</td>
<td>Dana Barnes</td>
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<td><a href="http://www.cas.usf.edu/students/advising/health/">http://www.cas.usf.edu/students/advising/health/</a></td>
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<td>- Gina DiMauro</td>
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<td>History (HTY)</td>
<td>James Lambert</td>
<td><a href="mailto:HistoryAdvise@usf.edu">HistoryAdvise@usf.edu</a></td>
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<td>Shani Garza</td>
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<td><a href="http://humanities.usf.edu/undergraduate/advising.aspx">http://humanities.usf.edu/undergraduate/advising.aspx</a></td>
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<td>Information Studies (IFS)</td>
<td>Jessica Stafford</td>
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<td>Interdisciplinary Classical Civilizations (ICC)</td>
<td>Andrew Bird</td>
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<td><a href="http://chemistry.usf.edu/advising/">http://chemistry.usf.edu/advising/</a></td>
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<td>Interdisciplinary Social Sciences (ISS)</td>
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<td><a href="mailto:ISSAdvise@usf.edu">ISSAdvise@usf.edu</a></td>
<td><a href="http://iss.usf.edu/">http://iss.usf.edu/</a></td>
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<td>International Studies (INT)</td>
<td>Pamela Anderson, Raheleh Dayerizadeh, Heather Jarema</td>
<td><a href="mailto:IAadvise@usf.edu">IAadvise@usf.edu</a></td>
<td><a href="http://gia.usf.edu/is/">http://gia.usf.edu/is/</a></td>
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<td><a href="mailto:LanguagesAdvise@usf.edu">LanguagesAdvise@usf.edu</a></td>
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<td>- Advertising</td>
<td>Daniel Shelnutt</td>
<td><a href="mailto:Masscomadvise@usf.edu">Masscomadvise@usf.edu</a></td>
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Health Professions

The University of South Florida is an excellent location to prepare for a career in the health professions. The Veterans Administration Hospital, University of South Florida Medical Center, Shriners Hospital for Children, H. Lee Moffitt Cancer Center and Research Institute, University of South Florida Mental Health Institute, and Florida Hospital Tampa are all within walking distance of the campus and offer students excellent opportunities for observation, research, and experience.

The College of Arts and Sciences offers programs designed to prepare students for admission to allopathic medicine (M.D.), osteopathic medicine (D.O), chiropractic medicine, dentistry, optometry, podiatry, veterinary medicine, pharmacy, physician assistant, and physical therapy. Most of these professions require four years of pre-professional preparation followed by four years of training in a professional school. A few well-prepared students with exceptional

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In order to schedule a meeting with an advisor in this college, please use [eschedule](http://eschedule).
qualifications may be admitted to some professional schools as early as the completion of the junior year of pre-professional work. The pre-professional programs do not meet requirements for a degree; therefore, students must choose a major in addition to fulfilling their pre-professional requirements. Most pre-professional students major in biology, biomedical sciences, or chemistry because of their interests in the health sciences, and there is considerable overlap between the pre-professional curriculum and the degree requirements for those majors, however, there is no specific major required for admission into pre-professional programs. Entrance into all professional schools or programs is competitive, and students should begin establishing a record of excellence with the first semester at USF. Furthermore, it is essential that students pursue courses developing a sense of understanding of cultural and humane values as well as basic social problems. Students should also have some clinical and/or volunteer experience related to their intended field.

Students considering one of the health professions should contact the Health Professions Advisors during the first semester at USF to declare their interest in a health professions program.

For specific information about the following programs, please see our health professions website at: http://www.cas.usf.edu/healthprofessions/

• For information regarding the USF's Medical program, please visit: http://health.usf.edu/medicine/
• For information regarding USF's Physical Therapy program, visit: http://health.usf.edu/medicine/dpt/
• For information regarding the USF's Pharmacy program, visit: http://health.usf.edu/pharmacy/

Requirements for Health Professions Schools

These courses prepare students for admission to professional schools of chiropractic medicine, dentistry, allopathic medicine, osteopathic medicine, podiatric medicine, optometry, veterinary medicine, and pharmacy. All of these professional schools have in common the following course requirements, which should be completed by the end of the junior year, the usual time of application:

**Biology**
- BSC 2010/2010L Biology I: Cellular Processes and Laboratory
- BSC 2011/2011L Biology II: Biodiversity and Laboratory

**Chemistry**
- CHM 2045/2045L General Chemistry I and Laboratory
- CHM 2046/2046L General Chemistry II and Laboratory
- CHM 2210/2210L Organic Chemistry I and Laboratory
- CHM 2211/2211L Organic Chemistry II and Laboratory

**Physics**
- PHY 2053/2053L General Physics I and Laboratory
- PHY 2054/2054L General Physics II and Laboratory

In addition to these requirements it is generally expected that pre-professional students will complete two semesters of English and mathematics appropriate for their degree. Some schools require calculus and some require one or two courses in biochemistry. CLEP credit usually is not accepted by professional schools, and some schools do not accept AP or IB and have specific restrictions for accepting DE credits. Students should check with the school of their choice regarding acceptable acceleration credit.

Requirements for B.S. in Biomedical Sciences for Early Admission Students

Early admission to professional school is exceptional with today’s competitive applicant pool; however, a few students may be admitted prior to completion of the bachelor’s degree through special programs.

There are no State Mandated Common Prerequisites for this degree program.

Students planning on early admission should begin studies at a 4-year institution as professional schools require at least 1 year of studies at a university prior to application. Depending upon the professional school, additional science courses may be required or strongly recommended as indicated in the preceding sections. Exposure to a health profession is also strongly recommended.

Students who are admitted to an accredited U.S. medical or dental school after completing their junior year at the University of South Florida may be awarded the B.S. degree in Biomedical Sciences from the College of Arts and Sciences subject to the following conditions:

1. Transfer of a minimum of 30 semester hours of science courses from an accredited medical or dental school.
2. Completion of a minimum of 90 semester hours of credit with a minimum grade point average of 2.00 prior to transfer to the medical or dental school.
3. Completion of the following courses with at least a C in each course:
4. Completion of the University’s Foundations of Knowledge and Learning Requirements.
5. Completion of the last 30 hours prior to transfer to a medical or dental school in residence at the University of South Florida.
6. Application for the degree must be received no later than two years from the date of entrance into the professional school.
Students admitted to professional schools of veterinary medicine, optometry, physical therapy, or podiatric medicine prior to completion of their degree may also be able to transfer courses from the professional school and receive their bachelor’s degree. However, approval of the courses to be transferred must be obtained on an individual basis from the College of Arts and Sciences, and in some cases it may be necessary for students to complete more than 90 hours prior to leaving the University of South Florida.

Teacher Education Program
The College of Arts and Sciences offers B.A. and M.A. degree programs for secondary school teachers and the M.A. degree for junior college teachers.

B.S. Degree Programs for Secondary School Teachers
The College of Arts and Sciences, in cooperation with the College of Education, offers degree programs in Mathematics, Biology, Chemistry, Physics, English, Foreign Language and Social Science Education. Prospective students should consult the College of Education portion of this catalog under the heading, Department of Secondary Education for degree requirements.

Biology
Plus two of the following biology courses, including at least one with a laboratory (minimum 7 semester hours):
- BSC 2010/2010L Cellular Processes and Laboratory
- BSC 2011/2011L Biodiversity and Laboratory
- MCB 3020/3020L General Microbiology and Laboratory
- PCB 3023/3023L Cell Biology (lab optional)
- PCB 3063/3063L General Genetics (lab optional)
- MCB 4115/4115L Determinative Bacteriology and Laboratory
- MCB 4502 Virology
- MCB 5815 Medical Mycology
- PCB 4064 Experimental Genetics
- PCB 4723 Animal Physiology
- PCB 4723L Animal Physiology Laboratory
- PCB 4234 Principles of Immunology
- ZOO 3713C Comparative Vertebrate Anatomy
- ZOO 4753 Human Histology & Molecular Pathology of Disease

Chemistry
- CHM 2045/2045L General Chemistry I and Laboratory
- CHM 2046/2046L General Chemistry II and Laboratory
- BCH 3023 Introductory Biochemistry or BCH 3053 or BCH 4033

Physics
- PHY 2053/2053L General Physics I and Laboratory
- PHY 2054/2054L General Physics II and Laboratory

Mathematics
- MAC 2241, MAC 2311, or MAC 2281 Calculus I
- Plus either the second semester of a calculus sequence OR
- STA 2023 Introductory Statistics I

• B.A. - AFRICANA STUDIES (AFA) (CIP = 05.0201)

TOTAL DEGREE HOURS: 120

http://africanastudies.usf.edu/undergraduate/major/

Africana Studies is a liberal arts program offering a Bachelor of Arts in Africana Studies, a Minor in Africana Studies and a Certificate in Africana Literatures. This program provides all students with the opportunity to study the history, culture and lived experiences of people of African descent--on the African continent and throughout the world. Students also study the influence of Africa and people of African descent on the world at-large. The Africana Studies curriculum also explores the social construction of race and racism and encourages the development of critical thinking skills while also challenging students to explore new ideas, seek new connections and become actively engaged in the global community.

STATE MANDATED COMMON COURSE PREREQUISITES
Students desiring to transfer to USF should complete an A.A. degree at a Florida College System institution. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the University's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements. Transfer students
There are no State Mandated Common Prerequisites for this program.

REQUIREMENTS FOR THE MAJOR IN AFRICANA STUDIES
TOTAL MAJOR HOURS: 36

Major requirements for the B.A. Degree:

Major Core (15 hours)
- AFA 2000 Introduction to the Black Experience in Africa and its Diaspora
- AFH 3100 African History to 1850
- AFH 3200 African History since 1850
- AMH 3571 African American History to 1865
- AMH 3572 African American History since 1865

Major Electives (21 hours)
Students will take seven additional elective courses from the following list of courses:
- AFA 4150 Africa and the United States
- AFA 4335 Black Women in America
- AFA 4350 African American Community Research
- AFA 4430 Afro-Diasporic Literature and Political Movements
- AFA 4500 Slavery in the Americas and the Caribbean
- AFA 4900 Directed Readings
- AFA 4931 Selected Topics in Africana Studies
- AFS 2250 Culture and Society in Africa
- AML 3604 African American Literature
- AMS 3700 Racism in American Society
- ANT 4340 The Caribbean
- PHM 4120 Major Black Thinkers

Other electives may become available to students. Please see the undergraduate advisor or the Africana Studies Undergraduate Director for further information.

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

AFRICANA STUDIES FACULTY

• B.A. - ANTHROPOLOGY (ANT) (CIP = 45.0201)
TOTAL DEGREE HOURS: 120
http://anthropology.usf.edu/undergrad/major/

Anthropology aims at comprehending people as biological and social beings. It is concerned with all forms of people through time and space. This holistic and broad-ranging view is reflected by the presence within anthropology of four branches or sub-fields: archaeology, biological anthropology, cultural anthropology, and linguistics. Exposure to anthropological information and the cross-cultural perspective produces heightened sensitivity in the student to the world about him/her. This helps the student to adopt an intellectual posture of disciplined skepticism with respect to any scheme that purports to define and account for regularities in human life. Students majoring in other fields may find anthropology coursework an exciting and valuable supplement to their primary academic interest.

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some
courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

ANT XXXX Two Introductory Courses in Anthropology (ANT prefix)

REQUIREMENTS FOR THE MAJOR IN ANTHROPOLOGY

TOTAL MAJOR HOURS: 37

Major requirements for the B.A. Degree:

Major Core (19 hours)

ANT 2410 Cultural Anthropology
ANT 2511 Biological Anthropology
ANT 2511L Biological Anthropology Laboratory
ANT 3101 Archaeology
ANT 3610 Anthropological Linguistics
ANT 4034 Theories of Culture
ANT 4701 Applied Anthropology

Major Electives (18 hours)

Students are required to complete a minimum of 18 hours of 4000-level elective coursework, including at least one course from each subfield, from the courses listed below. A minimum of three (3) of these 18 credits must be selected from a list of designated methods courses. Methods courses may also be counted toward the subdivision requirement.

Archaeology Subfield

ANT 4012 Fantastic Archaeology
ANT 4142 Old World Archaeology
ANT 4143 European Archaeology
ANT 4147 Environmental Archaeology
ANT 4153 North American Archaeology
ANT 4158 Florida Archaeology
ANT 4165 South American Archaeology
ANT 4163 Mesoamerican Archaeology
ANT 4172 Historical Archaeology
ANT 4180 Laboratory Methods in Archaeology
ANT 4181 Museum Methods
ANT 4183C Archaeological Science
ANT 4185 Ancient Diets
ANT 4260 Ancient Trade
ANT 4536 Bioarchaeology
ANT 4824 Archaeological Field Methods

Biological Anthropology Subfield

ANT 4467 Biocultural Bases of Health and Disease
ANT 4516 Human Variation
ANT 4520C Forensic Anthropology
ANT 4525 Human Osteology and Osteometry
ANT 4532 Anthropology of Infectious and Contagious Diseases
ANT 4536 Bioarchaeology
ANT 4586 Prehistoric Human Evolution
ANT 4593 Evolution and Health

Cultural Anthropology Subfield

ANT 4014 Anthropology of American Culture
ANT 4241 Anthropology of Religion
ANT 4243 Middle East and North Africa
ANT 4285 Oral History
ANT 4302 Gender in Cross-Cultural Perspectives
ANT 4312 North American Indians
ANT 4316 Ethnic Diversity in the United States
ANT 4323 Mexico and Central America
ANT 4340 The Caribbean
ANT 4390 Visual Anthropology
ANT 4401 Exploring Cross-Cultural Diversity
ANT 4403 Environmental Anthropology
ANT 4432 The Individual and Culture
ANT 4442 Urban Life and Culture
ANT 4462 Health, Illness, and Culture
ANT 4465 Anthropology of Food
ANT 4472 Work and Migration in the Americas
ANT 4475 Anthropology of Childhood
ANT 4495 Methods in Cultural Research
ANT 4532 Anthropology of Infectious and Contagious Diseases
ANT 4620 Language and Culture
ANT 4750 Language and Social Interaction
ANT 4935 Rethinking Anthropology
URS 3002 Introduction to Urban Studies

Methods Courses (3 credit hours):
ANT 4180 Laboratory Methods in Archaeology
ANT 4181 Museum Methods
ANT 4183C Archaeological Science
ANT 4185 Ancient Diets
ANT 4260 Ancient Trade
ANT 4285 Oral History
ANT 4390 Visual Anthropology
ANT 4403 Environmental Anthropology
ANT 4465 Anthropology of Food
ANT 4495 Methods in Cultural Research
ANT 4520C Forensic Anthropology
ANT 4525 Human Osteology and Osteometry
ANT 4824 Archaeological Field Methods
ANT 4932 Honors Seminar
ANT 4930 Special Topics in Anthropology may count toward the major and within a particular subdivision depending on the specific topic. Please consult the advisor for details.

GPA Requirements
In order to graduate, students must maintain an average best attempt 2.5 GPA in all courses counted toward the major.

Residency Requirement
Fifty percent of the major coursework must be completed at USF Tampa.

Research Opportunities
There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. Students may do a Directed Reading (ANT 4901) or Individual Research (ANT 4905) with credits applying to the major. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM
The purpose of the Honors Program is to provide outstanding Anthropology undergraduates with advanced, individually tailored training in areas of anthropology of interest to them. The program, operating independently of the major itself, involves a year of coursework and research culminating in the writing of an Honors thesis. Students in the second semester of their junior year, prior to completion of 90 semester hours, may apply to the program, which begins in the fall semester.
Admission is competitive, based on the student's overall academic record:
- minimum overall 3.25 GPA,
- 3.5 GPA for USF Anthropology coursework,
- a two-page, personal statement indicating research interests, and
- a letter of recommendation and commitment from a faculty member of the Department of Anthropology.

Successful completion of the program requires:
- maintenance of an overall 3.25 GPA,
- maintenance of a 3.5 GPA in the major,
- completion of ANT 4932 Honors Seminar, with a grade of B or better,
- completion of ANT 4970 (3) (Honors Thesis) with a grade of "S,"
- presentation of the research at the Department's Honors Colloquium in the spring
- and completion of all other requirements for graduation.

Please see the Anthropology Department undergraduate advisor for further information and application forms.

Other Information
Anthropology majors are urged to become competent readers and speakers of a relevant foreign language (which may include American Sign Language, Latin, or Greek, depending on their interests). They are also urged to enhance their English reading, writing, speaking and critical thinking capabilities and develop their skills in computational, statistical and other forms of quantitative analysis at every opportunity. Students are encouraged to fulfill General Education and Exit requirements with courses relevant to their interests in anthropology whenever possible. In pursuit of all these goals, they should meet with the department's undergraduate advisor at least once each semester to discuss such topics as academic progress, future course plans, Anthropology's Honors Program, summer field schools, job opportunities, graduate education and professional careers in anthropology.

Advising Information
AnthroAdvise@usf.edu

ANTHROPOLOGY FACULTY

• B.S. - BIOMEDICAL SCIENCES (BMS) (CIP = 26.0102)
TOTAL DEGREE HOURS: 120
http://chemistry.usf.edu/undergraduate/degree/biomed/

The Biomedical Sciences degree serves as a gateway into a variety of health-professional programs such as Medicine, Pharmacy, Dentistry, and Physical Therapy. Required courses include Biology, Chemistry, Math and Physics. This degree provides the flexibility to choose advanced-level science coursework based on academic and professional interests. Students contemplating graduate study should pursue a major in the discipline of their interest, such as Biology, Chemistry, or Microbiology.

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

BSC X010 & BSC X010L Biology I & Lab or BSC X010C
BSC X011 & BSC X011L Biology II & Lab or BSC X011C
REQUIREMENTS FOR THE MAJOR IN BIOMEDICAL SCIENCES

TOTAL MAJOR HOURS: 61-62

Major requirements for the B.S. Degree:
Major Core (40 hours)

Tier 1
Required Biology Courses (8 credit hours):
BSC 2010 Cellular Processes
BSC 2010L Cellular Processes Laboratory
BSC 2011 Biodiversity
BSC 2011L Biodiversity Laboratory

Required Chemistry Courses (18 credit hours):
CHM 2045 General Chemistry I
CHM 2045L General Chemistry I Laboratory
CHM 2046 General Chemistry II
CHM 2046L General Chemistry II Laboratory
CHM 2210 Organic Chemistry I
CHM 2210L Organic Chemistry I Laboratory
CHM 2211 Organic Chemistry II
CHM 2211L Organic Chemistry II Laboratory

Required Mathematics Courses (6 credit hours):*
MAC 2241 Life Sciences Calculus I
MAC 2311 and MAC 2281 are also acceptable for the major.
MAC 2242 Life Sciences Calculus II or STA 2023 Introductory Statistics I
MAC 2312 and MAC 2282 are also acceptable for the major.

Required Physics Courses (8 credit hours):*
PHY 2053 General Physics I
PHY 2053L General Physics I Laboratory
PHY 2054 General Physics II
PHY 2054L General Physics II Laboratory
PHY 2048, PHY 2048L General Physics I and Lab and PHY 2049, PHY 2049L General Physics II and Lab are also acceptable for the major.
Students may substitute Human Anatomy or Physiology I and II (BSC 2093C & BSC 2094C or BSC 2085, BSC 2085L & BSC 2086, BSC 2086L) for Physics I & II.

Major Electives (21-22 hours)

Tier 2
Required Biomedical Electives: Total 7-8 credit hours of required courses:
BCH 3053 General Biochemistry
MCB 3020 and MCB 3020L General Microbiology and Laboratory
or chose one lecture: PCB 3063 or PCB 3023 and one lab: PCB 3063L, PCB 3023L or BCH 3023L

Minimum of 14 credits from the following to include:
Upper-level Biology course (3 hour minimum lecture course)
Upper-level Chemistry course (3 hour minimum lecture course)
Upper-level Chemistry or Biology course (3 hour minimum lecture course)
Upper-level Chemistry or Biology Lab (1 hour minimum)
Upper-level Additional Biomedical electives (4 hours minimum)

Biology Courses:
BOT 3850 Medical Botany
MCB 4115 Determinative Bacteriology
MCB 4115L Determinative Bacteriology Lab
MCB 4404 Microbial Physiology and Genetics
MCB 4404L Microbial Physiology and Genetics Laboratory
MCB 4503 Virology
MCB 5206 Public Health and Pathogenic Microbiology
MCB 5815 Medical Mycology
MCB 3410 Cell Metabolism
PCB 3023 Cell Biology
PCB 3023L Cell Biology Laboratory
PCB 3063 General Genetics
PCB 3063L Genetics Laboratory
PCB 3712 General Physiology
PCB 3713L General Physiology Laboratory
PCB 4234 Principles of Immunology**
PCB 4522C Experimental Genetics and Cell Biology
PCB 4723 Animal Physiology
PCB 4723L Animal Physiology Laboratory
PCB 4744 Biomedical Physiology
PCB 4843 Principles of Neuroscience
ZOO 3713C Comparative Vertebrate Anatomy
ZOO 4753 Human Histology & Molecular Pathology of Disease
ZOO 4753L Human Histology & Molecular Pathology of Disease Lab

Chemistry Courses:
BCH 3023L Basic Biochemistry Laboratory
BCH 4033 Advanced Biochemistry I
BCH 4034 Advanced Biochemistry II
CHM 3120C Elementary Analytical Chemistry
CHM 3610 Intermediate Inorganic Chemistry
CHM 3610L Intermediate Inorganic Chemistry Laboratory
CHM 3941 Peer Leading in Chemistry
CHM 4410 Physical Chemistry I
CHM 4410L Physical Chemistry Laboratory
CHM 4411 Physical Chemistry II
CHM 4413 Biophysical Chemistry
CHM 4300 Biomolecules I
CHM 4230 Spectroscopic Analysis of Organic Compounds
CHM 4274 Introduction to Drug Discovery
CHM 4292 Introduction to Medicinal Chemistry
CHM 4307 BioOrganic Chemistry
CHM 4455 Chemistry of High Polymers
CHM 4932 Selected Topics in Chemistry*
CHS 4300 Fundamentals of Clinical Chemistry
CHS 4301L Clinical Laboratory

*Contact Advisor for approval of CHM 4932 Courses

Other Courses:
CHM 4060 Use of Chemical Literature
HSC 4504 Foundations of Public Health Immunology**
PHZ 4702 Applications of Physics to Biology & Medicine I
PHZ 4703 Applications of Physics to Biology & Medicine II

**Students may not use both HSC 4504 and PCB 4234 to the meet Tier 2 required Biomedical Electives requirements.

General Electives. Courses over and above the required courses should be taken to complete a 120 hour program. Additional courses in computer programming, economics, management, engineering, statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment. Transfer Credit: It is strongly recommended that students transferring from community/state colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before they transfer. Even though courses may carry the same common course number, topics covered may vary significantly from school to school.
D/F Policy: The following three departments, the Department of Chemistry, the Department of Cell Biology, Microbiology and Molecular Biology and the Department of Integrative Biology have instituted a procedure to provide students with the best opportunity to progress toward their degree requirements. Effective Fall 2009, the following D and/or F grade rules apply for students to continue in all of the following majors:

- Biomedical Sciences
- Biology (including the marine science concentration)
- Microbiology
- Chemistry (BA, BS)
- Interdisciplinary Natural Sciences (INS)
- Medical Technology and
- Pre-medical sciences students (PMS) who have not yet declared a major

All students entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in applicable USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) before Fall 2009, will also be redirected after earning three (3) D and/or F grades in subsequent terms. Upon earning the 3rd D and/or F grade, students will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have earned one (1) or more D or F grades in USF science and math coursework for the major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will be allowed to count all previous D/F grades as one (1) D/F grade. After Fall 2009, students who earn two (2) additional D and/or F grades (resulting in three (3) total D/F grades) in subsequent terms will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Lab only courses are not counted towards the total number of D/F grades earned for the policy. Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

If a student is in violation of the D/F policy, regardless of major, they will no longer be able to take any courses offered by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Grading Requirement
A grade of C or better is required for science and mathematics courses and each supporting course for the Major. All courses in any chemistry major must be taken with letter grade (A, B, C, D, F, I) except those courses which are graded S/U only.

Residency Requirement
Chemistry residency requirement: Seven (7) credits of Chemistry coursework, upper or lower level, must be completed at USF.

Upper-level residency requirement: 12 credit hours of major-applicable, upper-level natural science courses must be completed at USF.

Other Requirements
No duplicate credit allowed.

Research Opportunities
The Department of Chemistry offers the opportunity for students to participate in undergraduate research with Chemistry faculty. Students can apply for the Academic Research Experience for Undergraduates (REU) Program and find more information here: http://chemistry.usf.edu/undergraduate/reu/. Students who wish to enroll in an undergraduate research course with a Chemistry faculty member should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in a 0 credit research course. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Academic Advisors in the Department of Chemistry, as well as the Office for Undergraduate Research, can assist students in understanding the various course options.
ACCELERATED B.S./M.A.T. PROGRAM

This program intends for students to complete a B.S. in Biomedical Sciences (College of Arts and Sciences) and a M.A.T. in Secondary Science (College of Education) over the span of five years. Students completing this program will be eligible for high school and/or middle school science teacher certification. Completion of this program requires students to complete 12 credits toward the M.A.T. in Science Education during their senior year of their B.S. in Biomedical Sciences. This accelerated program shares 12 credits between already existing degrees/concentrations:

- B.S. in Biomedical Sciences
- M.A.T. in Science Education

Target Students and Expected Outcomes

The accelerated Bachelor's to M.A.T. in Science Education program is a collaborative effort between the College of Arts and Sciences and the College of Education. This program is an attractive and viable career path for students in the Department of Chemistry's degree program that results in secondary science teacher certification. Students who complete this program receive the necessary science content and pedagogy coursework to be highly qualified science teachers at the secondary level.

Description and Requirements

For admission to the program a student must:

1. Have completed 15 hours in the B.S. in Biomedical Sciences major upon applying and thirty (30) semester hours in science (includes twenty-one (21) semester hours in a science concentration (e.g. chemistry, biology, physics) plus 9 hours in minor science content area) with associated laboratory experiences to be fully admitted as a graduate student in the M.A.T. Science Education Program. Evidence of successfully completing all sections of the General Knowledge Test (GKT) is also required for full admission to the graduate program.
2. Have a minimum 3.0 GPA overall; and
3. Have a minimum undergraduate 3.25 GPA in the major.

Undergraduate Degree Requirements for the B.S. in Biomedical Sciences

All BMS students will complete FLNT and Summer Enrollment requirements as well as graduation requirements listed in the catalog.

Specifically, according to the BOG Articulation Regulation 6A-10.030; earn a minimum of 42 semester hours of upper-level work (courses numbered 3000 and above), therefore, BMS students will take 21 credits of additional 3000+ level coursework in addition to their required major and exit courses listed below. Of this 21 credits, 12 credits will be shared with the MAT Science Education program. The entire undergraduate program will total no more than 120 credits.

Foundations of Knowledge and Learning Coursework – 36 credit hours:

- English Composition (CAEC)
- Fine Arts (CAFA)
- Human and Cultural Diversity in a Global Context (CAGC)
- Humanities (CAHU)
- Mathematics (CAMA) or 3 Mathematics and 3 Quantitative Reasoning (CAQR)
- Natural Sciences (Life Science) (CANL)
- Natural Sciences (Physical Science) (CANP)
- Social and Behavioral Sciences (CASB)

Capstone Experience – 6 credit hours

- Capstone (CPST)
- Writing Intensive (WRIN)

Tier 1:

Required Biology Courses (8 credit hours):

- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory

Required Chemistry Courses (18 credit hours):

- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
**CHM 2046 General Chemistry II**  
**CHM 2046L General Chemistry II Laboratory**  
**CHM 2210 Organic Chemistry I**  
**CHM 2210L Organic Chemistry I Laboratory**  
**CHM 2211 Organic Chemistry II**  
**CHM 2211L Organic Chemistry II Laboratory**

**Required Mathematics Courses (6 credit hours):**
- MAC 2241 Life Sciences Calculus I
- MAC 2242 Life Sciences Calculus II or STA 2023 Introductory Statistics
*MAC 2311 and MAC 2312 are also acceptable for the major.
*MAC 2281 and MAC 2282 are also acceptable for the major

**Required Physics Courses (8 credit hours):**
- PHY 2053 General Physics I
- PHY 2053L General Physics I Laboratory
- PHY 2054 General Physics II
- PHY 2054L General Physics II Laboratory
*Students may substitute Human Anatomy or Physiology I and II (BSC 2093C & 2094C or BSC 2085, 2085L and BSC 2086, 2086L) for Physics I and II

**Tier 2:**
**Required Biomedical Courses (7-8 credit hours):**
- BCH 3053 General Biochemistry  
- MCB 3020 and MCB 3020L General Microbiology and Laboratory  
  or choose one lecture: PCB 3063 or PCB 3023 and one lab: PCB 3063L or PCB 3023L or BCH 3023L

**Minimum of 14 additional Biomedical credits to include:**
- Upper-level Biology course (choose one)  
- Upper-level Chemistry course (choose one)  
- Upper-level Chemistry or Biology course (choose one)  
- Upper-level Chemistry or Biology laboratory course (choose one)  
- Additional Biomedical elective (choose one)

**Chemistry Residency Requirement:**
Seven credits of Chemistry coursework—upper and/or lower level—must be completed at USF.

**Upper-Level Residency Requirement:**
12 credit hours of major-applicable, upper-level natural science courses must be completed at USF.  
No duplicate credit allowed.

**Shared B.S./M.A.T. Requirements**
According to the BOG Articulation Regulation 6A-10.030; earn a minimum of 42 semester hours of upper-level work (courses numbered 3000 and above), therefore, the B.S. in Biomedical Sciences students will take 21 credits of additional 3000+ level coursework in addition to their required major and exit courses listed below. Out of this 21 credits, 12 credits will be shared with the MAT Science Education program. The shared courses are listed below:
- SCE 6938 Topics in Science Education: Field Practicum  
- SCE 5325 Methods for Middle Grades Science Education  
- SCE 5337 Methods for Secondary Science Education  
- SCE 6456 Teaching the Physical Sciences

**Graduate Degree Requirements for Accelerated M.A.T in Science Education**
**PROGRAM REQUIREMENTS**
Note: that all M.A.T. programs include as an admission requirement the passing of all sections of the General Knowledge Test (GKT). Applicants who can document they lived outside the state or country and did not have access to take the GKT before the application deadline may submit passing Praxis scores or GRE scores to be considered for admission. Whether admitted with passing Praxis scores or acceptable GRE scores, the applicant must submit passing scores on the GKT before the last day of classes of the semester of first enrollment, or admission to the College of Education will be revoked,
Total Minimum Program Hours: 39 hours

The courses required for the M.A.T. in Science Education are listed below. Please check with the program for other program requirements.

Core Requirements

Process Core 33 hours minimum

- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
- TSL 5325 ESOL Education in Content Areas
- SCE 5564 Reading and Communication Science Education
- SCE 5325 Methods for Middle Grades Science Education
- SCE 5337 Methods for Secondary Science Education
- SCE 6416 Teaching Secondary School Biology
- SCE 6456 Teaching Secondary School Physical and Earth Science
- SCE 6634 Current Trends in Secondary Science Education
- SCE 6938 Topics in Science Education: Field Practicum
- SCE 6947 Internship (PR: CI and passing scores of FTCE exam)

• Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
• Passing score on the appropriate subject area exam.
• Student's content degree or equivalent (an admission's requirement).

*Shared courses between B.S. Biomedical Sciences and M.A.T. Science Education

Comprehensive Examination

A written narrative exam tailored to the individual student. The written exam must be completed two weeks prior to final exam week of the student’s graduating semester. Exams will only be accepted during fall or spring semesters, unless a previous contract is established with the student’s graduate advisor.

Timeline and benchmarks:

1. To be considered for acceptance into the Accelerated B.S./M.A.T. Science Education students must have completed a minimum of 15 credit hours in the Biomedical Science undergraduate major.
2. Students must have a minimum undergraduate GPA of 3.0 overall, and a minimum GPA of 3.25 in the major and passing scores on all sections of the General Knowledge Test (GKT) to be eligible for the accelerated degree program. You can find information on the General Knowledge Test on the Florida Teacher Certification section of the following webpage: http://www.fl.nesinc.com/
3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program through faculty nomination or student self-nomination, via submission of an Accelerated Program Application Form. Both B.S. and M.A.T. programs will review the applications and approve the nominations. All applications require the approval of USF's Graduate School, the College of Education’s Graduate Program, and the Department of Chemistry’s Undergraduate Program.
4. To be promoted to graduate status, students must meet all admission requirements of the M.A.T. in Science Education in the College of Education. Specifically, the following materials must be submitted:
   • Undergraduate transcripts; and evidence of possessing a degree in a science discipline (biology, chemistry, physics, geology, etc.) that is taught in a middle or high school, or comparable coursework in a science teaching field acceptable to the program faculty.
   • A minimum of 21 hours in a major science content area of concentration (e.g., chemistry, biology, physics) plus 9 hours in minor science content area are required to teach secondary school.
     - Note, to teach secondary science in a specialty area (e.g. chemistry, biology, physics) the State of Florida requires: A bachelor’s or higher degree with thirty (30) semester hours in science to include twenty-one (21) semester hours in that specialty area with associated laboratory experiences.
   • Documentation of GKT scores.
5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies.

A comprehensive plan of study to complete the integrated B.S./M.A.T program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows. Summer sessions may also be included in the study plan.
First and Second Years
- Courses and credits as designated for freshman and sophomore years

Third Year
- Apply for Admission to the Integrated B.S./M.A.T. program.

Fourth Year
- Student accepted in M.A.T. in Science Education program complete the following shared credits:
  - SCE 6938 Topics in Science Education: Field Practicum
  - SCE 5325 Methods for Middle Grades Science Education
  - SCE 5337 Methods for Secondary Science Education
  - SCE 6456 Teaching the Physical Science

Fifth Year
- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
- TSL 5325 ESOL Education in Content Areas
- SCE 5564 Reading and Communication Science Education
- SCE 6416 Teaching Secondary School Biology
- SCE 6634 Current Trends in Secondary Science Education
- SCE 6947 Internship (PR: CI and passing scores of FTCE exam)
- Comprehensive Examination

Advising Information
- Department of Chemistry Advising: chemadvise@usf.edu or http://chemistry.usf.edu/advising/.

BIOMEDICAL SCIENCES FACULTY

- B.S. - CELL AND MOLECULAR BIOLOGY (CAM)
  (CIP = 26.0101 (TRACK 1 OF 2))
  TOTAL DEGREE HOURS: 120
  http://biology.usf.edu/cmmb/

This degree provides a strong foundation in general biology, with an emphasis on biomedical related areas, but focuses on the cellular and molecular processes that occur within cells. Many of the breakthroughs in the field of biology over the past several decades have shed light on how cells function in the context of the whole organism. The fields of genomics and computational biology have begun to solve the mystery of how networks of genes are regulated and how cells interact with each other and the how complex organisms react to their environment. Advances in cell and molecular biology continually lead to new treatments for age-related diseases such as cancer and Alzheimer’s. This degree prepares students for application to medical school, dental school, graduate school and careers in biotechnology, science policy, biomedical research, teaching, science writing and illustration. Many of our students continue their studies by attending graduate school in biology and other related disciplines.

STATE MANDATED COMMON COURSE PREREQUISITES
- Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.
- If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.
- Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.
- Students should complete the following prerequisite courses at the lower level prior to entering the university. If
these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.

- BSC X010/X010L Biology I with Lab or BSC X011C or BSC X041/X041L or ZOO X010/010L or BOT X010/X010L or BOT X013/X013L
- CHM X045/X045L General Chemistry I with Lab or CHM X045C or CHM X040 and CHM X041
- CHM X046/X046L General Chemistry II with Lab or CHM X046C
- CHM X210/X210L Organic Chemistry I with Lab and CHM X211/X211L or (CHM X210C and CHM X211C) or (PHY X053/X053L and PHY X054/X054L) or (PHY X048/X048L and PHY X049/X049L)
- MAC X311 Calculus I or MAC X233 or MAC X253 or MAC X281 or MAC X241
- MAC X312 Calculus II or MAC X282 or MAC X234 or STA X023 or STA X024 or STA X321

REQUIREMENTS FOR THE MAJOR IN CELL AND MOLECULAR BIOLOGY

Required Supporting Courses for the Major: 32-34 Hours

The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Laboratory
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Laboratory
- CHM 2211 Organic Chemistry II
- CHM 2211L Organic Chemistry II Laboratory
- MAC 2241 Life Sciences Calculus I and MAC 2242 Life Sciences Calculus II
  or
- MAC 2281 Engineering Calculus I and MAC 2282 Engineering Calculus II
  or
- MAC 2311 Calculus I and MAC 2312 Calculus II
  - STA 2023 Introductory Statistics I may be substituted for any Calculus II
- PHY 2048/2048L General Physics I and PHY 2049/2049L General Physics II
  or
- PHY 2053/2053L General Physics I and PHY 2054/2054L General Physics II

TOTAL MAJOR HOURS: 40

Major requirements for the B.S. Degree:

**Major Core (25 hours)**

- Minimum 40 credit hours.
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory
- PCB 3063 General Genetics
- PCB 3063L General Genetics Laboratory
- PCB 3023 Cell Biology
- PCB 3023L Cell Biology Laboratory
- MCB 3410 Cell Metabolism
- PCB 4024 Molecular Biology of Cell
- PCB 4026 Molecular Biology of Gene

**Major Electives (15 hours)**

Elective courses (minimum of 15 credit hours):
- PCB 3712 General Physiology
- PCB 3713L General Physiology Lab
- PCB 4843 Principles of Neuroscience
- ZOO 4753 Human Histology and Molecular Pathology of Disease
ZOO 4694 Developmental Biology
MCB 3020 General Microbiology
MCB 3020L General Microbiology Lab
MCB 4503 Virology
BOT 4434C Mycology
PCB 4663 Human Genetics
BCH 3053 General Biochemistry
BSC 5425 Genetic Engineering and Recombinant DNA Technology
BSC 4434 Bioinformatics
PCB 3043 Principles of Ecology
PCB 3043L Principles of Ecology Laboratory
PCB 4109 Cancer Biology
PCB 4234 Principles of Immunology
PCB 4671 Molecular Evolution
PCB 4522C Experimental Genetics and Cell Biology
PCB 4744 Biomedical Physiology
BSC 4910 Undergraduate Research (1 or 2 credit hrs/semester, no more than 4 credits total)
BSC 4933 Selected Topics in Biology*
BSC 5931 Selected Topics in Biology (for the accelerated program only)
BSC 4905 Independent Study (1 credit maximum)

*Selected topics approved for the major by the Department of Cell Biology, Microbiology and Molecular Biology

All students majoring in one of the programs offered through the department of Cell Biology, Microbiology and Molecular Biology and entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in USF coursework for their major and/or supporting coursework will be required to change to majors more appropriate to their goals and academic performances. Those majors may not include any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF coursework or supporting coursework by the beginning of Fall 2009, will also be allowed three (3) D and/or F grades in subsequent terms before being required to choose another major more appropriate to their goals and academic performances, and not including any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Any continuing USF students who enter USF prior to Fall 2009 and who have earned greater than or equal to one (1) D or F grade in USF coursework for their major coursework or supporting coursework by the beginning of Fall 2009, will be allowed only two (2) more D and/or F grades in subsequent semesters before being required to choose other majors more appropriate to their goals and academic performances, and not including any majors conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Grade Forgiveness will NOT apply to the mandated requirement of changing major.

Course Grade Requirement
Please note that some supporting science courses may require a grade of C or better in order to meet the prerequisite requirements for course sequences.

Grading Requirement
A student must receive a C- grade or better in all Department of Cell Biology, Microbiology, and Molecular Biology courses and supporting courses in the natural sciences, except if they are used as general elective courses. This specification applies to both USF and transfer courses.

Residency Requirement
A minimum of 20 credits hours of courses must be taken in residency and be applicable to the major.
Once a student has matriculated to USF Tampa, he/she is expected to take 100 percent of the required major coursework at USF Tampa.

Research Opportunities
A maximum of 2 credit hours of Undergraduate Research (BSC 4910) may be taken in a single semester, and a maximum of 4 credit hours of Undergraduate Research may be applied as electives.
ACCELERATED NON-THESIS B.S./M.S. PROGRAM

Accelerated Non-Thesis B.S./M.S. Program in Biology

This program allows B.S. majors to take graduate courses for the elective part of the Biology degree and apply them to a non-thesis M.S. degree in Biology. Successful students will be able to earn the M.S. degree in two additional semesters beyond the completion of the B.S. degree. This accelerated program shares 12 credits between already existing degrees/concentrations:

- B.S. in Biology, Concentration in Cell and Molecular Biology (submitted)
- M.S in Biology, Concentration in Cell and Molecular Biology (non-thesis option)

Target students and expected outcomes

This program will appeal to the more competitive Biology majors who would benefit professionally from having the M.S. when they enter the job market but do not want to commit to the longer time a thesis M.S. or a Ph.D. program takes to complete. Professions that do not require bench laboratory experience but desire the broadened knowledge base are targeted. Graduates from this program would be ideally suited for health professions, technology based industry, education and government. We also expect that some students will be interested in doctoral education in the biological or biomedical areas.

Description and Requirements

Biology majors who have completed the following courses may apply to this program:

- PCB 3023 Cell Biology
- PCB 3063 General Genetics
- MCB 3410 Cell Metabolism
- PCB 4024 Molecular Biology of the Cell or PCB 4026 Molecular Biology of the Gene

Students who have been admitted to the program but subsequently fail to achieve a 3.0 GPA in the last 60 hours of their B.S. degree, or who do not complete at least 30 of their last 60 hours at USF, will be dismissed from the program.

Once accepted, students must meet with BioAdvise (the advising office for biological sciences within the College of Arts and Sciences) to prepare an action plan to complete the B.S./M.S. accelerated program. This requires them to take all the courses required for the B.S. in Biology: Concentration in Cell and Molecular Biology. Students may take up to 12 credits of graduate courses as electives in Cell, Molecular and Microbiology and apply those courses to both the B.S. and M.S. degrees. They will not be admitted as graduate students until they have completed their B.S. degree and met all the requirements for admission to Cell, Molecular and Microbiology graduate students.

The action plan should include a schedule of coursework to complete their B.S. degrees and a date in their last year in the B.S. program to take the GRE.

Application materials are the same as the M.S. in Biology:

1. Two official transcripts of undergraduate work from other institutions. Applicants need not supply USF transcripts.
2. Three letters of recommendation
3. A brief essay stating your professional goals
4. GRE scores must be sent to USF directly from the testing agency (USF institution code is 5828)

Graduate Degree Requirements

Students admitted into the M.S. portion of the program must complete all the requirements for the M.S. degree (non-thesis) within three semesters of admission. The requirement is 30 hours of graduate work with at least 16 of these hours completed at the 6000 level; 26 hours must be formally structured courses; and at least 15 hours must be in Cell, Molecular and Microbiology courses. Students will be required to take 3 core courses from the list below as part of these 26 hours. Of the required 26 hours, 9 hours will be derived from the core Cell, Molecular and Microbiology graduate courses listed below (see associated curriculum). These requirements can be partially met by up to 12 hours of graduate courses taken as undergraduates. Any graduate class taken outside of Cell, Molecular and Microbiology must be approved by the Cell, Molecular and Microbiology Graduate Director. Students should be aware that a B grade or better is required for every graduate class applied to the MS portion of their degree. In addition, students will be required to pass an oral qualifying exam based on a review paper submitted in their final semester. Students must form a committee as part of their action plan to complete their graduate work. This committee will be comprised of at least 2 Cell, Molecular and Microbiology faculty, and will serve as the examination committee for the review paper required as part of the MS portion of their degree. Upon approval of that paper, students must successfully complete a comprehensive oral exam by their committee.

Timeline and benchmarks:

1. Completion of prerequisite upper division courses and application to the accelerated program. Typically students will be in their junior year.
2. Acceptance into the program and an action plan within a semester of application.
3. Students will take up to 12 credits of graduate credit in Cell, Molecular and Microbiology courses following acceptance into the program. Typically these courses will be taken in the latter half of the junior year and in the senior year. BioAdvise will monitor the progress of the students and ensure they follow their action plan. Students who do not complete at least 9 hours of graduate work by graduation will be dropped from the accelerated M.S. program.

4. GRE exams will be taken in a timely manner so scores will be available for admission to the M.S. portion of the program. Students who do not complete the GRE in time will not be admitted to the accelerated M.S. program.

5. Students admitted to the accelerated program must form a committee prior to the beginning of their first semester in the M.S. portion of the program and must continue to follow the action plan which will be monitored by Bioadvise.

6. Students admitted to the accelerated M.S. program must complete the requirements within three semesters or will be dismissed from the program.

Year 1
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory

Year 2
- MCB 3410 Cell Metabolism
- PCB 3063 General Genetics
- PCB 3063L General Genetics Laboratory
- PCB 3023 Cell Biology
- PCB 3023L Cell Biology Laboratory
- MCB 3020 General Microbiology
- MCB 3020L General Microbiology Laboratory

Year 3
- PCB 4024 Molecular Biology of the Cell
- PCB 4026 Molecular Biology of the Gene
- Three (3) credit hours of 5000-level elective structured course

Year 4
- Nine (9) credit hours of 5000- or 6000-level elective courses

Year 5
- Eighteen (18) hours of graduate coursework - 9 hours of which must be derived from the list below:
  - BSC 6932 Selected Topics in Biology
  - PCB 6525 Molecular Genetics
  - PCB 6236 Advanced Immunology
  - Four (4) credit hours of non-structured courses (seminar, independent study, laboratory research)
  - Oral exam and review paper done at the end of Year 5

Comprehensive Oral Qualifying Examination.

A final comprehensive oral examination is required for all master’s students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two years of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented. Any graduate work counted toward the requirement for the M.S. degree must be completed within five (5) years after matriculation.

Advising Information
- BioAdvise: Science Center (SCA) 203; (813) 974-3250
- http://biology.usf.edu/bioadvise/
- Email: bioadvise@usf.edu

CELL AND MOLECULAR BIOLOGY FACULTY

The Chemistry B.A. gives students exposure to analytical, inorganic, organic and physical chemistry while providing the flexibility to take additional elective courses. Students interested in professional, law, or graduate school or those who anticipate working in careers related to secondary education or business will find this degree attractive. The B.A. student whose goals change in the direction of graduate study should supplement this curriculum by addition and/or substitution of a selection of advanced courses from the B.S. program.

The Bachelor of Arts in Chemistry provides opportunities for curricula individually tailored to meet many career objectives.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

CHM X045/CHM X045L General Chemistry I (with lab) or CHM 1040 and CHM 1041, or CHM 1045C
CHM X046/CHM X046L General Chemistry II or CHM 1046C
MAC 2311 Calculus I or MAC 2281 Engineering Calculus I
MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
CHM 2210/CHM 2210L Organic Chemistry I & Laboratory or CHM 2210C
CHM 2211/CHM 2211L Organic Chemistry II & Lab or CHM 2211C
PHY 2048/PHY 2048L General Physics I & Laboratory or PHY 2048C or PHY 2053C or PHY 2053 and PHY 2053L
PHY 2049/PHY 2049L General Physics II & Laboratory or PHY 2049C or PHY 2054C or PHY 2054 and PHY 2054L

REQUIREMENTS FOR THE MAJOR IN CHEMISTRY

Required Supporting Courses for the Major: 24 Hours

The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

MAC 2311 Calculus I and MAC 2312 Calculus II
MAC 2281 Engineering Calculus I and MAC 2282 Engineering Calculus II are also accepted for this major
PHY 2053 General Physics I and PHY 2053L General Physics I Laboratory and PHY 2054 General Physics II
PHY 2054L General Physics II Laboratory or PHY 2054 General Physics I-Calculus Based and PHY 2048L General Physics I-Calculus Based Laboratory and PHY 2048 General Physics I-Calculus Based Laboratory
PHY 2049 General Physics II-Calculus Based Laboratory

Students must choose eight (8) hours of required natural science or engineering electives from the following suggested list of courses:

BSC 2010 Cellular Processes and BSC 2010L Cellular Processes Laboratory
BSC 2011 Biodiversity and BSC 2011L Biodiversity Laboratory
GLY 2010 Dynamic Earth: Introduction to Physical Geology and GLY 2000L Essentials of Geology Laboratory
GLY 2100 History of Life and GLY 2100L History of Life Laboratory
EVR 2001 Introduction to Environmental Science and EVR 2001L Environmental Science Laboratory
CGS 2060 Introduction to Computers and Computer Programming
STA 2023 Introductory Statistics I
Major requirements for the B.A. Degree:

Major Core (33 hours)

Students are required to complete 39 credits of degree applicable Chemistry coursework.

- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Laboratory
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Laboratory
- CHM 2211 Organic Chemistry II
- CHM 2211L Organic Chemistry II Laboratory
- CHM 3120C Elementary Analytical Chemistry
- CHM 3610 Intermediate Inorganic Chemistry
- CHM 3610L Intermediate Inorganic Chemistry Laboratory
- CHM 4410 Physical Chemistry I
- CHM 4413 Biophysical Chemistry

Major Electives (6 hours)

Students must choose 6 hours of 3000 level or above; may include not more than 1 hour of CHM 4970.

Suggested courses:

- BCH 4033 Advanced Biochemistry I
- BCH 4034 Advanced Biochemistry II
- BCH 3023L Basic Biochemistry Laboratory
- CHM 4300 Biomolecules I
- CHS 4300 Fundamentals of Clinical Chemistry
- CHS 4301L Clinical Laboratory
- CHM 4060 Use of Chemical Literature
- CHM 4070 Historical Perspectives in Chemistry
- CHM 4130C Methods of Instrument Analysis
- CHM 4131C Methods of Chemical Investigation II
- CHM 4230 Spectroscopic Analysis of Organic Compounds
- CHM 4274 Introduction to Drug Discovery
- CHM 4292 Introduction to Medicinal Chemistry
- CHM 4307 BioOrganic Chemistry
- CHM 4455 Chemistry of High Polymers
- CHM 4411 Physical Chemistry II
- CHM 4410L Physical Chemistry Laboratory
- CHM 4611 Advanced Inorganic Chemistry
- CHM 4970 Undergraduate Research
- CHM 4932 Selected Topics in Chemistry

*Contact Advisor for approval of CHM 4932 Courses

General Electives. Courses over and above the required courses should be taken to complete a 120 hour program. Additional courses in computer programming, economics, management, engineering, statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment.

Transfer Credit: It is strongly recommended that students transferring from community/state colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before they transfer. Even though courses may carry the same common course number, topics covered may vary significantly from school to school.

D/F Policy: The following three departments, the Department of Chemistry, the Department of Cell Biology, Microbiology and Molecular Biology and the Department of Integrative Biology have instituted a procedure to provide students with the best opportunity to progress toward their degree requirements.

Effective Fall 2009, the following D and/or F grade rules apply for students to continue in all of the following majors:

- Biomedical Sciences
- Biology (including the marine science concentration)
- Microbiology
- Chemistry (BA, BS)
- Interdisciplinary Natural Sciences (INS)
- Medical Technology and
Pre-medical sciences students (PMS) who have not yet declared a major

All students entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in applicable USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will also be redirected after earning three (3) D and/or F grades in subsequent terms. Upon earning the 3rd D and/or F grade, students will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have earned one (1) or more D or F grades in USF science and math coursework for the major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will be allowed to count all previous D/F grades as one (1) D/F grade. After Fall 2009, students who earn two (2) additional D and/or F grades (resulting in three (3) total D/F grades) in subsequent terms will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Lab only courses are not counted towards the total number of D/F grades earned for the policy. Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

If a student is in violation of the D/F policy, regardless of major, they will no longer be able to take any courses offered by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Grading Requirement

A grade of C or better is required for science and mathematics courses and each supporting course for the Major. All courses in any chemistry major must be taken with letter grade (A, B, C, D, F, I) except those courses which are graded S/U only.

Residency Requirement

Nine hours of upper-level chemistry courses must be completed at USF for the Bachelor of Arts in Chemistry and the Bachelor of Science in Chemistry degrees.

Research Opportunities

The Department of Chemistry offers the opportunity for students to participate in undergraduate research with Chemistry faculty. Students can apply for the Academic Research Experience for Undergraduates (REU) Program and find more information here: http://chemistry.usf.edu/undergraduate/reu/. Students who wish to enroll in an undergraduate research course with a Chemistry faculty member should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in a 0 credit research course. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Academic Advisors in the Department of Chemistry, as well as the Office for Undergraduate Research, can assist students in understanding the various course options.

ACCELERATED B.A./M.A.T. PROGRAM

This program intends for students to complete a B.A. in Chemistry (College of Arts and Sciences) and a M.A.T. in Secondary Science (College of Education) over the span of five years. Students completing this program will be eligible for high school and/or middle school science teacher certification. Completion of this program requires students to complete 12 credits toward the M.A.T. in Science Education during the senior year of their B.A. in Chemistry. This accelerated program shares 12 credits between already existing degrees/concentrations:

- B.A. in Chemistry
- M.A.T. in Science Education

Target students and expected outcomes

The accelerated Bachelor’s to M.A.T. in Science Education program is a collaborative effort between the College of Arts and Sciences and the College of Education. This program is an attractive and viable career path for students in the Department of Chemistry’s degree programs that results in secondary science teacher certification. Students who complete this program receive the necessary science content and pedagogy coursework to be highly qualified chemistry teachers at the secondary level.

Description and Requirements
For admission to the program a student must:

1. Have completed 15 hours in the B.A. in Chemistry major upon applying and thirty (30) semester hours in science (includes twenty-one (21) semester hours in chemistry plus 9 hours in minor science content area) with associated laboratory experiences to be fully admitted as a graduate student in the M.A.T. Science Education Program. Evidence of successfully completing all sections of the General Knowledge Test (GKT) is also required for full admission to the graduate program.
2. Have a minimum 3.0 GPA overall; and
3. Have a minimum undergraduate 3.25 GPA in the major.

Undergraduate Degree Requirements for the B.A. in Chemistry

All Chemistry, B.A. students will complete FLENT, FLEX and Summer Enrollment requirements as well as graduation requirements listed in the catalog: http://www.ugs.usf.edu/pdf/cat1213/08ACADEMICPOL.pdf.

Specifically, according to the BOG Articulation Regulation 6A-10.030; earn a minimum of 42 semester hours of upper-level work (courses numbered 3000 and above), therefore, the Chemistry, BA students will take 21 credits of additional 3000+ level coursework in addition to their required major and exit courses listed below.

Foundations of Knowledge and Learning Coursework – 36 credit hours:

- English Composition (CAEC)
- Fine Arts (CAFA)
- Human and Cultural Diversity in a Global Context (CAGC)
- Humanities (CAHU)
- Mathematics (CAMA) or 3 Mathematics and 3 Quantitative Reasoning (CAQR)
- Natural Sciences (Life Science) (CANL)
- Natural Sciences (Physical Science) (CANP)
- Social and Behavioral Sciences (CASB)

Capstone Experience – 6 credit hours

- Capstone (CPST)
- Writing Intensive (WRIN)

Required Chemistry Courses - 33 credit hours

- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Lab
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Lab
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Lab
- CHM 2211 Organic Chemistry II
- CHM 2211L Organic Chemistry II Lab
- CHM 3120C Elementary Analytical Chemistry I
- CHM 3610 Intermediate Inorganic Chemistry I
- CHM 3610L Intermediate Inorganic Chemistry I Lab
- CHM 4410 Physical Chemistry I
- CHM 4413 Biophysical Chemistry

Required Chemistry Electives - 6 credit hours:

- 3000 level or above; may include not more than 1 hour of CHM 4970.
- Suggested courses:
  - BCH 4033 Advanced Biochemistry I
  - BCH 3023L Basic Biochemistry Laboratory
  - BCH 4034 Advanced Biochemistry II
  - CHM 4300 Biomolecules
  - CHS 4300 Fundamentals of Clinical Chemistry
  - CHS 4301L Clinical Laboratory
  - CHM 4060 Use of Chemical Literature
  - CHM 4070 Historical Perspectives in Chemistry
  - CHM 4130C Methods of Instrument Analysis
  - CHM 4131C Methods of Chemical Investigation II
  - CHM 4411 Physical Chemistry II
  - CHM 4410L Physical Chemistry Laboratory
  - CHM 4611 Advanced Inorganic Chemistry
CHM 4970 Undergraduate Research
CHM 4932* Selected Topics in Chemistry
*Selected Topics in Chemistry - content varies each semester.
Note: Peer Leading cannot be used as a required chemistry elective in the major.

Required Supporting Courses - 14-16 credit hours:
MAC 2311 and MAC 2312 or MAC 2281 and MAC 2282
PHY 2053 /PHY 2053L and PHY 2054/PHY 2054L or PHY 2048/PHY 2048L and PHY 2049/PHY 2049L

Required natural science or engineering electives - 8 credit hours:
Suggested courses:
BSC 2010/2010L Cellular Processes/Laboratory
BSC 2011/2011L Biodiversity/Laboratory
GLY 2010/2000L Dynamic Earth: Introduction to Physical Geology/Laboratory
GLY 2100/2100L History of Life/Laboratory
EVR 2001/2001L Introduction to Environmental Science/Laboratory
CGS 2060 Introduction to Computers and Computer Programming
STA 2023 Introductory Statistics I

Shared B.A./M.A.T. Requirements
According to the BOG Articulation Regulation 6A-10.030; earn a minimum of 42 semester hours of upper-level work (courses numbered 3000 and above), therefore, the Chemistry, B.A. students will take 21 credits of additional 3000+ level coursework in addition to their required major and exit courses listed above. Of this 21 credits, 12 credits will be shared with the M.A.T. Science Education program. The shared courses are listed below:
SCE 6938 Topics in Science Education: Field Practicum
SCE 5325 Methods for Middle Grades Science Education
SCE 5337 Methods for Secondary Science Education
SCE 6456 Teaching the Physical Sciences

Graduate Degree Requirements for Accelerated M.A.T in Science Education
PROGRAM REQUIREMENTS
Note: that all M.A.T. programs include as an admission requirement the passing of all sections of the General Knowledge Test (GKT). Applicants who can document they lived outside the state or country and did not have access to take the GKT before the application deadline may submit passing Praxis scores or GRE scores to be considered for admission. Whether admitted with passing Praxis scores or acceptable GRE scores, the applicant must submit passing scores on the GKT before the last day of classes of the semester of first enrollment, or admission to the College of Education will be revoked.

Total Minimum Program Hours: 39 hours
The courses required for the M.A.T. in Science Education are listed below. Please check with the program for other program requirements.

Core Requirements
Process Core 33 hours minimum
EDF 6432 Foundations of Measurement
ESE 5342 Teaching the Adolescent Learner
ESE 5344 Classroom Management for a Diverse School and Society
TSL 5325 ESOL Education in Content Areas
SCE 5564 Reading and Communication Science Education
SCE 5325 Methods for Middle Grades Science Education
SCE 5337 Methods for Secondary Science Education
SCE 6416 Teaching Secondary School Biology
SCE 6456 Teaching Secondary School Physical and Earth Science
SCE 6634 Current Trends in Secondary Science Education
SCE 6938 Topics in Science Education: Field Practicum
SCE 6947 Internship (PR: CI and passing scores of FTCE exam)
• Student’s participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
• Passing score on the appropriate subject area exam.
• Student’s content degree or equivalent (an admission’s requirement).
Comprehensive Examination
A written narrative exam tailored to the individual student. The written exam must be completed two weeks prior to final exam week of the student’s graduating semester. Exams will only be accepted during fall or spring semesters, unless a previous contract is established with the student’s graduate advisor.

Timeline and benchmarks:
1. To be considered for acceptance into the Accelerated B.A./M.A.T. Chemistry/Science Education students must have completed a minimum of 15 credit hours in the Chemistry undergraduate major.
2. Students must have a minimum undergraduate GPA of 3.0 overall, and a minimum GPA of 3.25 in the major and passing scores on all sections of the General Knowledge Test (GKT) to be eligible for the accelerated degree program. You can find information on the General Knowledge Test on the Florida Teacher Certification section of the following webpage: http://www.fl.nesinc.com/
3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program through faculty nomination or student self-nomination, via submission of an Accelerated Program Application Form. Both B.A. and M.A.T. programs will review the applications and approve the nominations. All applications require the approval of USF’s Graduate School, the College of Education’s Graduate Program, and the Department of Chemistry’s Undergraduate Program.
4. To be promoted to graduate status, students must meet all admission requirements of the M.A.T. in Science Education in the College of Education. Specifically, the following materials must be submitted:
   • Undergraduate transcripts; and evidence of possessing a degree in a science discipline (biology, chemistry, physics, geology, etc.) that is taught in a middle or high school, or comparable coursework in a science teaching field acceptable to the program faculty.
   • A minimum of 21 hours in major science content area of concentration (plus 9 hours in minor science content area) are required to teach secondary school. Note, to teach secondary chemistry the state of Florida requires: A bachelor’s or higher degree with thirty (30) semester hours in science to include twenty-one (21) semester hours in chemistry with associated laboratory experiences.
   • Documentation of GKT scores.
5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies.

A comprehensive plan of study to complete the integrated B.A./M.A.T program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows. Summer sessions may also be included in the study plan.

First and Second Years
Courses and credits as designated for freshman and sophomore years.

Third Year
Apply for Admission to the Integrated B.A/M.A.T. program.

Fourth Year
Student accepted in M.A.T. in Science Education program complete the following shared credits:
   SCE 6938 Topics in Science Education: Field Practicum
   SCE 5325 Methods for Middle Grades Science Education
   SCE 5337 Methods for Secondary Science Education
   SCE 6456 Teaching the Physical Sciences

Fifth Year
EDF 6432 Foundations of Measurement
ESE 5342 Teaching the Adolescent Learner
ESE 5344 Classroom Management for a Diverse School and Society
TSL 5325 ESOL Education in Content Areas
SCE 5564 Reading and Communication Science Education
SCE 6416 Teaching Secondary School Biology
SCE 6634 Current Trends in Secondary Science Education
SCE 6947 Internship (PR: CI and passing scores of FTCE exam)

Comprehensive Examination

Advising Information
Department of Chemistry Advising: chemadvise@usf.edu or http://chemistry.usf.edu/advising/.
CHEMISTRY CONCENTRATIONS

BIOCHEMISTRY/BIOTECHNOLOGY (CBY)
(CIP = 40.0501 TRACK 1 OF 2)
TOTAL DEGREE HOURS: 120

The Biochemistry/Biotechnology concentration offers a unique opportunity for students to pursue later studies and/or professional emphasis in Biochemistry and Biotechnology along with a strong foundation in the chemical knowledge and skills that are essential to these areas.

REQUIREMENTS FOR THE CONCENTRATION IN BIOCHEMISTRY/BIOTECHNOLOGY

Required Supporting Courses for the Major: 24 Hours
The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- PCB 3023 Cell Biology
- PCB 3023L Cell Biology Laboratory
- MAC 2311 Calculus 1 and MAC 2312 Calculus II
- MAC 2281 Engineering Calculus I and MAC 2282 Engineering Calculus II are also accepted for this major
- PHY 2053 General Physics I and PHY 2053L General Physics I Laboratory and PHY 2054 General Physics II and PHY 2054L General Physics II Laboratory or PHY 2048 General Physics I-Calculus Based and PHY 2048L General Physics I-Calculus Based Laboratory and PHY 2049 General Physics II-Calculus Based and PHY 2049L General Physics II-Calculus Based Laboratory

TOTAL MAJOR HOURS: 39

Major requirements for the B.A. Degree:

Major Core (30 hours)
Students are required to complete 39 credits of degree applicable Chemistry coursework.

- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Lab
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Lab
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Lab
- CHM 2211 Organic Chemistry II
- CHM 2211L Organic Chemistry II Lab
- CHM 3120C Elementary Analytical Chemistry I
- BCH 4033 Advanced Biochemistry I
- BCH 3023L Basic Biochemistry Laboratory
- BCH 4034 Advanced Biochemistry II

Major Electives (9 hours)
Minimum of 9 hours selected from the following:

- CHM 3610 Intermediate Inorganic Chemistry
- CHM 3610L Intermediate Inorganic Chemistry Lab
- CHM 4060 Use of Chemical Literature
- CHM 4300 Biomolecules I
- CHM 4070 Historical Perspectives in Chemistry
- CHM 4230 Spectroscopic Analysis of Organic Compounds
- CHM 4274 Introduction to Drug Discovery
- CHM 4292 Introduction to Medicinal Chemistry
- CHM 4307 BioOrganic Chemistry
- CHM 4455 Chemistry of High Polymers
- CHM 4410 Physical Chemistry
- CHM 4410L Physical Chemistry Lab
CHM 4411 Physical Chemistry II
CHM 4413 Biophysical Chemistry
CHM 4932 Selected Topics in Chemistry*
*Contact Advisor for approval of CHM 4932 Courses

General Electives. Courses over and above the required courses should be taken to complete a 120 hour program. Additional courses in computer programming, economics, management, engineering, statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment.

Transfer Credit: It is strongly recommended that students transferring from community/state colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before they transfer. Even though courses may carry the same common course number, topics covered may vary significantly from school to school.

D/F Policy: The following three departments, the Department of Chemistry, the Department of Cell Biology, Microbiology and Molecular Biology and the Department of Integrative Biology have instituted a procedure to provide students with the best opportunity to progress toward their degree requirements.

Effective Fall 2009, the following D and/or F grade rules apply for students to continue in all of the following majors:

- Biomedical Sciences
- Biology (including the marine science concentration)
- Microbiology
- Chemistry (BA, BS)
- Interdisciplinary Natural Sciences (INS)
- Medical Technology and
- Pre-medical sciences students (PMS) who have not yet declared a major

All students entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in applicable USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) will be required to change their major to a more major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will also be redirected after earning three (3) D and/or F grades in subsequent terms. Upon earning the 3rd D and/or F grade, students will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have earned one (1) or more D or F grades in USF science and math coursework for the major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will be allowed to count all previous D/F grades as one (1) D/F grade. After Fall 2009, students who earn two (2) additional D and/or F grades (resulting in three (3) total D/F grades) in subsequent terms will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Lab only courses are not counted towards the total number of D/F grades earned for the policy. Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

If a student is in violation of the D/F policy, regardless of major, they will no longer be able to take any courses offered by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Grading Requirement
A grade of C or better is required for science and mathematics courses and each supporting course for the Major. All courses in any chemistry major must be taken with letter grade (A, B, C, D, F, I) except those courses which are graded S/U only.

Residency Requirement
Nine hours of upper-level chemistry courses must be completed at USF for the Bachelor of Arts in Chemistry and the Bachelor of Science in Chemistry degrees.

Other Requirements
Other suggested electives important for advanced studies in Biochemistry:
- EVR 2001 Introduction to Environmental Science
- MCB 3020 General Microbiology
Research Opportunities
The Department of Chemistry offers the opportunity for students to participate in undergraduate research with Chemistry faculty. Students can apply for the Academic Research Experience for Undergraduates (REU) Program and find more information here: http://chemistry.usf.edu/undergraduate/reu/. Students who wish to enroll in an undergraduate research course with a Chemistry faculty member should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in a 0 credit research course. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Academic Advisors in the Department of Chemistry, as well as the Office for Undergraduate Research, can assist students in understanding the various course options.

Advising Information
Department of Chemistry Advising: chemadvise@usf.edu or http://chemistry.usf.edu/advising/.

This concentration is accepting no new admits.

HEALTH PROFESSIONS (CHH)
TOTAL DEGREE HOURS: 120

A chemistry core is essential for preparation for medical, dental, veterinarian and other health-related professions. The Health Professions option for the B.A. in Chemistry includes this core as well as the flexibility to incorporate the other science courses required for admission to programs in the health professions.

REQUIREMENTS FOR THE CONCENTRATION IN HEALTH PROFESSIONS
TOTAL MAJOR HOURS: 63

Major requirements for the B.A. Degree:

Major Core (54 hours)
- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Lab
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Lab
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Lab
- CHM 2211 Organic Chemistry II
- CHM 2211L Organic Chemistry II Lab
- CHM 3120C Elementary Analytical Chemistry
- BCH 4033 Advanced Biochemistry I
- CHS 4300 Fundamentals of Clinical Chemistry
- CHS 4301L Clinical Laboratory
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- PCB 3023 Cell Biology
- PCB 3023L Cell Biology Laboratory
- MAC 2311 Calculus I and MAC 2312 Calculus II or MAC 2281 Engineering Calculus I and MAC 2282 Engineering Calculus II
- PHY 2053 General Physics I and PHY 2053L General Physics I Laboratory and PHY 2054 General Physics II and PHY 2054L General Physics II Laboratory or PHY 2048 General Physics I-Calculus Based and PHY 2048L General Physics I-Calculus Based Laboratory and PHY 2049 General Physics II-Calculus Based and PHY 2049L General Physics II-Calculus Based Laboratory

Major Electives (9 hours)
Minimum of 9 hours selected from the following:
- BCH 3023L Basic Biochemistry Lab
- BCH 4034 Advanced Biochemistry II
- CHM 3610 Intermediate Inorganic Chemistry
CHM 3610L Intermediate Inorganic Chemistry Laboratory
CHM 4060 Use of Chemical Literature
CHM 4070 Historical Perspectives in Chemistry
CHM 4130C Methods of Instrument Analysis
CHM 4410 Physical Chemistry I
CHM 4410L Physical Chemistry Laboratory
CHM 4411 Physical Chemistry II
CHM 4413 Biophysical Chemistry
CHM 4932 Special Topics in Chemistry*

*CHM 4932 Peer Leading cannot be used as a required chemistry elective in the major.

Other suggested electives important for advanced studies in the various health profession areas:
BSC 2011 Biodiversity
PCB 3063 General Genetics
STA 2023 Introductory Statistics I
MCB 3020 General Microbiology
MCB 3020L General Microbiology Laboratory
PCB 4723 Animal Physiology
ZOO 4753 Human Histology and Molecular Pathology of Disease
ZOO 3713C Comparative Vertebrate Anatomy

General Electives. Courses over and above the required courses should be taken to complete a 120 hour program. Additional courses in computer programming, economics, management, engineering, statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment.

Transfer Credit: It is strongly recommended that students transferring from community/state colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before they transfer. Even though courses may carry the same common course number, topics covered may vary significantly from school to school.

D/F Policy: The following three departments, the Department of Chemistry, the Department of Cell Biology, Microbiology and Molecular Biology and the Department of Integrative Biology have instituted a procedure to provide students with the best opportunity to progress toward their degree requirements.

Effective Fall 2009, the following D and/or F grade rules apply for students to continue in all of the following majors:
- Biomedical Sciences
- Biology (including the marine science concentration)
- Microbiology
- Chemistry (BA, BS)
- Interdisciplinary Natural Sciences (INS)
- Medical Technology and
- Pre-medical sciences students (PMS) who have not yet declared a major

All students entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in applicable USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) before Fall 2009, will also be redirected after earning three (3) D and/or F grades in subsequent terms. Upon earning the 3rd D and/or F grade, students will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have earned one(1) or more D or F grades in USF science and math coursework for the major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will be allowed to count all previous D/F grades as one (1) D/F grade. After Fall 2009, students who earn two (2) additional D and/or F grades (resulting in three (3) total D/F grades) in subsequent terms will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Lab only courses are not counted towards the total number of D/F grades earned for the policy. Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

If a student is redirected via the D/F policy, regardless of major, they will no longer be able to take any courses offered by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.
Grading Requirement
A grade of C or better is required in each chemistry major course and each supporting course specified for a chemistry degree. All courses in a chemistry program must be taken with letter grade (A, B, C, D, F, I) except those courses which are graded S/U only.

Residency Requirement
Nine hours of upper-level chemistry courses must be completed at USF for the Bachelor of Arts in Chemistry and the Bachelor of Science in Chemistry degrees.

Advising Information
Department of Chemistry Advising: chemadvise@usf.edu or http://chemistry.usf.edu/advising/.

CHEMISTRY FACULTY

• B.S. - CHEMISTRY (CHS) (CIP = 40.0501 (TRACK 1 OF 2))
TOTAL DEGREE HOURS: 120
http://chemistry.usf.edu/undergraduate/degree/bs/

The Bachelor of Science in Chemistry is designed for students wishing to continue with graduate training in chemistry and closely allied disciplines and the degree is certified by the American Chemical Society. The Bachelor of Science in Chemistry provides a firm foundation in all five disciplines of chemistry: organic, physical chemistry, inorganic, analytical and biochemistry. Students interested in research, the pursuit of an advanced degree, employment in the chemical industry, or who want to teach at the secondary education level may find this degree attractive. The curriculum for the B.S. degree in Chemistry meets the requirements for degree certification by the American Chemical Society.

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.
CHM X045/CHM X045L General Chemistry I (with laboratory) or CHM 1040 and CHM 1041, or CHM 1045C
CHM X046/CHM X046L General Chemistry II or CHM 1046C
MAC 2311/2311L Calculus I or MAC 2281 Engineering Calculus I
MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
CHM 2210/2210L Organic Chemistry I & Laboratory or CHM 2210C
CHM 2211/2211L Organic Chemistry II & Laboratory or CHM 2211C
PHY 2048/2048L Gen Physics I & Laboratory or PHY 2048C, or PHY 2053C or PHY 2053 and PHY 2053L
PHY 2049/2049L Gen Physics II & Laboratory or PHY 2049C, or PHY 2054C or PHY 2054 and PHY 2054L
REQUIREMENTS FOR THE MAJOR IN CHEMISTRY

Required Supporting Courses for the Major: 22 Hours

The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

MAC 2311 Calculus I and MAC 2312 Calculus II or MAC 2281 Engineering Calculus I and MAC 2282 Engineering Calculus II

PHY 2048 General Physics I-Calculus Based and PHY 2048L General Physics I-Calculus Based Laboratory and PHY 2049 General Physics II-Calculus Based and PHY 2049L General Physics II-Calculus Based Laboratory

BSC 2010 Cellular Processes

One 3000-level Natural Science or Engineering course (PHY 3101, MAP 4302 suggested) or

One 2000-level Natural Science course (BSC 2011, GLY 2010, GLY 2100, EVR 2001, CGS 2060, CGS 2100, EGN 2210)

TOTAL MAJOR HOURS: 54

Major requirements for the B.S. Degree:

Major Core (54 hours)

The required sequence of Chemistry courses should be started immediately in the freshman year; the mathematics and physics requirements should be completed before the junior year as preparation for CHM 4410 Physical Chemistry I (B.S. degree), a course which is to be taken in the third year. CHM 4410 is a prerequisite to other advanced courses required for the B.S. degree in chemistry. Students are strongly encouraged to complete CHM 3415C prior to their registration in CHM 4410 and CHM 4411.

Students are required to complete 54 credits of degree applicable Chemistry coursework.

CHM 2045 General Chemistry I
CHM 2045L General Chemistry I Laboratory
CHM 2046 General Chemistry II
CHM 2046L General Chemistry II Laboratory
CHM 2210 Organic Chemistry I
CHM 2210L Organic Chemistry I Laboratory
CHM 2211 Organic Chemistry II
CHM 2211L Organic Chemistry II Laboratory
BCH 4033 Advanced Biochemistry I
CHM 3120C Advanced Analytical Chemistry
CHM 3415C Physical Chemistry Methods
CHM 3610 Intermediate Inorganic Chemistry Laboratory
CHM 3610L Intermediate Inorganic Chemistry
CHM 4060 Use of Chemical Literature
CHM 4130C Methods of Instrumental Analysis
CHM 4131C Methods of Chemical Investigation II
CHM 4410 Physical Chemistry I
CHM 4410L Physical Chemistry Laboratory
CHM 4411 Physical Chemistry II
CHM 4611 Advanced Inorganic Chemistry

General Electives. Courses over and above the required courses should be taken to complete a 120 hour program. Additional courses in computer programming, economics, management, engineering, statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment.

Transfer Credit: It is strongly recommended that students transferring from community/state colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before they transfer. Even though courses may carry the same common course number, topics covered may vary significantly from school to school.

D/F Policy: The following three departments, the Department of Chemistry, the Department of Cell Biology, Microbiology and Molecular Biology and the Department of Integrative Biology have instituted a procedure to provide students with the best opportunity to progress toward their degree requirements.

Effective Fall 2009, the following D and/or F grade rules apply for students to continue in all of the following majors:

- Biomedical Sciences
- Biology (including the marine science concentration)
- Microbiology
- Chemistry (BA, BS)
- Interdisciplinary Natural Sciences (INS)
• Medical Technology and
• Pre-medical sciences students (PMS) who have not yet declared a major

All students entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in applicable USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) before Fall 2009, will also be redirected after earning three (3) D and/or F grades in subsequent terms. Upon earning the 3rd D and/or F grade, students will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have earned one (1) or more D or F grades in USF science and math coursework for the major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will be allowed to count all previous D/F grades as one (1) D/F grade. After Fall 2009, students who earn two (2) additional D and/or F grades (resulting in three (3) total D/F grades) in subsequent terms will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Lab only courses are not counted towards the total number of D/F grades earned for the policy. Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

If a student is in violation of the D/F policy, regardless of major, they will no longer be able to take any courses offered by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Grading Requirement
A grade of C or better is required for science and mathematics courses and each supporting course for the Major. All courses in any chemistry major must be taken with letter grade (A, B, C, D, F, I) except those courses which are graded S/U only.

Residency Requirement
Nine hours of upper-level chemistry courses must be completed at USF for the Bachelor of Arts in Chemistry and the Bachelor of Science in Chemistry degrees.

Research Opportunities
The Department of Chemistry offers the opportunity for students to participate in undergraduate research with Chemistry faculty. Students can apply for the Academic Research Experience for Undergraduates (REU) Program and find more information here: http://chemistry.usf.edu/undergraduate/reu/. Students who wish to enroll in an undergraduate research course with a Chemistry faculty member should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in a 0 credit research course. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Academic Advisors in the Department of Chemistry, as well as the Office for Undergraduate Research, can assist students in understanding the various course options.

ACCELERATED B.S/M.S. PROGRAM
Accelerated B.S./M.S. Chemistry and Biomedical Engineering
This program intends for students to complete a Bachelor of Science in Chemistry and an M.S. in Biomedical Engineering over the span of five years. Completion of this program allows students to complete 9 credits toward the M.S. in during the junior or senior year of their B.S. degree.

Target students and expected outcomes
The accelerated program is an attractive and viable path for students seeking to expedite their entry to the workforce as an engineer, obtain a leadership position, or to pursue M.D. or Ph.D. studies. Students who complete this program will maximize: department and professional resources, obtaining an industry position in the rapidly growing field of biomedical engineering, and opportunities for research and technology transfer for medical devices, systems or drug development.

Description and Requirements
For consideration of admission to the program a student must:

1. Have completed 15 credit hours in the B.S. Chemistry major, upon applying;
2. Have a minimum 3.33 GPA overall;
3. Have a minimum undergraduate 3.5 GPA in the major;
4. Have met with the Undergraduate Advisor and Graduate Director and/or Graduate Advisor to discuss a plan
   of study

Undergraduate Degree Requirements for the B. S. in Chemistry
All Chemistry major students will complete graduation requirements listed in the USF undergraduate catalog.

Major Core
The required sequence of Chemistry courses should be started immediately in the freshman year; the mathematics
and physics requirements should be completed before the junior year as preparation for CHM 4410 Physical Chemistry
I (B.S. degree), a course which is to be taken in the third year. CHM 4410 is a prerequisite to other advanced courses
required for the B.S. degree in chemistry.

Students are required to complete 50 credits of degree applicable Chemistry coursework.

Major Core Courses - 70 Hours
CHM 2045 General Chemistry I
CHM 2045L General Chemistry I Laboratory
CHM 2046 General Chemistry II
CHM 2046L General Chemistry II Laboratory
CHM 2210 Organic Chemistry I
CHM 2210L Organic Chemistry I Laboratory
CHM 2211 Organic Chemistry II
CHM 2211L Organic Chemistry II Laboratory
CHM 4060 Use of Chemical Literature
CHM 4130C Methods of Instrument Analysis
CHM 4131C Methods of Chemical Investigation II
CHM 4410 Physical Chemistry I
CHM 4410L Physical Chemistry Laboratory
CHM 4411 Physical Chemistry II
CHM 4611 Advanced Inorganic Chemistry
MAC 2311 Calculus I and MAC 2312 Calculus II or MAC 2281 Engineering Calculus I and MAC 2282 Engineering Calculus II
PHY 2048 General Physics I-Calculus Based and PHY 2048L General Physics I-Calculus Based Laboratory and PHY 2049 General Physics II-Calculus Based and PHY 2049L General Physics II-Calculus Based Laboratory

Major Elective Courses - 6 Hours
BSC 2010 Cellular Processes and
One 3000-level Natural Science or Engineering course (PHY 3101, MAP 4302 suggested) or
One 2000-level Natural Science course (BSC 2111, GLY 2010, GLY 2100, EVR 2001, CGS 2060, CGS 2100,
EGN 2210)

Major Course Grade Requirement
Please note that some supporting science courses may require a grade of C or better in order to meet the
prerequisite requirements for course sequences.

Major Grade Requirement
A student must receive a C- grade or better in all Department of Cell Biology, Microbiology, and Molecular Biology
courses and supporting courses in the natural sciences, except if they are used as general elective courses. This
specification applies to both USF and transfer courses.

Major Residency Requirement
A minimum of 20 credits hours of courses must be taken in residency and be applicable to the major.

University and College Requirements:
- 120 credit hours.
- USF Residency - Students must complete 30 hours of the last 60 hours in USF coursework,
- Pursue the normal 8 semester sequence listed in the current USF Undergrad Catalog for Chemistry Majors.
• But the Engineering/Science and General electives, and open summer course slots would be utilized to complete
the required 5 engineering undergrad courses, and the 3 BME Masters courses which are double-counted.
• Then, upon the BS graduation, accelerated students will complete the USF Accelerated Program Progression
Form, and enter the BME Master’s Program.
• List of 5 undergrad engineering courses to be taken:
  EGN 3433 Modeling and analysis of engineering systems
  Students must complete 12 credit hours from the following courses:
  EGN 3311 Statics*
  EGN 3321 Dynamics
  EGN 3331 Mechanics of Materials
  EGN 3365 Materials Engineering I
  EGN 3373 Electrical Systems I*
  EGN 3343 Thermodynamics*
  ECH 3702 Instrument Systems I
  EML 3701 Fluid Systems
  *Indicates most highly recommended courses
  Students should note that EGN 3311 is a prerequisite for several of the listed courses.

Master’s Degree Requirements: Master of Science in Biomedical Engineering (M.S.B.E.)
  Program (Major): Biomedical Engineering (EBI)
  CIP Code: 14.0501; Major/College Code: EBIEN
  Total Program Hours: 30
  Specific Course Requirements - 5 electives, and these 5 required courses:
  GMS 6440 Basic Medical Physiology
  GMS 6605 Basic Medical Anatomy
  PHC 6051 Biostatistics II
  BME 6000 Biomedical Engineering I
  BME 6931 Biomedical Engineering II
  Thesis is not required for non-Thesis Masters students
  6 credits of Thesis required, for Thesis students.
  For the BME Master’s program, students can get a C, C+ or B-, as long as their GPA stays above 3.0. GPA below 3.0
  results in Probation, or eventually can result in Dismissal.
  Note 1: Any 2 or 3 of the BME courses listed above or the electives can be double-counted.
  Note 2: One 4000 level BME course can be double-counted.

Advising Information
  Department of Chemistry Advising: chemadvise@usf.edu or http://chemistry.usf.edu/advising/.

CHEMISTRY FACULTY
  Interim Chairperson and Professor: W.C. Guida; Associate Chairperson and Professor: J.E. Lewis; Distinguished
University Professor Emeritus: D.F. Martin; Emeritus Professors: J.C. Davis, Jr., J.E. Fernandez, L. Mandell, R.M.
O'Malley, G. Solomons; Professors: J. Antilla, B.J. Baker, J. Cai, M. Eddaoudi, J.P. Harmon, M.D. Johnston, J. Leahy,
M.L. McLaughlin, G.G. Meisels, D.J. Merkler, L. Ming, R. Potter, B. Space, E. Turos, P. Zhang; Associate
Professors: K.S. Bish, J.R. Del Valle, S. Ma, A. Malik, X. Shi, A. van der Vaart, L. Woodcock; Assistant Professors: T.
Evans-Nguyen, I. Gelis, S. Lewis, J. Raker, D. Rogers; Research Associate Professor: M. Acevedo-Duncan; Research
Assistant Professors: M. Kumar, E. Rivera, L. Wojtas; Instructors: L. Anderson, D. Cruz-Ramirez de Arellano, K. Fields,

• B.A. - CLASSICS-LATIN/GREEK (CLS) (CIP = 16.1200)
  TOTAL DEGREE HOURS: 120
  http://languages.usf.edu/undergraduate/classics/

Classics at the University of South Florida is a language-based interdisciplinary humanities field. We provide
instruction in the Greek and Latin languages and in the Greek and Roman civilization, literature, mythology and religion.
Faculty specialize in diverse aspects of the Greek and Roman world (such as Greek poetry, Latin poetry, Roman
historiography). Our department combines the intimacy of a small liberal arts college with the wide-ranging
educational possibilities of a large state university.
Our major is of particular interest to students who wish to teach Latin or Greek at the secondary level or plan graduate study in a humanistic discipline; also to students who wish to focus on the classical civilizations that are the cornerstone of the Western Tradition.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

To complete a major in Classics, students should demonstrate proficiency at the intermediate level within the target language. This may be accomplished by completing 6-12 hours within the language or by demonstrated competency at the intermediate level.

REQUIREMENTS FOR THE MAJOR IN CLASSICS-LATIN/GREEK

TOTAL MAJOR HOURS: 33-34

Major requirements for the B.A. Degree:

Major Core (33-34 hours)

The Classics Major requires 10 courses (33-34 credit hours), which are classified as language and civilization requirements.

Language Requirements (15-16 credit hours):

Students are required to take at least four (4) successive courses in a single language, Latin or Classical Greek (LAT, LNW, GRE, GRW).

Civilization Requirements (18 credit hours):

Students are required to take six (6) upper-level civilization courses, five (5) of which are the core courses offered by Classics:

- CLA 3103 Daily Life in Ancient Greece
- CLA 3124 Daily Life in Ancient Rome
- CLT 3370 Gods, Heroes, and Monsters in the Ancient World
- CLT 3103 Epic Battles and Dramatic Reversals in Greek Thought
- CLT 3123 Voyages and Metamorphoses in Roman Imagination

The sixth remaining course for the major can be fulfilled through appropriate offerings by the departments of History, Humanities and Cultural Studies, Religious Studies, and Philosophy, but only with the approval of the Classics Advisor.

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM

To graduate with Honors in Classics, the student must apply in the junior year and complete special requirements during the senior year.

To apply, the student must schedule an appointment with the Advisor and a thesis director chosen by the student.

1. Admissions Criteria

   • Senior status, with a departmental and overall GPA of 3.50.
   • Completion of the core courses in Classics.
2. Requirements for Completion of Departmental Honors:
   • The student must maintain a departmental and overall GPA of 3.50.
   • The student must pass two (2) sight translations in either Greek or Latin (passages to be determined by
     the thesis director and the student).
   • The student must turn in the completed thesis (thirty to fifty pages, at the discretion of the thesis director)
     before April of the senior year and defend it before a committee of at least three faculty members by
     May of the senior year (Committee members to be chosen by the student and thesis director).

3. Dismissal Procedures
   • The student must maintain a Departmental GPA of 3.50, must submit the Honors Thesis on time and
     must pass the scheduled Departmental Honors Examination.

Advising Information
All students who wish to enroll in the Classics Major must schedule an appointment with an advisor.
Ms. Yury Riascos (yuryr@usf.edu) or Dr. Eleni Manolaraki (emanolar@usf.edu)

CLASSICS-LATIN/GREEK FACULTY
Associate Professors: I. Kantzios, E. Manolaraki (Classics Program Coordinator); Instructor: A. Oh.

• B.A. - COMMUNICATION (SPE) (CIP = 09.0101)
TOTAL DEGREE HOURS: 120
http://communication.usf.edu/undergraduate/major/

The Bachelor of Arts in Communication is a liberal arts degree that prepares students to communicate effectively
and ethically in personal, professional, and public relationships in both face-to-face and mediated contexts. More
specifically this degree prepares students to:
1. work and lead in culturally-diverse teams and organizations;
2. develop advanced oral, interpersonal, written, visual, digital, and electronic communication skills and
   competencies;
3. create and analyze messages, content, and persuasive communication strategies;
4. understand, build, and strengthen personal and professional identities and relationships;
5. study and critique culture and media institutions, processes, technologies, and content, (e.g., television, film,
   music, print, computer, Internet, and social media);
6. apply communication knowledge and skills in one or more specialized contexts (e.g. health care; advertising
   and marketing; law and politics; public advocacy and social movements; religion and church; world cafés and
   public dialogues; performance and improv; media and media literacy; intimate and family relationships);
7. engage in undergraduate communication research; and
8. become active and productive U.S. and global citizens.

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some
courses required for the major may also meet General Education requirements thereby transferring maximum hours to
the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit,
the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and
course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment
policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If
these courses are not taken at a Florida college System institution, they must be completed before the degree is
granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

SPC 2608 Public Speaking
REQUIREMENTS FOR THE MAJOR IN COMMUNICATION
TOTAL MAJOR HOURS: 39

Major requirements for the B.A. Degree:

Major Core (27 hours)
There are six required, core courses including one prerequisite and one department capstone. Students in the major should take the first five core courses listed below as early as possible and take the department capstone course [which also fulfills the University’s FKL Capstone Experience (CPST) requirement] during the students’ senior year.

SPC 2608 Public Speaking (prerequisite for the Communication major)
COM 2000 Introduction to Communication (students must take this course during their first semester in the major, if not taken previously)
ORI 3004 Communication as Performance
SPC 3301 Interpersonal Communication
SPC 3544 Persuasion and Media
COM 4958 Communication Senior Capstone [or other Communication course approved as a University Capstone (CPST)]
Nine credit hours of required Distribution Area Courses

Required Distribution Area Courses (9 credit hours)
Students must take one course in each of the three distribution areas (Communication and Human Relationships, Public Communication and Media, and Applied Communication) for a total of three courses.

Communication and Human Relationships (select one course)
Communication and Human Relationships focuses on the role of communication in constructing, sustaining, and changing human relationships. This area includes the study of intimate relationships such as family, friendships, and romantic; professional relationships such as employer-employee, patient-health care provider; identity, self-awareness, and personal narrative; verbal and nonverbal communication including talk, conversation, and writing; performingliterary and real-life relationships; and communication and cultural diversity (gender, sexuality, race/ethnicity/nationality, social class, abilities, age, age cohorts, spirituality and religion).

COM 3014 Communication, Gender and Identity
COM 4030 Women and Communication
COM 4490 Communication and Love
COM 4702 Communication, Language, and Mental Illness
COM 4710 Writing Lives
ORI 4150 Performing Nonfiction
ORI 4460 Performing Relationships
SPC 3212 Communication Theory
SPC 3710 Communication and Cultural Diversity
SPC 4305 Communicating Emotions
SPC 4307 Talk in Relationships
SPC 4310 Relationships on Film
SPC 4321 Communication and Aging
SPC 4431 Family Communication
SPC 4701 Intercultural Communication

Public Communication and Media (select one course)
Public Communication and Media focuses on the critical study and analyses of communication, culture, and media in the public sphere. Specific areas include media (television, film, music, print, Internet and social media), media texts, and media literacy skills; culture, social institutions, and power; public opinion and memory; political discourse, social protest and social movements; and public performances of literatureand other texts. Approaches include critical and cultural studies, rhetorical studies, performance studies, diversity studies (e.g., gender, race, and class), and culture and identity studies.

COM 3051 Analyzing Culture and Media
COM 3052 Cultural Studies and Communication
COM 3413 Communication and Visual Culture
COM 4016 Public Memory
COM 4530 Influencing Public Opinion
COM 4414 Race and Gender in Popular Film and Television
COM 4931 Special Topics in Media Analysis
ORI 4019 Performing Identity and Culture
ORI 4220 Performing Young Adult Literature
ORI 4410 Performance Art  
ORI 4931 Performance and Video  
SPC 3230 Rhetorical Theory  
SPC 3653 Popular Forms of Public Communication  
SPC 3680 Rhetorical Analysis  
SPC 4201 Oral Tradition  
SPC 4632 Rhetoric and Social Change  
SPC 4683 Rhetorical Analysis of Mass Media  

**Applied Communication (select one course)**  

*Applied Communication* focuses on advanced communication skills, communication practice and how communication practice in specialized contexts informs and is informed by communication theory and research. Advanced communication skills include leadership (working in teams and organizations); oral communication (interviewing, performing, public speaking, creating presentations); written, digital and electronic communication, and undergraduate research. The specialized contexts of “applied” communication include for profit corporations, not-for-profit organizations, health care institutions, tourism, religious institutions, families, civic organizations and communities in both domestic and global settings.  

- COM 3120 Organizational Communication  
- COM 3122 Interview Communication  
- COM 4104 Communication, Tourism, and Travel  
- COM 4124 Communication and Organizational Change  
- COM 4128 Integrated Organizational Communication  
- COM 4151 Communication and Working Life in Contemporary Organizations  
- COM 4020 Communicating Illness, Grief and Loss  
- COM 4021 Family Communication and the End of Life  
- COM 4022 Health Communication  
- COM 4225 Global and Cultural Issues in Health Communication  
- ORI 3950 Communication Performance Laboratory  
- ORI 4120 Performance of Poetry  
- ORI 4310 Group Performance of Literature  
- ORI 4320 Writing for Performance  
- SPC 3513 Argumentation and Debate  
- SPC 3425 Group Communication  
- SPC 3602 Advanced Public Speaking  
- SPC 4714 Communication, Culture and Community  

**Major Electives (12 hours)**  

**Additional Departmental Electives (12 credit hours)**  

Students must take additional 3000- or 4000-level Communication courses to fulfill the remaining 12 hour elective requirement.  
Please consult Catalog for full listing of Communication course titles, and consult Oasis for current SPC 4930 Selected Topics courses. Faculty strongly recommend that students interested in a specialization within their major select and take at least 9 of these 12 elective hours within one of the three Department Distribution Areas: Communication and Human Relationships, Public Communication and Media, or Applied Communication.  

**Grading Requirement**  
A final grade of at least C- is required for all major coursework to count toward a Communication major. Courses may not be taken S/U where a grade option exists.  

**Foundations of Knowledge and Learning (FKL) Requirement**  
- SPC 2608 Public Speaking (CAHU) (Required)  
- SPC 3301 Interpersonal Communication (CASB) (Required)  
- SPC 3710 Communication and Cultural Diversity (CACG HHCP) (Recommended)  

**Foundations of Knowledge and Learning (FKL) Exit Requirement**  
- COM 4958 Communication Senior Capstone (CPST) (Required)  
- COM 4030 Women and Communication (WRIN) (Recommended)  

**Other Requirements**  

**Service Learning**  
- SPC 4714 Communication, Culture, and Community
Gordon Rule Courses (6AC)

- COM 4020 Communicating Illness, Grief and Loss (Recommended)
- COM 4030 Women and Communication (Recommended)
- COM 4710 Writing Lives (Recommended)
- SPC 3425 Group Communication (Recommended)
- SPC 4305 Communicating Emotions (Recommended)
- SPC 4632 Rhetoric and Social Change (Recommended)

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM

The Honors Program in Communication provides an opportunity for exceptional undergraduate students in Communication to work closely with a faculty member in an intensive research experience. Each Honors student is required to complete and defend an undergraduate Honors Thesis.

Application to the program ordinarily occurs during the second semester of the junior year or prior to completion of 90 semester hours. Students interested in the Honors Program should consult the department for further information about admission and program requirements.

Admission to the program is based on the student's overall academic record, performance in communication courses, and recommendations of faculty. To be admitted to the program, a student should have at least a 3.5 GPA in all Communication courses and a 3.0 cumulative GPA.

Students are required to complete 3 hours of Honors Reading and 3 hours of Honors Thesis.

Other Information

- Communication Career Pathways Information
  Available on the Department of Communication website.

- Student Organizations
  Lambda Pi Eta National Honorary Society
  Communication Council

Advising Information

The Department offers professional advising for all communication majors and minors. Email to: communicationadvise@usf.edu

COMMUNICATION FACULTY


• B.A. - ECONOMICS (ECO) (CIP = 45.0601)

  TOTAL DEGREE HOURS: 120

  http://economics.usf.edu/undergraduate/ba_ecn/

  Economics offers a clear and logical way of thinking about complicated issues such as unemployment, inflation, pollution, and crime. The Department of Economics offers broad course choices allowing students to tailor their programs to provide training for professional careers in business, teaching, government, and law. Students interested in majoring or minoring in economics should contact the undergraduate advisor in the Department of Economics for more information.

  STATE MANDATED COMMON COURSE PREREQUISITES

  Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.
If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

ECO X013 Economic Principles: Macroeconomics or ECO XXXX
ECO X023 Economic Principles: Microeconomics or ECO XXXX

REQUIREMENTS FOR THE MAJOR IN ECONOMICS
TOTAL MAJOR HOURS: 33

Major requirements for the B.A. Degree:

Major Core (18 hours)
A student may earn a Bachelor of Arts degree with a major in Economics by satisfactorily completing 33 credits in Economics in addition to college requirements.

ECO 2013 Economic Principles: Macroeconomics
ECO 2023 Economic Principles: Microeconomics
ECO 3101 Intermediate Price Theory
ECO 3203 Intermediate Macroeconomics
ECO 2052 Analytical Tools for Economists
STA 2023 Introductory Statistics I

Major Electives (15 hours)
Fifteen credit hours of Economics electives numbered 3000 or higher.

NOTE: ECO 1000 (if taken before both ECO 2013 and ECO 2023) if student receives a C- or better may be substituted for a maximum of 3 hours of upper level economics elective credit.

• MAC 2233 Business Calculus or MAC 2311 Calculus I (or the equivalent) is an acceptable substitute for ECO 2052.
• QMB 3200 Business and Economics Statistics II is an acceptable substitute for STA 2023.
• ECO 2052, MAC 2233 Business Calculus, or MAC 2311 Calculus I (or the equivalent) must be taken as a prerequisite for ECO 3101 and ECO 3203.
• ECP 3703 Managerial Economics may be substituted for ECO 3101. Students may not take both for credit.
• No more than 3 hours credit can be applied toward a major from ECO 4905 and/or ECO 4914.
• Economics majors taking coursework at the other USF institutions may not be able to fulfill all Economics course requirements at those institutions.
• All students entering USF for the first time, in Fall 2012 or later, who earn 3 (three) D and/or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100) and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through either the College of Arts and Sciences.
• All continuing USF students who entered USF prior to Fall 2012 and who have not earned any D or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100) and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) by the beginning of Fall 2012, will also be allowed 3 (three) D and/or F grades in those courses before being required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through either the College of Arts and Sciences.
• All continuing USF students who entered USF prior to Fall 2012 and who have earned 1 (one) or more D or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100), and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) by the beginning of Fall 2012, will only be allowed 2 (two) more D and/or F grades in those courses before being required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through the College of Arts and Sciences.
• Grade Forgiveness will NOT apply to the mandated requirement of changing majors.
• Appeals to the required change of major will be handled in the Economics Department and ONLY those students whose appeal is based on exceptional circumstances will be considered.
Course Grade Requirement
Students must obtain a grade of "C-" or higher in ECO 3101 or ECP 3703 (formerly ECO 3100) in order to enroll in any course for which ECO 3101 or ECP 3703 is a prerequisite.

Grading Requirement
Students must obtain a grade of "C-" or higher in all courses required for the major or minor in Economics.

Residency Requirement
At least 12 hours of upper level credit must be taken in residence at USF.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

ACCELERATED B.A./M.A. PROGRAM
This program allows superior students with strong analytical skills and the ability to handle a fast paced, challenging program the opportunity to complete both the Bachelor's and Master's degrees in Economics in five years.

The program requires students to take two graduate-level courses required for the MA degree during the last year in the Bachelor program. These six hours are counted as general electives (not major electives) in the undergraduate program and are also used to satisfy the requirements for the MA in economics. After completing the 120-hour Bachelor's program, five-year students take 24 hours at the graduate level.

To be eligible for the program, a student must have:
• Completed at least 6 hours of 3000-level or above Economics courses at USF (not including statistics),
• Have an overall grade point average of 3.00 or above, and have a minimum of 3.25 cumulative grade point average in all economics courses (including statistics).

To apply for admission, send a letter to the Undergraduate Program Director in the Department of Economics stating your qualifications and desire to enter the program. To plan your program, or for additional information, see the Undergraduate Advisor in Economics.

Coursework in the Undergraduate Economics Major:
A student may earn a Bachelor of Arts degree with a major in Economics by satisfactorily completing 33 credits in Economics in addition to college requirements.

ECO 2013 Economic Principles: Macroeconomics
ECO 2023 Economic Principles: Microeconomics
ECO 3101 Intermediate Price Theory
ECO 3203 Intermediate Macroeconomics
ECO 2052 Analytical Tools for Economists
STA 2023 Introductory Statistics I

15 credit hours of Economics electives numbered 3000 or higher.

1. MAC 2233 Business Calculus or MAC 2311 Calculus I (or the equivalent) is an acceptable substitute for ECO 2052.
2. QMB 3200 Business and Economics Statistics II is an acceptable substitute for STA 2023.
3. ECO 2052, MAC 2233 Business Calculus, or MAC 2311 Calculus I (or the equivalent) must be taken as a prerequisite for ECO 3101 and ECO 3203.
4. ECP 3703 Managerial Economics may be substituted for ECO 3101. Students may not take both for credit.
5. No more than 3 hours credit can be applied toward a major from ECO 4905 and/or ECO 4914.
6. Economics majors taking coursework at the other USF institutions may not be able to fulfill all Economics course requirements at those institutions.
7. All students entering USF for the first time, in Fall 2012 or later, who earn 3 (three) D and/or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100) and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through either the College of Arts and Sciences or the College of Business.
8. All continuing USF students who entered USF prior to Fall 2012 and who have not earned any D or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100) and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through either the College of Arts and Sciences or the College of Business.
2100) and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) by the beginning of Fall 2012, will also be allowed 3 (three) D and/or F grades in those courses before being required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through either the College of Arts and Sciences or the College of Business.

9. All continuing USF students who entered USF prior to Fall 2012 and who have earned 1 (one) or more D or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100), and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) by the beginning of Fall 2012, will only be allowed 2 (two) more D and/or F grades in those courses before being required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through the College of Arts and Sciences.

10. Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

11. Appeals to the required change of major will be handled in the Economics Department and ONLY those students whose appeal is based on exceptional circumstances will be considered.

Advisors in the College of Arts and Sciences or the Transitional Advising Center will be available to assist students in the selection of a new major in their respective colleges. They will also track their progress through the Accelerated Degree Program.

Advisors will also clarify the financial aid implications of entering the Accelerated Degree Program. This includes the cost differences between undergraduate and graduate credit hours as well as possibly not being able to apply certain undergraduate scholarships to graduate coursework.

The BA in Economics will be conferred once the student has completed all requirements for the degree including having completed the graduate coursework that comprises part of the Accelerated Degree Program. The MA in Economics will be conferred once the student has completed all remaining requirements for the MA degree.

The M.A. in Economics is a non-thesis option degree program comprised of a minimum of 30 credit hours of graduate coursework, 12 hours of which are required courses:

- ECO 6115 Microeconomics I
- ECO 6206 Macroeconomics I
- ECO 6405 Mathematical Economics I
- ECO 6424 Econometrics I

as well as 18 hours of electives at least 12 of which must be drawn from the list of economics electives shown below and at most 6 hours of which may be drawn from graduate courses outside of economics.

Economics electives must be drawn from the following set of graduate-level courses offered in the Department of Economics.

ECO 6120 Economic Policy Analysis
ECO 6305 History of Economic Thought
ECO 6425 Econometrics II
ECO 6505 Public Finance
ECO 6525 Public Sector Economics
ECO 6706 International Trade: Theory and Policy
ECO 7116 Microeconomics II
ECO 7207 Macroeconomics II
ECO 7406 Mathematical Economics II
ECO 7426 Econometrics III
ECO 6405 Industrial Organization I
ECO 6408 Economics of Organization
ECO 6415 Issues in Regulation and Antitrust
ECO 6456 Law and Economics
ECO 6536 Economics of Health Care I
ECO 6614 Urban Economics
ECO 6624 Regional Economics
ECO 7406 Industrial Organization II
ECO 7537 Economics of Health Care II
ECS 6015 Economic Development

With the approval of the Graduate Director, unrestricted elective courses may be satisfied either by graduate-level courses offered by any department within the University or by certain MBA courses taught within the Department of Economics.

Specific Course Requirements for the Accelerated Degree Program

Students in the Accelerated Degree Program will be permitted to take 9 hours of graduate coursework prior to the BA in Economics being conferred. Of these 9 hours, 6 will be mandatory (ECO 6405 and ECO 6115) and 3 hours will be chosen from ECO 6206, ECO 6424, ECO 6505, ECP 6408, ECP 6415, ECP 6456, and ECP 6614. With the exceptions of ECO 6115 and ECO 6206 which do not satisfy any specific undergraduate course (ECO 3101 and ECO 3203 constitute 6 hours of the 15 hours in the major that are required to be admitted to the Accelerated Degree
Program), all other graduate courses taken prior to the awarding of the BA in Economics satisfy the following undergraduate elective courses:

- ECO 4401 satisfied by ECO 6405
- ECO 4421 satisfied by ECO 6424
- ECO 4504 satisfied by ECO 6505
- ECP 3403 satisfied by ECP 6408
- ECP 3413 satisfied by ECP 6415
- ECP 3613 satisfied by ECP 6614
- ECP 4451 satisfied by ECP 6456

At the time that the BA degree is conferred, students in the Accelerated Degree Program will have completed at least two of the four required courses and at most one of the six elective courses needed for the MA degree. The remaining one or two required courses for the MA degree will be completed after the BA degree has been conferred.

Elective Requirements

Of the 6 elective courses that comprise the Main Economics, students in the Accelerated Degree Program are permitted to take at most one such course before the BA in Economics is conferred. The list of approved elective courses is as follows:

- ECO 4421 satisfied by ECO 6424
- ECO 4504 satisfied by ECO 6505
- ECP 3403 satisfied by ECP 6408
- ECP 3413 satisfied by ECP 6415
- ECP 3613 satisfied by ECP 6614
- ECP 4451 satisfied by ECP 6456

Following the awarding of the BA in Economics, students in the Accelerated Degree Program will be able to choose their remaining graduate elective courses from the list of economics elective courses given below.

DEGREE PROGRAM REQUIREMENTS

Program Minimum Hours: 30 hours

All students are required to take courses in advanced economic theory and econometrics. Undergraduate economics majors at USF may complete the program in one year beyond the B.A. in the 5-Year B.A/M.A. Program. Students preparing for doctoral studies select from these and additional courses in economic theory, mathematics, and quantitative methods. Where appropriate students may select course in other departments in the University.

Students must satisfy all University requirements for the M.A. degree. Departmental requirements include 30 hours of graduate credit selected with the approval of the department's graduate advisor. At least 24 hours must be in Economics, not including Independent Study (ECO 6906) and Directed Research (ECO 6917). To graduate, a student must have at least an overall 3.0 GPA and at least a 3.0 GPA for all economics courses, and pass an oral examination.

In addition to completing the 30 hours of coursework with overall and major GPAs of at least 3.0, a student must pass an oral examination conducted by a panel of three faculty members who have taught courses in the student’s program. At least one faculty member must be drawn from those who teach the core courses. The oral examination provides a forum for the student to provide evidence that s/he has sufficient knowledge and breadth of fundamental economic concepts so as to be able to undertake rigorous economic analysis, both theoretical and empirical in nature.

Advising Information

Advisors in the College of Arts and Sciences or the Transitional Advising Center will be available to assist students in the selection of a new major in their respective colleges.

Department of Economics; econadvise@usf.edu

ECONOMICS FACULTY


• B.A. - ENGLISH (ENG) (CIP = 23.0101)

TOTAL DEGREE HOURS: 120

http://english.usf.edu/ug/
from which students must choose one concentration: Creative Writing, Literary Studies and Professional Writing, Rhetoric and Technology.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

ENC 1101 Composition I or ENC XXXX
ENC 1102 Composition II or ENC XXXX

REQUIREMENTS FOR THE MAJOR IN ENGLISH

TOTAL MAJOR HOURS: 36

Major requirements for the B.A. Degree:

Students may not use more than one directed study course toward meeting the major requirements.

GPA Requirements

A 2.5 GPA in the major is required for graduation.

Grading Requirement

A grade of below C- will not be counted toward fulfilling the major requirements.

Residency Requirement

Transfer students must earn at least 15 hours in the major at USF.

Foreign Language Requirement

The English Department does not accept Sign Language as a foreign language.

Other Requirements

Students declaring English as a second major need to complete 30 credit hours. To do so, they must make a written request to the Undergraduate Director at the time they declare English as a second major. Courses taken in the first major may not count toward the 30 hours in English as a second major.

Internship Opportunities

Students may use an Internship as an elective; in the semester they complete the internship, they must register for ENC 4940 (3 credit hours). Students may complete more than one Internship; however, only 3 credits of ENC 4940 can be applied toward major requirements.

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM

The Department of English Honors Program provides a carefully selected group of seniors with opportunities for advanced scholarship:

• Closer contact with faculty tutors than students in the regular major program;
An opportunity to work and exchange ideas in the stimulating environment of a small group of fellow students with similar aims and abilities;

• An opportunity to develop individual initiative and sophisticated critical skills.

The English Honors Program will benefit those interested in graduate work, advanced professional study, or greater intellectual challenges.

Admissions Criteria

Students may apply for the program after completing 80 hours of coursework (90 before actual admission). Applicants should have a GPA of 3.30 in the major and an overall GPA of 3.00 and should submit signatures of recommendation from two English faculty supporting their applications.

After screening all applications, the Department’s Honors Committee will select participants for each year’s program.

Requirements for Completion of Departmental Honors

1. The Honors student will complete the requirements of his/her chosen English major as described in the current catalog.

2. The Honors program requires 9 hours of Honors-level work.
   • All Honors students are required to complete at least one (three-hour) Honors seminar (ENG 4935 or ENG 4936).
   • Students may select from the following options to fulfill the remaining six hours of credit in Honors:
     ▪ A second (three-hour) Honors seminar (ENG 4935 or ENG 4936).
     ▪ A three-hour independent study. The independent study should be connected to an eligible upper-level course in the major being taught in that semester.**
       • A list of courses available for this option will be made available prior to registration each semester. Students will attend some or all of the scheduled course meetings but will be enrolled in an independent study with the instructor. The independent study will be considered a special “Honors section” of the course and will require additional work that may include extra reading, class presentations, and advanced research-based writing. To enroll in an independent study, students will need written permission of the instructor, who will determine an Honors-appropriate workload for the course. The proposed plan for independent study must be approved by the Honors Committee and filed with the Undergraduate Director prior to registration. Students may count a maximum of one independent study in fulfillment of their degree requirements.
     ▪ A three-hour Honors thesis, supervised by a member of the English faculty. The Director of the English Honors Program will serve as instructor of record for the thesis hours. Under the direction of the instructors of the Honors seminars and/or the Director of the English Honors Program, the student will choose a member of the English Department faculty to serve as director of his/her thesis and one or two additional faculty members to serve as readers of the thesis. The completed thesis must be at least 25-pages in length, not including bibliography.
     ▪ A three-hour graduate-level course. Enrollment in a graduate course is limited to Honors students in their final semester and requires written permission of the Undergraduate Director, Graduate Director, and the instructor of the course. To be eligible, students must have completed at least one Honors seminar with a grade of A or A+.

   • Of the nine hours required for Departmental Honors, a maximum of six hours may be counted towards the requirements for the major (historical distribution requirements or electives).

To graduate with Departmental Honors, the student must satisfy the following requirements:

• Complete 9 hours of English Honors courses as described above with a 3.30 GPA;
• Complete all major requirements with a 3.30 GPA and academic coursework with an overall GPA of 3.0.

The student who completes all requirements above will graduate with Honors in English. The credit hours completed within the program by the student who does not complete all Honors requirements will count toward the baccalaureate degree.

**Faculty who are willing to accommodate the extra needs of Honors students will notify the Undergraduate Director before registration to have their course put on the list of eligible courses. The Honors student will enroll in an independent study but will attend the scheduled course and complete the bulk of the reading and written requirements for the course in addition to a special Honors project for the course (this could include a formal presentation of research, an independent research project, a longer research paper, a long annotated bibliography, a larger collection of creative work, etc. The independent study represents 3 hours of coursework.)
ENGLISH CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN
CREATIVE WRITING (CRW)
TOTAL CONCENTRATION HOURS: 36

This 36-hour concentration is designed for aspiring writers of fiction, poetry, and creative nonfiction. Students who graduate from this program will demonstrate the following: 1) knowledge of the forms and techniques of poetry, fiction, and creative nonfiction; 2) knowledge of literary genres and the techniques used by authors within each genre; 3) the ability to analyze literature in its cultural and philosophical context; and 4) the ability to critique student manuscripts and offer constructive feedback within a workshop setting.

Concentration Core (36 hours)

Writing Requirements: Six courses as follows:
- CRW 3111 Form and Technique of Fiction
- CRW 3311 Form and Technique of Poetry
  (CRW 3111 must be taken before any other courses in the Fiction series, and CRW 3311 must be taken before any other courses in the Poetry series. Students are urged to take these two courses during the first year of their major.)

Any four of the following courses:
- CRW 3112 Fiction I
- CRW 3121 Fiction II
- CRW 3312 Poetry I
- CRW 3321 Poetry II
- CRW 4930 Selected Topics in Creative Writing
  CRW 4930 may be repeated twice, with different content, for a total of six (6) credits hours. Choices would include creative nonfiction, screenwriting, craft courses in fiction/poetry, young adult literature, lyric poetry, etc.).

Literature Requirements: Six courses as follows:

One of the following courses that concentrates on literature written pre-1900:
- AML 3031 American Literature from the Beginning to 1860
- AML 3032 American Literature from 1860 to 1912
- AML 4111 Nineteenth-Century American Novel
- ENG 4060 History of the English Language
- ENL 4203 Introduction to Old English
- ENL 3015 British Literature to 1616
- ENL 3016 Studies in 17th and 18th Century British Literature
- ENL 3017 Studies in 19th Century British Literature
- ENL 3230 British Literature 1616-1780
- ENL 3251 British Literature 1780-1900
- ENL 3331 Early Shakespeare
- ENL 3332 Late Shakespeare
- ENL 4122 19th Century British Novel
- ENL 4311 Chaucer
- ENL 4338 Advanced Studies in Shakespeare
- ENL 4341 Milton
- ENL 4501 Studies in Medieval and Early Modern Literature
- LIT 3031 Survey of Poetry
- LIT 3101 Literature of the Western World through the Renaissance

Five (5) additional major literature courses from those listed in the Literary Studies concentration
REQUIREMENTS FOR THE CONCENTRATION IN LITERARY STUDIES (LTS)

TOTAL CONCENTRATION HOURS: 36

http://english.usf.edu/ug/concentrations/literature/

This concentration provides students with a knowledge of literary method, literary history, and a broad range of literary accomplishment (including knowledge of emerging fields, world literatures, and ethnic literatures). While the major places much emphasis on appreciating works of literature as artifacts produced in their own culture contexts, it also enables students to make connections between contemporary life and the study of literature. It evaluates students' grasp of formal and technical elements of literary practice and emphasizes the development of writing skills and the production of disciplinary writing. Successful completion of the major will enhance students' capacity for aesthetic enjoyment, critical reflection, and effective self-expression, and may provide preparation for further study (graduate and professional schools) or communication and research skills to be used in a work environment.

Concentration Core (21 hours)

Required Course (3 credit hours):
ENG 3014 Introduction to Literary Methodology (recommended during first 2 semesters of the major)

Additional Requirements (18 credit hours):

Capstone (3 credit hours)
Students must choose one course from the following list (Note: These courses are approved only for the department's capstone requirement, not for the University's EXIT Capstone requirement.):
ENG 4013 Literary Criticism
ENG 4950 Senior Capstone

Literary Histories (9 credit hours)
Students must choose one course from three of the four pre-1900 categories:

Medieval/Renaissance
ENL 3015 British Literature to 1616
ENL 3331 Early Shakespeare
ENL 3332 Late Shakespeare
ENL 4203 Introduction to Old English
ENL 4311 Chaucer
ENL 4338 Advanced Studies in Shakespeare
ENL 4501 Studies in Medieval & Early Modern Literature
LIT 3101 Literature of the Western World through the Renaissance

17th/18th Century British
ENL 3016 Studies in 17th and 18th Century British Literature
ENL 3230 British Literature 1616-1780
ENL 4112 Eighteenth-Century British Novel
ENL 4341 Milton

19th Century British
ENL 3017 Studies in 19th Century British Literature
ENL 3251 British Literature 1780-1900
ENL 4122 19th Century British Novel

American Before 1900
AML 3031 American Literature from the Beginnings to 1860
AML 3032 American Literature from 1860 to 1912
AML 4111 Nineteenth-Century American Novel

Cultural-Critical Studies (3 credit hours)
Students must choose one course from the following list:
AML 3604 African American Literature
AML 3630 U.S. Latino/Latina Literature in English
AML 3641 Native American Literature and Film
AML 3674 Asian American Literature and Film
AML 4933 Studies in American Literature and Culture
LIT 3353 Literature, Race, and Ethnicity
LIT 3410 Religious and Philosophical Themes in Literature
LIT 3513 Literature, Gender, and Sexuality
LIT 4233 Postcolonial Literature
LIT 4386 British and American Literature by Women
LIT 4931 Studies in World Literature and Culture

*Language and Genre* (3 credit hours)

Students must choose one course from the following list:

- AML 4111 Nineteenth-Century American Novel
- AML 4121 Twentieth-Century American Novel
- AML 4931 American Literary Movements and Genre
- ENG 3113 Film as Narrative Art
- ENG 4060 History of the English Language
- ENG 4674 Film and Culture
- ENL 4112 Eighteenth-Century British Novel
- ENL 4122 Nineteenth-Century British Novel
- ENL 4132 British Novel: Conrad to the Present
- ENL 4930 Selected Topics
- LIN 4671 Traditional English Grammar
- LIN 4680 Structure of American English
- LIT 3022 Modern Short Prose
- LIT 3031 Survey of Poetry
- LIT 3043 Modern Drama
- LIT 3144 Modern European Novel

**Concentration Electives (15 hours)**

Students may count one course from the following list:

Any one LIT 2000-level course may count as an elective:

- LIT 2000 Introduction to Literature
- LIT 2010 Introduction to Fiction
- LIT 2020 Introduction to the Short Story
- LIT 2030 Introduction to Poetry
- LIT 2040 Introduction to Drama

Students may select four additional courses (12 credit hours) from the following list:

- AML 3051 American Literature from 1912 to 1945
- AML 3243 American Literature from 1945 to the present
- AML 4261 Literature of the South
- AML 4300 Selected American Authors
- ENG 4013 Literary Criticism (recommended for those planning to attend graduate school)
- ENL 3026 Studies in the 20th Century Literature
- ENL 3273 British Literature 1900-1945
- ENL 4303 Selected British Authors
- LIT 3093 Contemporary Literature
- LIT 3102 Literature of the Western World since the Renaissance
- LIT 3374 The Bible as Literature
- LIT 3930 Selected Topics in Literature
- LIT 4930 Selected Topics in English Studies
- Any additional LTS major course listed above
- Any major CRW course listed under the Creative Writing concentration
- Any major ENC course listed under the Professional Writing, Rhetoric and Technology concentration

Students may not use more than one directed study course toward meeting the major and concentration requirements.

**ACCELERATED B.A./M.A. PROGRAM**

This program allows B.A. majors in Literary Studies to take graduate courses in the M.A. degree in Literature during their senior year. These shared credits will be applicable to the M.A. degree, thus accelerating the time to completion, with successful students able to earn the M.A. degree in two additional semesters beyond the completion of the B.A. degree.

This accelerated program shares 12 credits between already existing degrees:

- B.A. English with a concentration in in Literary Studies
- M.A. in English with a concentration in Literature

**Target students and expected outcomes**

This program builds on the department’s B.A. and M.A. degrees. It will give talented Literary Studies majors the opportunity to take graduate courses and apply them to an M.A. in Literature. If successful, students will be able to
complete an M.A. two semesters after the B.A. requirements have been met. This will allow them to more expeditiously pursue career opportunities requiring a graduate degree in Literary Studies or pursue Ph.D. studies.

**Description and Requirements**

For admission to the program, a student must:

1. have completed at least 15 hours in the English major, with a concentration in Literary Studies, including ENG 3014.
2. have a minimum undergraduate 3.33 GPA overall; and
3. have a minimum undergraduate 3.5 GPA in the major.

Application to the program may be made by any student who has satisfied the minimum requirements. Applications should be addressed to the Department Undergraduate and Graduate Directors and should include a statement by the student affirming satisfaction of minimum requirements (with supporting documentation) and a letter of recommendation from a Literary Studies faculty member familiar with the student's academic performance.

**Requirements for the B.A. English with a Concentration in Literary Studies**

Within the 120-semester hour program listed in the College of Arts and Sciences General Requirement section (including the state mandated common prerequisites), students must choose a total of 36 credit hours from the Literary Studies concentration coursework. Transfer students may not apply more than 12 hours taken elsewhere toward the major at the University of South Florida. Only letter grades of at least C- will be counted toward the minimum of 24 credit hours taken at the University of South Florida for transfer students or 36 (for non-transfer students) credit hours necessary to complete the 36 credit hours required for the major.

I. Required Course (3 credit hours):

   ENG 3014 Introduction to Literary Methodology (recommended during first 2 semesters of the major)

II. Additional Requirements (18 credit hours):

   Students must choose one course from the following list (Note: These courses are approved only for the Department's Capstone requirement, not for the University's EXIT Capstone requirement).

   ENG 4013 Literary Criticism
   ENG 4950 Senior Capstone

   Literary Histories (9 credit hours)
   Students must choose one course from three of the four pre-1900 categories:

   **Medieval/Renaissance**
   ENL 3015 British Literature to 1616
   ENL 3331 Early Shakespeare
   ENL 3332 Late Shakespeare
   ENL 4203 Introduction to Old English
   ENL 4311 Chaucer
   ENL 4338 Advanced Studies in Shakespeare
   ENL 4501 Studies in Medieval & Early Modern Literature
   LIT 3101 Literature of the Western World through the Renaissance

   **17th/18th Century British**
   ENL 3016 Studies in 17th and 18th Century British Literature
   ENL 3230 British Literature 1616-1780
   ENL 4112 Eighteenth-Century British Novel
   ENL 4341 Milton

   **19th Century British**
   ENL 3017 Studies in Nineteenth-Century British Literature
   ENL 3251 British Literature 1780-1900
   ENL 4122 19th Century British Novel

   **American Before 1900**
   AML 3031 American Literature from the Beginnings to 1860
   AML 3032 American Literature from 1860 to 1912
   AML 4111 Nineteenth-Century American Novel

   **Cultural-Critical Studies (3 credit hours)**
   Students must choose one course from the following list:

   AML 3604 African American Literature
   AML 3630 U.S. Latino/Latina Literature in English
   AML 3641 Native American Literature and Film
   AML 3674 Asian American Literature and Film
   AML 4933 Studies in American Literature and Culture
   LIT 3353 Literature, Race, and Ethnicity
LIT 3410 Religious and Philosophical Themes in Literature
LIT 3513 Literature, Gender, and Sexuality
LIT 4233 Postcolonial Literature
LIT 4386 British and American Literature by Women
LIT 4931 Studies in World Literature and Culture

Language and Genre (3 credit hours)

Students must choose one course from the following list:
AML 4111 Nineteenth-Century American Novel
AML 4121 Twentieth-Century American Novel
AML 4931 American Literary Movements and Genre
ENG 3113 Film as Narrative Art
ENG 4060 History of the English Language
ENG 4674 Film and Culture
ENL 4112 Eighteenth-Century British Novel
ENL 4122 Nineteenth-Century British Novel
ENL 4132 British Novel: Conrad to the Present
ENL 4930 Selected Topics
LIN 4671 Traditional English Grammar
LIN 4680 Structure of American English
LIT 3022 Modern Short Prose
LIT 3031 Survey of Poetry
LIT 3043 Modern Drama
LIT 3144 Modern European Novel

III. Electives (5 courses/15 credit hours):

Students may count one course from the following list (any one LIT 2000-level course):
LIT 2000 Introduction to Literature
LIT 2010 Introduction to Fiction
LIT 2020 Introduction to the Short Story
LIT 2030 Introduction to Poetry
LIT 2040 Introduction to Drama

Students may select four additional courses (12 credit hours) from the following list:
AML 3051 American Literature from 1912 to 1945
AML 3243 American Literature from 1945 to the Present
AML 4261 Literature of the South
AML 4300 Selected American Authors
ENG 4013 Literary Criticism (recommended for those planning to attend graduate school)
ENL 3026 Studies in the 20th Century Literature
ENL 3273 British Literature 1900-1945
ENL 4303 Selected British Authors
LIT 3093 Contemporary Literature
LIT 3102 Literature of the Western World since the Renaissance
LIT 3374 Bible as Literature
LIT 3930 Selected Topics in Literature
LIT 4930 Selected Topics in English Studies
Any additional LTS major course listed above
Any major CRW course listed under the Creative Writing concentration
Any major ENC course listed under the Professional Writing, Rhetoric and Technology concentration

Shared B.A./M.A. Requirements
Twelve (12) hours of graduate credit may be shared as follows:
ENG 4013 or ENG 4950 can be satisfied by either ENG 6018 or ENG 6019
9 hours at the 4000 level are satisfied by 9 hours at the 6000 level from comparable categories II-IV

Graduate Degree Requirements
For Accelerated M.A. in English with a Concentration in Literature
Total Minimum Hours: 33
Core Requirements - 6 hours
ENG 6009 Introduction to Graduate Studies
Either ENG 6018 Criticism and Theory I or ENG 6019 Criticism and Theory II
Historical Distribution* - 12 credit hours
Four courses chosen from the following (1 course from each of the following groups):

- Medieval or Renaissance (including 17th Century)
  - ENL 6206 Studies in Old English
  - ENL 6216 Studies in Middle English
  - ENL 6226 Studies in Sixteenth-Century British Literature
  - ENL 6228 Studies in Seventeenth-Century British Literature

- 18th Century (Either British tradition or Literature of the Americas)
  - AML 6017 Studies in American Literature to 1860
  - ENL 6236 Studies in Restoration and Eighteenth-Century British Literature

- 19th Century (Either British tradition or Literature of the Americas):
  - AML 6017 Studies in American Literature to 1860
  - AML 6018 Studies in American Literature to 1860 to 1920
  - ENL 6246 Studies of the English Romantic Period
  - ENL 6256 Studies in Victorian Literature

- 20th Century (Either British traditions or Literature of the Americas):
  - AML 6027 Studies in Modern American Literature
  - ENL 6276 Studies in Modern British Literature
  - LIT 6096 Studies in Contemporary Literature

Cultural & Critical Studies* - 6 credit hours
Two courses in ethnic literature (including African-American, Latino/a, post-colonial), world literature, women’s literature or gender studies, critical theory, film, or genre

- AML 6608 Studies in African American Literature
- ENG 6018 Studies in Criticism and Theory I
- ENG 6019 Studies in Criticism and Theory II
- ENG 6067 History of the English Language
- LIT 6934 Selected Topics in English Studies
- Or other courses as approved by the Graduate Director

Electives - 6 credit hours
Students taking ENC 6745 Teaching Practicum must use this as an elective if they count it toward the 33 credits in the degree. No CRW courses will be allowed in the literature track. Only one practicum will be allowed to satisfy degree requirements (including ENC 6745) in Option I. One Directed Study may be used to substitute for degree requirement with the approval of the Graduate Director.

Portfolio and Defense - 3 credit hours
Three directed study hours to prepare portfolio. In their fourth and final semester (excluding summer terms), MA students will submit a portfolio for review to a three-member faculty committee six weeks prior to the Office of Graduate Studies deadline for thesis/dissertation submission. Upon submission, the student and chair of the committee will establish a defense date with the Graduate Program Specialist.

The portfolio will contain the following:
- An introductory first-person essay in which the student offers a self-evaluation of the contents of the portfolio and how it reflects his or her own process of revision, intellectual growth, plans for publication/dissemination, and professional development (minimum five pages, not to exceed fifteen).
- Three revised seminar papers 15-20 pages in length, including appropriate MLA or Chicago Style documentation.
  - Papers should represent three distinct literary periods, including at least one prior to 1800 and one after 1800. In addition, the contents of the portfolio should represent diversity on a national level, with at least one paper focusing on literature of the Americas and the other on literature from Britain (broadly construed) or its colonies.
  - Papers should be developed under the direction of three different faculty members from the English Department, who will then form the committee for the defense. One member of the committee will serve as the chair, who will coordinate the circulation of the portfolio, the scheduling of the defense, and the submission of evaluation forms to the graduate director within specified deadlines.

The portfolio will be reviewed and evaluated by this three-member faculty committee using the published assessment rubric.

Members of the portfolio committee will be asked to work with the student to revise the papers she/he wrote for class. The goal is to get the papers into a form that might reasonably be published.
Because this option is not a thesis, it does not have to be submitted to the Office of Graduate Studies, and so it does not need to adhere to the Office of Graduate Studies deadlines. Defenses should be concluded two weeks before the end of classes. The whole portfolio, along with the revised papers and the introductory essay, should be circulated two weeks prior to the defense, to give committee members an opportunity to read it through.

Each portfolio paper will also be scored on a scale from 1 to 4 on content using the rubric at the end of the handbook. To pass, a portfolio requires a minimum score of 9 in content.

Pass with Distinction: portfolios scoring between 11 and 12 will merit distinction; this will be noted in the student’s file and can be referenced on a student’s CV.

Deficiency: portfolios scoring between 7 and 8 or with one paper earning a 1 will be deficient. Any paper scoring less than 3 will require revision. Individual faculty need to specify in writing what the essay requires for revision in order to pass. Students will have the opportunity to revise during the remaining time of the semester; revised paper(s) need to be submitted to all committee members for approval no later than the last day of class for the semester. No second defense is required. Students who fail to revise appropriately before the end of the semester will be put on academic probation and will be required to finalize their papers the following semester (excluding summer unless faculty agree to serve during the summer).

Failure: portfolios that score a 6 or less or portfolios that score less than 9 in overall content fail. Students who fail will automatically be put on academic probation and given the opportunity to revise papers so that the portfolio reaches a minimum score of 9 the following semester (excluding summer unless faculty agree to serve during the summer). A failed portfolio requires a second defense after revision, and the committee will determine if it passes or fails (no deficiencies or distinctions may be awarded). If the portfolio fails after the second defense the student will be academically dismissed from the program.

Graduate Assistants on probation in the initial term maintain eligibility for an assistantship. If probationary status is not removed, the student can be removed from assistantship and academically dismissed from the program.

The committee will also evaluate the introductory essay using the appropriate rubric; this grade will be recorded for purposes of program assessment.

Oral Defense

The committee chair convenes a meeting with the committee and student for 30 minutes; this oral examination provides the opportunity for faculty to question the student on various aspects of the portfolio, and it gives the student the opportunity to expand upon and refine ideas represented in writing. The defense also provides an opportunity for further suggestions on publication and revision. After 30 minutes, the committee will convene without the student to discuss a final assessment for the portfolio using the published rubric.

No grade lower than a B will be accepted in a graduate course in the B.A./M.A. program. Students earning less than a B in a graduate course must retake the course and earn a B or higher to apply it to their graduate degree.

Timeline and benchmarks:

1. To be considered for acceptance into the Accelerated B.A./M.A. in Literary Studies, students must have completed a minimum of 15 credits in the Literary Studies undergraduate major.
2. Students must have a minimum undergraduate GPA of 3.33 overall, and a minimum GPA of 3.50 in the major to be eligible for the accelerated degree program.
3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program.
4. Applications should be addressed to the Department Undergraduate and Graduate Directors and should include:
   a. a statement by the student affirming satisfaction of minimum requirements (with supporting documentation)
   b. a letter of recommendation from a Literary Studies faculty member familiar with the student’s academic performance.
5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies.

A comprehensive plan of study to complete the integrated B.A./M.A. program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows. Summer sessions may also be included in the study plan.

First and Second Year

ENG 3014 Introduction to Literary Methodology
12 credit hours of undergraduate courses in literary studies

Third Year (Apply for Admission to the Integrated B.A./M.A. program)
9 hours of undergraduate courses in literary studies at 3000 and 4000 level

Fourth Year (Student accepted in M.A. in Literature program)
ENG 6018 or ENG 6019 (satisfies ENG 4013)
9 credit hours of 6000-level  
6 credit hours of 4000-level  

**Fifth Year**  
15 credit hours of 6000-level  
3 credits of directed study in preparation/defense of MA portfolio  

**REQUIREMENTS FOR THE CONCENTRATION IN PROFESSIONAL WRITING, RHETORIC AND TECHNOLOGY (PRT)**  
**TOTAL CONCENTRATION HOURS: 36**  

http://english.usf.edu/ug/concentrations/technical/  

This concentration provides students with both a practical and a theoretical orientation to communication in a variety of media and genres. The program prepares students to work as innovative professional communicators in a variety of fields – from government to business to medicine. It also prepares students for graduate programs in rhetoric, composition, and professional communication. The program produces graduates who can think critically about communication, contexts, and technology as well as compose technologically-mediated documents and products using a variety of tools.

**Concentration Core (15 hours)**  
- ENC 3242 Technical Communication for Majors  
- ENC 3416 New Media for Technical Communication  
- ENC 4218 Visual Rhetoric for Technical Communication  
- ENC 4311 Advanced Composition  
- ENC 4940 Professional/Technical Communications Internship  

**Concentration Electives (21 hours)**  
- ENC 3250 Professional Writing  
- ENC 3310 Expository Writing  
- ENC 3371 Rhetorical Theory for Technical Communication  
- ENC 3435 Rhetoric and Gaming  
- ENC 4260 Advanced Technical Writing  
- ENC 4931 Selected Topics in Technical and Professional Writing  
- Any courses listed in the Literary Studies concentration.  
- Any courses listed in the Creative Writing concentration.  

**Advising Information**  
englishadvise@usf.edu; 813-974-8508  

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**ENGLISH FACULTY**  

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**B.S. - ENVIRONMENTAL BIOLOGY (ENB)**  
**(CIP = 26.0101 - TRACK 1 OF 2)**  
**TOTAL DEGREE HOURS: 120**  

http://biology.usf.edu/ib/ug/bs/  

Students majoring in Environmental Biology study the ways in which organisms interact with the environment, and how they adapt to changing environments. The program of study explores the interconnections among biology, ecology, evolution, and conservation. The objective of the program of study is to provide students with a firm foundation in basic biology and the tools necessary to function as professional biologists, with special emphasis on natural ecosystems. The program will prepare students for further education (ecology, environmental science, conservation...
COLLEGE OF ARTS & SCIENCES

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.

BSC X010/X010L Biology I with Lab or BSC X010C or BSC X040/X040L
BSC X011/X011L Biology II with Lab or BSC X011C or BSC X041/X041L or ZOO X010/X010L or BOT X010/X010L or BOT X013/X013L
CHM X045/X045L General Chemistry I with Lab or CHM X045C or CHM X040 and CHM X041
CHM X046/X046L General Chemistry II with Lab or CHM X046C
CHM X210/X210L Organic Chemistry I with Lab and CHM X211/X211L or (CHM X210C and CHM X211C) or (PHY X053/X053L and PHY X054/X054L) or (PHY X048/X048L and PHY X049/X049L)
MAC X311 Calculus I or MAC X233 or MAC X253 or MAC X281 or MAC X241
MAC X312 Calculus II or MAC X282 or MAC X234 or STA X023 or STA X024 or STA X321

REQUIREMENTS FOR THE MAJOR IN ENVIRONMENTAL BIOLOGY

Required Supporting Courses for the Major: 32-34 Hours

The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

CHM 2045 and CHM 2045L General Chemistry I and Laboratory
CHM 2046 and CHM 2046L General Chemistry II and Laboratory
CHM 2210 and CHM 2210L Organic Chemistry I and Laboratory
CHM 2211 and CHM 2211L Organic Chemistry II and Laboratory
Calculus I: MAC 2241 or MAC 2311 or MAC 2281
Statistics or Calculus II: STA 2023 or MAC 2242 or MAC 2312 or MAC 2282
One of the Physics Sequences:
PHY 2053/2053L General Physics I and PHY 2054/2054L General Physics II
PHY 2048/2048L General Physics I - Calculus Based and PHY 2049/2049L General Physics II - Calculus Based

Students must receive a C- or better to meet requirements for degree (for progression in Math and CHM, a C is required).

TOTAL MAJOR HOURS: 40-41

Major requirements for the B.S. Degree:

Major Core (25-26 hours)

Biology Core Curriculum
BSC 2010 and BSC 2010L Cellular Processes and Laboratory
BSC 2011 and BSC 2011L Biodiversity and Laboratory
PCB 3043 and PCB 3043L Principles of Ecology and Laboratory
PCB 3063 and PCB 3063L General Genetics and Laboratory
BSC 4052 Conservation Biology
PCB 4674 Organic Evolution
Choose one of:
BOT 4601 Plant Ecology
BSC 4933 Selected Topics in Biology*
PCB 5307 Limnology
ZOO 5555C Marine Animal Ecology

*Selected topics as approved for the major by the Department of Integrative Biology
Major Electives (15 hours)

Select a minimum of 15 credit hours from the following list:

- BCH 4033 Advanced Biochemistry I
- BSC 2093C Human Anatomy and Physiology I
- BSC 2094C Human Anatomy and Physiology II
- Any upper-level course with a BOT, BSC, ENY, MCB, PCB, or ZOO prefix, with the exception of those intended for non-majors*

*Note: BSC 4933 and BSC 5931 cannot be taken as elective credit without prior approval.

All students majoring in one of the programs offered through the departments of Integrative or Cell Biology, Microbiology and Molecular Biology and entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in USF coursework for their major and/or supporting coursework will be required to change to majors more appropriate to their goals and academic performances. Those majors may not include any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF major coursework or supporting coursework by the beginning of Fall 2009, will also be allowed three (3) D and/or F grades in subsequent terms before being required to choose another major more appropriate to their goals and academic performances, and not including any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Any continuing USF students who enter USF prior to Fall 2009 and who have earned greater than or equal to one (1) D or F grade in USF coursework for their major coursework or supporting coursework by the beginning of Fall 2009, will be allowed only two (2) more D and/or F grades in subsequent semesters before being required to choose other majors more appropriate to their goals and academic performances, and not including any majors conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Grade Forgiveness will NOT apply to the mandated requirement of changing major.

Course Grade Requirement

Please note that some supporting science courses may require a grade of C or better in order to meet the prerequisite requirements for course sequences.

Grading Requirement

A student must receive a C- grade or better in all Department of Integrative Biology and Department of Cell Biology, Microbiology, and Molecular Biology courses and supporting courses in the natural sciences, except if they are used as general elective courses. This specification applies to both USF and transfer courses.

Residency Requirement

A minimum of 20 credits hours of elective courses must be taken in residency and be applicable to the major.

Once a student has matriculated to USF Tampa, he/she is expected to take 100 percent of the required major coursework at USF Tampa.

Research Opportunities

Undergraduate research is a great way to get hands-on experience in what you are studying and learning in your courses, and even to advance biological knowledge. Many students have authored articles based on their participation in on-going research in the Department. Undergraduate research also is a great way to boost your resume and to enhance your application to graduate school or health professional school. Several ways are available to get involved; see http://biology.usf.edu/ib/ug/research/.

To be eligible to receive credit for undergraduate research (BSC 4910), students must have Junior standing, a 3.0 USF GPA, and a 3.0 major GPA. A maximum of 4 credit hours BSC 4910 may be applied to the major electives; see http://biology.usf.edu/bioadvise/ug-research/credit.aspx.

ACCELERATED B.S./M.A.T. PROGRAM

This program intends for students to complete a Bachelor of Science in Environmental Biology major (College of Arts and Sciences) and an M.A.T. in Secondary Science (College of Education) over the span of five years. Students completing this program will be eligible for high school and/or middle school science teacher certification. Completion of this program requires students to complete 12 credits toward the M.A.T. in Science Education during the senior year of their Bachelor of Science in Environmental Biology major.
Target students and expected outcomes

The accelerated B.S. in Environmental Biology to M.A.T. in Science Education program is a collaborative effort between the College of Arts and Sciences and the College of Education. This program is an attractive and viable career path for students in the undergraduate Environmental Biology major that results in secondary science teacher certification. Students who complete this program receive the necessary science content and pedagogy coursework to be highly qualified biology teachers at the secondary level.

Description and Requirements

For admission to the program a student must:

1. Have completed 15 hours in the B.S. Environmental Biology major upon applying and thirty (30) semester hours in science (includes twenty-five (25) semester hours in biology plus 5 hours of upper-level work in math or supporting science content area) with associated laboratory experiences to be fully admitted as a graduate student in the M.A.T. Science Education program. Evidence of successfully completing all sections of the General Knowledge Test (GKT) is also required for full admission to the graduate program.
2. Have a minimum 3.0 GPA overall; and
3. Have a minimum undergraduate 3.25 GPA in the major.

Undergraduate Degree Requirements for the B.S. in Environmental Biology

Environmental Biology Major Degree Requirements

All Environmental Biology major students will complete graduation requirements listed in the undergraduate catalog.

University and College Requirements:

- 120 hours
- 36 hours of general education coursework
- 6 hours upper-level core curriculum (Writing Intensive Capstone and Capstone Experience)
- 42 hour upper-level rule
- Summer rule
- USF Residency - Students must complete 30 hours of the last 60 hours in USF coursework.
- FLENT (Foreign Language Entrance Requirement)
- Writing (Communication) and Mathematics (Computation) Requirements, formerly known as Gordon Rule

Specialization Requirements for Certification in Separate Areas of Science (Grades 6-12):

In order to be eligible for certification in a separate area of science, students must complete a minimum of thirty (30) semester hours in science to include twenty-one (21) semester hours in the area of desired specialization (chemistry, biology, physics, earth-space science).

Environmental Biology Major Requirements: 72-74 credit hours total

- Must receive a C- or better to meet major requirements.
- Cascading prerequisites are strictly enforced. CR = co-requisite, courses that can be taken concurrently.
- Must have fewer than 3 D and/or F grades in the Biology major and supporting science requirement lectures
- Must complete a minimum of 50 percent (20 credit hours) of Environmental Biology Biology major requirements at USF Tampa

Biology Core Curriculum: 16 credit hours

- BSC 2010 & 2010L Cellular Processes/Laboratory
- BSC 2011 & 2011L Biodiversity/Laboratory
- PCB 3043 & 3043L Principles of Ecology and Laboratory
- PCB 3063 & 3063L General Genetics and Laboratory

Environmental Biology Curriculum: 24 credit hours

- BSC 4052 Conservation Biology
- PCB 4674 Organic Evolution

One of the following courses:

- BOT 4601 Plant Ecology
- BSC 4933 Selected Topics in Biology
- PCB 5307 Limnology
- ZOO 5555C Marine Animal Ecology

*Selected topics as approved for the major by the Department of Integrative Biology

LIST OF APPROVED ECOLOGY ELECTIVES SUBJECT TO CHANGE BASED ON COURSE AVAILABILITY
Choose 15 additional hours of Environmental Biology major courses from Tampa Campus IB Department or CMMB Department course offerings (prefix of BOT, BSC, MCB, PCB, or ZOO), with the exception of BSC 4905 and courses labeled as “not for major credit”.

- Most advanced biology courses are not offered every semester; there are no set offerings for summer semesters.
- Maximum of four (4) semester hours BSC 4910 Undergraduate Research can apply.
- OCE 4930 Advanced Oceanography I and II are the only approved non-Biology elective course options not offered by IB or CMMB departments.

**Supporting Sciences and Mathematics: 32-34 credit hours**

Students must receive a C- or better to meet requirements for degree (for progression in Math and CHM C is required)

- CHM 2045 & CHM 2045L General Chemistry I and Lab
- CHM 2046 & CHM 2046L General Chemistry II and Lab
- CHM 2210 & CHM 2210L Organic Chemistry I and Lab
- CHM 2211 & CHM 2211L Organic Chemistry II and Lab
- Calculus I: MAC 2241 or MAC 2311 or MAC 2281
- Statistics or Calculus II: STA 2023 or MAC 2242 or MAC 2312 or MAC 2282
- One of the General Physics sequences:
  - PHY 2053/L & 2054/L General Physics I and II/Labs
  - PHY 2048/L & 2049/L General Physics Calculus Based I and II/Labs

**Graduate Degree Requirements for Accelerated M.A.T in Science Education**

**PROGRAM REQUIREMENTS**

All M.A.T. programs include as an admission requirement the passing of all sections of the General Knowledge Test (GKT). Applicants who can document they lived outside the state or country and did not have access to take the GKT before the application deadline may submit passing Praxis scores or GRE scores to be considered for admission. Whether admitted with passing Praxis scores or acceptable GRE scores, the applicant must submit passing scores on the GKT before the last day of classes of the semester of first enrollment, or admission to the College of Education will be revoked.

**Total Minimum Program Hours 39 hours minimum**

The courses required for the M.A.T in Science Education are listed below. Please check with the program for other program requirements.

**Core Requirements**

- SCE 5325 Methods of Middle Grades Science Education
- SCE 5337 Methods of Secondary Science Education
- SCE 6456 Teaching Secondary School Physical and Earth Science
- SCE 6615 Topics in Science Education: Field Practicum
- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
- SCE 6416 Teaching Secondary School Biology
- SCE 6634 Current Trends in Secondary Science Education
- SCE 6947 Internship in Secondary Education for Social Science (PR: CI and passing scores of FTCE exam)
- TSL 5325 ESOL Strategies for Content Area Teachers
- Comprehensive Examination
  - Student’s participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
  - Passing score on the appropriate subject area exam.
  - Student’s content degree or equivalent (an admission’s requirement).

**Comprehensive Examination**

A written narrative exam tailored to the individual student. Exam needs to be completed by two weeks before final exam week of the student’s graduating semester. Exams will only be accepted during fall or spring semester, unless previous contract is established with the student’s advisor.

**COURSES** ([http://ugs.usf.edu/course-inventory/](http://ugs.usf.edu/course-inventory/))

**Timeline and benchmarks:**

1. To be considered for acceptance into the Accelerated B.S. Environmental Biology/M.A.T. Science Education
program students must have completed a minimum of 15 credit hours in the Environmental Biology undergraduate major.

2. Students must have a minimum undergraduate GPA of 3.0 overall, and a minimum GPA of 3.25 in the major and passing scores on all sections of the General Knowledge Test (GKT) to be eligible for the accelerated degree program. Information on the General Knowledge Test on the Florida Teacher Certification section may be found on the webpage: http://www.fl.nesinc.com/

3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program through faculty nomination or student self-nomination, via submission of an Accelerated Program Application Form. Both B.S. and M.A.T. programs will review the applications and approve the nominations. All applications require the approval of the College of Education Graduate Program, the College of Arts and Sciences, and the USF Graduate School.

4. To be promoted to graduate status, students must meet all admission requirements of the M.A.T. in Science Education in the College of Education. Specifically, the following materials must be submitted:
   a. Undergraduate transcripts;
   b. Evidence of possessing a degree in a science discipline (Biology, Chemistry, Physics, Geology, etc.) that is taught in a middle or high school, or comparable coursework in a science teaching field acceptable to the program faculty;
   c. A bachelor's or higher degree in biology or a bachelor's or higher degree with thirty (30) semester hours in science to include twenty-one (21) semester hours in biology with associated laboratory experiences.
   d. Documentation of GKT scores.

5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies. A comprehensive plan of study to complete the accelerated B.S./M.A.T program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows:

**Note:** Summer sessions may also be included in the study plan.

**First and Second Year**
Courses and credits as designated for freshman and sophomore years

**Third Year**
Apply for Admission to the Accelerated B.S./M.A.T. program

**Fourth Year**
**Student accepted in M.A.T. in Science Education program complete the following credits:**
- SCE 5325 Methods of Middle Grades Science Education
- SCE 5337 Methods of Secondary Science Education
- SCE 6456 Teaching Secondary School Physical and Earth Science
- SCE 6938 Topics in Science Education: Field Practicum

**Fifth Year**
- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
- SCE 5564 Reading and Communication in Science Education
- SCE 6416 Teaching Secondary School Biology
- SCE 6634 Current Trends in Secondary Science Education
- SCE 6947 Internship in Secondary Education for Social Science (PR: CI and passing scores of FTCE exam)
- TSL 5325 ESOL Education in Content Areas
- Comprehensive Examination

**Advising Information**
- BioAdvise: Science Center (SCA) 203; (813) 974-3250
- http://biology.usf.edu/bioadvise/
- Email: bioadvise@usf.edu

**ENVIRONMENTAL BIOLOGY FACULTY**

Chairperson: V. Harwood
Professors: S. Bell, T. Crisman, V. Harwood, E. McCoy, P. Motta, H. Mushinsky, P. Stiling
Associate Professors: S. Deban, G. Fox, J. Rohr, K. Scott
Assistant Professors: L. Johnson, M. Lajeunesse, D. Lewis, L. Martin, L. Prevost, C. Richards
Instructors: C. Begin, C. Osovitz, B. Predmore
• B.S. - ENVIRONMENTAL MICROBIOLOGY (EMB)
  (CIP = 26.0101 - TRACK 1 OF 2)
  TOTAL DEGREE HOURS: 120
  http://biology.usf.edu/ib/ug/bs/

Students majoring in Environmental Microbiology study the roles that microorganisms play in the environment. The program of study explores the diversity, community structure, and ecological functioning of microorganisms. The objective of the program is to provide students with a firm foundation in basic biology and the tools necessary to function as professional biologists, with special emphasis on microorganisms in natural ecosystems and human-engineered systems. The program will prepare students for further education (microbiology, environmental science, conservation biology) or for careers in fields such as environmental monitoring and safety, characterization and control of pathogenic microorganisms, and bioremediation.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.

BSC X010/X010L Biology I with Lab or BSC X010C or BSC X040/X040L
BSC X011/X011L Biology II with Lab or BSC X011C or BSC X041/X041L or ZOO X010/X010L or BOT X010/X010L or BOT X013/X013L
CHM X045/X045L General Chemistry I with Lab or CHM X045C or CHM X040 and CHM X041
CHM X046/X046L General Chemistry II with Lab or CHM X046C
CHM X210/X210L Organic Chemistry I with Lab and CHM X211/X211L or (CHM X210C and CHM X211C) or (PHY X053/X053L and PHY X054/X054L) or (PHY X048/X048L and PHY X049/X049L)
MAC X311 Calculus I or MAC X233 or MAC X253 or MAC X281 or MAC X241
MAC X312 Calculus II or MAC X282 or MAC X234 or STA X023 or STA X024 or STA X321

REQUIREMENTS FOR THE MAJOR IN ENVIRONMENTAL MICROBIOLOGY

Required Supporting Courses for the Major: 32-34 Hours

The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

CHM 2045 and CHM 2045L General Chemistry I and Laboratory
CHM 2046 and CHM 2046L General Chemistry II and Laboratory
CHM 2210 and CHM 2210L Organic Chemistry I and Laboratory
CHM 2211 and CHM 2211L Organic Chemistry II and Laboratory
Calculus I: MAC 2241 or MAC 2311 or MAC or MAC 2281
Statistics or Calculus II: STA 2023 or MAC 2242 or MAC 2312 or MAC 2282

One of the Physics Sequences:
PHY 2053/2053L General Physics I and PHY 2054/2054L General Physics II
PHY 2048/2048L General Physics I - Calculus Based and PHY 2049/2049L General Physics II - Calculus Based

Students must receive a C- or better to meet requirements for degree (for progression in Math and CHM, a C is required).

TOTAL MAJOR HOURS: 40

Major requirements for the B.S. Degree:
Major Core (30 hours)
Biology Core: (16 hours)
- BSC 2010 and BSC 2010L Cellular Processes and Laboratory
- BSC 2011 and BSC 2011L Biodiversity and Laboratory
- PCB 3043 and PCB 3043L Principles of Ecology and Laboratory
- PCB 3063 and PCB 3063L General Genetics and Laboratory

Environmental Microbiology Core: (14 hours)
- MCB 3020 and MCB 3020L General Microbiology and Laboratory
- MCB 4404 and MCB 4404L Microbial Physiology and Genetics and Laboratory

Choose two of the following courses:
- BSC 4933 Selected Topics in Biology*
- BSC 4444 Genomics
- BSC 4444L Genomics Laboratory
- MCB 4202 Ecology of Infectious Diseases
- MCB 5655 Applied and Environmental Microbiology
- ZOO 4233 Parasitology

*Selected topics as approved for the major by the Department of Integrative Biology

Major Electives (10 hours)
Select a minimum of 10 credit hours from the following list:
- BCH 4033 Advanced Biochemistry I
- BCH 3023L Basic Biochemistry Laboratory
- BSC 2093C Human Anatomy and Physiology I
- BSC 2094C Human Anatomy and Physiology II
- Any upper-level course with a BOT, BSC, ENY, MCB, PCB, or ZOO prefix, with the exception of those intended for non-majors*

*Note: BSC 4933 and BSC 5931 cannot be taken as elective credit without prior approval.

All students majoring in one of the programs offered through the departments of Integrative or Cell Biology, Microbiology and Molecular Biology and entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in USF coursework for their major and/or supporting coursework will be required to change to majors more appropriate to their goals and academic performances. Those majors may not include any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF major coursework or supporting coursework by the beginning of Fall 2009, will also be allowed three (3) D and/or F grades in subsequent terms before being required to choose another major more appropriate to their goals and academic performances, and not including any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Any continuing USF students who enter USF prior to Fall 2009 and who have earned greater than or equal to one (1) D or F grade in USF coursework for their major coursework or supporting coursework by the beginning of Fall 2009, will be allowed only two (2) more D and/or F grades in subsequent semesters before being required to choose other majors more appropriate to their goals and academic performances, and not including any majors conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Grade Forgiveness will NOT apply to the mandated requirement of changing major.

GPA Requirements
Must maintain a 2.0 GPA in all major coursework.

Grading Requirement
A student must receive a C- grade or better in all Department of Integrative Biology and Department of Cell Biology, Microbiology, and Molecular Biology courses and supporting courses in the natural sciences and mathematics, except if they are used as general elective courses. This specification applies to both USF and transfer courses.

Residency Requirement
A minimum of 20 credit hours of courses must be taken in residency and be applicable to the major.

Once a student has matriculated to USF Tampa, he/she is expected to take 100 percent of the required major coursework at USF Tampa.
Research Opportunities

Undergraduate research is a great way to get hands-on experience in what you are studying and learning in your courses, and even to advance biological knowledge. Many students have authored articles based on their participation in on-going research in the Department. Undergraduate research also is a great way to boost your resume and to enhance your application to graduate school or health professional school. Several ways are available to get involved; see http://biology.usf.edu/ib/ug/research/.

To be eligible to receive credit for undergraduate research (BSC 4910), students must have Junior standing, a 3.0 USF GPA, and a 3.0 major GPA. A maximum of 4 credit hours BSC 4910 may be applied to the major electives; see http://biology.usf.edu/bioadvise/ug-research/credit.aspx.

ACCELERATED B.S./M.A.T. PROGRAM

This program intends for students to complete a B.S. in Environmental Microbiology (College of Arts and Sciences) and an M.A.T. in Secondary Science (College of Education) over the span of five years. Students completing this program will be eligible for high school and/or middle school science teacher certification. Completion of this program requires students to complete 12 credits toward the M.A.T. in Science Education during the senior year of their B.S. in Environmental Microbiology.

Target students and expected outcomes

The accelerated B.S. in Environmental Microbiology to an M.A.T. in Science Education program is a collaborative effort between the College of Arts and Sciences and the College of Education. This program is an attractive and viable career path for students majoring in Environmental Microbiology that results in secondary science teacher certification. Students who complete this program receive the necessary science content and pedagogy coursework to be highly qualified biology teachers at the secondary level.

Description and Requirements

For admission to the program a student must:

1. Have completed 15 hours in the B.S. Environmental Microbiology major upon applying and thirty (30) semester hours in science (includes twenty-five (25) semester hours in biology plus 5 hours of upper-level work in math or supporting science content area) with associated laboratory experiences to be fully admitted as a graduate student in the M.A.T. Science Education program. Evidence of successfully completing all sections of the General Knowledge Test (GKT) is also required for full admission to the graduate program.

2. Have a minimum 3.0 GPA overall; and

3. Have a minimum undergraduate 3.25 GPA in the major.

Undergraduate Degree Requirements for the B.S. in Environmental Microbiology

Environmental Microbiology Major Degree Requirements

All Environmental Microbiology major students will complete graduation requirements listed in the undergraduate catalog.

University and College Requirements:

• 120 hours
• 36 hours of general education coursework
• 6 hours upper-level core curriculum (Writing Intensive Capstone and Capstone Experience)
• 42 hour upper-level rule
• Summer rule
• USF Residency - Students must complete 30 hours of the last 60 hours in USF coursework.
• FLENT (Foreign Language Entrance Requirement)
• Writing (Communication) and Mathematics (Computation) Requirements, formerly known as Gordon Rule

Specialization Requirements for Certification in Separate Areas of Science (Grades 6-12): In order to be eligible for certification in a separate area of science, students must complete a minimum of thirty (30) semester hours in science to include twenty-one (21) semester hours in the area of desired specialization (chemistry, biology, physics, earth-space science).

Environmental Microbiology Major Requirements: 72-74 hours total

• Must receive a C- or better to meet major requirements.
• Cascading prerequisites are strictly enforced. CR = co-requisite, courses that can be taken concurrently.
• Must have fewer than 3 D and/or F grades in the Biology major and supporting science requirement lectures
• Must complete a minimum of 50 percent (20 credit hours) of Environmental Microbiology major requirements at USF Tampa
Biology Core Curriculum: 16 credit hours
- BSC 2010 and BSC 2010L Cellular Processes and Laboratory
- BSC 2011 and BSC 2011L Biodiversity and Laboratory
- PCB 3043 and PCB 3043L Principles of Ecology and Laboratory
- PCB 3063 and PCB 3063L General Genetics and Laboratory

Environmental Microbiology Core Curriculum: 24 hours
- MCB 3020 and MCB 3020L General Microbiology and Laboratory
- MCB 4404 and MCB 4404L Microbial Physiology and Genetics and Laboratory

Advanced Microbiology Core option, choose two of the following courses:
- BSC 4933 Selected Topics in Biology*
- BSC 4444 Genomics
- BSC 4444L Genomics Laboratory
- MCB 4202 Ecology of Infectious Diseases
- MCB 5655 Applied and Environmental Microbiology
- ZOO 4233 Parasitology

*Selected topics as approved for the major by the Department of Integrative Biology

Choose 10 additional hours of Biology Major courses from Tampa Campus IB Department or CMMB Department courses (course code prefix of BOT, BSC, MCB, PCB, or ZOO), with the exception of BSC 4905 and courses labeled as "not for major credit".

- Must complete remaining credit hours necessary to meet the total 40 hours of biology required. If 15 hours completed in the rest of the environmental micro core requirement, then must complete 9 hours in the advanced curriculum.
- Most advanced biology courses are not offered every semester and there are no set offerings for summer semesters.
- A maximum of four credit hours of BSC 4910 Undergraduate Research can apply.
- BCH 4033/3023L Introduction to Biochemistry and Lab are the only approved options not offered by IB or CMMB.

Supporting Sciences and Mathematics: 32-34 credit hours

Students must receive a C- or better to meet requirements for degree (for progression in Math and CHM C is required)

- CHM 2045 & CHM 2045L General Chemistry I and Lab
- CHM 2046 & CHM 2046L General Chemistry II and Lab
- CHM 2210 & CHM 2210L Organic Chemistry I and Lab
- CHM 2211 & CHM 2211L Organic Chemistry II and Lab
- Calculus I: MAC 2241 or MAC 2311 or MAC 2281
- Statistics or Calculus II: STA 2023 or MAC 2242, or MAC 2312 or MAC 2282

One of the General Physics sequences:
- PHY 2053/L & 2054/L General Physics I and II/Labs
- PHY 2048/L & 2049/L General Physics Calculus Based I and II/Labs

Graduate Degree Requirements for Accelerated M.A.T in Science Education

PROGRAM REQUIREMENTS

All M.A.T. programs include as an admission requirement the passing of all sections of the General Knowledge Test (GKT). Applicants who can document they lived outside the state or country and did not have access to take the GKT before the application deadline may submit passing Praxis scores or GRE scores to be considered for admission. Whether admitted with passing Praxis scores or acceptable GRE scores, the applicant must submit passing scores on the GKT before the last day of classes of the semester of first enrollment, or admission to the College of Education will be revoked.

Total Minimum Program Hours 39 hours minimum

The courses required for the M.A.T. in Science Education are listed below. Please check with the program for other program requirements.

Core Requirements
- SCE 5325 Methods of Middle Grades Science Education
- SCE 5337 Methods of Secondary Science Education
- SCE 6456 Teaching Secondary School Physical and Earth Science
- SCE 6938 Topics in Science Education: Field Practicum
- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
SCE 5564 Reading and Communication in Science Education
SCE 6416 Teaching Secondary School Biology
SCE 6634 Current Trends in Secondary Science Education
SCE 6947 Internship in Secondary Education for Social Science
(PR: CI and passing scores of FTCE exam)
TSL 5325 ESOL Strategies for Content Area Teachers

Comprehensive Examination
- Student’s participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student’s content degree or equivalent (an admission’s requirement).

Comprehensive Examination
A written narrative exam tailored to the individual student. Exam needs to be completed by two weeks before final exam week of the student’s graduating semester. Exams will only be accepted during fall or spring semester, unless previous contract is established with the student’s advisor.

COURSES (http://ugs.usf.edu/course-inventory/)

Timeline and benchmarks:
1. To be considered for acceptance into the Accelerated B.S. Environmental Microbiology/M.A.T. Science Education program students must have completed a minimum of 15 credit hours in the Environmental Microbiology undergraduate major.
2. Students must have a minimum undergraduate GPA of 3.0 overall, and a minimum GPA of 3.25 in the major and passing scores on all sections of the General Knowledge Test (GKT) to be eligible for the accelerated degree program. Information on the General Knowledge Test on the Florida Teacher Certification section may be found on the webpage: http://www.fl.nesinc.com/
3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program through faculty nomination or student self-nomination, via submission of an Accelerated Program Application Form. Both B.S. and M.A.T. programs will review the applications and approve the nominations. All applications require the approval of the College of Education Graduate Program, the College of Arts and Sciences, and the USF Graduate School.
4. To be promoted to graduate status, students must meet all admission requirements of the M.A.T. in Science Education in the College of Education. Specifically, the following materials must be submitted:
   a. Undergraduate transcripts;
   b. Evidence of possessing a degree in a science discipline (Biology, Chemistry, Physics, Geology, etc.) that is taught in a middle or high school, or comparable coursework in a science teaching field acceptable to the program faculty;
   c. A bachelor's or higher degree in biology or a bachelor's or higher degree with thirty (30) semester hours in science to include twenty-one (21) semester hours in biology with associated laboratory experiences.
   d. Documentation of GKT scores.
5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies.

A comprehensive plan of study to complete the accelerated B.S./M.A.T program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows:

Note: Summer sessions may also be included in the study plan.

First and Second Year
- Courses and credits as designated for freshman and sophomore years

Third Year
- Apply for Admission to the Accelerated B.S./M.A.T. program

Fourth Year
- Student accepted in M.A.T. in Science Education program complete the following credits:
  - SCE 5325 Methods of Middle Grades Science Education
  - SCE 5337 Methods of Secondary Science Education
  - SCE 6456 Teaching Secondary School Physical and Earth Science
  - SCE 6938 Topics in Science Education: Field Practicum

Fifth Year
- EDF 6432 Foundations of Measurement
COLLEGE OF ARTS & SCIENCES

ENVIRONMENTAL MICROBIOLOGY FACULTY


• B.S. - ENVIRONMENTAL SCIENCE AND POLICY (ESP) (CIP = 03.0104 (TRACK 1 OF 2))

TOTAL DEGREE HOURS: 120

The environmental industry is a growing arena for employment for degree holders at all levels. Students completing the Bachelor of Science (B.S.) in Environmental Science and Policy have found employment with government agencies (city, county, state, and federal), private industry, and non-profit organizations. Examples of careers include field scientist, research scientist, policy analyst, lobbyist, conservationist, and educator. Some also go on to attend graduate or law school.

This interdisciplinary major spans multiple programs within the School of Geosciences in the College of Arts and Sciences. All majors in the program must complete the required courses including two introductory courses in environmental science and policy, one semester of calculus, two semesters each of general biology and general chemistry, environmental ethics, global conservation, statistics and physical science (either geology or geography). In addition, majors take 6-7 courses that allow them to sub-specialize in environmental science or in environmental policy. Students choosing to sub-specialize in environmental science take a second semester of calculus, one semester of organic chemistry and lab, and four electives within designated tracks. Students choosing to sub-specialize in policy take environmental regulation and economic geography and four electives within designated categories. Finally, all majors must complete an upper division seminar and an internship or project.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.

BSC X010 and BSC 2010L Biology I and Lab
BSC X011 and BSC 2011L Biology II and Lab
CHM X045 & CHM 2045L General Chemistry I & Lab
CHM X046 & CHM 2046L General Chemistry II & Lab
STA X023 Statistics
MAC X311 Calculus I
Major requirements for the B.S. Degree:

Major Core (43-44 hours)

Core Courses (39-40 credit hours):
- EVR 2001 Introduction to Environmental Science
- EVR 2001L Environmental Science Lab
- EVR 2861 Introduction to Environmental Policy
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory
- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Laboratory
- GEO 4372 Global Conservation
- PHI 3640 Environmental Ethics
- EVR 4910 ESP Project or EVR 4940 ESP Internship
- EVR 4921 Environmental Science and Policy Seminar
- MAC 2311 Calculus I or MAC 2241
- STA 2023 Introductory Statistics I

Geology or Geography (4 credit hours):
- GLY 2010 Dynamic Earth: Intro to Physical Geography and GLY 2000L Essentials of Geology Lab or
- GLY 2100 History of Life and GLY 2000L Essentials of Geology Lab or
- GEO 2200 Introduction to Physical Geography and GEO 2200L Introduction to Physical Geography Lab

Major Electives (18-25 hours)

The ESP Undergraduate Program has two tracks (Science and Policy). Students should choose one of these tracks and follow the course requirements:

Science Track (21-25 credit hours)
- MAC 2242 Life Sciences Calculus II or MAC 2282 or MAC 2312
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Laboratory
- Plus four (4) approved science-related electives.
  Options include:
  - BSC 3312 Marine Biology
  - ENV 4417 Water Quality and Treatment
  - EVR 4027 Wetland Environments
  - EVR 4104 Karst Environments
  - EVR 4114 Climate Change
  - EVR 4807 Sustainable Healthy Environments
  - EVR 4930 Selected Topics
  - GIS 4035C Remote Sensing of the Environment
  - GIS 4043C Geographical Information Systems
  - GEO 3280C Environmental Hydrology
  - GEO 4210 Process Geomorphology
  - GEO 4265 Soil Genesis and Classification
  - GEO 4300 Biogeography
  - GEO 4340 Natural Hazards
  - GLY 3552C Sedimentary Rocks and Processes
  - GLY 3104C Stratigraphy and Paleontology
  - GLY 4554C Sedimentary Environments
  - GLY 4720C Aqueous and Environmental Geochemistry
  - GLY 4734 Beaches and Coastal Environments
  - GLY 4822C Hydrogeology
  - GLY 4930 Selected Topics in Geology
MET 4012C Meteorology
MET 4002C Climatology
MET 4106C Climate Studies
PCB 3043/3043L Principles of Ecology/Lab

**Policy Track (18 credit hours)**
- GEO 4502 Economic Geography
- EVR 4033 Environmental Regulation
- Plus four (4) approved policy-related electives.

Options include:
- EVR 4027 Wetland Environments
- EVR 4104 Karst Environments
- EVR 4114 Climate Change
- EVR 4807 Sustainable Healthy Environments
- EVR 4930 Selected Topics
- GEO 3602 Urban Geography
- GEO 4340 Natural Hazards
- GEO 4421 Cultural Geography
- GEO 4471 Political Geography
- GEO 4604 Topics in Urban Geography
- GEO 4700 Transportation Geography
- GIS 4043C Geographical Information Systems
- PAD 3003 Introduction to Public Administration
- PAD 4144 Non-Profit Organizations and Public Policy
- PAD 4930 Selected Topics in Public Administration and Public Policy
- POS 3142 Introduction to Urban Politics and Government
- POS 3182 Florida Politics and Government
- URP 4052 Urban and Regional Planning

**Grading Requirement**
Unless stated otherwise, a grade of C- is the minimum acceptable grade.

**Foundations of Knowledge and Learning (FKL) Exit Requirement**
Suggested course:
- EVR 4027 Wetland Environments (CPST)

**Research Opportunities**
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

**Advising Information**
Please see [http://hennarot.forest.usf.edu/main/depts/geosci/ug/advising/](http://hennarot.forest.usf.edu/main/depts/geosci/ug/advising/) and/or contact Mr. Rene Alvarez, the Environmental Science and Policy Academic Advisor. He may be contacted via email at: GeoAdvise@usf.edu; by phone at (813) 974-3250; and his office location is Science Center (SCA) 230.
All students majoring in Environmental Science and Policy are required to see the advisor (Mr. Rene Alvarez- see above for contact information) each semester prior to registration for the following term. Students who are eligible for an internship must see the internship coordinator (Dr. Connie Mizak; (813) 974-3101; mizak@usf.edu) six weeks prior to the beginning of the semester in which they will complete the internship.

**ENVIRONMENTAL SCIENCE AND POLICY FACULTY**
Department Chairperson: M. Rains  
Associate Chairperson: S. Reader  
Assistant Professors: S. Charbonnier, A. Germa, J. Gulley, R. Malservisi, ;  
Research Associate Professors: L. Collins, T. Doering, S. Landry, K. Rains;  
Research Assistant Professors: Z. Atlas, J. Braunmiller, G.
B.A. - FRENCH (FRE) (CIP = 16.0901)

TOTAL DEGREE HOURS: 120

http://languages.usf.edu/undergraduate/french/

French is a truly global language, the official or second language in over 40 countries worldwide and an important tool in business and diplomacy. Our faculty offer a large variety of courses including literature and culture across genres, centuries, and geographical regions. Our faculty, a good mix of French and American scholars, are attentive and our students are close-knit. The placement record for our students is impressive, including graduates who continue to obtain advanced degrees, teachers in public and private schools including in IB programs, or even abroad in institutions such as the École Normale Supérieure in France; others apply their French to international law, business, politics, federal government jobs and to writing novels recognized by The New York Times.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

To complete a major in French, students should demonstrate proficiency at the intermediate level within the target language. This may be accomplished by completing 6-12 hours within the language or by demonstrated competency at the intermediate level.

REQUIREMENTS FOR THE MAJOR IN FRENCH

TOTAL MAJOR HOURS: 63

Major requirements for the B.A. Degree:

Major Core (15 hours)

- FRE 2240 Intermediate Spoken French in Cultural Context
- FRE 3420 Written French in Cultural Context
- FRE 3234 Reading in French Literature and Culture
- FRW 4100 The French Novel
- FRW 4101 Introduction to French Drama and Poetry

Major Electives (18 hours)

Students should take 18 hours in 3000-, 4000-, or 5000-level courses planned with an advisor. Depending on semester offerings, these courses include a wide variety of possibilities, such as Business French, French Civilization, Advanced Written French in Cultural Context, Renaissance Literature: Art and War, French Linguistics, French Phonetics, French Translation, The Francophone World: A Global Culture, African and Caribbean Literatures, Quebec Literature, Medieval Literature, Classical Drama, Classical Prose and Poetry, and more.

French Civilization (FRE 3500) is the capstone course for the French major, which must be taken as one of the elective courses. FRT 3140 French Masterpieces in English and FRT 3001 Great French Love Stories both count for the Writing Intensive Requirement. Note that French majors are only allowed 3 credits in French Literature in Translation (FRT courses).

Residency Requirement

The French major has no residency requirement other than that of USF and the College of Arts and Sciences.

Other Requirements

The French major strongly encourages Study Abroad and provides advice on the same. USF World offers several programs in France and Francophone countries, sometimes led by our faculty.
Research Opportunities

Research Opportunities are plentiful, since our French faculty are all prolific researchers and guide students in research in classes. We also encourage students to take advantage of university-wide opportunities through Undergraduate Research and our department, World Languages, holds an annual WLE Research Colloquium at which both graduate and undergraduate students present their research.

Internship Opportunities

France is the fourth largest foreign investor in the Tampa Bay area with approximately fifty French companies operating here. USF is a member of the regional French business organization, FRAMCO, and together with the College of Business, the French faculty has organized events bringing representatives of French companies to campus. We are happy to put students in touch with the President of FRAMCO and the Honorary French Consul, in order to investigate internship opportunities.

OPTIONAL HONORS PROGRAM

French encourages talented students to apply to USF’s Honors Program and often works with that program directing honors theses and participating in other events.

Advising Information

The French faculty works with the WLE advisor to optimize student success.

Yury Riascos, languagesadvise@usf.edu

FRENCH CONCENTRATIONS

INTERNATIONAL STUDIES AND BUSINESS (IFB)

TOTAL DEGREE HOURS: 120

This French Language/International Studies and Business Concentration offers students an exciting well-rounded program for today's global society. Necessary "cultural baggage" in French promotes a graduate's success in fields related to International Studies (politics and government, for example) and in Business (global finance, for example).

REQUIREMENTS FOR THE CONCENTRATION IN INTERNATIONAL STUDIES AND BUSINESS

TOTAL CONCENTRATION HOURS: 63

Concentration Core (63 hours)

Core courses in French required for the major (15 credit hours):

FRE 2240 Intermediate Spoken French in Cultural Context
FRE 3420 Written French in Cultural Context
FRE 3234 Reading in French Literature and Culture
FRW 4100 The French Novel
FRW 4101 Introduction to French Drama and Poetry

Supporting courses in French required for the major (9 credit hours): Choose from the list below:

FRE 4421 Advanced Written French in Cultural Context
FRE 4700 French Linguistics
FRE 4930 Selected Topics
FRE 5425 Advanced Written Expression
FRE 5566 Contemporary France

Required courses in International Studies (9 credit hours):

CPO 2002 Introduction to Comparative Politics
CPO 4930 Comparative Government & Politics of Select Areas
EUS 3000 Europe

Required courses in Business (18 credit hours):

ACG 3074 Managerial Accounting for Non-Business Majors
ECO 1000 Basic Economics
FIN 3403 Principles of Finance
MAN 3025 Principles of Management
MAR 3023 Basic Marketing
XXX XXXX Capstone Course TBD by Business

Supporting courses in Business (6 credit hours):
Choose any two (2) upper-level International Business courses.

**Required overseas study courses and/or area studies courses (6 credit hours):**
Select six (6) overseas study credit hours or three (3) credit hours overseas study plus three (3) credit
hours area studies courses planned with an advisor.

**Residency Requirement**
The International Studies and Business concentration has no residency requirement other than that of USF and the
College of Arts and Sciences.

**Other Requirements**
The French major strongly encourages Study Abroad and provides advice on the same. USF World offers several
programs in France and Francophone countries, sometimes led by our faculty.

**Research Opportunities**
Research Opportunities are plentiful, since our French faculty are all prolific researchers and guide students in
research in classes. We also encourage students to take advantage of university-wide opportunities through
Undergraduate Research and our department, World Languages, holds an annual WLE Research Colloquium at which
both graduate and undergraduate students present their research.

**Internship Opportunities**
France is the fourth largest foreign investor in the Tampa Bay area with approximately fifty French companies
operating here. USF is a member of the regional French business organization, FRAMCO, and together with the
College of Business, the French faculty has organized events bringing representatives of French companies to campus.
We are happy to put students in touch with the President of FRAMCO and the Honorary French Consul, in order to
investigate internship opportunities.

**Advising Information**
The WLE advisor works with advisors in International Studies and Business to optimize student success.

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**FRENCH FACULTY**

*World Languages Chairperson:* S.K. Schindler; *Professors:* P. Brescia (Spanish), G.A. Brulotte (French), M. Camara
(Spanish), V.E. Peppard (Russian), C.M. Probes (French), S.K. Schindler (German); *Associate Professors:* C.J. Cano
(Spanish), M. Grieb (German), I. Kantzios (Classics), A. La Trecchia (Italian), E. Manolaraki (Classics), H. Scharm
(Spanish), E. Shepherd (Chinese), K. Simeon-Jones (French), A. Thompson (Linguistics), C. Vasquez (Linguistics), W. Zhu
(Linguistics); *Assistant Professors:* D. Arbesu (Spanish), M.H. Chiang (Chinese), A. Huensch (Linguistics), X. Qin
(Classics), N. Tracy-Ventura (Linguistics); *Instructors:* S. Amer (Arabic), M. Chinea-Thornberry (Spanish), F. Colleoni
(Italian), C. Davies (Portuguese), A. De La Pava (Spanish), M. Huber (German), M. Manzur-Leiva (Spanish), M. Nozu
(Japanese), A. Oh (Classics), O. Oleynik (Russian), S. Wohlmuth (Spanish), Q. Wu (Chinese).

• **B.A. - GEOGRAPHY (GPY) (CIP = 45.0701)**

**TOTAL DEGREE HOURS:** 120

http://hennarot.forest.usf.edu/main/depts/geosci/

The undergraduate geography program offers courses in physical geography, human geography, and geographical
analysis. Human geography courses focus on the social and spatial effects of the growth of cities, including issues such
as the historical evolution of urban form and function, land-use changes and conflicts, economic restructuring, the
growth and decline of inner cities, and urban racial and ethnic relations. Physical geography courses focus on major
environmental systems including the hydrosphere, atmosphere, and biosphere. Geographical analysis courses provide
skills in geographic information systems science and technology, remote sensing and spatial analysis. Particular
emphasis is placed on the human modification of the natural environment and the global interconnections of the major
earth systems.

**STATE MANDATED COMMON COURSE PREREQUISITES**

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some
courses required for the major may also meet General Education requirements thereby transferring maximum hours to
the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit,
the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and
course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment
policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Two introductory courses in Geography with GEO prefix (6 credit hours) must be completed.

REQUIREMENTS FOR THE MAJOR IN GEOGRAPHY

TOTAL MAJOR HOURS: 44

Major requirements for the B.A. Degree:

Major Core (14 hours)

The Geography bachelor's degree of 44 total hours comprises six core courses (14 credit hours) that includes a specified concentration (30 credit hours). To complete their elective requirements for Geography, students are encouraged to consider courses offered in Geology and Environmental Science and Policy.

- GEO 2200 Introduction to Physical Geography
- GEO 2200L Introduction to Physical Geography Lab
- GEO 2400 Human Geography
- GEO 3164C Research Methods in Geography
- GEO 4933 Geography Colloquium
- GIS 4043C Geographic Information Systems

Three concentrations are offered: Physical Geography, Human Geography, and General Geography, comprising 30 credit hours (10 courses) each. Students must identify a concentration in consultation with their academic advisor in the School of Geosciences and select appropriate courses as shown below.

GPA Requirements

Students must maintain a minimum 2.0 major GPA in order to graduate.

Grading Requirement

Students must earn a C- or better in all major coursework.

Foundations of Knowledge and Learning (FKL) Exit Requirement

Suggested course:
- EVR 4027 Wetland Environments (CPST)

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Advising Information

Students are encouraged to seek assistance with the choice of electives through the department undergraduate advisor.

GEOGRAPHY CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN GENERAL GEOGRAPHY (GGG)

TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)

Students must take a minimum of:

- Two courses from the Physical Geography category (6 credit hours)
- EVR 4027 Wetland Environments
- EVR 4104 Karst Environments
- EVR 4218 Research Methods in Wildlife Ecology
GEO 3280C Environmental Hydrology
GEO 4210 Process Geomorphology
GEO 4244 Tropical Meteorology
GEO 4265 Soil Genesis and Classification
GEO 4300 Biogeography
GLY 4734 Beaches and Coastal Environments
MET 4002C Climatology
MET 4012C Meteorology
MET 4106C Climate Studies

Two courses from the Human Geography category (6 credit hours)
GEO 3602 Urban Geography
GEO 4421 Cultural Geography
GEO 4471 Political Geography
GEO 4502 Economic Geography
GEO 4700 Transportation Geography
URP 4052 Urban and Regional Planning

Two courses from the Human Environment Interaction category (6 credit hours)
EVR 4033 Environmental Regulation
EVR 4114 Climate Change
EVR 4807 Sustainable Healthy Environments
EVR 4873 Environmental Policy and Sustainability
GEO 4284 Water Resources Management
GEO 4340 Natural Hazards
GEO 4372 Global Conservation
GEO 4450 Medical Geography

One course from the Geographical Technique Analysis category (3 credit hours)
GEO 4114C Geographic Techniques and Methodology
GIS 4035C Remote Sensing of the Environment
GIS 4300 Environmental Modeling with GIS
GIS 5075 Global Positioning Systems

One course from the Regional Perspectives category (3 credit hours)
GEA 2000 World Regional Geography
GEA 3194 Regional Geography*
GEA 3405 Geography of Latin America
GEA 3500 Geography of Europe
GEA 3703 Geography of Asia

Two additional courses selected from any Geography category (6 credit hours)
Student will take six credit hours of unduplicated coursework from any of the Geography categories.
A maximum of three credit hours can be taken as Directed Reading (GEO 4900) and/or Individual Research (GEO 4910) and count as one of these additional courses.

*Course may be taken one additional time.

Courses taken as Special Topics in Geography (GEO 4930), Selected Topics in (GLY 4930), and Selected Topics in Environmental Science and Policy (EVR 4930) may substitute for elective courses in particular categories as designated by the undergraduate director.

REQUIREMENTS FOR THE CONCENTRATION IN
PHYSICAL GEOGRAPHY (PGG)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Students must take a minimum of:
Five courses from the Physical Geography category (15 credit hours)
EVR 4027 Wetland Environments
EVR 4104 Karst Environments
EVR 4218 Research Methods in Wildlife Ecology
GEO 3280C Environmental Hydrology
GEO 4210 Process Geomorphology
GEO 4244 Tropical Meteorology
GEO 4265 Soil Genesis and Classification
GEO 4300 Biogeography
GLY 4734 Beaches and Coastal Environments
MET 4002C Climatology
MET 4012C Meteorology
MET 4106C Climate Studies
One course from the Human Environment Interaction category (3 credit hours)
  EVR 4033 Environmental Regulation
  EVR 4114 Climate Change
  EVR 4807 Sustainable Healthy Environments
  EVR 4873 Environmental Policy and Sustainability
  GEO 4284 Water Resources Management
  GEO 4340 Natural Hazards
  GEO 4372 Global Conservation
  GEO 4450 Medical Geography
One course from the Geographical Technique and Analysis category (3 credit hours)
  GEO 4114C Geographic Techniques and Methodology
  GIS 4035C Remote Sensing of the Environment
  GIS 4300 Environmental Modeling with GIS
  GIS 5075 Global Positioning Systems
One course from the Regional Perspectives category (3 credit hours)
  GEA 2000 World Regional Geography
  GEA 3194 Regional Geography*
  GEA 3405 Geography of Latin America
  GEA 3500 Geography of Europe
  GEA 3703 Geography of Asia
Two additional courses selected from any Geography category (3 credit hours)
  Student will take six credit hours of unduplicated coursework from any of the Geography categories.
  A maximum of three credit hours may be taken from the following and will count as one of the additional courses: Directed Reading (GEO 4900) and/or Individual Research (GEO 4910).
  *Course may be taken one additional time.
Courses taken as Special Topics in Geography (GEO 4930), Selected Topics in Geology (GLY 4930), and Selected Topics in Environmental Science and Policy (EVR 4930) may substitute for elective courses in particular categories as designated by the undergraduate director.

REQUIREMENTS FOR THE CONCENTRATION IN HUMAN GEOGRAPHY (USG)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
  Students must take a minimum of:
    Four courses from the Human Geography category (12 credit hours)
      GEO 3602 Urban Geography
      GEO 4421 Cultural Geography
      GEO 4471 Political Geography
      GEO 4502 Economic Geography
      GEO 4700 Transportation Geography
      URP 4052 Urban and Regional Planning
    Two courses from the Human Environment Interaction category (6 credit hours)
      EVR 4033 Environmental Regulation
      EVR 4114 Climate Change
      EVR 4807 Sustainable Healthy Environments
      EVR 4873 Environmental Policy and Sustainability
      GEO 4284 Water Resources Management
      GEO 4340 Natural Hazards
      GEO 4372 Global Conservation
      GEO 4450 Medical Geography
    One course from the Geographical Technique and Analysis category (3 credit hours)
      GEO 4114C Geographic Techniques and Methodology
      GIS 4035C Remote Sensing of the Environment
      GIS 4300 Environmental Modeling with GIS
      GIS 5075 Global Positioning Systems
One course from the Regional Perspectives category (3 credit hours)
GEA 2000 World Regional Geography
GEA 3194 Regional Geography
GEA 3405 Geography of Latin America
GEA 3500 Geography of Europe
GEA 3703 Geography of Asia

Two additional courses selected from any Geography category (6 credit hours)
Student will take six credit hours of unduplicated coursework from any of the Geography categories.
A maximum of three credit hours can be taken as Directed Reading (GEO 4900) and/or Individual Research (GEO 4910) and count as one of these additional courses.
*Course may be taken one additional time.
Courses taken as Special Topics in Geography (GEO 4930) and Selected Topics in Environmental Science and Policy (EVR 4930) may substitute for elective courses in particular categories as designated by the undergraduate director.

GEOGRAPHY FACULTY
Chairperson: M. Rains; Director: S. Reader; Professors: A. Njoh, G. Tobin; Associate Professors: F. Akiwumi, M. Bosman, J. Collins, R. Pu, S. Reader, P. van Beynen; Instructors: C. Mizak, L. Walker, E. Walton.

- B.S. - GEOLOGY (GLS) (CIP = 40.0601 (TRACK 1 OF 2))

The Bachelor of Science degree program provides the student with a hands-on foundation in the fundamentals of the geosciences. As a result of faculty interests and geographic locations, several geologic sub-disciplines are emphasized, including applied geophysics, coastal geology, geochemistry, geomorphology, geoscience education, hydrogeology, paleobiology, petrology, and volcanology. However, the wide variety of courses and electives offered by the Geology, Environmental Sciences, and Geography programs within the School of Geosciences provides students with programs of study that can be tailored to fit individual needs while maintaining a sound background in all general aspects of geology.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college system institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.
CHM X045/X045L General Chemistry I (with lab) or CHM X045C or CHM X040/X041
CHM X046/X046L General Chemistry II (with lab) or CHM X046C
GLY X010C Introduction to Physical Geology or GLY X010/X010L
MAC X311 Calculus I or MTH X281
PHY X048C* General Physics and Laboratory I or PHY X048/X048L or PHY X053C
PHY X049C* General Physics and Laboratory II or PHY X049/X049L or PHY X054C
XXX XXXX Historical Geology STRONGLY recommended
*The choice of physics sequence depends on the area of geology specialization.

REQUIREMENTS FOR THE MAJOR IN GEOLOGY

Required Supporting Courses for the Major: 25-27 Hours
The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.
CHM 2045 General Chemistry I and CHM 2046 General Chemistry I Laboratory
CHM 2046 General Chemistry II and CHM 2046L General Chemistry II Laboratory
STA 2023 Introductory Statistics I or STA 2122 Social Science Statistics
MAC 2281 or MAC 2311 or MAC 2241 Calculus I
GLY 3866 Computational Geology or MAC 2282 or MAC 2312
PHY 2048/2048L General Physics I - Calculus Based with Lab and PHY 2049/2049L General Physics II - Calculus Based with Lab (recommended) or PHY 2053/2053L General Physics I and PHY 2054/2054L General Physics II

TOTAL MAJOR HOURS: 43

Major requirements for the B.S. Degree:

Major Core (29 hours)
The Geology B.S. degree requires 43 total credit hours of degree applicable Geology coursework comprising one introductory course (4 credit hours), six core courses (19 credit hours), the summer field capstone sequence (6 credit hours), and four upper-level electives (14 credit hours). To complete their elective requirements for Geology, students are encouraged to consider courses offered in Geography and Environmental Science and Policy.

Introductory Sequence* (4 credit hours):
One course, chosen from:
- ESC 2000 Introduction to Earth Science
- GLY 2010 Dynamic Earth: Introduction to Physical Geology
- GLY 2030 Hazards of the Earth’s Surface: Environmental Geology
- OCE 2001 Introduction to Oceanography
- Or other comparable acceptable course offerings, as approved by the undergraduate advisor
- GLY 2000L Essentials of Geology Laboratory

*Transfer students who have taken GLY 2010C or the equivalent will be deemed to have met the introductory sequence requirements. However, ALL students are strongly encouraged to take GLY 2000L, as this course will greatly facilitate success in the upper-level offerings.

Core Courses (19 hours):
- GEO 3280C Environmental Hydrology*
- GLY 3104C Stratigraphy and Paleontology
- GLY 3311C Mineralogy, Petrology, Geochemistry
- GLY 3402C Structural Geology and Tectonics
- GLY 3552C Sedimentary Record and Processes

*In the event that GEO 3280C is not offered in a calendar year, the Undergraduate Advisor may approve GLY 4822C Hydrogeology to count in it's place.

Capstone Sequence (6 credit hours):
The Geology major's culminating experience capstone is six (6) credit hours of summer field camp broken into three courses of GLY 4948 and GLY 4949, each taught in two-week increments.
- GLY 4948 Practical and Applied Geology: Field Experience (multiple sections and topics offered)
- GLY 4949 Practical and Applied Geology: Field Mapping (multiple sections and topics offered)

Field Mapping Requirement: Within the major capstone sequence, at least two (2) hours must be drawn from courses identified by the School of Geosciences as including a substantial field mapping content. Courses that meet this requirement include: Field Geologic Mapping and Field Volcanology. Other field courses may be approved for the field mapping requirement by the Undergraduate Advisor.

Note: The above Geology major capstone courses do not meet the University's FKL Capstone Experience requirement.

Major Electives (14 hours)
Students will take 14 credit hours from the following list of courses:
- EVR 4027 Wetland Environments
- EVR 4033 Environmental Regulation
- EVR 4104 Karst Environments
- GEO 4210 Process Geomorphology
- GEO 4265 Soil Genesis and Classification
- GEO 4284 Water Resources Management
- GEO 4340 Natural Hazards
- GIS 4043C Geographic Information Systems
- GLY 4310 Petrology
- GLY 4324C Physical Volcanology*
- GLY 4480 Seismology*
- GLY 4554C Sedimentary Environments
- GLY 4720C Aqueous and Environmental Geochemistry
Optional Geophysics Emphasis
Requirements for the Geology B.S. Major with the optional Geophysics emphasis:
The Geophysics Track in Geology indicates advanced mathematics training and requires the following courses:
MAC 2282 Engineering Calculus II (recommended) or MAC 2312 Calculus II (instead of GLY 3866)
MAC 2313 Calculus III
These courses may count towards no more than four (4) credit hours of the 14 elective credit hours required for the B.S. in Geology.

Foundations of Knowledge and Learning (FKL) Requirement
Geology B.S. students are encouraged to fulfill the University's Foundations of Knowledge and Learning (FKL) General Education requirements with courses in the School of Geoscience relevant to their interests, whenever possible.
FKL General Education courses recommended for the Geology B.S. degree:
• Natural Sciences Life Science (CANL): GLY 2100 History of Life
• Human and Cultural Diversity in a Global Context (CAGC): GEA 2000 World Regional Geography or GEO 2400 Human Geography

Foundations of Knowledge and Learning (FKL) Exit Requirement
Geology B.S. students are encouraged to fulfill the University's Capstone Learning Experience requirements with courses in the School of Geoscience relevant to their interests, whenever possible.
FKL Exit courses recommended for the Geology B.S. degree:
• WRIN - Writing Intensive and Gordon: GLY 4921 Scientific Communication
• CPST - Capstone: EVR 4114 Climate Change or EVR 4027 Wetland Environments

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM
The purpose of the Honors Program is to provide a select group of undergraduate Geology majors an opportunity to undertake an intensive, individualized research experience. The culmination of the program is the completion and presentation of an honors thesis. To apply, interested students should contact the Geology undergraduate advisor during the second semester of the student's junior year. Admission to the program requires a GPA of 3.50 in the major and an overall GPA of 3.2.

GEOLOGY FACULTY
The Bachelor of Arts program is designed primarily for the liberal arts student who has an interest in careers in Geoscience education or environmental policy and law. A student who elects the B.A. program and decides to pursue the geology profession or attend graduate school will need at least field geology in his/her program.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

CHM X045/X045L General Chemistry I (with lab) or CHM X045C or CHM X040/X041
CHM X046/X046L General Chemistry II (with lab) or CHM X046C
GLY X010C Introduction to Physical Geology or GLY X010/X010L
MAC X311 Calculus I or MTH X281
PHY X048C* General Physics and Laboratory I or PHY X048/X048L or PHY X053C
PHY X049C* General Physics and Laboratory II or PHY X049/X049L or PHY X054C
XXX XXXX Historical Geology STRONGLY recommended

*The choice of physics sequence depends on the area of geology specialization.

REQUIREMENTS FOR THE MAJOR IN GEOLOGY

Required Supporting Courses for the Major: 22-23 Hours

The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

CHM 2045 General Chemistry I and CHM 2045L General Chemistry I Laboratory
CHM 2046 General Chemistry II and CHM 2046L General Chemistry II Laboratory
MAC 2311 Calculus I or MAC 2241 Life Science Calculus I
STA 2023 Introductory Statistics I
PHY 2048/2048L General Physics I - Calculus Based with Lab and PHY 2049/2049L General Physics II - Calculus Based with Lab (recommended) or PHY 2053/2053L General Physics I with Lab and PHY 2054/2054L General Physics II with Lab

TOTAL MAJOR HOURS: 34

Major requirements for the B.A. Degree:

Major Core (19 hours)

The B.A. in Geology degree requires 34 total credit hours of degree-applicable Geology coursework, comprising one introductory course (4 credit hours), four core courses (15 credit hours), and four upper-level electives (15 credit hours).

*Transfer students who have taken GLY 2010C or the equivalent will be deemed to have met the introductory sequence requirements. However, ALL students are strongly encouraged to take GLY 2000L, as this course will greatly facilitate success in the upper-level offerings.

Introductory Sequence* (4 credit hours):

One course, chosen from:

ESC 2000 Introduction to Earth Science
GLY 2010 Dynamic Earth: Introduction to Physical Geology
GLY 2030 Hazards of the Earth’s Surface: Environmental Geology
OCE 2001 Introduction to Oceanography
Or other comparable acceptable course offerings, as approved by the undergraduate advisor.
GLY 2000L Essentials of Geology Laboratory

Core Courses (15 credit hours):
- GEO 3280C Environmental Hydrology
- GLY 3311C Mineralogy, Petrology, Geochemistry
- GLY 3402C Structural Geology and Tectonics
- GLY 3552C Sedimentary Rocks and Processes

In the event that GEO 3280C is not offered in a calendar year, the undergraduate advisor may approve GLY 4822C Hydrogeology to count in its place.

Major Electives (15 hours)
Students choose 15 hours of upper-level electives from the following list of courses:
- EVR 4027 Wetland Environments
- EVR 4033 Environmental Regulation
- EVR 4104 Karst Environments
- GEO 4210 Process Geomorphology
- GEO 4265 Soil Genesis and Classification
- GEO 4284 Water Resources Management
- GEO 4340 Natural Hazards
- GIS 4043C Geographic Information Systems
- GLY 3866 Computational Geology
- GLY 4310 Petrology
- GLY 4324C Physical Volcanology*
- GLY 4480 Seismology*
- GLY 4554C Sedimentary Environments
- GLY 4720C Aqueous and Environmental Geochemistry*
- GLY 4780 Geological Field Studies
- GLY 4822C Hydrogeology*
- GLY 4921 Scientific Communication
- GLY 4948 Practical and Applied Geology: Field Experience
- Other 3000- or 4000-level GLY course, as approved by the undergraduate advisor

Quantitative Requirement: Of these upper-level electives, at least three (3) hours must be drawn from courses identified by the department as including high-quantitative content. Courses that meet this requirement are highlighted with a *. Other comparable quantitative offerings in geology may be approved by the undergraduate advisor.

Foundations of Knowledge and Learning (FKL) Requirement
Geology B.A. students are encouraged to fulfill the University's Foundations of Knowledge and Learning (FKL) General Education requirements with courses in the School of Geoscience relevant to their interests, whenever possible.

FKL General Education courses recommended for the Geology B.A. degree:
- Natural Sciences Life Science (CANL): GLY 2100 History of Life
- Human and Cultural Diversity in a Global Context (CAGC): GEA 2000 World Regional Geography or GEO 2400 Human Geography

Foundations of Knowledge and Learning (FKL) Exit Requirement
Geology B.A. students are encouraged to fulfill the University's Capstone Learning Experience requirements with courses in the School of Geoscience relevant to their interests, whenever possible.

FKL Exit courses recommended for the Geology B.A. degree:
- WRIN - Writing Intensive and Gordon: GLY 4921 Scientific Communication
- CPST - Capstone: EVR 4114 Climate Change or EVR 4027 Wetland Environments

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.
GEOLOGY FACULTY


• B.A. - GERMAN STUDIES (GMS) (CIP = 16.0501)

TOTAL DEGREE HOURS: 120
http://languages.usf.edu/undergraduate/german/

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

To complete a major in German Studies, students should demonstrate proficiency at the intermediate level within the target language. This may be accomplished by completing 6-12 hours within the language or by demonstrated competency at the intermediate level.

REQUIREMENTS FOR THE MAJOR IN GERMAN STUDIES

TOTAL MAJOR HOURS: 30

Major requirements for the B.A. Degree:
Major Core (9 hours)
Select nine (9) hours of 3000- or 4000-level coursework in German (taught in German)
GER 3333 German Language & Culture through Film
GER 3420 Composition I
GER 3440 German for Business and International Trade
GER 3500 The Germans - Past and Present
GER 3501 Urban Life & Culture in Germany
GER 3573 Cultural Observations in Germany
GER 4410 Conversation II
GER 4421 Composition II
GEW 4930 Selected Topics

Major Electives (21 hours)
Select 21 hours in 2000-, 3000- or 4000-level courses with coursework in German (taught in German or English), including approved courses in related disciplines, planned with an advisor. A maximum of 6 credit hours of 2000-level coursework may be applied toward major electives.
GER 2200 German III
GER 2201 German IV
GET 3103 German Literature in English Translation
GET 3522 Fantastic Films of Early German Cinema
GET 3524 German Popular Film
GET 4523 New German Cinema to Present
GET 4528 German Directors in Hollywood (CPST, HHCP)
GEW 4100 Survey of German Literature I
GEW 4101 Survey of German Literature II
GEW 4900 Directed Study
Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

GERMAN STUDIES FACULTY


• B.S. - HEALTH SCIENCES (HLS) (CIP = 51.0000)
  TOTAL DEGREE HOURS: 120
  http://spa.usf.edu/undergraduate/health/

This degree program is designed for those interested in health science, the health care industry and the allied health professions. The degree has a flexible curriculum so students can choose an area of specialization to suit their career interests. Career choices after graduation include working in health related nonprofit organizations, governmental and community agencies, medical records, patient education, geriatric care settings, diagnostic laboratories, hospitals, the pharmaceutical industry, medical and wellness facilities and businesses. Students graduating with this degree may enter the workforce or continue their education in a variety of fields that might include advanced degree programs in Health Management, Physical or Occupational Therapy, Physician Assistant, Health Administration, Healthcare Informatics, Communication Disorders and Social Work to name a few. (This degree has greater flexibility and students may have more exposure to social science, business and humanities courses than the more natural science and mathematics intensive degrees sometimes required for the professional schools in medicine, dentistry, pharmacy or veterinary medicine; for these see the health professions section in this catalog).

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

BSC XXXXC or BSC X007/X007L or BSC X005/X005L or BSC X010/X010L
MAC X105
PSY X012
STA XXX or STA X023 or STA X014
DEP X053 or DEP X004 or DEP X000 or CLP X140
APK X0105C or BSC X085/X085L or (BSC X093 and BSC X094)
ENC X210 or ENC X254
REQUIREMENTS FOR THE MAJOR IN HEALTH SCIENCES
TOTAL MAJOR HOURS: 64

Major requirements for the B.S. Degree:
Major Core (34 hours)
   BSC 1020 The Biology of Humans or BSC 1005 Biological Principles for Non-Majors or BSC 2010 and BSC 2010L
      Biology I: Cellular Processes and Laboratory
   BSC 2085 and BSC 2085L Anatomy and Physiology I for Health Professionals and Lab or
      BSC 2093C Human Anatomy and Physiology I and BSC 2094C Human Anatomy and Physiology II
   MAC 1105 College Algebra
   STA 2023 Introductory Statistics I
   HSC 2000 Introduction to Health Professions
   ENC 2210 Technical Writing
   DEP 2004 The Life Cycle
   PHI 3633 Biomedical Ethics or PHI 3636 Professional Ethics
   CLT 3040 Scientific and Medical Terminology
   PSY 2012 Introduction to Psychological Science
   COM 2000 Introduction to Communication or ACG 2021 Principles of Financial Accounting or ANT 2511
      Biological Anthropology or GEY 2000 Introduction to Aging Sciences or SYG 2000 Introduction to Sociology

Residency Requirement
   A minimum of 20 credit hours of courses must be taken in residency at USF Tampa and be applicable to the major.

Research Opportunities
   A maximum of 4 credits of Undergraduate Research (IDS 4910) may be applied to the major with a maximum of 1
   credit taken per semester.

Internship Opportunities
   The Health Sciences program has competitive internships available for students in various health fields such
   as health informatics, administration, marketing, sales, health care centers and government to name a few. Students
   must take Career Development for Health Professionals (IDS 4937) or participate in the Health Sciences Career
   Development Workshop Series prior to applying for the internships. Placement applications and information are
   available upon completion of the course or workshops. Students can find more information about the course and
   workshops on the Health Science Majors Canvas site. Internships are restricted to health sciences majors only and a
   permit is required for registration. Please email hhsadvise@usf.edu for a permit. Internship course credit (3-6
   hours) may be applied to any concentration in the major.

Other Information
   Additional Concentration Options/Combinations:
      • Concentration in Aging Health Studies
      • Concentration in Aging Health Studies and Health Information Technology
      • Concentration in Aging Health Studies and Health Management
      • Concentration in Biological Health Sciences
      • Concentration in Biological Health Sciences and Aging Health Studies
      • Concentration in Biological Health Sciences and Health Information Technology
      • Concentration in Biological Health Sciences and Health Management
      • Concentration in Biological Health Sciences and Social and Behavioral Health Sciences
      • Concentration in Health Information Technology
      • Concentration in Health Management
      • Concentration in Health Management and Health Information Technology
      • Concentration in Social and Behavioral Health Sciences
      • Concentration in Social and Behavioral Health Sciences and Aging Health Studies
      • Concentration in Social and Behavioral Health Sciences and Health Information Technology
      • Concentration in Social and Behavioral Health Sciences and Health Management

Advising Information
   School of Public Affairs
   hhsadvise@usf.edu
HEALTH SCIENCES CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN AGING HEALTH STUDIES (HAH) (CIP = 51.0000 (TRACK 1 OF 7))

TOTAL CONCENTRATION HOURS: 30

http://www.spa.usf.edu/undergraduate/health/

Concentration Core (30 hours)

Students must choose 30 credit hours total, depending on the student's career goals these can be 30 credits from one concentration or a combination of two different concentrations with 15 credits from each.

BSC 3022 Biology of Aging
GEY 3601 Physical Changes and Aging
GEY 4322 Care Management for Older Adults
GEY 4507 Understanding Policies and Practices of Long Term Care
GEY 4360 Counseling for Older Adults
GEY 4608 Alzheimer's Disease Management
GEY 4628 Health, Ethnicity, and Aging
GEY 4641 Death and Dying
GEY 4935 Special Topics in Gerontology*
HSC 4211 Health, Behavior & Society
HSC 4630 Understanding U.S. Healthcare
MHS 4931 Selected Topics*
PHC 4931 Health Care Ethics
SOW 3210 The American Social Welfare System
SPA 3002 Introduction to Disorders of Speech and Language
SPA 4257 Adult Communication Disorders

*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN AGING HEALTH STUDIES AND HEALTH MANAGEMENT (HAM)

TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)

Aging Health Studies courses (students must take 15 hours from this list):

BSC 3022 Biology of Aging
GEY 3601 Physical Changes and Aging
GEY 4322 Care Management for Older Adults
GEY 4507 Understanding Policies and Practices in Long Term Care
GEY 4360 Counseling for Older Adults
GEY 4608 Alzheimer's Disease Management
GEY 4628 Health, Ethnicity, and Aging
GEY 4641 Death and Dying
GEY 4935 Special Topics in Gerontology
HSC 4211 Health, Behavior & Society
HSC 4630 Understanding U.S. Healthcare
MHS 4931 Selected Topics*
PHC 4931 Health Care Ethics
SOW 3210 The American Social Welfare System
SPA 3002 Introduction to Disorders of Speech and Language
SPA 4257 Adult Communication Disorders

Health Management courses (students must take 15 hours from this list):

ACG 2071 Principles of Managerial Accounting
GEY 4635 Business Management in an Aging Society
PHC 4101 Overview of Public Health Programs and Policies
HSC 4211 Health, Behavior & Society
HSC 4624 Foundations of Global Health
HSC 4630 Understanding U.S. Healthcare
HSC 4631 Critical Issues in Public Health
HSC 4933 Special Topics in Public Health*
MAN 3025 Principles of Management
MMC 4936 Selected Topics in Health Communications and Media*
PAD 3003 Introduction to Public Administration
PAD 4204 Public Financial Administration
PAD 4415 Personnel and Supervision in Today's Diverse Organizations
PAD 4712 Managing Information Resources in the Public Sector
PAD 4930 Selected Topics in Public Administration*
PHC 4931 Health Care Ethics
PHI 3636 Professional Ethics (course can be applied to major core or concentration, not both)
PUP 4002 Public Policy
SYO 4400 Medical Sociology
*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN SOCIAL AND BEHAVIORAL HEALTH SCIENCES AND AGING HEALTH STUDIES (HAS) TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Aging Health Studies courses (students must take 15 hours from this list):
  - BSC 3022 Biology of Aging
  - GEY 3601 Physical Changes and Aging
  - GEY 4322 Care Management for Older Adults
  - GEY 4507 Understanding Policies and Practices of Long Term Care
  - GEY 4360 Counseling for Older Adults
  - GEY 4608 Alzheimer's Disease Management
  - GEY 4628 Health, Ethnicity, and Aging
  - GEY 4641 Death and Dying
  - GEY 4935 Special Topics in Gerontology*
  - HSC 4211 Health, Behavior and Society
  - HSC 4630 Understanding U.S. Healthcare
  - MHS 4931 Selected Topics*
  - PHC 4931 Health Care Ethics
  - SOW 3210 The American Social Welfare System
  - SPA 3002 Introduction to Disorders of Speech and Language
  - SPA 4257 Adult Communication Disorders

Social and Behavioral Health Sciences courses (students must take 15 hours from this list):
  - CLP 4143 Abnormal Psychology
  - COM 4021 Family Communication and the End of Life
  - COM 4022 Health Communication
  - COM 4020 Communicating Illness, Grief and Loss
  - COM 4225 Global and Cultural Issues in Health Communication
  - COM 4702 Communication, Language, and Mental Illness
  - HSC 4172 Women's Health: A Public Health Perspective
  - HSC 4211 Health, Behavior and Society
  - HSC 4579 Foundations of Maternal and Child Health
  - HSC 4631 Critical Issues in Public Health
  - HSC 4933 Special Topics in Public Health*
  - LIS 4930 Selected Topics in Information Studies*
  - MHS 4022 Adult Psychopathology in the Community
  - MHS 4452 Co-Occurring Disorders
  - MHS 4490 Behavioral Healthcare Issues for Children
  - PHC 4406 Pop Culture, Vices and Epidemiology
  - PHI 4930 Selected Topics*
  - SOP 4330 Social Psychology of HIV/AIDS
  - SOW 3102 Human Behavior and the Social Environment II
  - SOW 3203 Introduction to Social Work
  - SOW 3210 The American Social Welfare System
  - SPC 4305 Communicating Emotions
  - SPC 4321 Communication and Aging
  - SPC 4930 Selected Topics in Communication*
Mental Health Cluster (courses for students interested in mental health professions)
- MHS 3411 Multidisciplinary Behavioral Healthcare Services
- MHS 4002 Behavioral Health Systems Delivery
- MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
- MHS 4931 Selected Topics*
- MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare

Substance Abuse Cluster (courses for students interested in substance abuse counseling and treatment professions)
- MHS 3411 Multidisciplinary Behavioral Healthcare Services
- MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
- MHS 4931 Selected Topics*
- MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare
- PSB 3444 Drugs and Behavior
*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN BIOLOGICAL HEALTH SCIENCES AND AGING HEALTH STUDIES (HBA)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Biological Health Sciences courses (students must take 15 hours from this list):
- ANT 4520C Forensic Anthropology
- ANT 4462 Health, Illness, and Culture
- BSC 3022 Biology of Aging
- BSC 4933 Selected Topics in Biology*
- CHM 2023 Chemistry for Today
- CHM 2045 General Chemistry I and CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II and CHM 2046L General Chemistry II Laboratory
- GEY 3601 Physical Changes and Aging
- HSC 3541 Human Structure and Function
- HSC 4300 Occupational Health and Safety
- HSC 4504 Foundations of Public Health Immunology
- HSC 4551 Survey of Human Diseases
- HSC 4573 Foundations of Food Safety
- HSC 4624 Foundations of Global Health
- HSC 4933 Special Topics in Public Health*
- HUN 3296 Nutrition and Disease
- HUN 3272 Sports Nutrition
- LIS 4930 Selected Topics in Information Studies*
- MCB 3020 General Microbiology
- MCB 3020L General Microbiology Laboratory
- PCB 3063 General Genetics
- PCB 3063L General Genetics with Lab
- PHC 3320 Environmental Health Science
- PHC 4030 Introduction to Epidemiology
- PHC 4101 Overview of Public Health Programs and Policies
- PHC 4406 Pop Culture, Vices, and Epidemiology
- PHY 2020 Conceptual Physics or PHY 2053/PHY 2053L General Physics I with Lab
- PHY 2054/PHY 2054L General Physics II with Lab
- ZOO 4512 Sociobiology

Communication Sciences & Disorders Cluster
(These courses are recommended for students interested in pursuing graduate degrees in communication sciences)
- SPA 3030 Introduction to Hearing Science
- SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
- SPA 3002 Introduction to Disorders of Speech and Language
- SPA 3004 Introduction to Language Development and Disorders
- SPA 4104 Neuroanatomy of Speech, Language & Hearing

Aging Health Studies courses (students must take 15 hours from this list):
### REQUIREMENTS FOR THE CONCENTRATION IN BIOLOGICAL HEALTH SCIENCES (HBH) (CIP = 51.0000 (TRACK 1 OF 7))

**TOTAL CONCENTRATION HOURS: 30**

**Concentration Core (30 hours)**

Students must choose 30 credit hours total, depending on the student's career goals these can be 30 credits from one concentration or a combination of two different concentrations with 15 credits from each.

- **ANT 4520C Forensic Anthropology**
- **ANT 4462 Health, Illness, and Culture**
- **BSC 3022 Biology of Aging**
- **BSC 4933 Selected Topics in Biology* **
- **CHM 2023 Chemistry for Today**
- **CHM 2045 General Chemistry I and CHM 2045L General Chemistry I Laboratory**
- **CHM 2046 General Chemistry II and CHM 2046L General Chemistry II Laboratory**
- **GEY 3601 Physical Changes and Aging**
- **HSC 3541 Human Structure and Function**
- **HSC 4430 Occupational Health and Safety**
- **HSC 4504 Foundations of Public Health Immunology**
- **HSC 4551 Survey of Human Diseases**
- **HSC 4573 Foundations of Food Safety**
- **HSC 4624 Foundations of Global Health**
- **HSC 4933 Special Topics in Public Health* **
- **HUN 3296 Nutrition and Disease**
- **HUN 3272 Sports Nutrition**
- **LIS 4930 Selected Topics in Information Studies* **
- **MCB 3020 General Microbiology**
- **MCB 3020L General Microbiology Laboratory**
- **PCB 3063 General Genetics**
- **PCB 3063L General Genetics Laboratory**
- **PHC 3320 Environmental Health Science**
- **PHC 4030 Introduction to Epidemiology**
- **PHC 4101 Overview of Public Health Programs and Policies**
- **PHC 4406 Pop Culture, Vices, and Epidemiology**
- **PHY 2020 Conceptual Physics or PHY 2053/PHY 2053L General Physics I with Lab**
- **PHY 2054/PHY 2054L General Physics II with Lab**
- **SPC 4930 Selected Topics in Communications* **
- **ZOO 4512 Sociobiology**

**Communication Sciences & Disorders Cluster (These courses are recommended for students interested in pursuing graduate degrees in communication sciences)**

- **SPA 3030 Introduction to Hearing Science**
- **SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism**
- **SPA 3002 Introduction to Disorders of Speech and Language**
COLLEGE OF ARTS & SCIENCES

SPA 3004 Introduction to Language Development and Disorders
SPA 4104 Neuroanatomy of Speech, Language & Hearing
*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN BIOLOGICAL HEALTH SCIENCES AND HEALTH INFORMATION TECHNOLOGY (HBI)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Biological Health Sciences courses (students must take 15 hours from this list):
- ANT 4520C Forensic Anthropology
- ANT 4462 Health, Illness, and Culture
- BSC 3022 Biology of Aging
- BSC 4933 Selected Topics in Biology*
- CHM 2023 Chemistry for Today
- CHM 2045 General Chemistry I and CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II and CHM 2046L General Chemistry II Laboratory
- GEY 3601 Physical Changes and Aging
- HSC 3541 Human Structure and Function
- HSC 4430 Occupational Health and Safety
- HSC 4504 Foundations of Public Health Immunology
- HSC 4551 Survey of Human Diseases
- HSC 4573 Foundations of Food Safety
- HSC 4624 Foundations of Global Health
- HSC 4933 Special Topics in Public Health*
- HUN 3296 Nutrition and Disease
- HUN 3272 Sports Nutrition
- LIS 4930 Selected Topics in Information Studies*
- MCB 3020 General Microbiology
- MCB 3020L General Microbiology Laboratory
- PCB 3063 General Genetics
- PCB 3063L General Genetics with Lab
- PHC 3320 Environmental Health Science
- PHC 4030 Introduction to Epidemiology
- PHC 4101 Overview/Introduction to Public Health Programs and Policies
- PHC 4406 Pop Culture, Vices, and Epidemiology
- PHY 2020 Conceptual Physics or PHY 2053/PHY 2053L General Physics I with Lab
- PHY 2054/PHY 2054L General Physics II with Lab
- ZOO 4512 Sociobiology

Communication Sciences & Disorders Cluster (courses recommended for students interested in pursuing graduate degrees in communication sciences)
- SPA 3030 Introduction to Hearing Science
- SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
- SPA 3002 Introduction to Disorders of Speech and Language
- SPA 3004 Introduction to Language Development and Disorders
- SPA 4104 Neuroanatomy of Speech, Language & Hearing

Health Information Technology courses (students must take 15 hours from this list)
- ISM 3113 Systems Analysis and Design
- LIS 3352 Interaction Design
- LIS 3353 IT Concepts for Information Professionals
- LIS 3361 World Wide Web Page Design and Management
- LIS 3783 Information Architecture or LIS 4365 Web Design Technologies
- LIS 4204 Information Behavior
- LIS 4380 Information and Social Media
- LIS 4414 Information Policy and Ethics
- LIS 4482 Networks and Communication
- LIS 4477 Clinical Decision Support
- LIS 4776 Health Information Technology
- LIS 4779 Health Information Security
- LIS 4779 Management of Health Information Systems
REQUIREMENTS FOR THE CONCENTRATION IN BIOLOGICAL HEALTH SCIENCES AND HEALTH MANAGEMENT (HBM)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Biological Health Sciences courses (students must take 15 hours from this list)
- ANT 4520C Forensic Anthropology
- ANT 4462 Health, Illness, and Culture
- BSC 3022 Biology of Aging
- BSC 4933 Selected Topics in Biology*
- CHM 2023 Chemistry for Today
- CHM 2045 General Chemistry I and CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II and CHM 2046L General Chemistry II Laboratory
- GEY 3601 Physical Changes and Aging
- HSC 3541 Human Structure and Function
- HSC 4430 Occupational Health and Safety
- HSC 4504 Foundations of Public Health Immunology
- HSC 4551 Survey of Human Diseases
- HSC 4573 Foundations of Food Safety
- HSC 4624 Foundations of Global Health
- HSC 4933 Special Topics in Public Health*
- HUN 3296 Nutrition and Disease
- HUN 3272 Sports Nutrition
- LIS 4930 Selected Topics in Information Studies*
- MCB 3020 General Microbiology
- MCB 3020L General Microbiology Laboratory
- PCB 3063 General Genetics
- PCB 3063L General Genetics with Lab
- PHC 3320 Environmental Health Science
- PHC 4030 Introduction to Epidemiology
- PHC 4101 Overview of Public Health Programs and Policies
- PHC 4406 Pop Culture, Vices, and Epidemiology
- PHY 2020 Conceptual Physics or PHY 2053/PHY 2053L General Physics I with Lab
- PHY 2054/PHY 2054L General Physics II with Lab
- ZOO 4512 Sociobiology

Communication Sciences & Disorders Cluster (courses recommended for students interested in pursuing graduate degrees in communication sciences)
- SPA 3030 Introduction to Hearing Science
- SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
- SPA 3002 Introduction to Disorders of Speech and Language
- SPA 3004 Introduction to Language Development and Disorders
- SPA 4104 Neuroanatomy of Speech, Language & Hearing

Health Management courses (students must take 15 hours from this list):
- ACG 2071 Principles of Managerial Accounting
- GEY 4635 Business Management in an Aging Society
- PHC 4101 Overview of Public Health Programs and Policies
- HSC 4211 Health, Behavior & Society
- HSC 4624 Foundations of Global Health
- HSC 4630 Understanding U.S. Health Care
- HSC 4631 Critical Issues in Public Health
- HSC 4933 Special Topics in Public Health*
- MAN 3025 Principles of Management
- MMC 4936 Selected Topics in Health Communications and Media*
- PAD 3003 Introduction to Public Administration
- PAD 4204 Public Financial Administration
- PAD 4415 Personnel and Supervision in Today's Diverse Organizations

*see health sciences advisor for approval
PAD 4712 Managing Information Resources in the Public Sector
PAD 4930 Selected Topics in Public Administration*
PHC 4931 Health Care Ethics
PHI 3636 Professional Ethics (course may be applied to tier one OR concentration, but not both)
PUP 4002 Public Policy
SYO 4400 Medical Sociology
*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN SOCIAL AND BEHAVIORAL HEALTH SCIENCES (HBS) (CIP = 51.0000 (TRACK 1 OF 7))
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Students must choose 30 credit hours total, depending on the student's career goals these can be 30 credits from one concentration or a combination of two different concentrations with 15 credits from each.
CLP 4143 Abnormal Psychology
COM 4020 Communicating Illness, Grief and Loss
COM 4021 Family Communication and the End of Life
COM 4022 Health Communication
COM 4225 Global and Cultural Issues in Health Communication
COM 4702 Communication, Language, and Mental Illness
HSC 4172 Women's Health: A Public Health Perspective
HSC 4211 Health, Behavior and Society
HSC 4579 Foundations of Maternal and Child Health
HSC 4631 Critical Issues in Public Health
HSC 4933 Special Topics in Public Health*
LIS 4930 Selected Topics in Information Studies*
MHS 4022 Adult Psychopathology in the Community
MHS 4452 Co-Occurring Disorders
MHS 4490 Behavioral Healthcare Issues for Children
PHC 4406 Pop Culture, Vices and Epidemiology
PHI 4930 Selected Topics*
SOP 4330 Social Psychology of HIV/AIDS
SOW 3102 Human Behavior and the Social Environment II
SOW 3203 Introduction to Social Work
SOW 3210 The American Social Welfare System
SPC 4305 Communicating Emotions
SPC 4321 Communication and Aging
SPC 4930 Selected Topics in Communication*
SYO 4400 Medical Sociology
WST 4320 Politics and Issues in Women's Health
Mental Health Cluster (courses for students interested in mental health professions)
MHS 3411 Multidisciplinary Behavioral Healthcare Services
MHS 4002 Behavioral Health Systems Delivery
MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare
MHS 4931 Selected Topics*
Substance Abuse Cluster (courses for students interested in substance abuse counseling and treatment professions)
MHS 3411 Multidisciplinary Behavioral Healthcare Services
MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare
MHS 4931 Selected Topics*
PSB 3444 Drugs and Behavior
*see health sciences advisor for approval
REQUIREMENTS FOR THE CONCENTRATION IN HEALTH INFORMATION TECHNOLOGY (HHI) (CIP = 51.0000 (TRACK 1 OF 7))
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Students must choose 30 credit hours total, depending on the student's career goals these can be 30 credits from one concentration or a combination of two different concentrations with 15 credits from each.

ISM 3113 Systems Analysis and Design
LIS 3352 Interaction Design
LIS 3353 IT Concepts for Information Professionals
LIS 3361 World Wide Web Page Design and Management
LIS 3783 Information Architecture or LIS 4365 Web Design Technologies
LIS 4204 Information Behaviors
LIS 4380 Information and Social Media
LIS 4414 Information Policy and Ethics
LIS 4482 Networks and Communication
LIS 4776 Health Information Technology
LIS 4779 Health Information Security
LIS 4779 Management of Health Information Systems
LIS 4477 Clinical Decision Support
LIS 4930 Selected Topics in Information Studies*
PAD 4712 Managing Information Resources in the Public Sector
*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN HEALTH MANAGEMENT (HHM) (CIP = 51.0000 (TRACK 1 OF 7))
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Students must choose 30 credit hours total, depending on the student's career goals these can be 30 credits from one concentration or a combination of two different concentrations with 15 credits from each.

ACG 2071 Principles of Managerial Accounting
GEY 4635 Business Management in an Aging Society
PHC 4101 Overview of Public Health Programs and Policies
HSC 4211 Health, Behavior & Society
HSC 4624 Foundations of Global Health
HSC 4630 Understanding U.S. Health Care
HSC 4631 Critical Issues in Public Health
HSC 4933 Special Topics in Public Health*
MAN 3025 Principles of Management
MMC 4936 Selected Topics in Health Communications and Media*
PAD 3003 Introduction to Public Administration
PAD 4204 Public Financial Administration
PAD 4415 Personnel and Supervision in Today's Diverse Organizations
PAD 4712 Managing Information Resources in the Public Sector
PAD 4930 Selected Topics in Public Administration and Public Policy*
PHC 4931 Health Care Ethics
PHI 3636 Professional Ethics (course can be applied to tier one OR concentration not both)
PUP 4002 Public Policy
SYO 4400 Medical Sociology
*see health sciences advisor for approval
REQUIREMENTS FOR THE CONCENTRATION IN AGING HEALTH STUDIES AND HEALTH INFORMATION TECHNOLOGY (HIT)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Aging Health Studies courses (students must take 15 hours from this list):
- BSC 3022 Biology of Aging
- GEY 3601 Physical Changes and Aging
- GEY 4322 Care Management for Older Adults
- GEY 4507 Understanding Policies and Practices of Long Term Care
- GEY 4360 Counseling for Older Adults
- GEY 4608 Alzheimer's Disease Management
- GEY 4628 Health, Ethnicity, and Aging
- GEY 4641 Death and Dying
- GEY 4935 Special Topics in Gerontology*
- HSC 4211 Health, Behavior & Society
- HSC 4630 Understanding U.S. Healthcare
- MHS 4931 Selected Topics*
- PHC 4931 Health Care Ethics
- SOW 3210 The American Social Welfare System
- SPA 3002 Introduction to Disorders of Speech and Language
- SPA 4257 Adult Communication Disorders

Health Information Technology courses (students must take 15 hours from this list):
- ISM 3113 Systems Analysis and Design
- LIS 3352 Interaction Design
- LIS 3353 IT Concepts for Information Professionals
- LIS 3361 World Wide Web Page Design and Management
- LIS 3783 Information Architecture or LIS 4365 Web Design Technologies
- LIS 4204 Information Behaviors
- LIS 4380 Information and Social Media
- LIS 4414 Information Policy and Ethics
- LIS 4482 Networks and Communication
- LIS 4776 Health Information Technology
- LIS 4779 Health Information Security
- LIS 4779 Management of Health Information Systems
- LIS 4477 Clinical Decision Support
- LIS 4930 Selected Topics in Information Studies*
- PAD 4712 Managing Information Resources in the Public Sector
*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN SOCIAL AND BEHAVIORAL HEALTH SCIENCES AND HEALTH MANAGEMENT (HMG)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Health Management courses (students must take 15 hours from this list):
- ACG 2071 Principles of Managerial Accounting
- GEY 4635 Business Management in an Aging Society
- PHC 4101 Overview of Public Health Programs and Policies
- HSC 4211 Health, Behavior & Society
- HSC 4624 Foundations of Global Health
- HSC 4630 Understanding U.S. Health Care
- HSC 4631 Critical Issues in Public Health
- HSC 4933 Special Topics in Public Health*
- MAN 3025 Principles of Management
- MMC 4936 Selected Topics in Health Communications and Media*
- PAD 3003 Introduction to Public Administration
- PAD 4204 Public Financial Administration
- PAD 4415 Personnel and Supervision in Today's Diverse Organizations
- PAD 4712 Managing Information Resources in the Public Sector
PAD 4930 Selected Topics in Public Administration
PHC 4931 Health Care Ethics
PHI 3636 Professional Ethics (course can be applied to tier one OR concentration not both)
PUP 4002 Public Policy
SYO 4400 Medical Sociology

Social and Behavioral Health Sciences courses (students must take 15 hours from this list):
  CLP 4143 Abnormal Psychology
  COM 4020 Communicating Illness, Grief and Loss
  COM 4021 Family Communication and the End of Life
  COM 4022 Health Communication
  COM 4225 Global and Cultural Issues in Health Communication
  COM 4702 Communication, Language, and Mental Illness
  HSC 4172 Women's Health: A Public Health Perspective
  HSC 4211 Health, Behavior and Society
  HSC 4579 Foundations of Maternal and Child Health
  HSC 4631 Critical Issues in Public Health
  HSC 4933 Special Topics in Public Health
  LIS 4930 Selected Topics in Information Studies
  MHS 4022 Adult Psychopathology in the Community
  MHS 4452 Co-Occurring Disorders
  MHS 4490 Behavioral Healthcare Issues for Children
  PHC 4406 Pop Culture, Vices and Epidemiology
  PHI 4930 Selected Topics
  SOP 4330 Social Psychology of HIV/AIDS
  SOW 3102 Human Behavior and the Social Environment II
  SOW 3203 Introduction to Social Work
  SOW 3210 The American Social Welfare System
  SPC 4305 Communicating Emotions
  SPC 4321 Communication and Aging
  SPC 4930 Selected Topics in Communication
  SYO 4400 Medical Sociology
  WST 4320 Politics and Issues in Women's Health

Mental Health Cluster (courses for students interested in mental health professions)
  MHS 3411 Multidisciplinary Behavioral Healthcare Services
  MHS 4002 Behavioral Health Systems Delivery
  MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
  MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare
  MHS 4931 Selected Topics

Substance Abuse Cluster (courses for students interested in substance abuse counseling and treatment professions)
  MHS 3411 Multidisciplinary Behavioral Healthcare Services
  MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
  MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare
  MHS 4931 Selected Topics
  PSB 3444 Drugs and Behavior

*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN HEALTH MANAGEMENT AND HEALTH INFORMATION TECHNOLOGY (HMT)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
  Health Management courses (students must take 15 hours from this list):
    ACG 2071 Principles of Managerial Accounting
    GEY 4635 Business Management in an Aging Society
    PHC 4101 Overview of Public Health Programs and Policies
    HSC 4211 Health, Behavior & Society
    HSC 4624 Foundations of Global Health
    HSC 4630 Understanding U.S. Health Care
    HSC 4631 Critical Issues in Public Health
HSC 4933 Special Topics in Public Health*
MAN 3025 Principles of Management
MMC 4936 Selected Topics in Health Communications and Media*
PAD 3003 Introduction to Public Administration
PAD 4204 Public Financial Administration
PAD 4415 Personnel and Supervision in Today's Diverse Organizations
PAD 4712 Managing Information Resources in the Public Sector
PAD 4930 Selected Topics in Public Administration*
PHC 4931 Health Care Ethics
PHI 3636 Professional Ethics (course may be applied to tier one or the concentration, but not both)
PUP 4002 Public Policy
SYO 4400 Medical Sociology

Health Information Technology courses (students must take 15 hours from this list):
  ISM 3113 Systems Analysis and Design
  LIS 3352 Interaction Design
  LIS 3353 IT Concepts for Information Professionals
  LIS 3361 World Wide Web Page Design and Management
  LIS 3783 Information Architecture or LIS 4365 Web Design Technologies
  LIS 4204 Information Behaviors
  LIS 4380 Information and Social Media
  LIS 4414 Information Policy and Ethics
  LIS 4482 Networks and Communication
  LIS 4776 Health Information Technology
  LIS 4779 Health Information Security
  LIS 4779 Management of Health Information Systems
  LIS 4777 Clinical Decision Support
  LIS 4930 Selected Topics in Information Studies*
  PAD 4712 Managing Information Resources in the Public Sector
*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN BIOLOGICAL HEALTH SCIENCES AND SOCIAL AND BEHAVIORAL HEALTH SCIENCES (HSB)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
  Biological Health Sciences courses (students must take 15 hours from this list):
    ANT 4520C Forensic Anthropology
    ANT 4462 Health, Illness, and Culture
    BSC 3022 Biology of Aging
    BSC 4933 Selected Topics in Biology*
    CHM 2023 Chemistry for Today
    CHM 2045 General Chemistry I and CHM 2045L General Chemistry I Laboratory
    CHM 2046 General Chemistry II and CHM 2046L General Chemistry II Laboratory
    GEY 3601 Physical Changes and Aging
    HSC 3541 Human Structure and Function
    HSC 4430 Occupational Health and Safety
    HSC 4504 Foundations of Public Health Immunology
    HSC 4551 Survey of Human Diseases
    HSC 4573 Foundations of Food Safety
    HSC 4624 Foundations of Global Health
    HSC 4933 Special Topics in Public Health*
    HUN 3296 Nutrition and Disease
    HUN 3272 Sports Nutrition
    LIS 4930 Selected Topics in Information Studies*
    MCB 3020 General Microbiology
    MCB 3020L General Microbiology Laboratory
    PCB 3063 General Genetics
    PCB 3063L General Genetics Laboratory
    PHC 3320 Environmental Health Science
    PHC 4030 Introduction to Epidemiology
PHC 4101 Overview of Public Health Programs and Policies
PHC 4406 Pop Culture, Vices, and Epidemiology
PHY 2020 Conceptual Physics or PHY 2053/PHY 2053L General Physics I with Lab
PHY 2054/PHY 2054L General Physics II with Lab
ZOO 4512 Sociobiology

*Communication Sciences & Disorders Cluster (courses recommended for students interested in pursuing graduate degrees in communication sciences)
  SPA 3030 Introduction to Hearing Science
  SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
  SPA 3002 Introduction to Disorders of Speech and Language
  SPA 3004 Introduction to Language Development and Disorders
  SPA 4104 Neuroanatomy of Speech, Language & Hearing

Social and Behavioral Health Sciences courses (students must take 15 hours from this list):
CLP 4143 Abnormal Psychology
COM 4021 Family Communication and the End of Life
COM 4022 Health Communication
COM 4020 Communicating Illness, Grief and Loss
COM 4225 Global and Cultural Issues in Health Communication
COM 4702 Communication, Language, and Mental Illness
HSC 4172 Women's Health: A Public Health Perspective
HSC 4211 Health, Behavior and Society
HSC 4579 Foundations of Maternal and Child Health
HSC 4631 Critical Issues in Public Health
HSC 4933 Special Topics in Public Health*
LIS 4930 Selected Topics in Information Studies*
MHS 4022 Adult Psychopathology in the Community
MHS 4452 Co-Occurring Disorders
MHS 4490 Behavioral Healthcare Issues for Children
PHC 4406 Pop Culture, Vices and Epidemiology
PHI 4930 Selected Topics
SOP 4330 Social Psychology of HIV/AIDS
SOW 3102 Human Behavior and the Social Environment II
SOW 3203 Introduction to Social Work
SOW 3210 The American Social Welfare System
SPC 4305 Communicating Emotions
SPC 4321 Communication and Aging
SPC 4930 Selected Topics in Communication*
SYO 4400 Medical Sociology
WST 4320 Politics and Issues in Women's Health

*Mental Health Cluster (courses for students interested in mental health professions)
MHS 3411 Multidisciplinary Behavioral Healthcare Services
MHS 4002 Behavioral Health Systems Delivery
MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
MHS 4931 Selected Topics*
MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare

*Substance Abuse Cluster (courses for students interested in substance abuse counseling and treatment professions)
MHS 3411 Multidisciplinary Behavioral Healthcare Services
MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
MHS 4931 Selected Topics *
MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare
PSB 3444 Drugs and Behavior

*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN SOCIAL AND BEHAVIORAL HEALTH SCIENCES AND HEALTH INFORMATION TECHNOLOGY (HST)
TOTAL CONCENTRATION HOURS: 30

Concentration Core (30 hours)
Social and Behavioral Health Sciences courses (students must take 15 hours from this list):
CLP 4143 Abnormal Psychology
COM 4021 Family Communication and the End of Life
COM 4022 Health Communication
COM 4020 Communicating Illness, Grief and Loss
COM 4225 Global and Cultural Issues in Health Communication
COM 4702 Communication, Language, and Mental Illness
HSC 4172 Women's Health: A Public Health Perspective
HSC 4211 Health, Behavior and Society
HSC 4579 Foundations of Maternal and Child Health
HSC 4631 Critical Issues in Public Health
HSC 4933 Special Topics in Public Health*
LIS 4930 Selected Topics in Information Studies*
MHS 4022 Adult Psychopathology in the Community
MHS 4452 Co-Occurring Disorders
MHS 4490 Behavioral Healthcare Issues for Children
PHC 4406 Pop Culture, Vices and Epidemiology
PHI 4930 Selected Topics
SOP 4330 Social Psychology of HIV/AIDS
SOW 3102 Human Behavior and the Social Environment II
SOW 3203 Introduction to Social Work
SOW 3210 The American Social Welfare System
SPC 4305 Communicating Emotions
SPC 4321 Communication and Aging
SPC 4930 Selected Topics in Communication*
SYO 4400 Medical Sociology
WST 4320 Politics and Issues in Women's Health

Mental Health Cluster (courses for students interested in mental health professions)
MHS 3411 Multidisciplinary Behavioral Healthcare Services
MHS 4002 Behavioral Health Systems Delivery
MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
MHS 4931 Selected Topics*
MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare

Substance Abuse Cluster (courses for students interested in substance abuse counseling and treatment professions)
MHS 3411 Multidisciplinary Behavioral Healthcare Services
MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
MHS 4931 Selected Topics*
MHS 4703 Legal, Ethical and Professional Issues in Behavioral Healthcare
PSB 3444 Drugs and Behavior

Health Information Technology courses (students must take 15 hours from this list):
ISM 3113 Systems Analysis and Design
LIS 3352 Interaction Design
LIS 3353 IT Concepts for Information Professionals
LIS 3361 World Wide Web Page Design and Management
LIS 3783 Information Architecture or LIS 4365 Web Design Technologies
LIS 4204 Information Behaviors
LIS 4414 Information Policy and Ethics
LIS 4482 Networks and Communication
LIS 4930 Selected Topics in Information Studies*
PAP 4712 Managing Information Resources in the Public Sector
*see health sciences advisor for approval

HEALTH SCIENCES FACULTY

Program Director and Instructor: C. Cooperman
The discipline of history embraces a diverse world of ideas, peoples, and events. Our faculty seeks to inform and to question, to provoke and to challenge our students to a higher level of understanding of the past. History at the University of South Florida offers the student an opportunity to explore civilizations from around the globe and from the ancient through contemporary eras. We encourage our students to move beyond traditional memorization of material to a critical level of thinking, analysis, and synthesis. Accomplished history majors are attractive to all kinds of employers in any number of fields, as well as to graduate and professional schools. USF history alumni can be found in such diverse professions as law, medicine, business, government, foreign service, politics, and education.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

- 6 credit hours of AFH, AMH, EUH, WOH, LAH, ASH, HIS prefix courses

REQUIREMENTS FOR THE MAJOR IN HISTORY

TOTAL MAJOR HOURS: 33

Major requirements for the B.A. Degree:

Major Core (33 hours)

A minimum of 33 semester hours of History Department courses are required to earn a B.A. degree in History.

Lower-Level Course Requirements for the Major (9 credit hours):

Students must complete a minimum total of 9 hours of 2000-level courses, or their equivalent, to meet the lower level requirements of the major. Completing the lower level requirement of the major also satisfies the common prerequisite requirements.

- AMH 2010 American History I
- AMH 2020 American History II
- ASH 2270 Southeast Asian History
- EUH 2011 Ancient History I
- EUH 2012 Ancient History II
- EUH 2021 Byzantine Empire
- EUH 2022 The Medieval West
- EUH 2030 Modern European History I
- EUH 2031 Modern European History II
- HIS 2931 Special Topics
- LAH 2020 Latin American Civilization

Upper-Level Course Requirements for the Major (15 credit hours)

In addition to the three required lower-level courses above, students must complete a minimum of 15 hours of 3000-4000 numbered courses to fulfill the upper level major requirement.

- AFH 3100 African History to 1850
- AFH 3200 African History since 1850
- AMH 3110 American Colonial History to 1750
- AMH 3130 The American Revolutionary Era
- AMH 3140 The Age of Jefferson
- AMH 3160 The Age of Jackson
- AMH 3170 The Civil War and Reconstruction
- AMH 3201 The United States, 1877-1914
- AMH 3231 The United States, 1914-1945
- AMH 3270 The United States since 1945
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>AMH 3403</td>
<td>The South since 1865</td>
</tr>
<tr>
<td>AMH 3421</td>
<td>Early Florida</td>
</tr>
<tr>
<td>AMH 3423</td>
<td>Modern Florida</td>
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<td>AMH 3500</td>
<td>American Labor</td>
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<tr>
<td>AMH 3530</td>
<td>Immigration History</td>
</tr>
<tr>
<td>AMH 3545</td>
<td>War and American Empire</td>
</tr>
<tr>
<td>AMH 3561</td>
<td>American Women I</td>
</tr>
<tr>
<td>AMH 3562</td>
<td>American Women II</td>
</tr>
<tr>
<td>AMH 3571</td>
<td>African American History to 1865</td>
</tr>
<tr>
<td>AMH 4940</td>
<td>Early American History and Archaeology Internship</td>
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<tr>
<td>ASH 3404</td>
<td>Modern China</td>
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<tr>
<td>EUH 3142</td>
<td>Renaissance and Reformation</td>
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<tr>
<td>EUH 3181</td>
<td>Medieval Culture</td>
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<td>EUH 3185</td>
<td>Viking History</td>
</tr>
<tr>
<td>EUH 3188</td>
<td>Medieval Society</td>
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<tr>
<td>EUH 3189</td>
<td>Medieval Politics</td>
</tr>
<tr>
<td>EUH 3202</td>
<td>History of the 17th and 18th Century Europe</td>
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<td>EUH 3205</td>
<td>History of Nineteenth Century Europe</td>
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<td>EUH 3206</td>
<td>History of Twentieth Century Europe</td>
</tr>
<tr>
<td>EUH 3401</td>
<td>Classical Greece</td>
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<td>EUH 3402</td>
<td>Age of Alexander</td>
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<tr>
<td>EUH 3412</td>
<td>Roman Republic</td>
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<td>EUH 3413</td>
<td>Roman Empire</td>
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<td>EUH 3482</td>
<td>German History 1870 to the Present</td>
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<tr>
<td>EUH 3501</td>
<td>British History to 1688</td>
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<td>EUH 3502</td>
<td>British History to Present</td>
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<td>EUH 3575</td>
<td>History of Imperial Russia, 1689-1717</td>
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<td>HIS 3308</td>
<td>War and Society</td>
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<td>Special Topics</td>
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<td>Major Issues in History</td>
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<td>HIS 4900</td>
<td>Directed Reading</td>
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<td>HIS 4920</td>
<td>Colloquium in History</td>
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<td>LAH 3130</td>
<td>Colonial Latin America</td>
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<td>LAH 3200</td>
<td>Modern Latin America</td>
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<td>History of Mexico</td>
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<td>History of the Caribbean</td>
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<td>LAH 3480</td>
<td>History of Cuba</td>
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<td>WOH 3293</td>
<td>Islam in World History</td>
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<td>WST 3210</td>
<td>European Feminist History: Pre-18th Century</td>
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<td>WST 3220</td>
<td>European Feminist History: Enlightenment to the Present</td>
</tr>
<tr>
<td>WST 4310</td>
<td>History of Feminism in the U.S.</td>
</tr>
</tbody>
</table>

**Additional Required Courses for the History Major – Permits required (9 credit hours):**

Three additional courses are required for graduation with a B.A. degree in History: Theory and Methods of History (HIS 4104) and two separate sections of Pro-Seminar in History (HIS 4936).

Students should plan to take Theory and Methods of History (HIS 4104) as early in the major as possible—preferably as they begin to take courses at the 3000-level, and no later than in the junior year. Majors are expected to complete this course before enrolling in either of their Pro-Seminars.

It is recommended that majors take the two Pro-Seminar (HIS 4936) courses in the fall and spring of their senior year. A GPA of 2.00 in the History major is required before a student can be permitted into these courses. Additionally, the two Pro-Seminar courses may not be taken during the same semester.

**Major Electives**

For elective hours outside of the major, it is recommended that History majors take

- ENC 3310 Expository Writing
- SPC 2608 Public Speaking
- LIS 2005 Library and Internet Research Skills

Additional hours can be profitably drawn from the following disciplines: Africana Studies, Anthropology, Classics, Economics, Geography, Government and International Affairs, Philosophy, Religious Studies, Sociology, Women's Studies, Literature, Humanities and Cultural Studies; and Art History.
GPA Requirements
A Major GPA of at least 2.00 is necessary for graduation.

Grading Requirement
A minimum grade of C- or better must be attained in each course counted toward the 33-hour requirement.

Residency Requirement
The B.A. degree in History from USF requires that 50 percent of the major coursework be completed at the USF campus. This rule will be strictly enforced.

Research Opportunities
History majors will complete research papers in the HIS 4936 Seminar courses. Students are also encouraged to work with the Office for Undergraduate Research to participate in their annual Undergraduate Research Symposium. Also, students are encouraged to attend or present research papers at conferences, such as the annual Phi Alpha Theta regional conference.

Internship Opportunities
The History Department has many contacts in the Tampa Bay community, especially museums or historical societies, where students may intern.

Other Information
Students are encouraged to join the History Honor Society - Phi Alpha Theta. Membership applications are available at the History Department office, SOC 260.

Advising Information
Undergraduate Advisor, History Department; Location: Social Science Building (SOC) 274.
HistoryAdvise@usf.edu

HISTORY FACULTY

• B.A. - HUMANITIES AND CULTURAL STUDIES (HCS) (CIP = 24.0103)
TOTAL DEGREE HOURS: 120
http://humanities.usf.edu/undergraduate/ba/

The Humanities program offers an interdisciplinary curriculum that investigates the visual arts, music, and literature, and the cultures from which they emerge.

STATE MANDATED COMMON COURSE PREREQUISITES
Students desiring to transfer to USF should complete an A.A. degree at a Florida College System institution. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the University's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements. Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.
There are no State Mandated Common Prerequisites for this program.

REQUIREMENTS FOR THE MAJOR IN
HUMANITIES AND CULTURAL STUDIES
TOTAL MAJOR HOURS: 36

Major requirements for the B.A. Degree:
Major Core (9 hours)
Students must complete the following required courses for the major (9 credit hours):
HUM 3804 Introduction to Cultural Studies
HUM 4331 Humanities Pro-Seminar
HUM 4931 Seminar in Humanities
Students choose one 27 credit-hour concentration from the following list of concentrations:

- American Studies
- Film and New Media Studies
- Humanities

GPA Requirements
Minimum 2.0 GPA.

Course Grade Requirement
Students must pass HUM 3804 with a B- in order to enroll in HUM 4331. Students must pass HUM 4331 with at least a C- to register for HUM 4931.

Research Opportunities
The Humanities major offers six credit hours of undergraduate research through the senior-year sequence (HUM 4331 and HUM 4931).

Internship Opportunities
The Department of Humanities & Cultural Studies (HCS) offers an internship for Tampa-based, degree-seeking students declared as HUM or AMS majors and who have earned at least 12 credit hours of approved courses in the major prior to starting the internship. This internship consists of supervised work-and-learning experience in humanities and cultural issues under the direction of a University faculty member/administrator and an employee of a participating sponsor organization. The internship counts as a major elective. Specifically, it counts as a "concentration" course for HUM majors, an upper-level elective for AMS majors, and an "interdisciplinary cultural studies" course for HUM majors who are pursuing a track in film & new media studies.

Students participating in the internship must enroll in the HUM 4940 Internship in Humanities & Cultural Studies class (and, in some instances, AMS 4940 to make sure the credits equal 3). This class earns up to 3 semester hours of academic credit. Students report to the HCS Internship Coordinator weekly through formal status reports via webform. A final professional portfolio and final reflection paper are significant parts of this experience.

For more information please visit the Department's internship page: [http://humanities.usf.edu/internships/](http://humanities.usf.edu/internships/).

HUMANITIES AND CULTURAL STUDIES CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN
AMERICAN STUDIES (AMSC)
TOTAL CONCENTRATION HOURS: 27

The American Studies concentration is an interdisciplinary concentration dealing with the study of the United States.

Concentration Core (9 hours)
Required courses for the concentration:
- AMS 2030 Introduction to American Studies
- AMS 2270 Twentieth-Century American Culture

Students select one course from the following list:
- FIL 1002 Introduction to Film Studies
- HUM 2522 Introduction to the Cultural Study of Popular Music

Concentration Electives (18 hours)
Students take an additional 18 credit hours of upper-level coursework from Humanities and Cultural Studies courses.

REQUIREMENTS FOR THE CONCENTRATION IN
FILM AND NEW MEDIA STUDIES (FMSC)
TOTAL CONCENTRATION HOURS: 27

The Film & New Media Studies concentration is designed to teach students how to think actively, critically, and creatively, about the art of the moving image. To this end, it surveys significant examples of moving-image culture, including films from Hollywood and other global industries; experiments in documentary, avant-garde, and art cinema; and works from television, digital video, and the Internet.

Concentration Core (15 hours)
Required courses for the concentration:
FIL 1002 Introduction to Film Studies
FIL 3052 Foundations of Film & New Media
FIL 3077 Contemporary Film & New Media
HUM 4581 Film and Media Theory
Students select one course from the following list:
AMS 2270 Twentieth-Century American Culture
HUM 2250 Studies in Culture: The Twentieth Century

Concentration Electives (12 hours)
Students take an additional 12 credit hours of upper-level coursework from Humanities and Cultural Studies courses.

ACCELERATED B.A./M.A. PROGRAM

Accelerated B.A./M.A. Film and New Media Studies
This program intends for students to complete a Bachelor of Arts in Humanities and Cultural Studies with a concentration in Film and New Media Studies and an M.A. Liberal Arts in Film Studies over the span of five years. Completion of this program allows students to complete 12 credits toward the M.A. in during the junior or senior year of their B.A. degree. Students who decide not to pursue the M.A. but who complete the B.A. requirements will receive the B.A. degree.

Target students and expected outcomes
The accelerated program is an attractive and viable path for students seeking to expedite their entry to the workforce or to Ph.D. studies. Students who complete this program will maximize department resources and opportunities for research.

Description and Requirements
For consideration of admission to the program a student must:
1. Have completed 15 credit hours in the B.A. Humanities and Cultural Studies major, Film and New Media Studies concentration upon applying;
2. Have a minimum 3.33 GPA overall;
3. Have a minimum undergraduate 3.5 GPA in the major;
4. Have completed FIL 1002 with a B or higher; and
5. Have met with the Graduate Director and/or Graduate Advisor to discuss a plan of study.

Undergraduate Degree Requirements for the B. A. in Humanities and Cultural Studies with a Film and New Media Studies Concentration
All Humanities and Cultural Studies major (Film and New Media Studies concentration) students will complete graduation requirements listed in the undergraduate catalog.

University and College Requirements:
• 120 hours
• 36 hours of general education coursework
• 6 hours upper-level core curriculum (Writing Intensive Capstone and Capstone Experience)
• 42 hour upper-level rule
• USF Residency - Students must complete 30 hours of the last 60 hours in USF coursework.
• FLEX (Foreign Language Exit Requirement)
• Gordon Rule Communication and Computation

Humanities and Cultural Studies Major, Film and New Media Studies Concentration Requirements (36 total credit hours):
Major Core (9 credit hours)
Students must complete the following required courses for the major (9 credit hours):
HUM 3804 Introduction to Cultural Studies
HUM 4331 Humanities Pro-Seminar
HUM 4931 Seminar in Humanities
Students take 27 credit-hours for the concentration in Film and New Media Studies.

Film & New Media Studies Concentration (27 credit hours)
The Film & New Media Studies concentration is designed to teach students how to think actively, critically, and creatively, about the art of the moving image. To this end, it surveys significant examples of moving-image culture, including films from Hollywood and other global industries; experiments in documentary, avant-garde, and art cinema; and works from television, digital video, and the Internet.

Concentration Core (15 credit hours)
Required courses for the concentration:
FIL 1002 Introduction to Film Studies
FIL 3052 Foundations of Film & New Media
FIL 3077 Contemporary Film & New Media
HUM 4581 Film and Media Theory

Students select one course from the following list:
AMS 2270 Twentieth-Century American Culture
HUM 2250 Studies in Culture: The Twentieth Century

Concentration Electives (12 credit hours)
Students take an additional 12 credit hours of upper-level coursework from Humanities and Cultural Studies courses.

Course Grade Requirement
Students must pass HUM 3804 with a B- in order to enroll in HUM 4331. Students must pass HUM 4331 with at least a C- to register for HUM 4931. Students must have completed FIL 1002 with a B or higher to be considered for the accelerated program.

Research Opportunities
The Humanities major offers six credit hours of undergraduate research through the senior-year sequence (HUM 4331 and HUM 4931).

Shared Courses
Both Thesis and Exam Paths:
Students in the accelerated program, may have twelve credit hours of graduate courses count toward both degrees as follows:

<table>
<thead>
<tr>
<th>Undergrad course</th>
<th>satisfied by</th>
<th>Graduate course</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIL 3052</td>
<td>HUM 6583</td>
<td>HUM 6583</td>
</tr>
<tr>
<td>FIL 3077</td>
<td>HUM 6584</td>
<td>HUM 6586</td>
</tr>
<tr>
<td>HUM 4581</td>
<td>HUM 6586</td>
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</tbody>
</table>

An additional three (3) graduate credit hours may be earned by taking any course offered by HCS that is cross-listed at the 4000 and 6000 levels.

Graduate Degree Requirements
MA Liberal Arts: Film Studies Concentration (33 hours)

Core Requirement
HUM 6815 Research Seminar

Concentration Courses (24 hours)
HUM 6814 Introduction to Graduate Study
HUM 6583 Global Cinema and New Media to 1960
HUM 6584 Global Cinema and New Media since 1960
HUM 6586 Film Theory
12 credit hours of additional coursework selected in consultation with the graduate director

Thesis (6 hours)
HUM 6971 Thesis
After the completion of coursework, each student will select a thesis topic; constitute a thesis committee; and write and orally defend a thesis proposal. Each student will then write and orally defend a 40-80 page thesis. Students are required to enroll for 6 thesis hours.

Comprehensive Exam
The submission and oral defense of the thesis proposal equates to the comprehensive exam.
Students pursuing the MA in Liberal Arts with a Film Studies concentration through the Accelerated BA/MA program, may choose either a thesis or an exam, with the approval of the Graduate Advisor. Required coursework for the accelerated degree is tailored to the choice of the thesis or exam path as noted below.

Thesis Path
In addition to the above, students pursuing the thesis option must take:
HUM 6814 Introduction to Graduate Study
HUM 6815 Research Seminar
HUM 6971 Thesis
Three electives (nine credit hours), chosen in consultation with the Graduate Advisor

Exam Path (Non-thesis)
In addition to the above requirements for both thesis and exam paths, students pursuing the exam option, must take:
HUM 6814 Introduction to Graduate Study
Five electives (15 credit hours), chosen in consultation with the Graduate Advisor
Three credit hours of Directed Reading in preparation for the MA exam
REQUIREMENTS FOR THE CONCENTRATION IN HUMANITIES (HUMC)

TOTAL CONCENTRATION HOURS: 27

The Humanities concentration is the study of humanity itself and uses specifically the seven arts to investigate and analyze the fundamental human activities. The seven arts which include painting, sculpture, architecture, music, dance, literature, theatre, and cinema are the branches of learning responsible for human sentiments, aspirations and opinions.

Concentration Core (9 hours)

Students select two courses from the following list:

- AMS 2270 Twentieth-Century American Culture
- HUM 2210 Studies in Culture: The Classical Through Medieval Periods
- HUM 2230 European Humanities: Renaissance - 20th Century
- HUM 2250 Studies in Culture: The Twentieth Century
- HUM 2273 Eastern and Western Culture Since 1400

Students select one course from the following list:

- FIL 1002 Introduction to Film Studies
- HUM 2522 Introduction to the Cultural Study of Popular Music

Concentration Electives (18 hours)

Students take an additional 18 credit hours of upper-level coursework from Humanities and Cultural Studies courses.

HUMANITIES AND CULTURAL STUDIES FACULTY

Chairperson: W. Cummings; Professor: R.E. Snyder, W. Cummings; Associate Professors: D. Belgrad, A. Berish, M. Cizmic, A.Cozzi, J. D’Emilio, R. May, B. Sadler; Assistant Professors: S. Ferguson, A. Rust; Professors Emeriti: C.B. Cooper, S.L. Gaggi, G.S. Kashdin, D. Rutenberg; Instructors: S. Dykins Callahan, B. Cook, B. Goldberg, C. Rinck.

• B.S. - INFORMATION STUDIES (IFS) (CIP = 11.0103 (TRACK 2 OF 4))

TOTAL DEGREE HOURS: 120

http://si.usf.edu/undergraduate/bs/

The Bachelor of Science in Information Studies program is meant to prepare students for leadership careers in a wide array of environments and contexts related to the emerging knowledge economy. Concentrations are available in four high-demand job areas: Information Security, Health Informatics, Data Science and Analytics, and Information Science and Technology. The program integrates critical skills in information technology with the solid theoretical and disciplinary foundations of Information Science. Emphasis is given to understanding how people interact with information and technology; the complexities of the information society; information creation, storage, and organization applications and theories; information architecture; and related knowledge and skills needed to design, implement, and evaluate new tools and approaches to solve emerging information problems.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.

- PSY XXXX Any Psychology course
- STA X023 Introductory Statistics I or STA X122
REQUIREMENTS FOR THE MAJOR IN INFORMATION STUDIES

TOTAL MAJOR HOURS: 21

Major requirements for the B.S. Degree:

Major Core (18 hours)
Students admitted to the program prior to the Fall 2011 semester follow previous catalog guidelines.
- LIS 3261 Introduction to Information Science
- LIS 3353 IT Concepts for Information Professionals
- LIS 4414 Information Policy and Ethics
- LIS 4204 Information Behaviors

Exit Courses (6 credits):
- ENC 3249 Communication for IT Professionals (WRIN)
- IDS 4934 Senior Capstone (CPST)

Major Electives (21 hours)
Students must choose one of the four 21-hour concentrations:
- Information Security
- Health Informatics
- Data Science and Analytics
- Information Science and Technology

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

INFORMATION STUDIES CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN DATA SCIENCE AND ANALYTICS (IDSC)
TOTAL CONCENTRATION HOURS: 21

Concentration Core (18 hours)
Area of emphasis in deep knowledge discovery through data exploration, analysis, and inference.
- LIS 4800 Introduction to Data Science
- LIS 4801 Advanced Statistics and Analytics
- LIS 4802 Introduction to Visual Analytics
- LIS 4803 Introduction to Data & Text Mining
- LIS 4804 R Programming for Data Science
- LIS 4805 Predictive Analytics

Concentration Electives (3 hours)
Students choose three (3) credit hours of electives from the following list:
- LIS 2005 Library and Internet Research Sills (CASB)
- LIS 3352 Interaction Design
- LIS 3361 World Wide Web Page Development and Management
- LIS 3783 Information Architecture
- LIS 4029 Professional & Technical Communication for Analysts
- LIS 4365 Web Design Technologies
- LIS 4482 Networks and Communication
LIS 4477 Clinical Decision Support
LIS 4776 Health Information Technology
LIS 4779 Health Information Security
LIS 4779 Management of Health Information Systems
LIS 4785 Introduction to Health Informatics
LIS 4930 Selected Topics in Information Studies (topic must be approved by the advisor or program director)

REQUIREMENTS FOR THE CONCENTRATION IN HEALTH INFORMATICS (IHIC)
TOTAL CONCENTRATION HOURS: 21

Concentration Core (18 hours)
Areas of emphasis: design, development, adoption, and application of IT-based innovations in healthcare services delivery, management, and planning.
LIS 4482 Networks and Communication
LIS 4477 Clinical Decision Support
LIS 4776 Health Information Technology
LIS 4779 Health Information Security
LIS 4779 Management of Health Information Systems
LIS 4785 Introduction to Health Informatics

Concentration Electives (3 hours)
Students choose three (3) credit hours of electives from the following list:
LIS 2005 Library and Internet Research Skills (CASB)
LIS 3352 Interaction Design
LIS 3361 World Wide Web Page Development and Management
LIS 3783 Information Architecture
LIS 4029 Professional & Technical Communication for Analysts
LIS 4365 Web Design Technologies
LIS 4800 Introduction to Data Science
LIS 4801 Advanced Statistics and Analytics
LIS 4802 Introduction to Visual Analytics
LIS 4803 Introduction to Data & Text Mining
LIS 4804 R Programming for Data Science
LIS 4805 Predictive Analytics
LIS 4930 Selected Topics in Information Studies (topic must be approved by the advisor or program director)

REQUIREMENTS FOR THE CONCENTRATION IN INFORMATION SECURITY (IISC)
TOTAL CONCENTRATION HOURS: 21

Concentration Core (18 hours)
Area of emphasis: cybersecurity and protecting information or data from unauthorized access, use, misuse, disclosure, destruction, modification, or disruption.
CIS 3360 Principles of Information Security
CIS 3367 Architecting Operations Systems Security
CIS 4204 Ethical Hacking
CIS 4361 Information Technology Security Management
CIS 4365 Computer Security Policies and Disaster Preparedness
LIS 4482 Networks and Communication

Concentration Electives (3 hours)
Students choose any three (3) credit hours of electives from the following list:
LIS 2005 Library and Internet Research Skills (CASB)
LIS 3352 Interaction Design
LIS 3361 World Wide Web Page Development and Management
LIS 3783 Information Architecture
LIS 4029 Professional & Technical Communication for Analysts
LIS 4365 Web Design Technologies
LIS 4477 Clinical Decision Support
LIS 4776 Health Information Technology
LIS 4779 Health Information Security
LIS 4779 Management of Health Information Systems
LIS 4785 Introduction to Health Informatics
LIS 4800 Introduction to Data Science
LIS 4801 Advanced Statistics and Analytics
LIS 4802 Introduction to Visual Analytics
LIS 4803 Introduction to Data & Text Mining
LIS 4804 R Programming for Data Science
LIS 4805 Predictive Analytics
LIS 4930 Selected Topics in Information Studies (topic must be approved by the advisor or program director)

REQUIREMENTS FOR THE CONCENTRATION IN INFORMATION SCIENCE AND TECHNOLOGY (ISTC)
TOTAL CONCENTRATION HOURS: 21

Concentration Core
This is a flexible concentration for students who prefer to survey a wide range of courses within the discipline or who choose to concentrate their coursework in particular areas like Information Architecture or Web Development and Design.

Students who choose the Information Science and Technology concentration must take the required credit hours for the major core, EXIT, and concentration core and electives.

Concentration Electives (21 hours)
Students choose twenty-one (21) credit hours of electives from the following list:
LIS 2005 Library and Internet Research Skills (CASB)
LIS 3352 Interaction Design
LIS 3361 World Wide Web Page Development and Management
LIS 3783 Information Architecture
LIS 4029 Professional & Technical Communication for Analysts
LIS 4365 Web Design Technologies
LIS 4482 Networks and Communication
LIS 4477 Clinical Decision Support
LIS 4776 Health Information Technology
LIS 4779 Health Information Security
LIS 4779 Management of Health Information Systems
LIS 4785 Introduction to Health Informatics
LIS 4800 Introduction to Data Science
LIS 4801 Advanced Statistics and Analytics
LIS 4802 Introduction to Visual Analytics
LIS 4803 Introduction to Data & Text Mining
LIS 4804 R Programming for Data Science
LIS 4805 Predictive Analytics
LIS 4930 Selected Topics in Information Studies (topic must be approved by the advisor or program director)

Additional course options may be approved by the advisor or program director.

INFORMATION STUDIES FACULTY


• B.S. - INTEGRATIVE ANIMAL BIOLOGY (IAB) (CIP = 26.0101 (TRACK 1 OF 2))
TOTAL DEGREE HOURS: 120
http://biology.usf.edu/ib/ug/bs/
Students majoring in Integrative Animal Biology study the biology of animals. The program of study explores the structure and function of invertebrates, humans, and other vertebrates. The objective of the program is to provide students with a firm foundation in basic biology and the tools necessary to function as professional biologists, with special emphasis on animals. The program will prepare students for further education (e.g., medicine, veterinary medicine, animal biology, evolutionary biology) or for careers in fields such as medical assistance, veterinary assistance, animal care, and aquarium and zoo biology and education.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.

BSC X010/X010L Biology I with Lab or BSC X010C or BSC X040/X040L
BSC X011/X011L Biology II with Lab or BSC X011C or BSC X041/X041L or ZOO X010/X010L or BOT X010/X010L or BOT X013/X013L
CHM X045/X045L General Chemistry I with Lab or CHM X045C or CHM X040 and CHM X041
CHM X046/X046L General Chemistry II with Lab or CHM X046C
CHM X210/X210L Organic Chemistry I with Lab and CHM X211/X211L or (CHM X210C and CHM X211C) or (PHY X053/X053L and PHY X054/X054L) or (PHY X048/X048L and PHY X049/X049L)
MAC X311 Calculus I or MAC X233 or MAC X253 or MAC X281 or MAC X241
MAC X312 Calculus II or MAC X282 or MAC X234 or STA X023 or STA X024 or STA X321

REQUIREMENTS FOR THE MAJOR IN INTEGRATIVE ANIMAL BIOLOGY

Required Supporting Courses for the Major: 32-34 Hours

The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

CHM 2045 and CHM 2045L General Chemistry I and Laboratory
CHM 2046 and CHM 2046L General Chemistry II and Laboratory
CHM 2210 and CHM 2210L Organic Chemistry I and Laboratory
CHM 2211 and CHM 2211L Organic Chemistry II and Laboratory
Calculus I: MAC 2241 or MAC 2311 or MAC 2281
Statistics or Calculus II: STA 2023 or MAC 2242 or MAC 2312 or MAC 2282
One of the Physics Sequences:
PHY 2053/2053L General Physics II and PHY 2054/2054L General Physics II
PHY 2048/2048L General Physics I - Calculus Based and PHY 2049/2049L General Physics II - Calculus Based

Students must receive a C- or better to meet requirements for degree (for progression in Math and CHM, a C is required).

TOTAL MAJOR HOURS: 40

Major requirements for the B.S. Degree:

Major Core (24 hours)

Biology Core Curriculum: 16 credit hours
BSC 2010 and BSC 2010L Cellular Processes and Laboratory
BSC 2011 and BSC 2011L Biodiversity and Laboratory
PCB 3043 and PCB 3043L Principles of Ecology and Laboratory
PCB 3063 and PCB 3063L General Genetics and Laboratory
Structure and Function Courses: 8 credit hours
Choose one Structure & Function Pairing from:

**Invertebrate Biology**
- ZOO 3205C Advanced Invertebrate Zoology
- PCB 3712/3713L General Physiology and Lab

**Vertebrate Biology**
- BSC 4933/L Selected Topics in Biology: Vertebrate Natural History and Lab OR ZOO 3713C Comparative Vertebrate Anatomy
- PCB 3712/3713L General Physiology and Lab

**Human Biology**
- BSC 2093C Human Anatomy & Physiology I
- AND BSC 2094C Human Anatomy & Physiology II

**Major Electives (16 hours)**

Choose 16 additional hours of Integrative Animal Biology Major courses (8 of the 16 hours must be 4000+ level Biology Major Courses), from Tampa Campus IB Department or CMMB Department course offerings (prefix of BOT, BSC, MCB, PCB, or ZOO), with the exception of BSC 4905 and courses labeled as “not for major credit”.

- Students must complete a minimum of 40 credit hours of major coursework.
- Most advanced biology courses are not offered every semester; there are no set offerings for summer semesters.
- Maximum of four (4) semester hours BSC 4910 Undergraduate Research can apply
- OCE 4930 Selected Topics in Marine Science: Advanced Oceanography I and II OR BCH 4033 Advanced Biochemistry I and BCH 3023/BCH 3023L Introductory Biochemistry and Lab are the only approved non-Biology elective course options not offered by IB or CMMB departments.
- BCH 4033 Advanced Biochemistry I will NOT count towards the 8 credit hours of 4000+level major electives.

All students majoring in one of the programs offered through the departments of Integrative or Cell Biology, Microbiology and Molecular Biology and entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in USF coursework for their major and/or supporting coursework will be required to change to majors more appropriate to their goals and academic performances. Those majors may not include any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF major coursework or supporting coursework by the beginning of Fall 2009, will also be allowed three (3) D and/or F grades in subsequent terms before being required to choose another major more appropriate to their goals and academic performances, and not including any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Any continuing USF students who enter USF prior to Fall 2009 and who have earned greater than or equal to one (1) D or F grade in USF coursework for their major coursework or supporting coursework by the beginning of Fall 2009, will be allowed only two (2) more D and/or F grades in subsequent semesters before being required to choose other majors more appropriate to their goals and academic performances, and not including any majors conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Grade Forgiveness will NOT apply to the mandated requirement of changing major.

**Grading Requirement**

A student must receive a C- grade or better in all Department of Integrative Biology and Department of Cell Biology, Microbiology, and Molecular Biology courses and supporting courses in the natural sciences, except if they are used as general elective courses. This specification applies to both USF and transfer courses.

Please note that some supporting science courses may require a grade of C or better in order to meet the prerequisite requirements for course sequences.

**Residency Requirement**

A minimum of 20 credits hours of courses must be taken in residency and be applicable to the major.

Once a student has matriculated to USF Tampa, he/she is expected to take 100 percent of the required major coursework at USF Tampa.

**Research Opportunities**

Undergraduate research is a great way to get hands-on experience in what you are studying and learning in your courses, and even to advance biological knowledge. Many students have authored articles based on their participation in on-going research in the Department. Undergraduate research also is a great way to boost your resume and to enhance your application to graduate school or health professional school. Several ways are available to get involved; see http://biology.usf.edu/ib/ug/research/.
To be eligible to receive credit for undergraduate research (BSC 4910), students must have Junior standing, a 3.0 USF GPA, and a 3.0 major GPA. A maximum of 4 credit hours BSC 4910 may be applied to the major electives; see http://biology.usf.edu/bioadvise/ug-research/credit.aspx.

ACCELERATED B.S./M.A.T. PROGRAM

This program intends for students to complete a Bachelor of Science in Integrative Animal Biology (College of Arts and Sciences) and an M.A.T. in Secondary Science (College of Education) over the span of five years. Students completing this program will be eligible for high school and/or middle school science teacher certification. Completion of this program requires students to complete 12 credits toward the M.A.T. in Science Education during the senior year of their B.S. in Integrative Animal Biology.

Target students and expected outcomes

The accelerated B.S. in Integrative Animal Biology to an M.A.T. in Science Education program is a collaborative effort between the College of Arts and Sciences and the College of Education. This program is an attractive and viable career path for students majoring in Integrative Animal Biology that results in secondary science teacher certification. Students who complete this program receive the necessary science content and pedagogy coursework to be highly qualified biology teachers at the secondary level.

Description and Requirements

For admission to the program a student must:

1. Have completed 15 hours in the B.S. Integrative Animal Biology major upon applying and thirty (30) semester hours in science (includes twenty-five (25) semester hours in biology plus 5 hours of upper-level work in math or supporting science content area) with associated laboratory experiences to be fully admitted as a graduate student in the M.A.T. Science Education program. Evidence of successfully completing all sections of the General Knowledge Test (GKT) is also required for full admission to the graduate program.
2. Have a minimum 3.0 GPA overall; and
3. Have a minimum undergraduate 3.25 GPA in the major.

Undergraduate Degree Requirements for the B.S. in Integrative Animal Biology

Integrative Animal Biology Major Degree Requirements

All Integrative Animal Biology major students will complete graduation requirements listed in the undergraduate catalog.

University and College Requirements:

- 120 hours
- 36 hours of general education coursework
- 6 hours upper-level core curriculum (Writing Intensive Capstone and Capstone Experience)
- 42 hour upper-level rule
- Summer rule
- USF Residency - Students must complete 30 hours of the last 60 hours in USF coursework.
- FLENT (Foreign Language Entrance Requirement)
- Writing (Communication) and Mathematics (Computation) Requirements, formerly known as Gordon Rule

Integrative Animal Biology Major Requirements: 72-74 total major credit hours

- Must receive a C- or better to meet major requirements.
- Cascading prerequisites are strictly enforced. CR = co-requisite, courses that can be taken concurrently.
- Must have fewer than 3 D and/or F grades in the Biology major and supporting science requirement lectures
- Must complete a minimum of 50 percent (20 credit hours) of Integrative Animal Biology major requirements at USF Tampa

Biology Core Curriculum: 16 credit hours

BSC 2010 and BSC 2010L Cellular Processes and Laboratory
BSC 2011 and BSC 2011L Biodiversity and Laboratory
PCB 3043 and PCB 3043L Principles of Ecology and Laboratory
PCB 3063 and PCB 3063L General Genetics and Laboratory

Integrative Animal Biology Curriculum: 24 credit hours

Choose one Structure & Function Pairing from:

- Invertebrate Biology
  - ZOO 3205C Advanced Invertebrate Zoology AND PCB 3712/3713L General Physiology and Lab
- Vertebrate Biology
  - BSC 4933/L Selected Topics in Biology: Vertebrate Natural History and Lab OR ZOO 3713C Comparative Vertebrate Anatomy AND PCB 3712/3713L General Physiology and Lab
Human Biology

BSC 2093C Human Anatomy & Physiology I AND BSC 2094C Human Anatomy & Physiology II

Major Elective Courses: 16 credit hours

Choose 16 additional hours of Integrative Animal Biology Major courses (8 of the 16 hours must be 4000+ level Biology Major Courses), from Tampa Campus IB Department or CMMB Department course offerings (prefix of BOT, BSC, MCB, PCB, or ZOO), with the exception of BSC 4905 and courses labeled as "not for major credit."

- Most advanced biology courses are not offered every semester; there are no set offerings for summer semesters.
- Maximum of four (4) semester hours BSC 4910 Undergraduate Research can apply.
- OCE 4930 Selected Topics in Marine Science: Advanced Oceanography I and II OR BCH 4033 Advanced Biochemistry I and BCH 3023/3023L Introductory Biochemistry/Lab are the only approved non-Biology elective course options not offered by IB or CMMB departments.
- BCH 4033 Advanced Biochemistry I will NOT count towards the eight credit hours of 4000-level major electives.

Supporting Sciences and Mathematics: 32-34 credit hours

Students must receive a C- or better to meet requirements for degree (for progression in Math and CHM C is required)

CHM 2045 & CHM 2045L General Chemistry I and Lab
CHM 2046 & CHM 2046L General Chemistry II and Lab
CHM 2210 & CHM 2210L Organic Chemistry I and Lab
CHM 2211 & CHM 2211L Organic Chemistry II and Lab
Calculus I: MAC 2241 or MAC 2311 or MAC 2281
Statistics or Calculus II: STA 2023 or MAC 2242 or MAC 2312 or MAC 2282

One of the General Physics sequences:

PHY 2053/L & 2054/L General Physics I and II/Labs
PHY 2048/L & 2049/L General Physics Calculus Based I and II/Labs

Graduate Degree Requirements for Accelerated M.A.T in Science Education

PROGRAM REQUIREMENTS

All M.A.T. programs include as an admission requirement the passing of all sections of the General Knowledge Test (GKT). Applicants who can document they lived outside the state or country and did not have access to take the GKT before the application deadline may submit passing Praxis scores or GRE scores to be considered for admission. Whether admitted with passing Praxis scores or acceptable GRE scores, the applicant must submit passing scores on the GKT before the last day of classes of the semester of first enrollment, or admission to the College of Education will be revoked.

Total Minimum Program Hours: 39 hours minimum

The courses required for the M.A.T. in Science Education are listed below. Please check with the program for other program requirements.

Core Requirements

SCE 5325 Methods of Middle Grades Science Education
SCE 5337 Methods of Secondary Science Education
SCE 6456 Teaching Secondary School Physical and Earth Science
SCE 6938 Topics in Science Education: Field Practicum
EDF 6432 Foundations of Measurement
ESE 5342 Teaching the Adolescent Learner
ESE 5344 Classroom Management for a Diverse School and Society
SCE 5564 Reading and Communication in Science Education
SCE 6416 Teaching Secondary School Biology
SCE 6634 Current Trends in Secondary Science Education
SCE 6947 Internship in Secondary Education for Social Science (PR: CI and passing scores of FTCE exam)
TSL 5325 ESOL Strategies for Content Area Teachers

Comprehensive Examination

Student’s participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
Passing score on the appropriate subject area exam.
Student’s content degree or equivalent (an admission’s requirement).

COURSES (http://ugs.usf.edu/course-inventory/)
Timeline and benchmarks:

1. To be considered for acceptance into the Accelerated B.S. Integrative Animal Biology/M.A.T. Science Education program students must have completed a minimum of 15 credit hours in the Integrative Animal Biology undergraduate major.

2. Students must have a minimum undergraduate GPA of 3.0 overall, and a minimum GPA of 3.25 in the major and passing scores on all sections of the General Knowledge Test (GKT) to be eligible for the accelerated degree program. Information on the General Knowledge Test on the Florida Teacher Certification section may be found on the webpage: http://www.fl.nesinc.com/

3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program through faculty nomination or student self-nomination, via submission of an Accelerated Program Application Form. Both B.S. and M.A.T. programs will review the applications and approve the nominations. All applications require the approval of the College of Education Graduate Program, the College of Arts and Sciences, and the USF Graduate School.

4. To be promoted to graduate status, students must meet all admission requirements of the M.A.T. in Science Education in the College of Education. Specifically, the following materials must be submitted:
   a. Undergraduate transcripts;
   b. Evidence of possessing a degree in a science discipline (Biology, Chemistry, Physics, Geology, etc.) that is taught in a middle or high school, or comparable coursework in a science teaching field acceptable to the program faculty;
   c. A bachelor's or higher degree in biology or a bachelor's or higher degree with thirty (30) semester hours in science to include twenty-one (21) semester hours in biology with associated laboratory experiences.
   d. Documentation of GKT scores.

5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies.

A comprehensive plan of study to complete the accelerated B.S./M.A.T program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows:

Note: Summer sessions may also be included in the study plan.

First and Second Year
   Courses and credits as designated for freshman and sophomore years

Third Year
   Apply for Admission to the Accelerated B.S./M.A.T. program

Fourth Year
   Student accepted in M.A.T. in Science Education program complete the following credits:
   - SCE 5325 Methods of Middle Grades Science Education
   - SCE 5337 Methods of Secondary Science Education
   - SCE 6456 Teaching Secondary School Physical and Earth Science
   - SCE 6938 Topics in Science Education: Field Practicum

Fifth Year
   - EDF 6432 Foundations of Measurement
   - ESE 5342 Teaching the Adolescent Learner
   - ESE 5344 Classroom Management for a Diverse School and Society
   - SCE 5564 Reading and Communication in Science Education
   - SCE 6416 Teaching Secondary School Biology
   - SCE 6634 Current Trends in Secondary Science Education
   - SCE 6947 Internship in Secondary Education for Social Science (PR: CI and passing scores of FTCE exam)
   - TSL 5325 ESOL Education in Content Areas
   - Comprehensive Examination

Advising Information
   BioAdvise: Science Center (SCA) 203; (813) 974-3250
   http://biology.usf.edu/bioadvise/
   Email: bioadvise@usf.edu
INTEGRATIVE ANIMAL BIOLOGY FACULTY


• B.A. - INTERDISCIPLINARY CLASSICAL CIVILIZATIONS (ICC)  
  (CIP = 16.1200)  
  TOTAL DEGREE HOURS: 120  
  http://languages.usf.edu/undergraduate/classics/icc/  

Interdisciplinary Classical Civilizations is a broad-based area study encompassing the literature, history, linguistics, art and archaeology, philosophy, and religion of Greece, Rome and the Near East from pre-history to late antiquity. For centuries, the study of these vibrant societies has been recognized as essential to a proper understanding of our own culture and, recently, there has been a renewed recognition of the skills such study develops.

All students wishing to enroll in the ICC major must schedule an appointment with the Coordinator or the Academic Advisor of Interdisciplinary Classical Civilizations in order to develop a program of study. Students will be urged to fulfill their General Education and University Exit Requirements, whenever possible, from courses taught within the Classical Civilizations Program. Courses that are applied toward the Gen. Ed. or "Core" Requirements cannot be utilized more than once.

The ICC Major can be fulfilled in one of two ways:

1. The ICC Major (33 hours minimum) is intended for students who wish to become familiar with aspects of the Classical Heritage of Western Civilization.
2. The ICC Major with Honors (39 hours minimum) is intended for students who wish to continue their studies beyond the undergraduate level and includes a thesis (3 hours). The student must also maintain a 3.50 GPA within the major and a 3.30 overall GPA.

STATE MANDATED COMMON COURSE PREREQUISITES

Students desiring to transfer to USF should complete an A.A. degree at a Florida College System institution. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the University's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements. Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

There are no State Mandated Common Prerequisites for this program.

REQUIREMENTS FOR THE MAJOR IN  
INTERDISCIPLINARY CLASSICAL CIVILIZATIONS  
TOTAL MAJOR HOURS: 33-34

Major requirements for the B.A. Degree:

Major Core (33-34 hours)

12 hours from the ICC "Core":
- CLA 3103 Daily Life in Ancient Greece or CLT 3103 Epic Battles and Dramatic Reversals in Greek Thought
- CLA 3124 Daily Life in Ancient Rome or CLT 3123 Voyages and Metamorphoses in Roman Imagination
- HIS 3930 Archaeology of Greece or HIS 3930 Roman Archaeology or REL 3280 Biblical Archaeology
- CLT 3370 Gods, Heroes, and Monsters in the Ancient World

18 hours (minimum) from the ICC "Fields":
- Two (2) courses from an approved list of 2000- to 3000-level courses in Anthropology, Classics, History, Philosophy or Religious Studies.
- Four (4) courses from an approved list of 3000- to 4000-level courses in Anthropology, Classics, History, Philosophy or Religious Studies.
- Three to four hours from an approved list of 4000-level Exit Requirement courses in Anthropology, Classics, History, Philosophy or Religious Studies.

Foreign Language Requirement

Language Requirement: To complete a major in Interdisciplinary Classical Civilizations, students should demonstrate proficiency at the intermediate level within the target ancient language. This may be accomplished by completing 6-12 hours of coursework or by demonstrated competency at the intermediate level through examination. If this coursework (or associated competency) is not completed at the community college, it must be completed before the degree is granted. A grade of "C" is the minimum acceptable grade. If the target language is Latin or Greek, this...
Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM

Requirements of the ICC Major with Honors (39 hours minimum):

1. 12 hours from the ICC "Core":
   - CLA 3103 Daily Life in Ancient Greece or CLT 3103 Epic Battles and Dramatic Reversals in Greek Thought
   - CLA 3124 Daily Life in Ancient Rome or CLT 3123 Voyages and Metamorphoses in Roman Imagination
   - HIS 3930 Archaeology of Greece or HIS 3930 Roman Archaeology or REL 3280 Biblical Archaeology
   - CLT 3370 Gods, Heroes, and Monsters in the Ancient World

2. 12 hours beyond the B.A. FLEX Language Requirement in either Greek or Latin:
   - Competence in one or two ancient languages. Courses must be taken with the approval of the Coordinator.

3. 12-16 hours (4 courses) from the Major Field Requirements:
   - Major Fields are currently defined in Ancient History, Philosophy and Religious Studies. The student will select four courses in the Major Field area with the approval of the Coordinator. The student must take at least one exit-level course in the Major Field he/she chooses.

4. 3 hours of Faculty Mentored Research:
   - The student will complete a research project under the direction of a faculty committee composed of a faculty mentor and at least two additional faculty members. The project is intended to produce a substantial research paper that can serve as a writing sample when the student applies for advanced graduate study.

5. Maintenance of a 3.50 GPA within the major and a 3.30 overall GPA.

Advising Information

ICC Coordinator: William Murray, Ph.D. | murray@usf.edu
Undergraduate Academic Advisor: Andrew Bird | ICCadvise@usf.edu.

• B.S. - INTERDISCIPLINARY NATURAL SCIENCES (INS)

(CIP = 30.0101 - TRACK 16 OF 16)

TOTAL DEGREE HOURS: 120

http://chemistry.usf.edu/undergraduate/degree/inter/

The Interdisciplinary Natural Sciences degree serves the academic and career goals of undergraduate students who seek a broad education in the Natural Sciences (Biology, Chemistry, Physics, Mathematics, Geology). Students select a sequence of upper-level courses based on career goals, choosing three of the five natural science areas. Students interested in secondary education, public health, and other fields may choose this degree.

STATE MANDATED COMMON COURSE PREREQUISITES

Students desiring to transfer to USF should complete an A.A. degree at a Florida College System institution. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the University's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements. Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

There are no State Mandated Common Prerequisites for this program.

Students are encouraged to complete as many of the following courses as possible, during the program of study at the community college, and when feasible in FKL Liberal Arts/Writing (Communication) and Mathematics (Computation), formerly known as Gordon Rule, courses. Unless stated otherwise, a grade of "C" is the minimum acceptable grade.

- Biology I and Biology II (BSC 2010, BSC 2010L, BSC 2011, BSC 2011L)
- Calculus (MAC 2241 and MAC 2242 or MAC 2311 and MAC 2312 or MAC 2281 and MAC 2282)
- General Chemistry (CHM 2045, CHM 2045L, CHM 2046, CHM 2046L)
- General Physics (PHY 2053, PHY 2053L, PHY 2054, PHY 2054L) or (PHY 2048, PHY 2048L, PHY 2049, PHY
Introduction to Physical Geology and History of the Earth and Life (GLY 2010, GLY 2000L, GLY 2100, GLY 2100L)

REQUIREMENTS FOR THE MAJOR IN INTERDISCIPLINARY NATURAL SCIENCES
TOTAL MAJOR HOURS: 62-64

Major requirements for the B.S. Degree:
Major Core (38-40 hours)

Tier 1

Two introductory courses in each of the five (5) natural sciences areas: Mathematics, Physics, Chemistry, Biology, Geology. Choose from the following courses:

Mathematics Courses:
- MAC 2241 Life Sciences Calculus I
- MAC 2311 and MAC 2312 are also acceptable for the major.
- MAC 2242 Life Sciences Calculus II or STA 2023 Introductory Statistics I
- *MAC 2281 and MAC 2282 are also acceptable for the major.

Biology Courses:
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory

Chemistry Courses:
- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Laboratory

Geology Courses:
- GLY 2010 Dynamic Earth: Introduction to Physical Geology
- GLY 2000L Essentials of Geology Laboratory
- GLY 2100 History of Life
- GLY 2100L History of Life Laboratory

Physics Courses:
- PHY 2053 General Physics I and PHY 2053L General Physics I Laboratory
- PHY 2054 General Physics II and PHY 2054L General Physics II Laboratory
- PHY 2048 General Physics I - Calculus Based and PHY 2048L General Physics I - Calculus Based Laboratory and PHY 2049 General Physics II - Calculus Based and PHY 2049L General Physics II - Calculus Based Laboratory are also accepted for this major

Major Electives (24 hours)

Tier 2

Students are required to complete a minimum total of 24 credit hours. A minimum of 6 credit hours of structured, upper-level (3000-level or higher) courses in three of the five natural sciences areas is required. The remaining six credits of upper-level courses can be taken in any of the three Tier 2 Natural Science areas that the student has selected. All Tier 2 courses in the sciences will be selected by the individual student, but must be chosen from the list of courses approved for department major credit.

General Electives. Courses over and above the required courses should be taken to complete a 120 hour program. Additional courses in computer programming, economics, management, engineering, statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment.

Transfer Credit: It is strongly recommended that students transferring from community/state colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before they transfer. Even though courses may carry the same common course number, topics covered may vary significantly from school to school.

D/F Policy: The following three departments, the Department of Chemistry, the Department of Cell Biology, Microbiology and Molecular Biology and the Department of Integrative Biology have instituted a procedure to provide students with the best opportunity to progress toward their degree requirements.

Effective Fall 2009, the following D and/or F grade rules apply for students to continue in all of the following majors:

- Biomedical Sciences
- Biology (including the marine science concentration)
• Microbiology
• Chemistry (BA, BS)
• Interdisciplinary Natural Sciences (INS)
• Medical Technology and
• Pre-medical sciences students (PMS) who have not yet declared a major

All students entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in applicable USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) before Fall 2009, will also be redirected after earning three (3) D and/or F grades in subsequent terms. Upon earning the 3rd D and/or F grade, students will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have earned one (1) or more D or F grades in USF science and math coursework for the major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will be allowed to count all previous D/F grades as one (1) D/F grade. After Fall 2009, students who earn two (2) additional D and/or F grades (resulting in three (3) total D/F grades) in subsequent terms will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Lab only courses are not counted towards the total number of D/F grades earned for the policy. Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

If a student is in violation of the D/F policy, regardless of major, they will no longer be able to take any courses offered by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Grading Requirement
A grade of C or better is required for science and mathematics courses and each supporting course for the Major.

Residency Requirement
At least 12 of the 24 hours at Tier 2 must be taken at USF for residency.

Twelve hours of upper-level major applicable courses must be completed at USF for the Interdisciplinary Natural Sciences degree.

Research Opportunities
The Department of Chemistry offers the opportunity for students to participate in undergraduate research with Chemistry faculty. Students can apply for the Academic Research Experience for Undergraduates (REU) Program and find more information here: http://chemistry.usf.edu/undergraduate/reu/. Students who wish to enroll in an undergraduate research course with a Chemistry faculty member should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in a 0 credit research course. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Academic Advisors in the Department of Chemistry, as well as the Office for Undergraduate Research, can assist students in understanding the various course options.

ACCELERATED B.S./M.A.T. PROGRAM
This program intends for students to complete a B.S. in Interdisciplinary Natural Sciences (College of Arts and Sciences) and a M.A.T. in Secondary Science (College of Education) over the span of five years. Students completing this program will be eligible for high school and/or middle school science teacher certification. Completion of this program requires students to complete 12 credits toward the M.A.T. in Science Education during their senior year of their B.S. in Interdisciplinary Natural Sciences. This accelerated program shares 12 credits between already existing degrees/concentrations:
• B.S. in Interdisciplinary Natural Sciences
• M.A.T. in Science Education

Target students and expected outcomes
The accelerated Bachelor's to M.A.T. in Science Education program is a collaborative effort between the College of Arts and Sciences and the College of Education. This program is an attractive and viable career path for students in the Department of Chemistry's degree program that results in secondary science teacher certification. Students who complete this program receive the necessary science content and pedagogy coursework to be highly qualified science teachers at the secondary level.

**Description and Requirements**

For admission to the program a student must:

1. Have completed 15 hours in the B.S. in Interdisciplinary Natural Sciences major upon applying and thirty (30) semester hours in science (includes twenty-one (21) semester hours in a science concentration (e.g. chemistry, biology, physics) plus 9 hours in minor science content area) with associated laboratory experiences to be fully admitted as a graduate student in the M.A.T. Science Education Program. Evidence of successfully completing all sections of the General Knowledge Test (GKT) is also required for full admission to the graduate program.

2. Have a minimum 3.0 GPA overall; and

3. Have a minimum undergraduate 3.25 GPA in the major.

**Undergraduate Degree Requirements for the B.S. in Interdisciplinary Natural Sciences**

All Interdisciplinary Natural Sciences (INS) students will complete FLENT and Summer Enrollment requirements as well as graduation requirements listed in the catalog: [http://www.ugs.usf.edu/pdf/cat1213/08ACADEMICPOL.pdf](http://www.ugs.usf.edu/pdf/cat1213/08ACADEMICPOL.pdf).

According to the BOG Articulation Regulation 6A-10.030; earn a minimum of 42 semester hours of upper-level work (courses numbered 3000 and above), therefore, INS students will take 21 credits of additional 3000+ level coursework in addition to their required major and exit courses listed below. Of this 21 credits, 12 credits will be shared with the M.A.T. Science Education program. The entire undergraduate program will total no more than 120 credits.

**Foundations of Knowledge and Learning Coursework – 36 credit hours:**

- English Composition (CAEC)
- Fine Arts (CAFA)
- Human and Cultural Diversity in a Global Context (CAGC)
- Humanities (CAHU)
- Mathematics (CAM) or 3 Mathematics and 3 Quantitative Reasoning (CAQR)
- Natural Sciences (Life Science) (CANL)
- Natural Sciences (Physical Science) (CANP)
- Social and Behavioral Sciences (CASB)

**Capstone Experience – 6 credit hours**

- Capstone (CPST)
- Writing Intensive (WRIN)

**TIER 1 – 30-40 credit hours:**

Two introductory courses in each of 5 natural sciences areas (Mathematics, Physics, Chemistry, Biology, Geology):

**Biology:**
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory

**Chemistry:**
- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Lab
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Lab
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Lab
- CHM 2211 Organic Chemistry II
- CHM 2211L Organic Chemistry II Lab

**Mathematics:**
- MAC 2241 Life Sciences Calculus I or MAC 2311 or MAC 2281
- MAC 2242 Life Sciences Calculus II or MAC 2312 or Mac 2282 or STA 2023 Introductory Statistics I

**Physics:**
- PHY 2053 General Physics I or PHY 2048
- PHY 2053L General Physics I Lab or PHY 2048L
- PHY 2054 General Physics II or PHY 2049
PHY 2054L General Physics II Lab or PHY 2049L

Geology:
GLY 2010 Dynamic Earth: Introduction to Physical Geology
GLY 2000L Essentials of Geology Laboratory
GLY 2100 History of Life
GLY 2100L History of Life Laboratory

TIER 2 – 24 credit hours:
Students are required to complete a minimum of 24 credit hours with Tier 2 coursework. A minimum of 6 credit hours of 3000- to 5000-level courses in three of the five natural sciences areas is required. All Tier 2 courses in the sciences will be selected by the individual student, but must be chosen from the list of courses approved for department major credit.

At least 12 of the 24 credit hours of Tier 2 coursework must be taken at USF.

Shared B.S./M.A.T. Requirements
According to the BOG Articulation Regulation 6A-10.030; earn a minimum of 42 semester hours of upper-level work (courses numbered 3000 and above), therefore, the B.S. in Interdisciplinary Natural Sciences students will take 18 credits of additional 3000+ level coursework in addition to their required major and exit courses listed below. Of this 18 credits, 12 credits will be shared with the MAT Science Education program. The shared courses are listed below:

SCE 6938 Topics in Science Education: Field Practicum
SCE 5325 Methods for Middle Grades Science Education
SCE 5337 Methods for Secondary Science Education
SCE 6456 Teaching the Physical Sciences

Graduate Degree Requirements for Accelerated M.A.T in Science Education

PROGRAM REQUIREMENTS

Note: that all M.A.T. programs include as an admission requirement the passing of all sections of the General Knowledge Test (GKT). Applicants who can document they lived outside the state or country and did not have access to take the GKT before the application deadline may submit passing Praxis scores or GRE scores to be considered for admission. Whether admitted with passing Praxis scores or acceptable GRE scores, the applicant must submit passing scores on the GKT before the last day of classes of the semester of first enrollment, or admission to the College of Education will be revoked,

Total Minimum Program Hours: 39 hours

The courses required for the M.A.T. in Science Education are listed below. Please check with the program for other program requirements.

Core Requirements
Process Core (33 hours minimum)
EDF 6432 Foundations of Measurement
ESE 5342 Teaching the Adolescent Learner
ESE 5344 Classroom Management for a Diverse School and Society
TSL 5325 ESOL Education in Content Areas
SCE 5564 Reading and Communication Science Education
SCE 5325 Methods for Middle Grades Science Education
SCE 5337 Methods for Secondary Science Education
SCE 6416 Teaching Secondary School Biology
SCE 6456 Teaching Secondary School Physical and Earth Science
SCE 6634 Current Trends in Secondary Science Education
SCE 6938 Topics in Science Education: Field Practicum
SCE 6947 Internship (PR: CI and passing scores of FTCE exam)

Student’s participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.

Passing score on the appropriate subject area exam.

Student’s content degree or equivalent (an admission’s requirement).

*Shared courses between B.S. Interdisciplinary Natural Sciences and M.A.T. Science Education

Comprehensive Examination
A written narrative exam tailored to the individual student. The written exam must be completed two weeks prior to final exam week of the student’s graduating semester. Exams will only be accepted during fall or spring semesters, unless a previous contract is established with the student’s graduate advisor.

Timeline and benchmarks:
1. To be considered for acceptance into the Accelerated B.S./M.A.T. Science Education students must have completed a minimum of 15 credit hours in the Interdisciplinary Natural Sciences undergraduate major.

2. Students must have a minimum undergraduate GPA of 3.0 overall, and a minimum GPA of 3.25 in the major and passing scores on all sections of the General Knowledge Test (GKT) to be eligible for the accelerated degree program. You can find information on the General Knowledge Test on the Florida Teacher Certification section of the following webpage: http://www.fl.nesinc.com/

3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program through faculty nomination or student self-nomination, via submission of an Accelerated Program Application Form. Both B.S. and M.A.T. programs will review the applications and approve the nominations. All applications require the approval of USF’s Graduate School, the College of Education’s Graduate Program, and the Department of Chemistry’s Undergraduate Program.

4. To be promoted to graduate status, students must meet all admission requirements of the M.A.T. in Science Education in the College of Education. Specifically, the following materials must be submitted:
   - Undergraduate transcripts; and evidence of possessing a degree in a science discipline (biology, chemistry, physics, geology, etc.) that is taught in a middle or high school, or comparable coursework in a science teaching field acceptable to the program faculty.
   - A minimum of 21 hours in a major science content area of concentration (e.g., chemistry, biology, physics) plus 9 hours in minor science content area are required to teach secondary school.
     - Note, to teach secondary science in a specialty area (e.g. chemistry, biology, physics) the State of Florida requires: A bachelor's or higher degree with thirty (30) semester hours in science to include twenty-one (21) semester hours in that specialty area with associated laboratory experiences.
   - Documentation of GKT scores.

5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies. A comprehensive plan of study to complete the integrated B.S./M.A.T program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows. Summer sessions may also be included in the study plan.

First and Second Years
Courses and credits as designated for freshman and sophomore years

Third Year
Apply for Admission to the Integrated B.S./M.A.T. program.

Fourth Year
Student accepted in M.A.T. in Science Education program complete the following shared credits:
SCE 6938 Topics in Science Education: Field Practicum
SCE 5325 Methods for Middle Grades Science Education
SCE 5337 Methods for Secondary Science Education
SCE 6456 Teaching the Physical Sciences

Fifth Year
EDF 6432 Foundations of Measurement
ESE 5342 Teaching the Adolescent Learner
ESE 5344 Classroom Management for a Diverse School and Society
TSL 5325 ESOL Education in Content Areas
SCE 5564 Reading and Communication Science Education
SCE 6416 Teaching Secondary School Biology
SCE 6634 Current Trends in Secondary Science Education
SCE 6947 Internship (PR: CI and passing scores of FTCE exam)

Advising Information
Department of Chemistry Advising: chemadvise@usf.edu or http://chemistry.usf.edu/advising/.

INTERDISCIPLINARY NATURAL SCIENCES FACULTY
• B.A. - INTERDISCIPLINARY SOCIAL SCIENCES (ISS) (CIP = 45.0101)
  TOTAL DEGREE HOURS: 120
  
  http://iss.usf.edu/major_requirements/

  The ISS program is designed to provide an interdisciplinary integration of the social sciences for students who are interested in a broad educational experience. ISS offers a wide choice of courses, and an opportunity to design a quality program geared toward individual needs and interests.

  STATE MANDATED COMMON COURSE PREREQUISITES

  Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

  If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

  Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

  Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

  XXX XXXX (6 credit hours) Two introductory courses in a Social Sciences discipline.

  REQUIREMENTS FOR THE MAJOR IN INTERDISCIPLINARY SOCIAL SCIENCES
  TOTAL MAJOR HOURS: 30-33

  Major requirements for the B.A. Degree:

  Major Core (18 hours)

  ISS students choose two concentration areas and complete twelve hours in each. Note: The Public Health concentration requires 15 hours of coursework. Students who pursue a concentration in Public Health will be expected to take one less course in the areas of African American Studies, International Studies or Women's Studies.

  Concentrations areas must be selected from the areas of study listed below:

  • Africana Studies; Aging Sciences; American Studies; Anthropology; Communication; Criminology; Economics; Environmental Science and Policy; Geography; History; Humanities and Cultural Studies; Information Studies; International Studies; Interpreter Training; Language, Speech, and Hearing; Latin American, Caribbean, and Latino Studies; Mass Communications; Multidisciplinary Behavioral Sciences; Political Science; Psychology; Public Administration; Public Health; Religious Studies; Sociology; Women's and Gender Studies.

  The completion of 42 approved hours of coursework from the College of Arts and Sciences (CAS) is required, with a minimum of 30 hours at the 3000-or above level.

  Required core courses for the major are:

  ISS 3010 Introduction to the Social Sciences
  ISS 4935 Seminar in the Social Sciences
  STA 2122 Social Sciences Statistics

  One course in each of the following areas:

  African American Studies
  International Studies
  Women's Studies

  Two of these courses, ISS 3010 Introduction to the Social Sciences and ISS 4935 Seminar in the Social Sciences, introduce and employ the interdisciplinary social science perspective. These courses involve students in the study of human life and experience; the various concepts, theories and methods used in the social sciences; and apply them to contemporary issues and questions. STA 2122 Social Science Statistics is the third core course required for majors in Interdisciplinary Social Sciences.

  GPA Requirements

  Students must maintain a minimum grade point average of 2.0 in ISS to graduate.
Grading Requirement
No more than two grades of "D" are acceptable in the ISS major.
No transfer courses with grades of "D" are acceptable for credit in the ISS major.

Other Requirements
ISS majors must satisfy two semesters of a foreign language in order to graduate.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Advising Information
Upon declaration of the major, students should meet with an advisor to declare concentrations, particularly before too many courses are completed in the College of Arts and Sciences. No student should assume that courses already completed will automatically count toward the ISS degree.

INTERDISCIPLINARY SOCIAL SCIENCES CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN
AFRICANA STUDIES (AFA)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
Student should choose either Option 1 or Option 2.
Option 1:
   AFA 2000 Introduction to Black Experience
   9 hours Upper-Level Major Electives 3000-4000
Option 2:
   12 hours Upper-Level Major Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN
AMERICAN STUDIES (AMS)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
AMS 2030 Introduction to American Studies
AMS 3212 Nineteenth-Century American Culture
6 Hours Upper-Level Major Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN
ANTHROPOLOGY (ANT)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
ANT 2000 Introduction to Anthropology
9 hours Upper-Level Major Electives 3000-4000
REQUIREMENTS FOR THE CONCENTRATION IN COMMUNICATION (SPE)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- COM 2000 Introduction to Communication
- SPC 3544 Persuasion and Media or SPC 3301 Interpersonal Communication
- 2 Upper-Level COM or SPC Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN CRIMINOLOGY (CCJ)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- CCJ 3024 Survey of the Criminal Justice System
- CCJ 3117 Theories of Criminal Behavior
- 6 hours Upper-Level Major Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN ECONOMICS (ECO)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- ECO 2013 Economic Principles (Macroeconomics)
- ECO 2023 Economic Principles (Microeconomics)
- 6 hours Upper-Level Major Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN ENVIRONMENTAL SCIENCE AND POLICY (ESP)
TOTAL CONCENTRATION HOURS: 13

Concentration Core (13 hours)
- EVR 2001 Introduction to Environmental Science
- EVR 2001L Environmental Science Lab
- EVR 2861 Introduction to Environmental Policy
- PHI 3640 Environmental Ethics
- POS 3697 Environmental Law

REQUIREMENTS FOR THE CONCENTRATION IN GEOGRAPHY (GPY)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (10 hours)
- GEO 2200 Introduction to Physical Geography
- GEO 2200L Introduction to Physical Geography Lab
- GEO 2400 Human Geography
- GIS 3006 Computer Cartography

Concentration Electives (2 hours)
- 2 hours Upper-Level Major Electives 3000-4000
REQUIREMENTS FOR THE CONCENTRATION IN
GERONTOLOGY (GEY)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
GEY 2000 Introduction to Aging Sciences
9 hours Upper-Level GEY Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN
HISTORY (HTY)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
12 hours Upper-Level Major Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN
HUMANITIES AND CULTURAL STUDIES (HCS)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
HUM 2210 Studies in Culture: The Classical through Medieval Periods OR HUM 2230 European Humanities: Renaissance - 20th Century
HUM 4331 Humanities Pro-Seminar
6 hours Upper-Level Major Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN
INFORMATION STUDIES (IFS)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
LIS 2937 Selected Topics in Library/Information Science
LIS 3361 World Wide Web Page Design and Management
6 hours 4000 Level LIS Electives

REQUIREMENTS FOR THE CONCENTRATION IN
INTERNATIONAL STUDIES (INT)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
12 hours Upper-Level Major Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN
INTERPRETER TRAINING (TIS)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
INT 3004 Fundamentals of Interpreting
INT 4250 Simultaneous Interpreting Monologic
INT 4251 Simultaneous Interpreting Dialogues
INT 4190 Senior Seminar in Interpreter Training
REQUIREMENTS FOR THE CONCENTRATION IN LANGUAGE, SPEECH, AND HEARING (SAH)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
Students should choose 4 of the following:
- SPA 3112 Applied Phonetics in Communication Disorders
- SPA 3002 Introduction to Disorders of Speech and Language
- SPA 3030 Introduction to Hearing Science
- SPA 3004 Introduction to Language Development and Disorders
- SPA 3000 Introduction to Language Development and Disorders
- SPA 3101 Anatomy and Physiology of the Speech and Hearing Mechanism
- SPA 3011 Introduction to Speech Science
- SPA 4930 Selected Topics

REQUIREMENTS FOR THE CONCENTRATION IN LATIN AMERICAN, CARIBBEAN, AND LATINO STUDIES (LAS)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
12 hours Upper-Level Major Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN MASS COMMUNICATIONS (COM)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (3 hours)
- MMC 3602 Mass Communications and Society

Concentration Electives (9 hours)
Choose three (3) courses from the following list:
- ADV 3008 Introduction to Advertising
- MMC 4200 History and Principles of Communications Law
- MMC 4203 Communication Ethics
- MMC 4420 Research Methods in Mass Communications
- MMC 4936 Selected Topics in Mass Communications Studies
- PUR 3000 Principles of Public Relations
- RTV 3001 Introduction to Telecommunications
- RTV 4542 TV Production and Direction
- VIC 3001 Introduction to Visual Communications

REQUIREMENTS FOR THE CONCENTRATION IN MULTIDISCIPLINARY BEHAVIORAL SCIENCES (MDS)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- MHS 3411 Multidisciplinary Behavioral Healthcare Services
- MHS 4002 Behavioral Health Systems Delivery
- MHS 4408 Exemplary Practices in Behavioral Healthcare Treatment
One of the following courses:
- MHS 4425 Field Experience in Behavioral Healthcare
- MHS 4906 Directed Study
- MHS 4931 Selected Topics
Requirements for the Concentration in Political Science (POL)
Total Concentration Hours: 12

Concentration Core (12 hours)
POS 2041 American National Government
9 hours Upper-Level Major Electives 3000-4000

Requirements for the Concentration in Psychology (POL)
Total Concentration Hours: 12

Concentration Core (12 hours)
PSY 3213 Research Methods in Psychology
9 Hours Upper-Level Major Electives 3000-4000

Requirements for the Concentration in Public Administration (PAD)
Total Concentration Hours: 12

Concentration Core (12 hours)
12 hours Upper-Level Major Electives 3000-4000

Requirements for the Concentration in Public Health (PUB)
Total Concentration Hours: 15

Concentration Core (12 hours)
PHC 4101 Overview of Public Health Programs and Policies
HSC 4551 Survey of Human Diseases
HSC 4537 Medical Terminology
PHC 4030 Introduction to Epidemiology

Concentration Electives (3 hours)
Choose one (1) course from the following list:
HSC 2017 Careers in Public Health
HSC 2100 Contemporary Health Science
HSC 2130 Sex, Health and Decision Making
HSC 2933 Selected Topics in Public Health
HSC 3541 Human Structure and Function
HSC 4172 Women’s Health: A Public Health Perspective
HSC 4213 Environmental and Occupational Risk Analysis
HSC 4430 Occupational Health and Safety
HSC 4504 Foundations of Public Health Immunology
HSC 4573 Foundations of Food Safety
HSC 4579 Foundations of Maternal and Child Health
HSC 4933 Special Topics in Public Health
HUN 3272 Sports Nutrition
HUN 3296 Nutrition and Disease
PHC 3320 Environmental Health Science
PHC 3721 Research Methods in Environmental and Occupational Health
PHC 4031 Emerging Infectious Diseases
PHC 4188 Public Health Emergencies in Large Populations
PHC 4234 Public and Private Continuity Planning for Emergencies
PHC 4241 Psychology of Fear & Mental Health Issues Related to Disasters
PHC 4375 Community Participation in Homeland Security
PHC 4376 Disaster by Design: Exercise Development for Homeland Security Professionals
PHC 4406 Pop Culture, Vices and Epidemiology
PHC 4542 Stress, Health and College Life
COLLEGE OF ARTS & SCIENCES

REQUIREMENTS FOR THE CONCENTRATION IN RELIGIOUS STUDIES (REL)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
REL 2300 Introduction to World Religions
REL 3040 Introduction to Religious Studies
6 hours Upper-Level REL Electives 3000-4000

REQUIREMENTS FOR THE CONCENTRATION IN SOCIOLOGY (SOC)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
SYG 2000 Introduction to Sociology
SYA 3110 Classical Theory
SYA 3300 Research Methods or SYA 3310 Qualitative Inquiry
3 hours Upper-Level Major Electives 3000-4000
May take SYA 4935 Senior Seminar in place of ISS 4935 Seminar in the Social Sciences
**CANNOT COUNT GEY 4641 OR GEY 3625 FOR THIS COGNATE**

REQUIREMENTS FOR THE CONCENTRATION IN WOMEN'S AND GENDER STUDIES (WGS)
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
Students must select one from:
WST 3311 Issues in Feminism
WST 4310 History of Feminism in the U.S.
WST 3210 European Feminist History: Pre-18th Century
WST 3220 European Feminist History: Enlightenment to the Present
WST 4930 Selected Topics
And then complete:
9 hours Upper-Level WST Electives 3000-4000

INTERDISCIPLINARY SOCIAL SCIENCES FACULTY

Director: Sara Green.

• B.A. - INTERNATIONAL STUDIES (INT) (CIP = 45.0901)
TOTAL DEGREE HOURS: 120
http://gia.usf.edu/is/

The major in International Studies enables students to undertake programs of study which emphasize: (a) preparation for careers in international activities, or (b) the study of particular international themes or topics, or (c) the study of particular regions or cultures. Each student develops a course of study designed to fulfill his or her career and educational goals in consultation with the International Studies advisor.

STATE MANDATED COMMON COURSE PREREQUISITES

Students desiring to transfer to USF should complete an A.A. degree at a Florida College System institution. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the University's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements. Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

There are no State Mandated Common Prerequisites for this program.
REQUIREMENTS FOR THE MAJOR IN INTERNATIONAL STUDIES
TOTAL MAJOR HOURS: 36

Major requirements for the B.A. Degree:

Major Core (18 hours)

The major consists of a minimum of 36 semester hours. At least 27 of these hours (nine courses) must be from the International Studies Program offerings.

- INR 3011 Globalization
- INR 4083 Conflict in the World
- INR 3038 International Wealth and Power or CPO 4034 Politics of the Developing Areas
- INR 3202 International Human Rights or INR 4502 International Organizations
- Plus two area studies courses from the INT upper-division electives (3 hours each).

Major Electives (18 hours)

The additional 18 hours must include at least three elective courses (9 hours) from within the Department of Government and International Affairs; the remaining 9 hours can be selected from courses offered from other departments which are approved by the major advisor as having adequate international or cross-cultural content.

With the approval of the major advisor, credits earned in INR 4900 and INR 4910 may be used to augment or substitute for the foregoing requirements.

Students must pass a 2000-level foreign language course (that is, at least one semester of foreign language study beyond the first year introductory courses), or complete one year of study of a non-Western language. Students who are bilingual or who are already conversationally fluent or who can translate with facility from a foreign language text are exempt from the above course requirement, but the INT faculty may require demonstration of proficiency.

Students are encouraged, but not required, to engage in study abroad programs, a large number of which have been approved by the USF Education Abroad Department. Credits earned in such programs apply toward graduation and many also apply to the International Studies major. A limited number of internships in the Tampa Bay area are available to provide students with real-world experience while earning credits in the major. Also, USF is affiliated with The Washington Center, an internship program in the nation’s Capitol.

Residency Requirement

Students transferring credit hours toward a major in International Studies must complete a minimum of 21 credit hours within the Government & International Affairs Department, regardless of the number of credits transferred.

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Internship Opportunities

The Government & International Affairs department encourages students majoring in International Studies to complete an internship as part of their undergraduate degree program. While an internship is not required for the degree, it does provide the student with valuable, real world experience that can assist the student in preparation for a career after finishing the International Studies degree. The Government & International Affairs department allows up to 6 credits of unpaid internship with an appropriate international focus to count as an INT elective. In order to qualify for credit, the internship does need to be approved by the International Studies Internship faculty advisor. Additionally, in order to earn credit for the unpaid internship, students will be required to register for INR 4943 Internship in International Studies and complete all requirements for this course in order to earn credit. For more information, please visit http://gia.usf.edu/el/isi/.

Advising Information

Students will be provided with academic advice and counsel about other courses offered throughout the university which may support and complement their major program. INT majors should plan their programs in conjunction with the advisor who is empowered to make appropriate substitutions when educationally justified.

For information on INT Advising, please visit http://gia.usf.edu/advisor/.
The Italian Program is an interdisciplinary program with courses in Italian language, film, literature, history, cultural studies, Italian-American studies and the culture of food offered both in Italian and English. The objective of the program is to prepare students to become receptive to the global concerns of our society increasing their capabilities in writing, speaking, intercultural literacy and effective citizenship, all skills that are useful in a variety of professions.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

To complete a major in Italian, students should demonstrate proficiency at the intermediate level within the target language. This may be accomplished by completing 6-12 hours within the language or by demonstrated competency at the intermediate level.

REQUIREMENTS FOR THE MAJOR IN ITALIAN

Total Major Hours: 30

Major requirements for the B.A. Degree:

Major Core (18 hours)

ITA 2200 Italian III
ITA 2201 Italian IV
ITA 2240 Italian Conversation
ITA 3234 Reading and Writing in Italian
ITT 3504 Italian Culture Through Film
ITT 4531 Italian Food in Film

Major Electives (12 hours)

Students choose 12 credit hours of coursework (taught in either Italian or English) from the following list of courses, planned with an advisor:

ITA 2240 Italian Conversation
ITA 3470 Overseas Study
ITA 4930 Selected Topics
ITW 4905 Directed Study

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.
Advising Information
Ms. Yury Riascos: languagesadvise@usf.edu

ITALIAN FACULTY

• B.S. - MARINE BIOLOGY (MRN) (CIP = 26.0101 (TRACK 1 OF 2))
TOTAL DEGREE HOURS: 120
http://biology.usf.edu/ib/ug/bs/

Students majoring in Marine Biology study life in the oceans. The program of study explores the unique marine environment and the nature of the organisms that inhabit the oceans. The objective of the program is to provide students with a firm foundation in basic biology and the tools necessary to function as professional biologists, with special emphasis on marine ecosystems. The program will prepare students for further education (e.g., ecology, environmental science, biological oceanography, evolutionary biology) or for careers in fields such as aquaculture, aquarium biology and education, conservation biology and education, environmental consulting, and wildlife biology.

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.
Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.
Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.
- BSC X010/X010L Biology I with Lab or BSC X010C or BSC X040/X040L
- BSC X011/X011L Biology II with Lab or BSC X011C or BSC X041/X041L or ZOO X010/X010L or BOT X010/X010L or BOT X013/X013L
- CHM X045/X045L General Chemistry I with Lab or CHM X045C or CHM X040 and CHM X041
- CHM X046/X046L General Chemistry II with Lab or CHM X046C
- CHM X210/X210L Organic Chemistry I with Lab and CHM X211/X211L or (CHM X210C and CHM X211C) or (PHY X053/X053L and PHY X054/X054L) or (PHY X048/X048L and PHY X049/X049L)
- MAC X311 Calculus I or MAC X233 or MAC X253 or MAC X281 or MAC X241
- MAC X312 Calculus II or MAC X282 or MAC X234 or STA X023 or STA X024 or STA X321

REQUIREMENTS FOR THE MAJOR IN MARINE BIOLOGY

Required Supporting Courses for the Major: 32-34 Hours
The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

- CHM 2045 and CHM 2045L General Chemistry I and Laboratory
- CHM 2046 and CHM 2046L General Chemistry II and Laboratory
- CHM 2210 and CHM 2210L Organic Chemistry I and Laboratory
- CHM 2211 and CHM 2211L Organic Chemistry II and Laboratory
- Calculus I: MAC 2241 or MAC 2311 or MAC 2281
- Statistics or Calculus II: STA 2023 or MAC 2242 or MAC 2312 or MAC 2282

One of the Physics Sequences:
- PHYS 2053/2053L General Physics I and PHYS 2054/2054L General Physics II
- PHYS 2048/2048L General Physics I - Calculus Based and PHYS 2049/2049L General Physics II - Calculus Based
Students must receive a C- or better to meet requirements for degree (for progression in Math and CHM, a C is required).

**TOTAL MAJOR HOURS: 38-42**

**Major requirements for the B.S. Degree:**

**Major Core (25-27 hours)**

- **Required Courses (25-27 credit hours)**
  - BSC 2010 and BSC 2010L Cellular Processes and Laboratory
  - BSC 2011 and BSC 2011L Biodiversity and Laboratory
  - PCB 3043 and PCB 3043L Principles of Ecology and Laboratory
  - PCB 3063 and PCB 3063L General Genetics and Laboratory
  - BSC 3312 Marine Biology
  - BSC 4937 Seminar in Marine Biology

  **Choose one of:**
  - BOT 3373C Vascular Plants: Form and Function
  - MCB 3020 and MCB 3020L General Microbiology and Laboratory
  - ZOO 2303 Vertebrate Zoology and BSC 4933 Selected Topics in Biology*
  - ZOO 3205C Advanced Invertebrate Zoology
  - ZOO 3713C Comparative Vertebrate Anatomy

*Selected topics as approved for the major by the Department of Integrative Biology

**Major Electives (13-15 hours)**

- **Elective Courses (13-15 credit hours):**
  - BCH 3023 Introductory Biochemistry
  - BCH 3023L Basic Biochemistry Laboratory
  - BOT 3373C Vascular Plants: Form and Function
  - BOT 4184C Biology of Coastal Plants
  - BSC 4313C Advanced Marine Biology
  - BSC 4933 Special Topics in Biology*
  - GIS 4043C Geographic Information Systems or GIS 5049 GIS for Non-Majors
  - GLY 4734 Beaches and Coastal Environments
  - OCB 6050 Biological Oceanography
  - OCC 6050 Chemical Oceanography
  - OCE 4930 Selected Topics in Marine Science*
  - OCE 6934 Selected Topics in Oceanography*
  - OCG 6051 Geological Oceanography
  - OCP 6050 Physical Oceanography
  - PCB 3712 General Physiology and PCB 3713L General Physiology Laboratory
  - PCB 4674 Organic Evolution
  - PCB 4723 Animal Physiology and PCB 4723L Animal Physiology Laboratory
  - MCB 3020 General Microbiology
  - MCB 3020L General Microbiology Laboratory
  - MCB 4404 Microbial Physiology and Genetics and MCB 4404L Microbial Physiology & Genetics Laboratory
  - MCB 5655 Applied and Environmental Microbiology
  - ZOO 2303 Vertebrate Zoology
  - ZOO 3205C Advanced Invertebrate Zoology
  - ZOO 3407 Biology of Sharks and Rays and ZOO 3407L Biology of Sharks and Rays Laboratory
  - ZOO 4454 Fish Biology and ZOO 4454 Fish Biology Laboratory
  - ZOO 4513 Animal Behavior
  - ZOO 5555C Marine Animal Ecology

*Selected topics as approved for the major by the Department of Integrative Biology

All students majoring in one of the programs offered through the departments of Integrative or Cell Biology, Microbiology and Molecular Biology and entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in USF coursework for their major and/or supporting coursework will be required to change to majors more appropriate to their goals and academic performances. Those majors may not include any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF major coursework or supporting coursework by the beginning of Fall 2009, will also be allowed three (3) D and/or F grades in subsequent terms before being required to choose another major more appropriate to their goals and
academic performances, and not including any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Any continuing USF students who enter USF prior to Fall 2009 and who have earned greater than or equal to one (1) D or F grade in USF coursework for their major coursework or supporting coursework by the beginning of Fall 2009, will be allowed only two (2) more D and/or F grades in subsequent semesters before being required to choose other majors more appropriate to their goals and academic performances, and not including any majors conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Grade Forgiveness will NOT apply to the mandated requirement of changing major.

A minimum of 6 credit hours at the 4000-level should be taken.

A maximum of 6 credit hours may be taken outside of the department with prior approval.

Course Grade Requirement

Please note that some supporting science courses may require a grade of C or better in order to meet the prerequisite requirements for course sequences.

Grading Requirement

A student must receive a C- grade or better in all Department of Integrative Biology and Department of Cell Biology, Microbiology, and Molecular Biology courses and supporting courses in the natural sciences, except if they are used as general elective courses. This specification applies to both USF and transfer courses.

Residency Requirement

A minimum of 20 credits hours of courses must be taken in residency and be applicable to the major. Once a student has matriculated to USF Tampa, he/she is expected to take 100 percent of the required major coursework at USF Tampa.

Research Opportunities

Undergraduate research is a great way to get hands-on experience in what you are studying and learning in your courses, and even to advance biological knowledge. Many students have authored articles based on their participation in on-going research in the Department. Undergraduate research also is a great way to boost your resume and to enhance your application to graduate school or health professional school. Several ways are available to get involved; see http://biology.usf.edu/ib/ug/research/.

To be eligible to receive credit for undergraduate research (BSC 4910), students must have Junior standing, a 3.0 USF GPA, and a 3.0 major GPA. A maximum of 4 credit hours BSC 4910 may be applied to the major electives; see http://biology.usf.edu/bioadvise/ug-research/credit.aspx.

ACCELERATED B.S./M.A.T. PROGRAM

This program intends for students to complete a Bachelor of Science in Marine Biology (College of Arts and Sciences) and an M.A.T. in Secondary Science (College of Education) over the span of five years. Students completing this program will be eligible for high school and/or middle school science teacher certification. Completion of this program requires students to complete 12 credits toward the M.A.T. in Science Education during the senior year of their undergraduate Marine Biology major.

Target students and expected outcomes

The accelerated B.S. in Marine Biology to M.A.T. in Science Education program is a collaborative effort between the College of Arts and Sciences and the College of Education. This program is an attractive and viable career path for students in the Department of Integrative Biology degree programs that results in secondary science teacher certification. Students who complete this program receive the necessary science content and pedagogy coursework to be highly qualified biology teachers at the secondary level.

Description and Requirements

For admission to the program a student must:

1. Have completed 15 hours in the B.S. Marine Biology major upon applying and thirty (30) semester hours in science (includes twenty-five (25) semester hours in biology plus 5 hours of upper-level work in math or supporting science content area) with associated laboratory experiences to be fully admitted as a graduate student in the M.A.T. Science Education program. Evidence of successfully completing all sections of the General Knowledge Test (GKT) is also required for full admission to the graduate program.

2. Have a minimum 3.0 GPA overall; and

3. Have a minimum undergraduate 3.25 GPA in the major.

Undergraduate Degree Requirements for the Bachelor of Science in Marine Biology
B.S. Marine Biology Major Degree Requirements

All Marine Biology major students will complete graduation requirements listed in the undergraduate catalog.

University and College Requirements:

- 120 hours
- 36 hours of general education coursework
- 6 hours upper-level core curriculum (Writing Intensive Capstone and Capstone Experience)
- 42 hour upper-level rule
- Summer rule
- USF Residency - Students must complete 30 hours of the last 60 hours in USF coursework.
- FLENT (Foreign Language Entrance Requirement)
- Writing (Communication) and Mathematics (Computation) Requirements, formerly known as Gordon Rule

Specialization Requirements for Certification in Separate Areas of Science (Grades 6-12):

In order to be eligible for certification in a separate area of science, students must complete a minimum of thirty (30) semester hours in science to include twenty-one (21) semester hours in the area of desired specialization (chemistry, biology, physics, earth-space science).

Marine Biology Major Requirements: 72-74 hours total

- Must receive a C- or better to meet major requirements.
- Cascading prerequisites are strictly enforced. CR = co-requisite, courses that can be taken concurrently.
- Must have fewer than 3 D and/or F grades in the Biology major and supporting science requirement lectures
- Must complete a minimum of 50 percent (20 credit hours) of Marine Biology major requirements at USF Tampa

Biology Core Curriculum: 16 credit hours

- BSC 2010 and BSC 2010L Cellular Processes and Laboratory
- BSC 2011 and BSC 2011L Biodiversity and Laboratory
- PCB 3043 and PCB 3043L Principles of Ecology and Laboratory
- PCB 3063 and PCB 3063L General Genetics and Laboratory

Marine Curriculum: 24 credit hours – minimum of 8 credit hours must be 4000+level

- BSC 3312 Marine Biology
- BSC 4937 Seminar in Marine Biology

Choose one “structure” course from the following:

- BOT 3373C Vascular Plants: Form and Function
- MCB 3020 and MCB 3020L General Microbiology and Laboratory
- ZOO 2303 Vertebrate Zoology and BSC 4933 Selected Topics in Biology*
- ZOO 3205C Advanced Invertebrate Zoology
- ZOO 3713C Comparative Vertebrate Anatomy

Choose 15 credit hours Marine Biology electives from the following courses:

(A minimum of 8 credit hours must be 4000-level or higher courses)

- BCH 3023 Introductory Biochemistry
- BCH 3023L Basic Biochemistry Laboratory
- BOT 3373C Vascular Plants: Form and Function
- BOT 4184C Biology of Coastal Plants
- BSC 4313C Advanced Marine Biology
- BSC 4933 Selected Topics in Biology*
- GIS 4043 Geographic Information Systems or GIS 5049 GIS for Non-Majors**
- GLY 4734 Beaches & Coastal Environments**
- OCB 6050 Biological Oceanography
- OCC 6050 Chemical Oceanography
- OCE 4930 Selected Topics in Marine Science*
- OCE 6934 Selected Topics in Oceanography*
- OCG 6051 Geological Oceanography
- OCP 6050 Physical Oceanography
- PCB 3712 General Physiology and PCB 3713L General Physiology Laboratory
- PCB 4674 Organic Evolution
- PCB 4723 Animal Physiology and PCB 4723L Animal Physiology Laboratory
- MCB 3020 General Microbiology
- MCB 3020L General Microbiology Laboratory
- MCB 4404 Microbial Physiology and Genetics and MCB 4404L Microbial Physiology and Genetics Laboratory
- MCB 5655 Applied and Environmental Microbiology
- ZOO 2303 Vertebrate Zoology
ZOO 3205C Advanced Invertebrate Zoology
ZOO 3407 Biology of Sharks and Rays and ZOO 3407L Biology of Sharks and Rays Laboratory
ZOO 4454 Fish Biology and ZOO 4454L Fish Biology Laboratory
ZOO 4513 Animal Behavior
ZOO 5555C Marine Animal Ecology

Students may also select one or more of the “structure” courses which are NOT being used to meet the “structure” requirement (BOT 3373C, MCB 3020/L, ZOO 2303/BSC 4933, ZOO 3205C, and/or ZOO 3713C).

*Selected topics as approved for the major by the Department of Integrative Biology

**A maximum of six credit hours may be taken from courses offered outside of the Biology departments with prior approval.

Students who complete ZOO 3713C in Spring 2012 and forward only need 14 hours of Marine Bio electives.

*Check the BioAdvise permits page for a list of approved BSC 4933 Selected Topics courses for Marine Biology majors.

Supporting Sciences and Mathematics: 32-34 credit hours

Students must receive a C- or better to meet requirements for degree (for progression in Math and CHM C is required)

CHM 2045 & CHM 2045L General Chemistry I and Lab
CHM 2046 & CHM 2046L General Chemistry II and Lab
CHM 2210 & CHM 2210L Organic Chemistry I and Lab
CHM 2211 & CHM 2211L Organic Chemistry II and Lab
Calculus I: MAC 2241 or MAC 2311 or MAC 2281
Statistics or Calculus II: STA 2023 or MAC 2242 or MAC 2312 or MAC 2282
One of the General Physics sequences:
- PHY 2053/L & 2054/L General Physics I and II/Labs
- PHY 2048/L & 2049/L General Physics Calculus Based I and II/Labs

Graduate Degree Requirements for Accelerated M.A.T in Science Education

PROGRAM REQUIREMENTS

All M.A.T. programs include as an admission requirement the passing of all sections of the General Knowledge Test (GKT). Applicants who can document they lived outside the state or country and did not have access to take the GKT before the application deadline may submit passing Praxis scores or GRE scores to be considered for admission. Whether admitted with passing Praxis scores or acceptable GRE scores, the applicant must submit passing scores on the GKT before the last day of classes of the semester of first enrollment, or admission to the College of Education will be revoked.

Total Minimum Program Hours 39 credit hours minimum

The courses required for the M.A.T. in Science Education are listed below. Please check with the program for other program requirements.

Core Requirements

- SCE 5325 Methods of Middle Grades Science Education
- SCE 5337 Methods of Secondary Science Education
- SCE 6456 Teaching Secondary School Physical and Earth Science
- SCE 6938 Topics in Science Education: Field Practicum
- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
- SCE 5664 Reading and Communication in Science Education
- SCE 6416 Teaching Secondary School Biology
- SCE 6634 Current Trends in Secondary Science Education
- SCE 6947 Internship in Secondary Education for Social Science (PR: CI and passing scores of FTCE exam)
- TSL 5325 ESOL Strategies for Content Area Teachers

Comprehensive Examination

Student’s participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
Passing score on the appropriate subject area exam.
Student’s content degree or equivalent (an admission’s requirement).

Comprehensive Examination

A written narrative exam tailored to the individual student. Exam needs to be completed by two weeks before final exam week of the student’s graduating semester. Exams will only be accepted during fall or spring semester, unless previous contract is established with the student’s advisor.

COURSES (http://ugs.usf.edu/course-inventory/)
Timeline and benchmarks:

1. To be considered for acceptance into the Accelerated B.S. Marine Biology/M.A.T. Science Education program students must have completed a minimum of 15 credit hours in the Marine Biology undergraduate major.

2. Students must have a minimum undergraduate GPA of 3.0 overall, and a minimum GPA of 3.25 in the major and passing scores on all sections of the General Knowledge Test (GKT) to be eligible for the accelerated degree program. Information on the General Knowledge Test on the Florida Teacher Certification section may be found on the webpage: http://www.fl.nesinc.com/

3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program through faculty nomination or student self-nomination, via submission of an Accelerated Program Application Form. Both B.S. and M.A.T. programs will review the applications and approve the nominations. All applications require the approval of the College of Education Graduate Program, the College of Arts and Sciences, and the USF Graduate School.

4. To be promoted to graduate status, students must meet all admission requirements of the M.A.T. in Science Education in the College of Education. Specifically, the following materials must be submitted:
   a. Undergraduate transcripts;
   b. Evidence of possessing a degree in a science discipline (Biology, Chemistry, Physics, Geology, etc.) that is taught in a middle or high school, or comparable coursework in a science teaching field acceptable to the program faculty;
   c. A bachelor's or higher degree in biology or a bachelor's or higher degree with thirty (30) semester hours in science to include twenty-one (21) semester hours in biology with associated laboratory experiences.
   d. Documentation of GKT scores.

5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies.

A comprehensive plan of study to complete the accelerated B.S./M.A.T program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows:

Note: Summer sessions may also be included in the study plan.

First and Second Year
Courses and credits as designated for freshman and sophomore years.

Third Year
Apply for Admission to the Accelerated B.S./M.A.T. program

Fourth Year

Student accepted in M.A.T. in Science Education program complete the following credits:
- SCE 5325 Methods of Middle Grades Science Education
- SCE 5337 Methods of Secondary Science Education
- SCE 6456 Teaching Secondary School Physical and Earth Science
- SCE 6938 Topics in Science Education: Field Practicum

Fifth Year
- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
- SCE 5564 Reading and Communication in Science Education
- SCE 6416 Teaching Secondary School Biology
- SCE 6634 Current Trends in Secondary Science Education
- SCE 6947 Internship in Secondary Education for Social Science (PR: CI and passing scores of FTCE exam)
- TSL 5325 ESOL Education in Content Areas

Comprehensive Examination

Advising Information
BioAdvise: Science Center (SCA) 203; (813) 974-3250
http://biology.usf.edu/bioadvise/
Email: bioadvise@usf.edu

MARINE BIOLOGY FACULTY

This is a limited access program.

Students must meet the following requirements to gain entrance into MMC 2100 – Writing for the Mass Media:

1. 2.75 Overall GPA
2. Completion of ENC 1101 and ENC 1102 with a minimum grade of C not C- in each
3. Minimum of 30 hours (including at least 15 semester hours for which grades and a grade point average have been awarded)
4. Minimum score of 60 percent (120 out of a possible 200 points) on the Mass Communications English Diagnostic Test OR 70 percent (140 out of a possible 200 points) for students who transfer MMC 2100 or its equivalent

All majors must complete MMC 2100 Writing for the Media, and MMC 3602 Mass Communications and Society, with a minimum grade of C not C- before any other Mass Communications course may be taken. Students failing to achieve a minimum grade of C not C- in both MMC 2100 and MMC 3602 will be disallowed as majors in the School.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet Foundations of Knowledge and Learning General Education Requirements thereby transferring maximum hours to the university. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the university's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Students must complete 18 semester hours (may not include ENC or LIT prefix courses) outside the Mass Communications curriculum and beyond the 36 hours of general education requirements prior to entering the university. If these courses are not taken at the community college, they must be completed before the degree is granted. A grade of C (not C-) is the minimum acceptable grade.

Students are encouraged to complete the following prerequisites, or major, support, or elective courses if available, during the program of study at the community college, and when feasible in General Education/ Writing (Communication) and Mathematics (Computation), formerly known as Gordon Rule, courses.

- English Composition (minimum grade of C not C-)
- MMC 3602 Mass Communications and Society

Prior to being admitted to the School of Mass Communications, a student must:

1. Complete a minimum of 30 semester hours including all General Education requirements and six hours of English composition (with a minimum grade of C not C-).
2. Earn a 2.75 overall GPA,
3. Pass a School-administered English Diagnostic Test.

A maximum of nine (9) semester hours in Mass Communications courses will be accepted from a community college or other lower-level program toward a degree in Mass Communications. It is suggested that the nine hours include the equivalent of the School core curriculum and one sequence introductory course. Approval by an appropriate advisor is required.

REQUIREMENTS FOR THE MAJOR IN MASS COMMUNICATIONS

TOTAL MAJOR HOURS: 37-40

Major requirements for the B.A. Degree:

Major Core (6 hours)

The Mass Communications major requires six (6) hours of core curriculum courses (MMC 2100 and MMC 3602) and 31 hours of required and elective sequence courses for a total of 37 hours in Mass Communications within the 124-hour degree requirement. Six hours in Mass Communications writing courses (three hours in addition to MMC 2100) are a part of the graduation requirement.

- 80 hours in courses outside the School of Mass Communications, including 65 hours in liberal arts courses (as approved by the School).
- No more than 44 hours of Mass Communications courses may be applied toward the bachelor's degree within the 124-hour graduation requirement.
GPA Requirements
A 2.5 GPA in Mass Communications courses is required for graduation.

Grading Requirement
No student may graduate with a grade lower than C or C- in any Mass Communications course.

Residency Requirement
At least 22 hours of resident School courses are required.

Other Requirements
Sign Language may be used as an option by Mass Communications majors to fulfill the language requirement.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Other Information
Most Mass Communications courses have prerequisites as specified in the course descriptions (these prerequisites are separate from the State Mandated Common Prerequisites for program admission listed below). Refer to each prerequisite listed to determine progressive prerequisites for each course. Students should also note that the Mass Communications major is a four-semester program at a minimum and the majority of courses are offered only during the day.

All material submitted by students as assignments in writing, reporting, editing, photography and electronic news gathering and production classes is subject to publication or broadcast. The School uses a variety of online, print and electronic media outlets.

MASS COMMUNICATIONS CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN ADVERTISING (ADV)

TOTAL CONCENTRATION HOURS: 34

Concentration Core (31 hours)
Required Courses:
ADV 3008 Introduction to Advertising
ADV 3101 Advertising Creativity
ADV 3300 Advertising Media Strategy
ADV 3500 Advertising Research
ADV 4600 Advertising Management
ADV 4800 Advertising Campaigns
ADV 4940 Advertising Practicum
MMC 4200 History and Principles of Communications Law or MMC 4203 Communication Ethics

Specialization Courses:
Creative Specialization (students are required to take two courses in this specialization area)
ADV 4204 Advanced Advertising Creativity (required)
ADV 4710 Portfolio Building

Media Specialization (students are required to take two courses in this specialization area)
ADV 4301 Advanced Media Strategy (required)
ADV 4310 Digital Media

Other Requirements:
The following courses are required outside the School to complete sequence requirements:
ECO 1000 Basic Economics
MAR 3023 Basic Marketing
Concentration Electives (3 hours)
Electives Requirements: (choose one course)
- JOU 2100 Beginning Reporting
- PUR 3000 Principles of Public Relations
- RTV 3001 Introduction to Telecommunications
- MMC 4936 Selected Topics in Mass Communications Studies*
- Any other Mass Comm course in which prerequisites are met
*Please see the academic advisor for appropriate selected topics courses.

REQUIREMENTS FOR THE CONCENTRATION IN JOURNALISM-NEWS-EDITORIAL (JOU)
TOTAL CONCENTRATION HOURS: 31

Concentration Core (21 hours)
Required Courses:
- JOU 2100 Beginning Reporting
- JOU 3101 Advanced Reporting
- JOU 4181 Public Affairs Reporting
- JOU 4201 News Editing I
- MMC 4200 History and Principles of Communications Law
- MMC 4203 Communication Ethics
- JOU 4206 Newspaper and News Publication Design or PGY 3610C Photojournalism I

Other Requirements:
The following courses are required outside the School to complete sequence requirements:
- ECO 1000 Basic Economics
- PHI 1103 Critical Thinking
- POS 2041 American National Government
- SYG 2010 Contemporary Social Problems
- POS 2112 State and Local Government and Politics or POS 3142 Intro to Urban Politics & Government

Concentration Electives (10 hours)
Ten (10) credit hours, selected with advisor’s approval

REQUIREMENTS FOR THE CONCENTRATION IN JOURNALISM-MAGAZINE (MAG)
TOTAL CONCENTRATION HOURS: 31

Concentration Core (24 hours)
Required Courses:
- JOU 2100 Beginning Reporting
- JOU 3101 Advanced Reporting
- JOU 3308 Magazine Article and Feature Writing
- JOU 4201 News Editing I
- JOU 4212 Magazine Design and Production
- MMC 4200 History and Principles of Communications Law
- MMC 4203 Communication Ethics
- MMC 4420 Research Methods in Mass Communications

Other Requirements:
The following courses are required outside the School to complete sequence requirements:
- ECO 1000 Basic Economics
- CRW 2100 Narration and Description or ENC 3250 Professional Writing
- PHI 1103 Critical Thinking
- POS 2041 American National Government
- SYG 2010 Contemporary Social Problems
- POS 2112 State and Local Government and Politics or POS 3142 Intro to Urban Politics and Government

Concentration Electives (7 hours)
Seven (7) credit hours, selected with advisor’s approval
REQUIREMENTS FOR THE CONCENTRATION IN
BROADCAST NEWS (NWS)
TOTAL CONCENTRATION HOURS: 31

Concentration Core (21 hours)
- JOU 4181 Public Affairs Reporting
- MMC 4200 History and Principles of Communications Law
- MMC 4420 Research Methods in Mass Communications
- RTV 3001 Introduction to Telecommunications
- RTV 3301 Broadcast News
- RTV 4304 TV News
- RTV 4321 Electronic Field Production

Other Requirements:
The following courses are required outside the School to complete sequence requirements:
- PHI 1103 Critical Thinking
- POS 2041 American National Government
- SPC 2608 Public Speaking
- POS 2112 State and Local Government and Politics or POS 3142 Intro to Urban Politics and Government

Concentration Electives (10 hours)
Ten (10) credit hours of elective courses, selected with advisor's approval.

REQUIREMENTS FOR THE CONCENTRATION IN
BROADCAST-PROGRAM AND PRODUCTION (PGM)
TOTAL CONCENTRATION HOURS: 31

Concentration Core (21 hours)
- MMC 4200 History and Principles of Communications Law
- RTV 2100 Writing for Radio and TV
- RTV 3001 Introduction to Telecommunications
- RTV 3301 Broadcast News
- RTV 4542 TV Production and Direction
- RTV 4321 Electronic Field Production
- RTV 4500 Telecommunications Programming and Management

Other Requirements:
The following courses are required outside the School to complete sequence requirements:
- PHI 1103 Critical Thinking
- CRW 2100 Narration and Description or ENC 3310 Expository Writing or ENC 3250 Professional Writing

Concentration Electives (10 hours)
Ten (10) credit hours, selected with advisor's approval

REQUIREMENTS FOR THE CONCENTRATION IN
PUBLIC RELATIONS (PUR)
TOTAL CONCENTRATION HOURS: 31

Concentration Core (27 hours)
- ADV 3008 Introduction to Advertising
- JOU 2100 Beginning Reporting
- MMC 4200 History and Principles of Communications Law or MMC 4203 Communication Ethics
- PUR 3000 Principles of Public Relations
- PUR 3500 Public Relations Research
- PUR 4100 Writing for Public Relations
- PUR 4101 Public Relations Design and Production
- PUR 4401 Public Relations: Issues, Practices, and Problems
- PUR 4801 Advanced Public Relations

Other Requirements:
The following courses are required outside the School to complete sequence requirements:
- ECO 1000 Basic Economics
LIS 2005 Library and Internet Research Skills
MAN 3025 Principles of Management
MAR 3023 Basic Marketing
POS 2041 American National Government
POS 2112 State and Local Government and Politics or POS 3142 Intro to Urban Politics and Government

Concentration Electives (4 hours)
Four (4) credit hours, selected with advisor's approval

MASS COMMUNICATIONS FACULTY

• B.A. - MATHEMATICS (MTH) (CIP = 27.0101 (TRACK 1 OF 4))

TOTAL DEGREE HOURS: 120

http://math.usf.edu/ug/math/

The mathematics program offers a diversity of courses designed not only to enable the student to pursue a profession in mathematics itself, but also to enhance the student's competence in the fields of engineering, the physical sciences, the life sciences, and the social sciences. The program emphasizes the broad nature of modern mathematics and its close associations with the real world and prepares students for careers in industry or secondary education as well as entry into graduate school.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

COP XXXX A Scientific Programming Course designed for Computer Science Majors
MAC X311 Calculus I
MAC X312 Calculus II - Calculus with Analytic Geometry II
MAC X313 Calculus III - Calculus with Analytic Geometry III
MAP X302 Differential Equations
BSC XXXX / XXXXL
CHM XXXX / XXXXL
PHY XXXX / XXXXL
GLY XXXX / XXXXL

REQUIREMENTS FOR THE MAJOR IN MATHEMATICS

TOTAL MAJOR HOURS: 45

Major requirements for the B.A. Degree:

Major Core (30 hours)
Minimum 45 credit hours; 30 credit hours in major coursework and 15 credit hours in concentration coursework.

Upon completing the three requirements below (30 credit hours), students are required to complete one of the following three concentrations: Applied/Computational Mathematics, Pure Mathematics, or General Mathematics.

Core Requirement. Majors must complete the following seven courses (24 credit hours):
MAC 2311 Calculus I or MAC 2281 Engineering Calculus I
MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
MAC 2313 Calculus III or MAC 2283 Engineering Calculus III

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MAS 3156 Vector Calculus
MAP 2302 Differential Equations
MGF 3301 Bridge to Abstract Mathematics
MAS 3105 Linear Algebra

Algebra Requirement: Majors must complete the following course (3 credit hours):
MAS 4301 Elementary Abstract Algebra

Symbolic Computations Requirement. Majors must complete the following course (3 credit hours):
COP 4313 Symbolic Computations in Mathematics

Mathematics-Related Courses (Minimum 6 credit hours):
Students must take two courses in Science or Engineering which are required courses for the majors within those departments. The two courses need not be in the same department. Science courses must include laboratories and be offered by the departments of Cell Biology, Microbiology and Molecular Biology; Chemistry; Geology; Integrative Biology or Physics.

Grading Requirement
In general, grades of C- or better are required for courses in the mathematics major and minor and in the statistics major. However, C- is not an acceptable grade for any course that is being used as a prerequisite for a follow-on course. For these courses a grade of C (2.0 grade points) or better is required. Students whose prerequisites are more than three years old will be expected to take a placement test prior to taking a follow-on course.

Residency Requirement
Majors are required to take a minimum of 12 credit hours of required courses in the department of Mathematics and Statistics at USF.

Other Requirements
Those interested in pursuing advanced degrees in Mathematics may also be interested in the Honors Program and/or the Accelerated BA/MA Program, both detailed below.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM
HONORS PROGRAM IN MATHEMATICS
The program is designed for students who wish to obtain a B.A. degree that will indicate unusual strength in the field of mathematics. Successful completion of the program will be prominently displayed on the student's diploma and will be recorded on the official USF transcript of the student's work.

Students are eligible for admission to the program when they:
1. have completed MAS 4301 Elementary Abstract Algebra;
2. have at least a 3.0 GPA for all college courses; and
3. have at least a 3.5 GPA for all Mathematics courses.

Applications are submitted to the Undergraduate Committee in the Department of Mathematics. The requirements for a B.A. degree in mathematics with Honors are as follows:
1. completion of the requirements of the major in Mathematics;
2. completion of MAA 4211 Intermediate Analysis I;
3. completion of MAT 4970 Mathematics Senior Thesis;
4. completion of eight Mathematics courses at or above the 4000-level;
5. at least a 3.0 average for all college courses; and
6. at least a 3.5 average for all Mathematics courses.

At least 3 (and usually 6) credit hours of Mathematics Senior Thesis are required. There will be a thesis committee and the thesis will need to be successfully defended.

ACCELERATED B.A./M.A. PROGRAM
This program is designed for superior students having a solid background in high school mathematics and the ability to handle a fast paced, challenging program leading to a B.A. and M.A. degree in Mathematics in four to five years.
The program meets all the requirements for the BA degree but requires the student to take the graduate-level courses required for the M.A. degree during the last two years in the program. Up to 20 hours of graduate courses may be counted towards the M.A. degree as well as the B.A. degree but not towards the undergraduate major (that is, as general electives).

For admission to the program, a student must:
1. have completed at least 30 hours of college credit including 8 hours of 3000-level or above Mathematics courses;
2. have at least a 3.0 GPA for all college courses; and
3. have at least a 3.5 GPA for all Mathematics courses taken at the 3000-level or above.

To apply for admission, send a letter to the Chair of the Department of Mathematics stating your qualifications and desire to enter the program. An important benefit of this program is that a student is eligible to apply for a graduate teaching assistantship once he or she has completed the undergraduate Mathematics major courses.

Advising Information
Please visit the following website: http://math.usf.edu/resources/advising/ for additional information and all your advising needs.

MATHEMATICS CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN APPLIED/COMPUTATIONAL MATHEMATICS (ACM)

TOTAL CONCENTRATION HOURS: 15

This concentration is designed for majors whose interests lie in applications and/or computations. Majors who complete this concentration will be well prepared to explore problems from science, industry, and government.

Concentration Core (12 hours)
Majors in this concentration must complete at least one (1) course (three credit hours) in each of the following areas: Numerical/Algorithms, Partial Differential Equations and Applications, Discrete Mathematics, and Statistics/Probability. Additionally students must choose one elective course.

Numerical/Algorithms Requirement – Choose one course.
- MAD 4401 Numerical Analysis I
- MAD 4402 Numerical Analysis II
- MAP 4202 Optimization

Partial Differential Equations and Applications Requirement - Choose one course.
- MAP 4341 Introduction to Partial Differential Equations

Discrete Mathematics Requirement - Choose one course.
- MAD 4203 Introduction to Combinatorics
- MAD 4301 Introduction to Graph Theory
- MAD 4504 Theory of Computation
- MAD 4471 Introduction to Cryptography and Coding Theory

Statistics/Probability Requirement - Choose one course.
- STA 4321 Essentials of Statistics
- STA 4442 Introduction to Probability

Concentration Electives (3 hours)
Majors must complete at least one (1) course (three credit hours) from the following electives. This course may NOT be used to fulfill any of the above requirements.
- MAD 4203 Introduction to Combinatorics
- MAD 4301 Introduction to Graph Theory
- MAD 4401 Numerical Analysis I
- MAD 4402 Numerical Analysis II
- MAD 4504 Theory of Computation
- MAD 4471 Introduction to Cryptography and Coding Theory
- MAP 4202 Optimization
- MAP 4341 Introduction to Partial Differential Equations
- MAT 4930 Selected Topics in Mathematics may be taken as an elective with the prior approval of the department chair.

One course from another department which are of high mathematical content may also be taken as an elective, with the prior approval of the department chair.
REQUIREMENTS FOR THE CONCENTRATION IN
GENERAL MATHEMATICS (GMM)
TOTAL CONCENTRATION HOURS: 15

This concentration is designed for students whose interests lie in both applications and theory. Students who complete this concentration will be exposed to a variety of topics to help prepare the student for future endeavors in either aspect.

Concentration Core (6 hours)
Majors in this concentration must complete at least one (1) course (three credit hours) in each of the following areas: Applied Mathematics, Pure Mathematics. Additionally students must choose three elective courses.

Applied Mathematics Requirement (3 credit hours) - Majors in this concentration must complete one (1) course from the list below.
- MAD 4401 Numerical Analysis I
- MAD 4402 Numerical Analysis II
- MAD 4504 Theory of Computation
- MAD 4471 Introduction to Cryptography and Coding Theory
- MAP 4202 Optimization
- MAP 4341 Introduction to Partial Differential Equations
- STA 4321 Essentials of Statistics
- STA 4442 Introduction to Probability

Pure Mathematics Requirement (3 credit hours) - Majors in this concentration must complete one (1) course from the list below.
- MAA 4211 Intermediate Analysis I
- MAA 4212 Intermediate Analysis II
- MAA 4402 Complex Variables
- MAD 4203 Introduction to Combinatorics
- MAD 4301 Introduction to Graph Theory
- MAS 4302 Elementary Abstract Algebra II
- MTG 4214 Modern Geometry
- MTG 4254 Differential Geometry
- MTG 4302 Introduction to Topology

Concentration Electives (9 hours)
Majors in this concentration must complete three (3) courses (9 credit hours) from the list below. These courses may NOT be used to fulfill any of the above requirements.
- MAA 4211 Intermediate Analysis I
- MAA 4212 Intermediate Analysis II
- MAA 4402 Complex Variables
- MAD 4203 Introduction to Combinatorics
- MAD 4301 Introduction to Graph Theory
- MAD 4401 Numerical Analysis I
- MAD 4402 Numerical Analysis II
- MAD 4504 Theory of Computation
- MAD 4471 Introduction to Cryptography and Coding Theory
- MAP 4202 Optimization
- MAP 4341 Introduction to Partial Differential Equations
- MAS 4302 Elementary Abstract Algebra II
- MTG 4214 Modern Geometry
- MTG 4254 Differential Geometry
- MTG 4302 Introduction to Topology
- MAT 4930 Selected Topics in Mathematics may be taken as an elective with the prior approval of the department chair.

One course from another department which are of high mathematical content may also be taken as an elective, with the prior approval of the department chair.
REQUIREMENTS FOR THE CONCENTRATION IN
PURE MATHEMATICS (PMM)
TOTAL CONCENTRATION HOURS: 15

This concentration is designed for majors whose interests lie in mathematical theory. Majors who complete this concentration will be well prepared to continue mathematical studies in graduate school and/or to explore mathematical theory in government and industry.

Concentration Core (12 hours)

Students in this concentration will need to complete Analysis requirement and complete one course in the following areas: Algebra and Discrete Mathematics, Advanced Analysis, Geometry and Topology. Additionally students must choose one elective course.

Analysis Requirement - Majors in this concentration must complete the following course:
MAA 4211 Intermediate Analysis I

Majors in this concentration must also complete one (1) course (three credit hours) in each of the following areas:

Algebra and Discrete Mathematics Requirement - Choose one course.
- MAD 4203 Introduction to Combinatorics
- MAD 4301 Introduction to Graph Theory
- MAD 4504 Theory of Computation
- MAD 4471 Introduction to Cryptography and Coding Theory
- MAS 4302 Elementary Abstract Algebra II

Advanced Analysis Requirement - Choose one course.
- MAA 4212 Intermediate Analysis II
- MAA 4402 Complex Variables
- MAP 4341 Introduction to Partial Differential Equations

Geometry and Topology Requirement - Choose one course.
- MTG 4214 Modern Geometry
- MTG 4254 Differential Geometry
- MTG 4302 Introduction to Topology

Concentration Electives (3 hours)

Majors must complete at least one (1) course (three credit hours) from the following electives. This course may NOT be used to fulfill any of the above requirements.
- MAA 4212 Intermediate Analysis II
- MAA 4402 Complex Variables
- MAD 4203 Introduction to Combinatorics
- MAD 4301 Introduction to Graph Theory
- MAD 4504 Theory of Computation
- MAD 4471 Introduction to Cryptography and Coding Theory
- MAP 4341 Introduction to Partial Differential Equations
- MAS 4302 Elementary Abstract Algebra II
- MTG 4214 Modern Geometry
- MTG 4254 Differential Geometry
- MTG 4302 Introduction to Topology
- MAT 4930 Selected Topics in Mathematics may be taken as an elective with the prior approval of the department chair.

One course from another department which are of high mathematical content may also be taken as an elective, with the prior approval of the department chair.

MATHEMATICS FACULTY

The University of South Florida offers a four year program leading to the Bachelor of Science degree in Medical Technology. The first three years are completed on campus; the fourth year (12 months) is completed at one of three affiliated hospitals in Florida, located in Tampa, St. Petersburg, and Jacksonville. Admission to the fourth year is limited by the number of openings in affiliated hospitals and, at the present time, is competitive. Selection for the clinical program is made by the hospitals and students not admitted to a clinical program will need to select an alternate degree. Generally, hospitals require a minimum GPA of 2.50 to 2.75, and our students admitted to clinical programs in recent years have had a mean GPA of 3.4 or higher.

Students successfully completing this program will be granted a Bachelor of Science degree in Medical Technology.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

**General Biology I with Laboratory**
(e.g. BSC 1010C, BSC 1011C, BSC 1010/BSC 1010L, BSC 1011/BSC 1011L, BSC 2010/BSC 2010L, PCB 2011C, PCB 2131/PCB 2131L, BSC 2111/BSC 2111L, ZOO 2010, ZOO 1010).
USF’s course recommendation: BSC 2010/BSC 2010L.

**Human Anatomy and Physiology I with Laboratory**
(e.g. BSC 1085/BSC 1085L, BSC 1085C, BSC 1093, BSC 2093C, BSC 2085/BSC 2085L, BSC 1011C, BSC 2011, PCB 4703, PCB 3703, PCB 3702, PCB 3702, student’s choice of one of these three labs, PCB 3703C, BSC 2085C, BSC 2023C).
USF’s course recommendation: BSC 2093C or BSC 2085/BSC 2085L.

**Human Anatomy and Physiology II with Laboratory**
(e.g. BSC 1086/BSC 1086L, BSC 1086C, BSC 2094C, ZOO 3733C, ZOO 3731, PCB 3134C, PCB 2131, BSC 1094, BSC 2096, BSC 2011, PCB 2510/PCB 2510L, BSC 2086C).
USF’s course recommendation: BSC 2094C or BSC 2086/BSC 2086L.

**General Microbiology with Laboratory**
(e.g. MCB 3020/MCB 3020L, MCB 2013/MCB 2013L, MCB 2013/MCB 2013L, MCB 3023/MCB 3023L, MCB 3020C, MCB 2010/MCB 2010L).
USF’s course recommendation: MCB 3020C.

**General Chemistry I with Laboratory**
(e.g. CHM 1045/CHM 1045L, CHM 1045C, CHM 2045/CHM 2045L).
USF’s course recommendation: CHM 2045/CHM 2045L.

**General Chemistry II with Laboratory**
(e.g. CHM 1046/CHM 1046L, CHM 1046C, CHM 1040/CHM 1040L, CHM 1041/CHM 1041L, CHM 1046/CHM 1046L, CHM 2046/CHM 2046L).
USF’s course recommendation: CHM 2046/CHM 2046L.

**Organic Chemistry I with Laboratory**
(e.g. CHM 2210/CHM 2210L, CHM 2210C CHM 2210/CHM 2211L, CHM 3210/CHM 3210L, CHM 3210/CHM 3211L).
USF’s course recommendation: CHM 2210/CHM 2210L.

**Organic Chemistry II with Laboratory**
(e.g. CHM 2211/CHM 2211L, CHM 2211C, CHM 2210C, CHM 2210/CHM 2210L, CHM 3211/CHM 3211L, CHM 3210/CHM 3210L, CHM 3210/CHM 3211L, CHM 3210C).
USF’s course recommendation: CHM 2211/CHM 2211L.

**Statistics**
(e.g. STA 2023, STA 2014, STA 2022, STA 2024, STA 2321, STA 3023).
USF’s course recommendation: STA 2023.

REQUIREMENTS FOR THE MAJOR IN MEDICAL TECHNOLOGY
TOTAL MAJOR HOURS: 85

Major requirements for the B.S. Degree:

Major Core (85 hours)

- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory
- BSC 2093C Human Anatomy and Physiology I or BSC 2085 Anatomy and Physiology I for Health Professionals and BSC 2085L Anatomy and Physiology Laboratory I for Health Professionals
- BSC 2094C Human Anatomy and Physiology II or BSC 2086 Anatomy and Physiology II for Health Professionals and BSC 2086L Anatomy and Physiology Laboratory II for Health Professionals
- BSC 2093C Human Anatomy and Physiology I or BSC 2085 Anatomy and Physiology I for Health Professionals and BSC 2085L Anatomy and Physiology Laboratory I for Health Professionals
- MCB 3020 General Microbiology and MCB 3020L General Microbiology Lab
- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Laboratory
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry Laboratory I
- CHM 2211 Organic Chemistry II
- CHM 2211L Organic Chemistry Laboratory II
- STA 2023 Introductory Statistics I
- MAC 1105 College Algebra (or MAC 1147 Precalculus Algebra and Trigonometry)
- PCB 3023 Cell Biology
- PCB 3023L Cell Biology Laboratory
- PCB 4234 Principles of Immunology (preferred) or HSC 4504 Public Health Immunology
- MCB 4115 Determinative Bacteriology and MCB 4115L Determinative Bacteriology Lab
- BCH 3053 General Biochemistry

Upon successful completion of this curriculum and acceptance by one of the affiliated hospitals, the student will complete twelve (12) continuous months of training at that hospital. Hospital programs begin in July or early August each year and some hospitals also have programs beginning in January. During this clinical training, the student will continue to be registered as a full-time student of the University and will receive a total of 30 credit hours of coursework in the following courses, which will be taught at the hospital:

- MLS 4038 Introduction to Medical Technology
- MLS 4861 Clinical Immunology
- MLS 4863 Clinical Microbiology
- MLS 4865 Clinical Immunohematology
- MLS 4860 Clinical Urinalysis and Body Fluid
- MLS 4862 Clinical Hematology
- MLS 4864 Clinical Chemistry
- MLS 4866 Clinical Laboratory Management and Education

All courses required for admission to the clinical program must be completed prior to beginning the clinical year.

These requirements include:

1. A minimum of 90 semester hours (excluding physical education).
2. All university FKL Liberal Arts requirements.
3. Writing (Communication) and Mathematics (Computation) Requirements, formerly known as Gordon Rule.
4. All sciences and mathematics requirements listed below, including common prerequisites and those specific to USF, with a "C" or higher in each course.

General Electives. Courses over and above the required courses should be taken to complete a 120 hour program. Additional courses in computer programming, economics, management, engineering, statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment.

Transfer Credit: It is strongly recommended that students transferring from community/state colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before they transfer. Even though courses may carry the same common course number, topics covered may vary significantly from school to school.

D/F Policy: The following three departments, the Department of Chemistry, the Department of Cell Biology, Microbiology and Molecular Biology and the Department of Integrative Biology have instituted a procedure to provide students with the best opportunity to progress toward their degree requirements.
Effective Fall 2009, the following D and/or F grade rules apply for students to continue in all of the following majors:

- Biomedical Sciences
- Biology (including the marine science concentration)
- Microbiology
- Chemistry (BA, BS)
- Interdisciplinary Natural Sciences (INS)
- Medical Technology and
- Pre-medical sciences students (PMS) who have not yet declared a major

All students entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in applicable USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF science and math coursework for their major (i.e. Math, Biology, Chemistry and Physics) before Fall 2009, will also be redirected after earning three (3) D and/or F grades in subsequent terms. Upon earning the 3rd D and/or F grade, students will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have earned one (1) or more D or F grades in USF science and math coursework for the major (i.e. Math, Biology, Chemistry and Physics) prior to Fall 2009, will be allowed to count all previous D/F grades as one (1) D/F grade. After Fall 2009, students who earn two (2) additional D and/or F grades (resulting in three (3) total D/F grades) in subsequent terms will be required to choose another major more appropriate to their goals and academic performance, and to one that is not conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Lab only courses are not counted towards the total number of D/F grades earned for the policy. Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

If a student is in violation of the D/F policy, regardless of major, they will no longer be able to take any courses offered by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology, and Molecular Biology.

Grading Requirement

A grade of C or better is required for science and mathematics courses and each supporting course for the Major. All courses in any chemistry major must be taken with letter grade (A, B, C, D, F, I) except those courses which are graded S/U only.

Research Opportunities

The Department of Chemistry offers the opportunity for students to participate in undergraduate research with Chemistry faculty. Students can apply for the Academic Research Experience for Undergraduates (REU) Program and find more information here: http://chemistry.usf.edu/undergraduate/reu/. Students who wish to enroll in an undergraduate research course with a Chemistry faculty member should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in a 0 credit research course. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Academic Advisors in the Department of Chemistry, as well as the Office for Undergraduate Research, can assist students in understanding the various course options.

Advising Information
Department of Chemistry Advising: chemadvise@usf.edu or http://chemistry.usf.edu/advising/.

MEDICAL TECHNOLOGY FACULTY

• B.S. - MICROBIOLOGY (MIC) (CIP = 26.0503)

TOTAL DEGREE HOURS: 120

This degree specializes in the study of bacteria and other microbes, primarily at the cell and molecular level, and focuses on disease-causing microbes. The Microbiology core and elective requirements include specialized microbiology courses necessary to qualify for certification by the National Registry of Microbiologists, American Society of Microbiology, and employment in microbiology and related fields. Many microbiology majors plan to apply to medical or dental school, while others plan careers as professional microbiologists in industry and government. Others become teachers or aspire to graduate training in microbiology.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.

- BSC X010/X010L Biology I with Lab or BSC X010C or BSC X040/X040L or PCB X011C
- BSC X011/X011L Biology II with Lab or BSC X011C or BSC X041/X041L
- CHM X045/X045L General Chemistry I with Lab or CHM X045C or (CHM X040 and CHM X041)
- CHM X046/X046L General Chemistry II with Lab or CHM X046C
- CHM X210/X210L Organic Chemistry I with Lab and CHM X211/X211L or (CHM X210C and CHM X211C) or (PHY X053/X053L and PHY X054/X054L) or (PHY X048/X048L and PHY X049/X049L)
- MAC X311 Calculus I or MAC X233 or MAC X253 or MAC X281 or MAC X241
- MAC X312 Calculus II or MAC X282 or MAC X234 or STA X023 or STA X024 or STA X321

REQUIREMENTS FOR THE MAJOR IN MICROBIOLOGY

Required Supporting Courses for the Major: 32-34 Hours

The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Laboratory
- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Laboratory
- CHM 2211 Organic Chemistry II
- CHM 2211L Organic Chemistry II Laboratory
- MAC 2241 Life Sciences Calculus I and MAC 2242 Life Sciences Calculus II
- or MAC 2281 Engineering Calculus I and MAC 2282 Engineering Calculus II
- or MAC 2311 Calculus I and MAC 2312 Calculus II
- STA 2023 Introductory Statistics I may be substituted for any Calculus II
- PHY 2048/2048L General Physics I and PHY 2049/2049L General Physics II
- or PHY 2053/2053L General Physics II and PHY 2054/2054L General Physics II
Major requirements for the B.S. Degree:

Major Core (30 hours)
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory
- PCB 3023 Cell Biology
- PCB 3023L Cell Biology Laboratory
- PCB 3063 General Genetics
- PCB 3063L General Genetics Laboratory
- MCB 3410 Cell Metabolism
- MCB 3020 General Microbiology
- MCB 3020L General Microbiology Laboratory
- MCB 4115 Determinative Bacteriology
- MCB 4115L Determinative Bacteriology Laboratory
- MCB 4320 Molecular Microbiology

Major Electives (12 hours)
- Students must choose 12 credit hours from the following list:
  - BCH 3053 General Biochemistry
  - BOT 4434C Mycology
  - BSC 4905 Independent Study (1 credit maximum)
  - BSC 5931 Selected Topics in Biology
  - MCB 4313 Industrial Microbiology and Biotechnology
  - MCB 4223 Food Microbiology
  - MCB 4404 Microbial Physiology and Genetics
  - MCB 4404L Microbial Physiology and Genetics Laboratory
  - MCB 4503 Virology
  - MCB 4905 Microbiology Undergraduate Research (1 or 2 credit hrs/semester, no more than 4 credits total)
  - MCB 4933 Selected Topics in Microbiology
  - MCB 4934 Seminar in Microbiology
  - MCB 5206 Public Health and Pathogenic Microbiology
  - MCB 5655 Applied and Environmental Biology
  - MCB 5815 Medical Mycology
  - PCB 4234 Principles of Immunology
  - PCB 4671 Molecular Evolution
  - ZOO 4753 Human Histology and Molecular Pathology of Disease

All students majoring in one of the programs offered through the department of Cell Biology, Microbiology and Molecular Biology and entering USF for the first time, in Fall 2009 or later, who subsequently earn three (3) D and/or F grades in USF coursework for their major and/or supporting coursework will be required to change to majors more appropriate to their goals and academic performances. Those majors may not include any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

All continuing USF students who entered USF prior to Fall 2009 and who have not earned any D or F grades in USF major coursework or supporting coursework by the beginning of Fall 2009, will also be allowed three (3) D and/or F grades in subsequent terms before being required to choose another major more appropriate to their goals and academic performances, and not including any conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Any continuing USF students who enter USF prior to Fall 2009 and who have earned greater than or equal to one (1) D or F grade in USF coursework for their major coursework or supporting coursework by the beginning of Fall 2009, will be allowed only two (2) more D and/or F grades in subsequent semesters before being required to choose other majors more appropriate to their goals and academic performances, and not including any majors conferred by the Department of Chemistry, Department of Integrative Biology or Department of Cell Biology, Microbiology and Molecular Biology.

Grade Forgiveness will NOT apply to the mandated requirement of changing major.
Grading Requirement
A student must receive a C- grade or better in all Department of Cell Biology, Microbiology, and Molecular Biology courses and supporting courses in the natural sciences, except if they are used as general elective courses. This specification applies to both USF and transfer courses.
Please note that some supporting science courses may require a grade of C or better in order to meet the prerequisite requirements for course sequences.

Residency Requirement
A minimum of 20 credits hours of courses must be taken in residency and be applicable to the major. Once a student has matriculated to USF Tampa, he/she is expected to take 100 percent of the required major coursework at USF Tampa.

Research Opportunities
A maximum of 2 credit hours of Undergraduate Research (MCB 4905) may be taken in a single semester, and a maximum of 4 credit hours of Undergraduate Research may be applied as electives.

ACCELERATED B.S/M.S. PROGRAM
This program allows B.S. majors in Microbiology to take graduate courses for the elective part of the Microbiology degree and apply them to a non-thesis M.S. degree in Microbiology. Successful students will be able to earn the M.S. degree in two additional semesters beyond the completion of the B.S. degree.
This accelerated program shares 12 credits between already existing degrees/concentrations:
- B.S. in Microbiology
- M.S in Microbiology (NT)

Target students and expected outcomes
This program will appeal to the more competitive Microbiology majors who would benefit professionally from having the M.S. when they enter the job market but do not want to commit to the longer time a thesis M.S. or a Ph.D. program takes to complete. Professions that do not require bench laboratory experience but desire the broadened knowledge base are targeted. Graduates from this program would be ideally suited for health professions, technology based industry, education and government. We also expect that some students will be interested in doctoral education in the biological or biomedical areas.

Description and Requirements
Biology majors who have completed the following courses may apply to this program:
- PCB 3023 Cell Biology
- PCB 3063 Genetics
- MCB 3410 Cell Metabolism
- MCB 3020 General Microbiology
- MCB 4115 Determinative Bacteriology

Graduate Degree Requirements
Students admitted into the M.S. portion of the program must complete all the requirements for the M.S. degree (non-thesis) within three semesters of admission. The requirement is 30 hours of graduate work with at least 16 of these hours completed at the 6000 level; 26 hours must be formally structured courses; and at least 15 hours must be in Cell, Molecular and Microbiology courses. Students will be required to take 3 core courses from the list below as part of these 26 hours. Of the required 26 hours, 9 hours will be derived from the core Cell, Molecular and Microbiology graduate courses listed below (see associated curriculum). These requirements can be partially met by up to 12 hours of graduate courses taken as undergraduates. Any graduate class taken outside of Cell, Molecular and Microbiology must be approved by the Cell, Molecular and Microbiology Graduate Director. Students should be aware that a B grade or better is required for every graduate class applied to the MS portion of their degree. In addition, students will be required to pass an oral qualifying exam based on a review paper submitted in their final semester. Students must form a committee as part of their action plan to complete their graduate work. This committee will be comprised of at least 3 Cell, Molecular and Microbiology faculty, and will serve as the examination committee for the review paper required as part of the MS portion of their degree. Upon approval of that paper, students must successfully complete a comprehensive oral exam by their committee.

Timeline and benchmarks:
1. Completion of prerequisite upper division courses and application to the accelerated program. Typically students will be in their junior year.
2. Acceptance into the program and an action plan within a semester of application.
3. Students will take up to 12 credits of graduate credit in Cell, Molecular and Microbiology courses following
acceptance into the program. Typically these courses will be taken in the latter half of the junior year and in the senior year. BioAdvise will monitor the progress of the students and ensure they follow their action plan. Students who do not complete at least 9 hours of graduate work by graduation will be dropped from the accelerated M.S. program.

4. GRE exams will be taken in a timely manner so scores will be available for admission to the M.S. portion of the program. Students who do not complete the GRE in time will not be admitted to the accelerated M.S. program.

5. Students admitted to the accelerated program must form a committee prior to the beginning of their first semester in the M.S. portion of the program and must continue to follow the action plan which will be monitored by BioAdvise.

6. Students admitted to the accelerated M.S. program must complete the requirements within three semesters or will be dismissed from the program.

Year 1
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory

Year 2
- MCB 3410 Cell Metabolism
- PCB 3063 General Genetics
- PCB 3063L General Genetics Laboratory
- PCB 3023 Cell Biology
- PCB 3023L Cell Biology Laboratory
- MCB 3020 General Microbiology
- MCB 3020L General Microbiology Laboratory

Year 3
- MCB 4115 Determinative Bacteriology
- MCB 4115L Determinative Bacteriology Laboratory
- Three (3) credit hours of 5000-level elective structured course

Year 4
- MCB 4320 Molecular Microbiology
- Nine (9) credit hours of 5000- or 6000-level elective courses

Year 5
Eighteen (18) hours of graduate coursework - 9 hours of which must be derived from the list below:
- BSC 6932 Selected Topics in Biology
- PCB 6236 Advanced Immunology
- PCB 6525 Molecular Genetics
- MCB 5206 Public Health and Pathogenic Microbiology
- MCB 5655 Applied and Environmental Microbiology
- MCB 5815 Medical Mycology
- Four (4) credit hours of non-structured courses (seminar, independent study, laboratory research)
- Oral exam and review paper done at the end of Year 5

Comprehensive Oral Qualifying Examination
A final comprehensive oral examination is required for all master’s students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two years of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented. Any graduate work counted toward the requirement for the M.S. degree must be completed within five (5) years after matriculation.

Advising Information
Bioadvise: Science Center (SCA) 203, (813) 974-3250
http://biology.usf.edu/bioadvise/
Email: bioadvise@usf.edu.

MICROBIOLOGY FACULTY
• B.A. - PHILOSOPHY (PHI) (CIP = 38.0101)
TOTAL DEGREE HOURS: 120
http://philosophy.usf.edu/

This degree prepares our majors to go on to graduate school, medical school, law school, or choose to enter the workforce in a wide variety of public, private, governmental, and non-profit agencies. Faculty in the department collaborate with an extensive group of disciplines, providing students across campus with a site for interdisciplinary learning and teaching. Given the intensity and rigor of study, including analytical reading and critical writing, our majors make themselves extremely attractive to potential employers.

STATE MANDATED COMMON COURSE PREREQUISITES
Students desiring to transfer to USF should complete an A.A. degree at a Florida College System institution. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the University's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements. Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

There are no State Mandated Common Prerequisites for this program.

REQUIREMENTS FOR THE MAJOR IN PHILOSOPHY
TOTAL MAJOR HOURS: 36

Major requirements for the B.A. Degree:
Major Core (15 hours)
Courses for the major are divided into four groups: history, logic, capstone, and electives. Within the history and elective groups, students have considerable latitude in selecting their courses; however, it is expected that they do so in consultation with their major advisor and Philosophy faculty with a view toward achieving a balanced program of study.

Students pursuing Philosophy as a second major are required to complete 30 hours in Philosophy coursework.

History of Philosophy – 9 credit hours:
Choose three of the following courses:
PHH 3062 History of Western Philosophy: Ancient Philosophy
PHH 3280 Medieval and Renaissance Philosophy
PHH 3420 Early Modern Philosophy
PHH 3442 Late Modern Philosophy
PHH 4440 Continental Philosophy
PHH 4600 Contemporary Philosophy
PHH 4700 American Philosophy
PHH 4820 Chinese Philosophy
PHM 4331 Modern Political Philosophy
PHP 3786 Existentialism
PHP 4000 Plato
PHP 4010 Aristotle
PHP 4410 Kant
PHP 4784 Analytical Philosophy

Logic – 3 credit hours:
Choose one of the following courses:
PHI 3130 Formal Logic (Strongly encouraged)
PHI 2101 Introduction to Formal Logic

Capstone Seminar – 3 credit hours:
PHI 4938 Philosophy Capstone Seminar

Major Electives (21 hours)
Choose seven courses (21 credit hours) from the following prefixes: PHH, PHI, PHM and PHP. (Fifteen credit hours for students taking Philosophy as a second major) No more than six elective hours taken at the 1000 and 2000 level may count toward the Philosophy major. Courses taken to fulfill the nine hours of History of Philosophy requirement (I.) will not count toward elective hours in the major.
Grading Requirement
No grade below C- in any required philosophy course or philosophy elective may count toward the major.

Residency Requirement
No more than six hours of Philosophy electives and three hours of required Philosophy coursework taken at institutions other than USF may count toward the major.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM

Honors Program
The Honors Program in Philosophy allows superior students to pursue philosophical studies at a more advanced level than is customary in undergraduate Philosophy programs. Students in the Honors Program will be required to do independent research and to write and defend an undergraduate thesis.

Admission Criteria:
1. Students must already have declared a major in Philosophy.
2. Students must complete nine (9) hours in Philosophy at the 3000-level or higher (PHI 2101 may count toward the nine hours).
3. Students must have an overall grade point average of 3.5 or better, and their grade point average in Philosophy coursework must be at least a 3.50 or better.
4. Students who wish to be considered for the Honors Program must request to be nominated by a member of the faculty. Once nominated by a faculty member, a majority of the faculty who have taught the student must approve the student's admission to the Honors Program.

Program Requirements:
In addition to completing the requirements for the Major in Philosophy, students must meet the following requirements:
1. Students cannot receive a grade lower than a "B" in any Philosophy course, and their GPA in Philosophy coursework must be at least 3.50 to remain in, or be graduated from, the Honors Program.
2. Students must write a senior thesis and undergo an oral examination on the thesis before a committee of two Philosophy faculty members. Students will register for three hours in directed study in Philosophy (PHI 4905 or IDH equivalent), with supervision of Philosophy faculty, for work on their thesis. Students who are in the Honors College may use the same project to count for both Philosophy Honors and an Honors College thesis. In such cases, the student shall not register for directed study in Philosophy (PHI 4905) as part of completing the thesis.
3. Students must complete 36 credit hours in Philosophy.

Other Information
Students pursuing Philosophy as a second major are required to complete 30 hours in Philosophy coursework. To do so they must make a written request to the Undergraduate Director at the time they declare their Philosophy major.

Advising Information
Academic Advisor: Andrew Bird, 813-974-6957, ajbird@usf.edu
Undergraduate Program Director: Alex Levine, 813-974-5508, levineat@usf.edu

PHILOSOPHY FACULTY
The B.S. program is intended for students planning to pursue graduate studies in physics or a closely related field.

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

- CHM X045/X045L General Chemistry I (with lab) or CHM X040 & CHM X041 or CHM X045C
- CHM X046/X046L General Chemistry II (with lab) or CHM X046C
- MAC X311 Calculus I or MAC X281
- MAC X312 Calculus II or MAC X282
- MAC X313 Calculus III or MAC X283
- PHY X048/X048L General Physics I or PHY X048C
- PHY X049/X049L General Physics II or PHY X049C

REQUIREMENTS FOR THE MAJOR IN PHYSICS

Required Supporting Courses for the Major: 20 Hours
The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Laboratory
- MAC 2311 Calculus I or MAC 2281 Engineering Calculus I
- MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
- MAC 2313 Calculus III or MAC 2283 Engineering Calculus III

TOTAL MAJOR HOURS: 47

Major requirements for the B.S. Degree:
Major Core (42 hours)

- Physics Courses (42 hours):
  - PHY 2048 General Physics I
  - PHY 2048L General Physics I Laboratory
  - PHY 2049 General Physics II
  - PHY 2049L General Physics II Laboratory
  - PHY 3101 Modern Physics
  - PHZ 3113 Mathematical Methods in Physics
  - PHY 3822L Intermediate Laboratory
  - PHY 3220 Classical Mechanics
  - PHY 3323 Electricity and Magnetism I
  - PHY 4823L Advanced Laboratory
  - PHY 4910 Undergraduate Research (2 hours recommended)
  - PHY 4604 Introduction to Quantum Mechanics
  - PHY 4930 Undergraduate Seminar
  - PHY 4324 Electricity and Magnetism II
  - PHY 4523 Statistical Physics
Major Electives (5 hours)
Plus 5 credit hours of Physics electives subject to approval of undergraduate advisor.

Grading Requirement
A minimum grade of "C" is required for all physics classes in the curriculum.

Residency Requirement
A minimum of 20 credit hours of physics courses in residency.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Advising Information
Physics Advising: physics.usf.edu/ug/advising/.

PHYSICS FACULTY

• B.A. - PHYSICS (PHY) (CIP = 40.0801 (TRACK 1 OF 2))
TOTAL DEGREE HOURS: 120
http://physics.usf.edu/ug/degree/

The B.A. program is designed for students who are not currently planning to attend physics graduate school and/or who want to pursue parallel studies in other fields such as mathematics, biology, chemistry, computer science, engineering, business, pre-med, pre-law, and teacher education.

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

CHM X045/X045L General Chemistry I (with lab) or CHM X040 & CHM X041 or CHM X045C
CHM X046/X046L General Chemistry II (with lab) or CHM X046C
MAC X311 Calculus I or MAC X281
MAC X312 Calculus II or MAC X282
MAC X313 Calculus III or MAC X283
PHY X048/X048L General Physics I or PHY X048C
PHY X049/X049L General Physics II or PHY X049C
REQUIREMENTS FOR THE MAJOR IN PHYSICS

Required Supporting Courses for the Major: 20 Hours
The following courses are prerequisite and supporting courses for this major. They are required for the major, but are not counted in the total hours for this major. The degree will not be awarded if these courses have not been taken by the end of the student’s final semester.

- CHM 2045 General Chemistry I
- CHM 2045L General Chemistry I Laboratory
- CHM 2046 General Chemistry II
- CHM 2046L General Chemistry II Laboratory
- MAC 2311 Calculus I or MAC 2281 Engineering Calculus I
- MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
- MAC 2313 Calculus III or MAC 2283 Engineering Calculus III

TOTAL MAJOR HOURS: 33

Major requirements for the B.A. Degree:

Major Core (31 hours)
Physics Courses (33 hours):
- PHY 2048 General Physics I
- PHY 2048L General Physics I Laboratory
- PHY 2049 General Physics II
- PHY 2049L General Physics II Laboratory
- PHY 3101 Modern Physics
- PHZ 3113 Mathematical Methods in Physics
- PHY 3822L Intermediate Laboratory
- PHY 3220 Classical Mechanics
- PHY 3323 Electricity and Magnetism I
- PHY 4823L Advanced Laboratory
- PHY 4930 Undergraduate Seminar
- PHY 4604 Introduction to Quantum Mechanics

Major Electives (2 hours)
Plus two (2) credit hours of Physics electives subject to approval of undergraduate advisor.

Grading Requirement
A minimum grade of "C" is required for all physics classes in the curriculum.

Residency Requirement
A minimum of 20 credit hours of physics courses in residency.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

ACCELERATED B.A./M.A.T. PROGRAM
This program intends for students to complete a B.A. in Physics (College of Arts and Sciences) and a M.A.T. in Secondary Science (College of Education) over the span of five years. Students completing this program will be eligible for high school and/or middle school science teacher certification. Completion of this program requires students to complete 12 credits toward the M.A.T. in Science Education during the senior year of their B.A. in Physics.

This accelerated program shares 12 credits between already existing degrees/concentrations:
- B.A. in Physics
- M.A.T. in Science Education

Target students and expected outcomes
The accelerated Bachelor's to M.A.T. in Science Education program is a collaborative effort between the College of Arts and Sciences and the College of Education. This program is an attractive and viable career path for students in
the Department of Physics degree programs that results in secondary science teacher certification. Students who complete this program receive the necessary science content and pedagogy coursework to be highly qualified physics teachers at the secondary level.

Description and Requirements
For admission to the program a student must:
1. Have completed 15 hours in the B.A. in Physics major upon applying and thirty (30) semester hours in science (includes twenty-five (25) semester hours in physics plus 5 hours of upper level work in math or minor science content area) with associated laboratory experiences to be fully admitted as a graduate student in the M.A.T. Science Education Program. Evidence of successfully completing all sections of the General Knowledge Test (GKT) is also required for full admission to the graduate program
2. Have a minimum 3.0 GPA overall; and
3. Have a minimum undergraduate 3.25 GPA in the major.

Undergraduate Degree Requirements for the B.A. in Physics

B.A. in Physics Degree Requirements
All Physics, BA students will complete graduation requirements listed in the undergraduate catalog. Specifically, according to the BOG Articulation Regulation 6A-10.030; earn a minimum of 42 semester hours of upper-level work (courses numbered 3000 and above), therefore, the Physics, BA students will take 18 credits of additional 3000+ level coursework in addition to their required major and exit courses listed below.

Required Physics Courses – 33 credit hours
PHY 2048 General Physics I
PHY 2048L General Physics I Lab
PHY 2049 General Physics II
PHY 2049L General Physics II Lab
PHY 3101 Modern Physics
PHZ 3113 Mathematical Methods in Physics
PHY 3822L Intermediate Lab
PHY 3220 Classical Mechanics
PHY 3323 Electricity and Magnetism I
PHY 4823L Advanced Laboratory
PHY 4930 Undergraduate Seminar
PHY 4604 Introduction to Quantum Mechanics

Physics electives subject to approval of undergraduate advisor.

Required Supporting Courses in Natural Sciences and Mathematics – 20 credit hours
CHM 2045 General Chemistry I
CHM 2045L General Chemistry I Lab
CHM 2046 General Chemistry II
CHM 2046L General Chemistry II Lab
MAC 2311 Calculus I or 2281 Engineering Calculus I
MAC 2312 Calculus II or 2282 Engineering Calculus II
MAC 2313 Calculus III or 2283 Engineering Calculus III

Residency Requirement
A minimum of 20 credit hours of physics courses in residency.

Minimum Grade Requirement
A minimum grade of “C” is required for all physics classes in the curriculum.

Shared B.A./M.A.T. Requirements
According to the BOG Articulation Regulation 6A-10.030; earn a minimum of 42 semester hours of upper-level work (courses numbered 3000 and above), therefore, the Physics B.A. students will take 18 credits of additional 3000+ level coursework in addition to their required major and exit courses listed above. Of these 18 credits, 12 credits will be shared with the M.A.T. Science Education program. The shared courses are listed below:
SCE 6938 Topics in Science Education: Field Practicum
SCE 5325 Methods for Middle Grades Science Education
SCE 5337 Methods for Secondary Science Education
SCE 6456 Teaching the Physical Sciences

Graduate Degree Requirements For Accelerated M.A.T in Science Education

PROGRAM REQUIREMENTS
Note: that all M.A.T. programs include as an admission requirement the passing of all sections of the General Knowledge Test (GKT). Applicants who can document they lived outside the state or country and did not have access to take the GKT before the application deadline may submit passing Praxis scores or GRE scores to be considered for
Whether admitted with passing Praxis scores or acceptable GRE scores, the applicant must submit passing scores on the GKT before the last day of classes of the semester of first enrollment, or admission to the College of Education will be revoked.

**Total Minimum Program Hours 39 hours minimum**

The courses required for the M.A.T. in Science Education are listed below. Please check with the program for other program requirements.

**Core Requirements**

**Process Core: 33 hours minimum**

- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
- TSL 5325 ESOL Education in Content Areas
- SCE 5564 Reading and Communication Science Education
- SCE 5325* Methods for Middle Grades Science Education
- SCE 5337* Methods for Secondary Science Education
- SCE 6416 Teaching Secondary School Biology
- SCE 6456* Teaching Secondary School Physical and Earth Science
- SCE 6634 Current Trends in Secondary Science Education
- SCE 6938* Topics in Science Education: Field Practicum
- SCE 6947 Internship (PR: CI and passing scores of FTCE exam)

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).

*Shared courses between B.A. Physics and M.A.T. Science Education

**Comprehensive Examination**

A written narrative exam tailored to the individual student. Exam needs to be completed by two weeks before final exam week of the student's graduating semester. Exams will only be accepted during fall or spring semester, unless previous contract is established with the student’s advisor.

**TOTAL: 39 hours**

**Timeline and benchmarks:**

1. To be considered for acceptance into the Accelerated B.A./M.A.T. Physics/Science Education students must have completed a minimum of 15 credit hours in the Physics undergraduate major.

2. Students must have a minimum undergraduate GPA of 3.0 overall, and a minimum GPA of 3.25 in the major and passing scores on all sections of the General Knowledge Test (GKT) to be eligible for the accelerated degree program. You can find information on the General Knowledge Test on the Florida Teacher Certification section of the following webpage: [http://www.fl.nesinc.com/](http://www.fl.nesinc.com/)

3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program through faculty nomination or student self-nomination, via submission of an *Accelerated Program Application Form*. Both B.A. and M.A.T. programs will review the applications and approve the nominations. All applications require the approval of the College of Education Graduate Program, the College of Arts and Sciences, and the USF Graduate School.

4. To be promoted to graduate status, students must meet all admission requirements of the M.A.T. in Science Education in the College of Education. Specifically, the following materials must be submitted:
   a. Undergraduate transcripts; and evidence of possessing a degree in a science discipline (biology, chemistry, physics, geology, etc.) that is taught in a middle or high school, or comparable coursework in a science teaching field acceptable to the program faculty. Note, to teach secondary physics the state of Florida requires: A bachelor's or higher degree in physics or a bachelor's or higher degree with thirty (30) semester hours in science to include twenty-one (21) semester hours in physics with associated laboratory experiences.

   b. Documentation of GKT scores.

5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies.

A comprehensive plan of study to complete the integrated B.A./M.A.T program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows. Summer sessions may also be included in the study plan.
First and Second Year
Courses and credits as designated for freshman and sophomore years.

Third Year
Apply for Admission to the Integrated B.A./M.A.T. program

Fourth Year
Student accepted in M.A.T. in Science Education program complete the following shared credits:
- SCE 6938 Topics in Science Education: Field Practicum
- SCE 5325 Methods for Middle Grades Science Education
- SCE 5337 Methods for Secondary Science Education
- SCE 6456 Teaching the Physical Sciences

Fifth Year
- EDF 6432 Foundations of Measurement
- ESE 5342 Teaching the Adolescent Learner
- ESE 5344 Classroom Management for a Diverse School and Society
- TSL 5325 ESOL Education in Content Areas
- SCE 5564 Reading and Communication Science Education
- SCE 6416 Teaching Secondary School Biology
- SCE 6634 Current Trends in Secondary Science Education
- SCE 6947 Internship (PR: CI and passing scores of FTCE exam)

Comprehensive Examination

Teacher Education Programs
For information concerning the degree programs for secondary school teachers, see College of Education, Department of Secondary Education.

PHYSICS FACULTY

• B.A. - POLITICAL SCIENCE (POL) (CIP = 45.1001)
TOTAL DEGREE HOURS: 120
http://gia.usf.edu/ps/ughome/

The undergraduate program leading to the B.A. degree in political science offers a general purpose degree, and a number of more specialized alternatives. The program is designed for students interested in and seeking to understand political problems, issues, and the nature of the political process, as well as the philosophical and legal basis of political structures and processes at local, state, national, and international levels. Satisfying the degree requirements prepares students for positions in the public and private sectors, for law school, for graduate work in political science, international relations, public administration, and related disciplines, for positions in education, and for applied political activity

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.

- 6 credit hours POS, INR or CPO prefix lower-level course
  (ideally POS 1041 or POS 2041, and POS 1112 or POS 2112)
REQUIREMENTS FOR THE MAJOR IN POLITICAL SCIENCE
TOTAL MAJOR HOURS: 36

Major requirements for the B.A. Degree:

Major Core (12 hours)

A minimum of 36 credit hours is required to satisfy the requirements of the major. Students must take the 12 credit hours of required core courses in Political Science coursework. No more than six (6) credit hours can be taken from POS 4905, POS 4910 and POS 4941. Students enrolled in the Washington, D.C. semester program may have this rule altered by their advisor. (A GPA of 3.0 is required to enroll in these courses; the Chair may grant special exception for students with a GPA between 2.70 and 2.99).

- CPO 2002 Introduction Comparative Politics or INR 2002 Introduction to International Relations
  Note that either CPO 2002 or INR 2002 must be taken as a core course. However, the other course not taken as a core course may be taken as an elective.
- POS 2041 American National Government
- POT 3003 Introduction to Political Theory
- POS 3713 Empirical Political Analysis

Students should complete POT 3003 and POS 3713 by the end of their junior year; students transferring with 45 credit hours or more are encouraged to complete these courses within their first two semesters in residence at USF.

Students are further advised to not take POS 3713 and POT 3003 in the same semester. Please consult with the Political Science advisor with any questions regarding these recommendations.

Major Electives (24 hours)

Students must choose electives from the seven fields listed below with at least one course from Field I, one course from Field II or III, and one course from any of Fields IV, V, VI, or VII. Core required courses must be completed before a course from a given field or field grouping may be taken.

Field I: Political Theory

- POT 3013 Classical Political Theory
- POT 4064 Contemporary Political Thought
- POT 4054 Modern Political Theory
- POT 4204 American Political Thought
- POT 4936 Selected Topics in Political Theory

Field II: Comparative Government and Politics

- CPO 4034 Politics of the Development Areas
- CPO 4930 Comparative Government and Politics of Select Areas
- CPO 5934 Selected Topics in Comparative Politics
- ASN 3012 Japan Today
- ASN 3014 China Today
- ASN 3030 The Middle East
- EUS 3000 Europe
- EUS 3022 Russia
- LAS 3002 Latin America

Field III: International Relations

- INR 3102 American Foreign Policy
- INR 4403 International Law
- INR 4035 International Political Economy
- INR 4502 International Organizations
- INR 3336 Intelligence and U.S. Foreign Policy
- INR 4254 Africa in World Affairs
- INR 3011 Globalization
- INR 3018 World Ideologies
- INR 3033 International Political Cultures
- INR 3038 International Wealth and Power
- INR 3084 International Terrorism
- INR 3141 Global Security Policy
- INR 3202 International Human Rights
- INR 4083 Conflict in the World
- INR 5086 Issues in International Relations

Field IV: American National and State Governments

- POS 2080 The American Political Tradition
- POS 3182 Florida Politics and Government
### Field V: Urban Government and Politics
- POS 3142 Introduction to Urban Politics and Government
- URP 4050 City Planning and Community Development

### Field VI: Public Policy
- INR 3102 American Foreign Policy
- PUP 4203 Environmental Politics and Policy
- PUP 4002 Public Policy
- PUP 4323 Women and Politics
- PUP 5607 Public Policy and Health Care
- URP 4050 City Planning and Community Development

### Field VII: Law and Politics
- INR 4403 International Law
- POS 3691 Introduction to Law and Politics
- POS 4614 Constitutional Law I
- POS 4624 Constitutional Law II
- POS 3283 Judicial Process and Politics
- POS 3697 Environmental Law
- POS 4693 Women and Law I
- POS 4694 Women and Law II

The following courses are not included within any of the seven fields, but may still be used as elective hours:
- PAD 3003 Introduction to Public Administration
- POS 4936 Senior Seminar
- PAD 4204 Public Financial Administration
- POS 4941 Field Work
- POS 4905 Independent Study
- POS 4970 Honor Thesis
- POS 4910 Individual Research
- POS 3931 Selected Topics
- POT 4109 Politics and Literature
- POT 4936 Selected Topics in Political Theory

### Grading Requirement
A grade of C- or better is required in all core courses.

### Residency Requirement
Students transferring credit hours toward a major in Political Science must complete a minimum of 21 credit hours within the Department, regardless of the number of credits transferred.

### Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

### Internship Opportunities
Political Science has a fieldwork program that allows students to obtain part-time internships with state and local government and with political parties at the state and local level. Academic credit is available for such internships. For further information, please refer to [http://gia.usf.edu/el/](http://gia.usf.edu/el/).
Other Information

The Political Science major offers a pre-law plan designed for undergraduate students who are considering a career related to law (courses on Law and Politics are listed under Field VII of the Political Science undergraduate curriculum). The pre-law plan is available to students of all majors. The courses making up the field are of particular interest to law-oriented students but may be taken by others as well. Those following the pre-law plan are recommended to complete courses that can help them develop necessary skills to study law. Students receive the skills and information needed for entry into a number of law-related positions in business and government. Please see the departmental undergraduate advisor to obtain more information about the pre-law plan and refer to http://gia.usf.edu/prelaw/.

Prior to admission to law school, a student must take the Law School Admission Test (LSAT), as given by the Educational Testing Service of Princeton, New Jersey.

Students should plan to take the test at least one year prior to planned enrollment in law school.

Advising Information

To contact an advisor and schedule an appointment, please go to: http://gia.usf.edu/advisor/.

POLITICAL SCIENCE FACULTY


• B.A. - PSYCHOLOGY (PSY) (CIP = 42.0101)

TOTAL DEGREE HOURS: 120

http://psychology.usf.edu/ug/major/

The undergraduate program in Psychology offers the student a well-rounded liberal arts education. In addition, the program provides excellent training for qualified students who wish to pursue graduate work in such disciplines as Clinical, Cognitive and Neural Sciences or Industrial Psychology, Education, Gerontology, Counseling, Management, Medicine, Law, and other human service programs. The undergraduate major emphasizes the breadth of psychology while allowing the student some electives to pursue in depth a particular aspect of the field. Interested undergraduate majors may apply for admission to the Honors Program.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.
Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

- BSC X0XX General Biology course (or BSC X20X or ZOO X010)
- PSY X012 Introduction to Psychological Science
- PSY XXXX Any other lower-level Psychology course within the Psychology inventory (i.e., CLP, DEP, EAB, EXP, INP, PCO, PPE, and PSB prefixes).
- STA XXXX Any level Statistics course

**REQUIREMENTS FOR THE MAJOR IN PSYCHOLOGY**

**TOTAL MAJOR HOURS: 34**

**Major requirements for the B.A. Degree:**

**Major Core (25 hours):**

Majors must complete at least 34 credit hours of specified Psychology major coursework.

**Introductory Psychology Requirements (10 credit hours):**

- PSY 2012 Introduction to Psychological Science
- PSY 3204 Psychological Statistics or any approved statistics course
- PSY 3213 Research Methods in Psychology

After the introductory psychology requirements, students may choose among courses within the following categories to satisfy the remaining requirements.

**One Methods Course: (3 credit hours):**

- CLP 4433 Psychological Tests and Measurements
- PSY 4205 Experimental Design and Analysis

**Two Courses in Cognitive and Neural Sciences (6 credit hours):**

- EXP 4204C Perception
- EXP 4404 Psychology of Learning
- PSB 4004C Physiological Psychology
- EXP 4304 Motivation
- EXP 4680C Cognitive Psychology

**Two Courses in Social/Applied Psychology (6 credit hours):**

- CLP 4143 Abnormal Psychology
- INP 4004 Industrial Psychology
- SOP 4004 Social Psychology
- DEP 4053 Developmental Psychology
- PPE 4003 Personality

**Major Electives (9 hours):**

**Psychology Elective Courses (9 credit hours):**

If a student takes PSY 3204 to meet the statistics requirement, the student must take three Psychology elective courses (9 credit hours). However, if a student took a different statistics course, the student must take four Psychology elective courses (12 credit hours).

The Psychology elective courses may be chosen from the courses listed in the above categories beyond the required number for each group and/or any of the following:

- PSB 3444 Drugs and Behavior**
- GEY 4612 Psychology of Aging**
- CBH 4004 Comparative Psychology
- CLP 4414 Behavior Modification
- CLP 4941 Community Practicum
- SOP 4330 The Social Psychology of HIV/AIDS
- SOP 4702 Psychology of Gender**
- CLP 4314 Health Psychology**
- PSY 4215 Discovering Research in Psychology
- PSY 4913 Directed Study (Instructor's permission is required to take this course)
- PSY 4931 Select Topics: Seminar (Generally this course require the instructor's permission.)

**No prerequisite required.
PSY 3204 or other approved statistics course is the prerequisite to PSY 3213. PSY 3213 is the prerequisite to all of the upper-level Psychology coursework, with the exception of CLP 4314 Health Psychology, PSB 3444 Drugs and Behavior, SOP 4702 Psychology of Gender, and GEY 4612 Psychology of Aging.

No more than a total of three (3) hours of PSY 4913 Directed Study or PSY 4970 Honors Thesis or CLP 4941 Community Practicum may count toward the major.

PSY 4931 Select Topics, may be repeated three (3) times for credit under three different topics.

DEP 3103 Child Psychology, SOP 3742 Psychology of Women, SYP 3000 Social Psychology, PSY 4932 Honors Seminar and PSY 4974 Honors Psych Seminar Second do not count toward the major requirements.

Department of Psychology students are expected to complete their major coursework in a timely fashion. Students who receive a total of three (3) D and/or F grades in Psychology major coursework will no longer be eligible to continue in the Psychology major and will be required to change their major to a field outside of the Department of Psychology. Grade forgiveness will not exclude a D or F grade from counting for this rule.

Students who began as Psychology majors prior to Fall 2012 will be provided a phase-in period. Specifically, students who accumulated D and/or F grades in Psychology coursework at USF prior to Fall 2012 will be allowed to count any and all prior non-pass grades as one (1) D/F grade. Beginning Fall 2012, these students can still receive two (2) more D and/or F grades at USF before being required to choose a new major.

Once Psychology major students have received three (3) D and/or F grades in Psychology major coursework, they will be removed from all Department of Psychology courses for which they are currently registered, removed from the Psychology major and placed into a non-major code, and emailed the notice of changes to their @mail.usf.edu account. Students will then need to select a new major, declare the new major with the appropriate college, and register for courses which apply to their new major.

The D/F Rule application is final and effective from the beginning of Fall 2012. To be considered for an appeal, a student must meet at least one of the following criteria:

1. Can (and must) complete all degree or minor requirements within one semester, with no more than 10 hours of Psychology area requirements.
2. No longer have 3 D/F grades because the Academic Regulations Committee approved a late withdrawal/drop for one or more of the Psychology courses.
3. No longer have 3 D/F grades because of an instructor change of grade in one or more of the Psychology area courses.

To appeal, the student must send an email to psychad@usf.edu; in the Subject line indicate D/F Appeal and in the body include name, student's U# and a complete explanation of the reason for the appeal. Appeals will be adjudicated by the Undergraduate Coordinator and students notified of results by email.

Undergraduate Coordinator decisions may be appealed in writing to the Psychology department's Undergraduate Program Committee.

GPA Requirements
A major GPA of 2.0 minimum is required for graduation.

Course Grade Requirement
A C- is allowable for individual courses.

Grading Requirement
A minimum grade of "C-" or better must be attained in each course in the major, except for PSY 2012, PSY 3204 (or other qualifying statistics course) and PSY 3213, where a C or better is required.

Residency Requirement
Students transferring credit hours toward a major in Psychology must complete a minimum of 15 credit hours within the Department at USF, regardless of the number of credit hours transferred.

Research Opportunities
The Department of Psychology offers the opportunity for students to participate in undergraduate research with Psychology faculty. Students who wish to enroll in an undergraduate research course (PSY 4913 Directed Study) with a Psychology faculty member should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in a 0 credit research course. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Academic Advisors in the Department of Psychology, as well as The Office for Undergraduate Research can assist students in understanding the various course options.
OPTIONAL HONORS PROGRAM

Psychology Honors Program

The purpose of the Honors Program is to provide a select group of qualified undergraduate Psychology majors an opportunity to undertake an intensive individualized research experience. The culmination of the Honors Program is the completion and defense of an honors thesis. Application for the program will take place during the first semester of the student's junior year or, typically, prior to completion of 90 semester credits. Admission to the program is competitive and based on the student's overall academic record, performance in psychology courses, a letter of recommendation from a member of the Department of Psychology's faculty, agreement of a faculty member to serve as the thesis advisor, and strong performance in the Discovering Research in Psychology course, if offered.

Successful completion of the program requires:

- A GPA of 3.50 in all major coursework,
- An overall GPA of 3.25 at USF, and,
- Completion of 43 hours in Psychology including PSY 4932 Honors Seminar, PSY 4974 Honors Seminar Second Semester, and 6 hours of PSY 4970 Honors Thesis.

Please see the Department of Psychology’s website (http://psychology.usf.edu) for details and the application form.

Advising Information

Department of Psychology Undergraduate Advising: psychad@usf.edu or http://psychology.usf.edu/ug/advising/.

PSYCHOLOGY FACULTY


• B.S. - QUANTITATIVE ECONOMICS AND ECONOMETRICS (QEE)
  (CIP = 45.0601)
  TOTAL DEGREE HOURS: 120
  http://economics.usf.edu/undergraduate/

The B.S. in Quantitative Economics and Econometrics is a baccalaureate degree focusing on the more analytical and applied aspects of economics, including forecasting, program and business evaluation, benefit/cost analysis and economic impact analysis.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida college System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

  ECO X013 Economic Principles: Macroeconomics or ECO XXXX
  ECO X023 Economic Principles: Microeconomics or ECO XXXX
REQUIREMENTS FOR THE MAJOR IN
QUANTITATIVE ECONOMICS AND ECONOMETRICS
TOTAL MAJOR HOURS: 33

Major requirements for the B.S. Degree:

Major Core (30 hours)

ECO 2013 Economic Principles: Macroeconomics
ECO 2023 Economic Principles: Microeconomics
ECO 2052 Analytical Tools for Economists
ECO 3101 Intermediate Price Theory
ECO 3203 Intermediate Macroeconomics
ECO 4401 Introduction to Mathematical Economics
ECO 4421 Introduction to Econometrics
STA 2023 Introductory Statistics I

Choose two of the following courses:
ECO 4105 Advanced Price Theory
ECO 4201 Advanced Macroeconomics Theory
ECO 4935 Selected Topics in Economics: Forecasting and Time Series Analysis

Major Electives (3 hours)

ECO 3703 International Economics
ECO 4303 History of Economic Thought
ECO 4504 Public Finance
ECO 4704 International Trade and Policy
ECP 3203 Labor Economics
ECP 3302 Environmental Economics
ECP 3403 Industrial Organization
ECP 3413 Economics of Regulation and Antitrust
ECP 3530 Economics of Health
ECP 3613 Urban Economics
ECP 3623 Regional Economics
ECP 4006 Economics of Sport
ECP 4451 Law and Economics
ECP 4505 Economics of Crime
ECP 4510 Economics of Education
ECS 3013 Economic Development
ECS 4003 Comparative Economic Systems

NOTE: ECO 1000 (if taken before both ECO 2013 and ECO 2023) if student receives a C- or better may be substituted for a maximum of 3 hours of upper level elective credit.

• MAC 2233 Business Calculus or MAC 2311 Calculus I (or the equivalent) is an acceptable substitute for ECO 2052.
• QMB 3200 Business and Economics Statistics II is an acceptable substitute for STA 2023.
• ECO 2052, MAC 2233 Business Calculus, or MAC 2311 Calculus I (or the equivalent) must be taken as a prerequisite for ECO 3101 and ECO 3203.
• ECP 3703 Managerial Economics may be substituted for ECO 3101. Students may not take both for credit.
• No more than 3 hours credit can be applied toward a major from ECO 4905 and/or ECO 4914.
• Economics majors taking coursework at the other USF institutions may not be able to fulfill all Economics course requirements at those institutions.
• All students entering USF for the first time, in Fall 2012 or later, who earn 3 (three) D and/or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100) and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) will be required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through the College of Arts and Sciences.
• All continuing USF students who entered USF prior to Fall 2012 and who have not earned any D or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100) and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) by the beginning of Fall 2012, will also be allowed 3 (three) D and/or F grades in those courses before being required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through the College of Arts and Sciences.
• All continuing USF students who entered USF prior to Fall 2012 and who have earned 1 (one) or more D or F grades in any of the following courses at USF: ECO 2013, ECO 2023, ECO 3101, ECO 3203, STA 2023 (or QMB 2100), and ECO 2052 (or MAC 2233 or MAC 2311 or equivalent) by the beginning of Fall 2012, will only be allowed 2 (two) more D and/or F grades in those courses before being required to change their major to a major more appropriate to their goals and academic performance, and to a major that is not conferred by the Department of Economics through the College of Arts and Sciences.

• Grade Forgiveness will NOT apply to the mandated requirement of changing majors.

• Appeals to the required change of major will be handled in the Economics Department and ONLY those students whose appeal is based on exceptional circumstances will be considered.

Course Grade Requirement
Students must obtain a grade of "C-" or higher in ECO 3101 or ECP 3703 (formerly ECO 3100) in order to enroll in any course for which ECO 3101 or ECP 3703 is a prerequisite.

Grading Requirement
Students must obtain a grade of "C-" or higher in all courses required for the major or minor in Economics.

Residency Requirement
At least 18 credit hours of Economics upper-level coursework must be taken in residence at USF.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Advising Information
Advisors in the College of Arts and Sciences or the Transitional Advising Center will be available to assist students in the selection of a new major in their respective colleges.
Department of Economics; econadvise@usf.edu.

QUANTITATIVE ECONOMICS AND ECONOMETRICS FACULTY

• B.A. - RELIGIOUS STUDIES (REL) (CIP = 38.0201)
TOTAL DEGREE HOURS: 120
http://religious-studies.usf.edu/ugrad/requirements/

In Religious Studies, students are exposed to a cross-cultural and multi-disciplinary study of the way in which both individuals and civilizations are deeply influenced by human religious experience. The goal is to enable the educated person to understand better the various ways in which religious values and institutions shape human behavior through a comparative study of religions and cultures. Such an education is invaluable for careers as diverse as journalism, law, medicine, business, as well as careers more directly related to the practice of religion. Majors in Religious Studies will also find courses designed to give them the methodological, theoretical and linguistic skills needed to go on to advanced graduate study in the field.

STATE MANDATED COMMON COURSE PREREQUISITES
Students desiring to transfer to USF should complete an A.A. degree at a Florida College System institution. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the University's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements. Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.
There are no State Mandated Common Prerequisites for this program.
REQUIREMENTS FOR THE MAJOR IN RELIGIOUS STUDIES
TOTAL MAJOR HOURS: 36

Major requirements for the B.A. Degree:

Major Core (36 hours)
Students must choose a total of 36 credit hours from Religious Studies courses. Transfer students may not apply more than 12 hours taken elsewhere toward the major at the University of South Florida.

Students declaring Religious Studies as a second major need to complete 30 credit hours. To do so they must make a written request to the Undergraduate Director at the time they declare the second major.

All majors must take the following (12 credit hours):

One of the following courses (only one will count toward Religious Studies requirements):
- REL 2300 Introduction to World Religions
- REL 2306 Contemporary World Religions
- REL 3308 World Religions
- REL 3040 Introduction to Religious Studies
- REL 3043 Introduction to Major Religious Texts
- REL 4931 Seminar in Religion

Completion 24 additional credit hours that satisfy the following requirements:

Complete 24 additional credit hours of Religious Studies courses, of which at least 18 credit hours must be at the 3000- and/or 4000-level (see listing below) and of which no more than 6 credit hours can be the following variable credit individualized courses: REL 3900 Directed Readings or REL 4910 Undergraduate Research.

- REL 2166 Introduction to Religion and Ecology
- REL 2210 Hebrew Bible/Old Testament
- REL 2240 Introduction to the New Testament
- REL 3101 Religion and Popular Culture
- REL 3111 The Religious Quest in Contemporary Films
- REL 3114 Comedy, Tragedy, and Religion
- REL 3116 Religion and Contemporary American Holidays
- REL 3117 Religion and Contemporary American Sports
- REL 3120 Religion in America
- REL 3131 New Religions in America
- REL 3132 Witchcraft and Paganism in America
- REL 3140 Religion, Culture, and Society
- REL 3145 In Search of the Goddess
- REL 3146 Women and Religion
- REL 3170 Religion, Ethics and Society Through Film
- REL 3191 Life After Death
- REL 3280 Biblical Archaeology
- REL 3303 Comparative Religion: Judaism and Islam
- REL 3308 World Religions (This course may not be taken as an elective if it was taken to fill the major core requirement.)
- REL 3318 Introduction to Chinese Religion
- REL 3330 Religions of South Asia
- REL 3335 Gods and Goddesses of India
- REL 3340 Buddhism Truths and Paths
- REL 3363 Introduction to Islam
- REL 3367 Islam in the Modern World
- REL 3375 Issues in Caribbean Religions
- REL 3380 Native American Religions
- REL 3420 Contemporary Religious Thought
- REL 3444 Womanist Vision in Religion
- REL 3465 Religion and the Meaning of Life
- REL 3500 History of Christianity
- REL 3505 Introduction to Christianity
- REL 3561 Roman Catholicism
- REL 3602 Classics of Judaism
- REL 3607 Introduction to Judaism
- REL 3611 History of Judaism
- REL 3613 Modern Judaism
- REL 3936 Selected Topics
REL 4108 Religion and Food
REL 4113 The Hero and Religion
REL 4133 Mormonism in America
REL 4171 Contemporary Christian Ethics
REL 4177 Comparative Religious Ethics
REL 4188 Religion and Ecology Seminar
REL 4193 Comparative Mysticism
REL 4213 Early Jewish Literature
REL 4215 Ancient Israel and the Development of the Hebrew Bible
REL 4216 Who Wrote the Bible (Genesis-Kings)
REL 4250 Jesus’ Life and Teachings
REL 4252 New Testament II: Pauline Letters
REL 4291 Women and the Bible
REL 4333 Hindu Texts and Contexts
REL 4499 Classics of Christian Thought
REL 4566 Old Order Anabaptists
REL 4936 Selected Topics

Grading Requirement
Only letter grades of at least C- or better will be counted toward the minimum of 24 credit hours taken at the University of South Florida for transfer students or 36 (for non-transfer students) credit hours necessary to complete the 36 credit hours required for the major.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

OPTIONAL HONORS PROGRAM
The purpose of the Honors Program in Religious Studies is to provide outstanding undergraduates with advanced and individualized learning opportunities in Religious Studies and their areas of special interest in this field. In addition it will serve to facilitate more direct contact between students in the program and their faculty mentors. In this program, students who have demonstrated significant academic achievement will inquire into issues and questions in the study of religion at an advanced level under the guidance of faculty members with demonstrated expertise in their fields of study and a strong commitment to teaching. Upon completion of the program, the student's transcript will state that the student graduated with Honors in Religious Studies. Application to the program should be submitted during a student's junior year. The Honors Committee will review all applicants before selecting no more than 10 individuals for the Honors Programs. Inductees will be notified of their admission to the Honors Program in the Spring term. Honors Program students are exempt from Sr. Seminar (REL 4931) contingent on their completion of the Honors Program. If students do not complete the Honors Program, they are required to complete Sr. Seminar in order to satisfy degree requirements.

Admissions Criteria:
1. Religious Studies majors who have completed at least 70 (and preferably less than 90) hours of course work with an overall GPA of at least 3.25.
2. Completion of REL 3040 Introduction to Religious Studies and at least 12 additional hours of course work in the department of Religious Studies with a GPA of at least 3.5 in the major.
3. A letter of recommendation from a Religious Studies faculty member who is familiar with the applicant's work.
4. A statement from a Religious Studies faculty member expressing her/his willingness to serve as chair of the applicant's thesis committee.
5. A short essay (2-3) pages by the applicant that includes the following:
   • a statement of the applicant's qualifications for the program,
   • the applicant's area(s) of special interest,
   • an explanation of how the program will benefit from the applicant's inclusion in the program, and
   • the applicant's post-graduate plans.
Requirements for Completion of the Departmental Honors:

1. Completion of the requirements for a Religious Studies major with a GPA of 3.5 or higher in the major.
2. Completion of a USF degree with an overall GPA of 3.25 or higher.
3. Completion of five (5) credit hours of "Honors Seminar." Honors students will take the seminar for three credit hours in the fall and two credit hours in the spring.
4. Completion of five (5) credit hours of Thesis/Directed Research for two credit hours in the fall and three credit hours in the spring. Honors students must also complete and present their Honors Thesis in the second semester of their senior year. Students who do not complete this requirement may, upon the recommendation of their major instructor and the Department Honors Program Coordinator, be allowed to continue in special circumstances.

- REL 4911 Undergraduate Research (Honors Thesis) (five credit hours)
- REL 4937 Selected Topics (Honors Seminar)
- REL 4938 Selected Topics (Honors Seminar)

ACCELERATED B.A./M.A. PROGRAM

This program allows B.A. majors in Religious Studies to take graduate courses in the M.A. degree in Religious Studies during their senior year. These shared credits will be applicable to the M.A. degree, thus accelerating the time to completion, with successful students able to earn the M.A. degree in two additional semesters beyond the completion of the B.A. degree.

This accelerated program shares 12 credits between already existing degrees:

- B.A. in Religious Studies
- M.A. in Religious Studies

Target students and expected outcomes

This program builds on the department’s B.A. and M.A. degrees. It will give talented Religious Studies majors the opportunity to take graduate courses and apply them to a non-thesis M.A. in Religious Studies. If successful, students will be able to complete an M.A. two semesters after the B.A. requirements have been met. This will allow them to more expeditiously pursue career opportunities requiring a graduate degree in Religious Studies or pursue Ph.D. studies.

Description and Requirements

For admission to the program, a student must:

1. have completed at least 15 hours in the Religious Studies undergraduate major;
2. have a minimum undergraduate 3.33 GPA overall; and
3. have a minimum undergraduate 3.5 GPA in the major.

Application to the program may be made by any student who has satisfied the minimum requirements. Applications should be addressed to the Religious Studies Graduate Director and should include a statement by the student affirming satisfaction of minimum requirements (with supporting documentation) and a letter of recommendation from a Religious Studies faculty member familiar with the student’s academic performance.

Requirements for the B.A. in Religious Studies

Within the 120-semester hour program listed in the College of Arts and Sciences General Requirement section (including the state mandated common prerequisites), students must choose a total of 36 credit hours from Religious Studies courses. Transfer students may not apply more than 12 hours taken elsewhere toward the major at the University of South Florida. Only letter grades of at least C- will be counted toward the minimum of 24 credit hours taken at the University of South Florida for transfer students or 36 (for non-transfer students) credit hours necessary to complete the 36 credit hours required for the major. Students taking Religious Studies as a second major need to complete only 30 credit hours. To do so they must make a written request to the Undergraduate Director at the time they declare their major.

Required Courses:

- REL 2300 Introduction to World Religions or REL 2306 Contemporary World Religions or REL 3308 World Religions
- REL 3040 Introduction to Religious Studies
- REL 3043 Introduction to Major Religious Texts
- REL 4931 Seminar in Religion
- 24 additional credit hours that satisfy the following requirements:
  - At least 18 credit hours of Religious Studies coursework must be at the 3000- and/or 4000-level
  - No more than 6 credit hours can be the following variable credit individualized courses: REL 3900 Directed Readings or REL 4910 Undergraduate Research

Shared B.A./M.A. Requirements

Twelve (12) hours of graduate credit may be shared as follows:
REL 4931 (Senior Seminar) is satisfied by RLG 6035 (Theory and Methods in Religious Studies)
9 elective hours at the 4000 level are satisfied by 9 elective hours at the 6000 level

Graduate Degree Requirements For Accelerated M.A. in Religious Studies
Total Minimum Hours: 36
Core Requirements: 15 hours
RLG 6035 Theory and Methods in Religious Studies
Six hours in Western Religions (Christianity, Judaism, Islam)
Six hours in Eastern Religions (Hinduism, Buddhism, Daoism, Confucianism)
Electives: 21 hours
No more than six hours may come from independent study/directed reading.
No more than six hours may come from departments other than Religious Studies.
No grade lower than a B will be accepted in a graduate course in the B.A./M.A. program. Students earning less than a B in a graduate course must retake the course and earn a B or higher to apply it to their graduate degree.

Timeline and benchmarks:
1. To be considered for acceptance into the Accelerated B.A./M.A. in Religious Studies, students must have completed a minimum of 15 credits in the Religious Studies undergraduate major.
2. Students must have a minimum undergraduate GPA of 3.33 overall, and a minimum GPA of 3.50 in the major to be eligible for the accelerated degree program.
3. Following completion of a minimum of 15 hours in the undergraduate major, students may be considered for acceptance into the accelerated program.
4. Applications should be addressed to the Religious Studies Graduate Director and should include:
   • a statement by the student affirming satisfaction of minimum requirements (with supporting documentation)
   • a letter of recommendation from a Religious Studies faculty member familiar with the student’s academic performance.
5. Students must earn a minimum of a “B” (3.00) in all graduate courses. Failure to earn at least a “B” in a graduate course will result in academic review by the graduate program. Failure to maintain a minimum 3.0 GPA will result in academic probation, according to the procedures of the USF Office of Graduate Studies.

A comprehensive plan of study to complete the integrated B.A./M.A. program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows. Summer sessions may also be included in the study plan.

First and Second Year
REL 2300 Introduction to World Religions, REL 2306 Contemporary World Religions, or REL 3308 World Religions
REL 3040 Introduction to Religious Studies
9 credit hours of undergraduate electives

Third Year (Apply for Admission to the Integrated B.A./M.A. program)
REL 3043 Introduction to Major Religious Texts
6 credit hours of undergraduate electives

Fourth Year (Student accepted in M.A. in Religious Studies program)
RLG 6035 Theory and Methods in Religious Studies
9 credit hours of 6000-level electives
6 credit hours of 6000-level electives

Fifth Year
18 credit hours of 6000-level electives

RELIGIOUS STUDIES FACULTY
Associate Chair: D. deChant; Distinguished University Professor: J.F. Strange; Professor: D. Jorgensen; Associate Professors: M. DeJonge, C. Fisher; Emeritus Professors: D.J. Fasching, S. Garcia, S. Mandell, M.G. Mitchell; Assistant Professors: G. Ben-Herut; Master Instructor: D. deChant; Senior Instructors: P. Schneider; W. Schanbacher; Affiliated Faculty: J. Cavendish, M. Decker, T. Williams, W. Zhang.

• B.A. - RUSSIAN STUDIES (RSS) (CIP = 16.0402)
TOTAL DEGREE HOURS: 120
http://languages.usf.edu/undergraduate/russian/

This degree seeks to prepare its students to understand the language, literature, and culture of Russia. One of the program’s primary goals is to prepare students to be able to interact productively with Russian speakers. The program seeks to develop the highest possible level of proficiency in the Russian language in each of its students as a foundation
for both academic understanding and everyday communication. In order to achieve this goal, the Russian Program treats language and culture as an inextricably bound up nexus that has to be inculcated at every step of the learning process.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

To complete a major in Russian Studies, students should demonstrate proficiency at the intermediate level within the target language. This may be accomplished by completing 6-12 hours within the language or by demonstrated competency at the intermediate level.

REQUIREMENTS FOR THE MAJOR IN RUSSIAN STUDIES

TOTAL MAJOR HOURS: 32

Major requirements for the B.A. Degree:

Major Core (14 hours)

- RUS 2220 Intermediate Russian I
- RUS 2221 Intermediate Russian II
- RUT 3110 Nineteenth-Century Russian Literature in English
- RUT 3111 Twentieth-Century Russian Literature in English

Major Electives (18 hours)

Select 18 hours in 3000- or 4000-level courses:

- RUS 3470 Overseas Study
- RUS 4241 Russian Language & Culture through Film II
- RUS 4900 Selected Topics
- RUS 4905 Directed Study

Up to 10 hours dealing with Russia, such as EUH and INR courses, may count.

Please contact a World Languages advisor to plan the appropriate coursework.

Other Requirements

Prerequisites: RUS 1200 Beginning Russian I (4 hrs) and RUS 1201 Beginning Russian II (4 hrs). Students may be able to place out of prerequisites if they pass a proficiency test. Heritage students will be placed in language courses according to their proficiency.

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Advising Information

Yury Riascos, languagesadvise@usf.edu

RUSSIAN STUDIES FACULTY

Chairperson: S.K. Schindler; Professors: G.A. Brulotte, M. Camara, V.E. Peppard, C.M. Probes; Associate Professors: P. Brescia, C.J. Cano, M. Grieb, I. Kantzios, P. La Trecchia, K. Simeon-Jones, C. Vasquez, W. Zhu;

• B.A. - SOCIOLOGY (SOC) (CIP = 45.1101 (TRACK 2 OF 2))

TOTAL DEGREE HOURS: 120

http://sociology.usf.edu/ug/

The Sociology major is designed to provide students with a broad liberal arts education and a greater understanding and insight into the social systems and processes that bear upon everyday lives. Opportunities for students with Bachelor’s degrees in Sociology are quite varied. Some go on to work for human service agencies; others work in personnel, criminal justice, and urban planning; others enter graduate programs in sociology, education, law, medicine, or social work. Toward these ends, all students are encouraged to become skilled in the use of computers and libraries.

STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C- is the minimum acceptable grade in prerequisite courses.
SYA XXXX or SYD XXX or SYG XXX or SYO XXX or SYP XXX (6 credit hours)

REQUIREMENTS FOR THE MAJOR IN SOCIOLOGY

TOTAL MAJOR HOURS: 12

Major requirements for the B.A. Degree:

Major Core (12 hours)
The major consists of a minimum of 36 credit hours of Sociology coursework plus STA 2122 Social Science Statistics or its equivalent.

Areas of Concentration
Sociology majors may choose to complete an optional area of concentration in either "Inequality and Social Justice" or "Identity and Community" by completing one required course and three elective courses (all with a grade of C- or better) listed within the area selected. In some cases, it may be possible to complete both areas of concentration, however, students may count a particular course as an elective for only one area of concentration.
The minimum of 36 credit hours in Sociology must include the following four core courses (12 hours):
SYG 2000 Introduction to Sociology
(May be replaced with an upper level sociology elective if a total of 12 or more hours of sociology coursework is completed before declaring a Sociology major)
SYA 3110 Classical Theory
SYA 3300 Research Methods (Prerequisite: STA 2122 Social Science Statistics or its equivalent)
SYA 4935 Senior Seminar

Major Electives (24 hours)
The remaining 24 hours of Sociology coursework may be comprised of any upper-level courses offered by the Sociology department. In addition, SYG 2010 Contemporary Social Problems may count toward these 24 hours of electives. No more than three hours each of SYA 4910 Individual Research and SYA 4949, Sociological Internship, may count toward the 24 hours of electives.

Grading Requirement
Only courses in which a grade of "C-" or better is attained will count toward the minimum hours.

Residency Requirement
At least 27 of the 36 hours of coursework in Sociology must be USF Tampa credits.
Research Opportunities
To register for Individual Research (SYA 4910) students must make arrangements with the individual faculty member with whom they wish to take the course well in advance of the semester in which the course will be taken. Departmental approval of the contract agreed upon by the student and faculty is required before the student can register for the course.

The department also offers a course, on a limited basis, Sociological Research Experience (SYA 4304). If the course is scheduled to be offered, please contact the instructor listed for approval to be admitted to the course.

Internship Opportunities
The Sociology Internship (SYA 4949) is offered if the student is concurrently enrolled in "Disability and Society" (SYO 4430), "Sustainable Consumption" (SYD 4512), and a few other specific courses, and only with permission of the instructor of that course. If you are interested in an internship connected to a specific course, please contact the undergraduate program director (mayberry@usf.edu) for further guidance and information. This course is taught as an S/U (Satisfactory/Unsatisfactory) grade and only for 1-3 credit hours. Further information about Service Internship opportunities can be found on the sociology department's webpage: http://sociology.usf.edu/ug/internships.

OPTIONAL HONORS PROGRAM
Through the Undergraduate Honors Program, the Department of Sociology provides its outstanding students with opportunities to work closely with faculty and graduate students with shared interests in specific areas of social experience. Students accepted into the program select a faculty mentor with expertise in the area of study of interest to the student. Under the supervision of this mentor, honors students conduct sociological research in their area of interest culminating in the preparation of an honors thesis. Students apply to the Honors Program in the Spring Semester during their junior year for admission for the following Fall. If you are interested in the Undergraduate Honors Program, please contact the Undergraduate Program Director, Maralee Mayberry at mayberry@usf.edu for more information and application materials.

Minimum Eligibility Requirements:
1. Junior standing.
2. 12 semester hours of Sociology course work with a major GPA of 3.0 by the end of the semester in which application is made.
3. Overall USF GPA of 3.0 or higher.
4. Selection and approval of faculty mentor.

Completion Requirements:
1. Completion of all requirements for the major.
2. Completion of at least one upper-level elective relevant to the thesis (course must be approved by faculty mentor).
3. USF overall and major GPA of at least 3.0.
4. Successful completion of the Honors Seminar.
6. Applications for the Undergraduate Honors Program in Sociology are available in the Sociology department (CPR 209). Please make an appointment with the Undergraduate Program Director, Maralee Mayberry at mayberry@usf.edu before completing the application.

Advising Information
Students are strongly encouraged to make an appointment to talk with the Sociology Department undergraduate advisor when they have questions about major requirements or about which electives offered each semester would best meet their educational and career goals.
Shani Garza, Cooper Hall (CPR) 364, 974-9249 or Brandon Kroll, Cooper Hall (CPR) 235, 974-6893.

SOCIOLOGY CONCENTRATIONS
REQUIREMENTS FOR THE CONCENTRATION IN
IDENTITY AND COMMUNITY (IDC)
TOTAL CONCENTRATION HOURS: 12
http://sociology.usf.edu/ug/concentration/

The Department of Sociology offers an optional area of concentration in "Identity and Community" for Sociology majors. Courses included in this area of concentration focus on the changing relationships among individuals and their communities in light of technological advances, globalization, environmental crises, political developments, and social problems. This area of concentration will be listed on your official transcript and can be useful as you market your skills to potential employers after graduation.
Concentration Core (3 hours)
SYP 4111 Identity and Community

Concentration Electives (9 hours)
Students must choose 9 credit hours from the following:
SYA 3310 Qualitative Inquiry
SYA 4121 Queer Theory
SYD 3700 Racial and Ethnic Relations
SYD 4238 Immigrants to America
SYD 4410 Urban Sociology
SYD 4411 Urban Life
SYG 3235 Latina/Latino Lives
SYO 3120 Sociology of Families
SYO 3200 Sociology of Religion
SYO 3460 Sociology of the Media
SYO 4204 Religion and Immigration
SYO 4573 Social Networks
SYP 3562 Family Violence
SYP 4012 Emotions in Society
SYP 4420 Consumer Culture
SYP 4510 Sociological Aspects of Deviance
SYP 4650 Sport in Society
SYP 4675 Animals & Society
SYP 4763 Sociology of Childhood and Youth
SYA 4304 Sociological Research Experience - with approval
SYA 4910 Individual Research - with approval
SYA 4949 Sociological Internship - with approval
SYA 4930 Topics in Sociology - approved topics
Contemporary Bodies
Transitions to Adulthood
Self and Society
Muslims in America
Social Media and Globalization
Sociology of Culture
Afro-Brazilian Culture and Society - summer study abroad course

Advising Information
Students are strongly encouraged to make an appointment to talk with the Sociology Department Undergraduate Advisor when they have questions about concentration courses and requirements or about which concentration courses will be offered each semester.

REQUIREMENTS FOR THE CONCENTRATION IN INEQUALITY AND SOCIAL JUSTICE (ISJ)
TOTAL CONCENTRATION HOURS: 12
http://sociology.usf.edu/ug/concentration/

The Department of Sociology offers an optional area of concentration in "Inequality and Social Justice" for sociology majors. Course included in this area of concentration focus on the political, social, and academic intersections among inequalities and the strategies we can implement to address them in a just manner. This area of concentration will be listed on your official transcript and can be useful as you market your skills to potential employers after graduation.

Concentration Core (3 hours)
SYO 4536 Inequalities and Social Justice

Concentration Electives (9 hours)
SYA 4121 Queer Theory
SYD 3700 Racial and Ethnic Relations
SYD 4238 Immigrants to America
SYD 4512 Sustainable Consumption
SYD 4800 Gender and Society
SYG 3011 Social Problems Through Film
SYG 3235 Latina/Latino Lives
SYO 3120 Sociology of Families
SYO 3530 Social Inequalities in a Global Society
SYO 4204 Religion and Immigration
SYO 4250 Sociology of Education
SYO 4400 Medical Sociology
SYO 4430 Disability and Society
SYO 4572 Hidden Structures of Social Life
SYP 3004 Constructing Social Problems
SYP 3060 Sociology of Sexualities
SYP 3562 Family Violence
SYP 4420 Consumer Culture
SYP 4510 Sociological Aspects of Deviance
SYP 4513 Elite Deviance
SYP 4651 Gender, Sport and the Body
SYA 4304 Sociological Research Experience - with approval
SYA 4910 Individual Research - with approval
SYA 4949 Sociological Internship - with approval
SYA 4930 Topics in Sociology - approved topics
  Religion and Immigration
  LGBT Youth in Education
  Sociology of the Body
  Children of Immigration
  Environment and Society
  Political Sociology
  Gender and Social Movements
  Afro-Brazilian Culture and Society - summer study abroad course
  Stratification and Mobility
  Social Media and Globalization
  Social Movements

Advising Information
Students are encouraged to make an appointment to talk with the Sociology Department Undergraduate Advisor when they have questions about concentration courses and requirements or about which concentration courses will be offered each semester.

SOCILOGY FACULTY

• B.A. - SPANISH (SPA) (CIP = 16.0905)
TOTAL DEGREE HOURS: 120
http://languages.usf.edu/undergraduate/spanish/degree/

The Spanish major is the study of the Spanish language and Hispanic culture, emphasizing how cultural values develop and are communicated through the arts and within the many cultures comprising the Hispanic world (Spain and Latin America). It explores the complex interconnections between visual arts, music, literature, material culture, social structures, and ideas expressed in Spanish. The objective of the program is to provide students with knowledge of the Spanish language as well as its global cultural heritage, and to prepare students for a myriad of career options in education, communication, tourism, the medical fields, the government, and the business world. Often students who seek a degree in Spanish combine it with another degree program, such as international business or education. However, a Spanish degree does not have to be combined with another degree to lead to a good career, given the fact that Spanish is the second most spoken language in the World and that Hispanics are the second largest minorities in the U.S. A Spanish major is especially useful/necessary in Florida. The Spanish program at WLE is geared towards effectively preparing our majors for the local and national/international job market that welcomes bilingual candidates.
STATE MANDATED COMMON COURSE PREREQUISITES

Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.

To complete a major in Spanish, students should demonstrate proficiency at the intermediate level within the target language. This may be accomplished by completing 6-12 hours within the language or by demonstrated competency at the intermediate level.

REQUIREMENTS FOR THE MAJOR IN SPANISH
TOTAL MAJOR HOURS: 63

Major requirements for the B.A. Degree:
Major Core (21 hours)

Language (6 hours)
- SPN 3300 Advanced Spanish Grammar and Composition
- SPN 4301 Expository Writing

Literature (9 hours)
- SPW 3030 Introduction to Hispanic Literary Studies
- SPW 4100 Survey of Spanish Literature I or SPW 4101 Survey of Spanish Literature II
- SPW 4130 Survey of Spanish-American Literature I or SPW 4131 Survey of Spanish-American Literature II

Civilization (6 hours)
- SPN 3500 Spanish Civilization
- SPN 3520 Spanish-American Civilization

Major Electives (12 hours)
Select 12 hours in 3000-, 4000- or 5000-level SPN or SPW courses and may include one course (three-credit hours) of Spanish/Spanish American literature or culture in translation. Two courses of the 12 hours of electives must be at the 4000-level. All electives must be approved by a department advisor prior to enrollment.

Research Opportunities
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Advising Information
Yury Riascos Email: languagesadvise@usf.edu.

SPANISH CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN INTERNATIONAL STUDIES AND BUSINESS (ISB)
TOTAL CONCENTRATION HOURS: 63

Concentration Core (45 hours)
*SPN 3300 Advanced Spanish Grammar and Composition is the prerequisite for SPN 4301 Expository Writing. SPN 3300 may be substituted for native speakers with SPN 2340 Advanced Spanish for Native Speakers I or SPN 2341 Advanced Spanish for Native Speakers II.
**Required courses in Spanish for the major (18 credit hours)**
- SPN 3300 Advanced Spanish Grammar and Composition
- SPN 3440 Spanish for Business and International Trade I
- SPN 3441 Spanish for Business and International Trade II
- SPN 4301 Expository Writing
- SPN 4410 Advanced Conversation
- SPN 3500 Spanish Civilization
- SPN 3520 Spanish-American Civilization

**Required courses in International Studies (9 credit hours):**
- CPO 2002 Introduction to Comparative Politics
- CPO 4930 Comparative Government and Politics of Select Areas
- INR 1015 World Perspective

**Required courses in Business (18 credit hours):**
- ACG 3074 Managerial Accounting for Non-Business Majors
- ECO 1000 Basic Economics
- FIN 3403 Principles of Finance
- MAN 3025 Principles of Management
- MAR 3023 Basic Marketing
- XXX XXXX A Capstone Course

**Concentration Electives (18 hours)**

**Supporting courses in Spanish required for the major (6 credit hours):**
- SPN 2340 Advanced Spanish for Native Speakers I
- SPN 2341 Advanced Spanish for Native Speakers II
- SPN 4700 Spanish Linguistics
- SPW 3030 Introduction to Hispanic Literary Studies
- SPW 4100 Survey of Spanish Literature I
- SPW 4101 Survey of Spanish Literature II
- SPW 4130 Survey of Spanish-American Literature I
- SPW 4131 Survey of Spanish-American Literature II
- SPW XXXX Any SPW Course

**Supporting courses in Business (6 credit hours):**
Choose any two (2) upper-level International Business courses.

**Required overseas study courses and/or area studies courses (6 credit hours):**
Select six (6) overseas study credit hours or three (3) credit hours overseas study plus three (3) credit hours area studies courses planned with an advisor.

**Optional Area of Specialization**

**International Studies (Latin America) with a Language (Spanish) & Business Concentration**

**Required International Studies courses (15 credit hours):**
- CPO 2002 Introduction to Comparative Politics
- CPO 4930 Comparative Government and Politics of Select Areas
- INR 1015 World Perspective
- INR 2002 Introduction to International Relations
- INR 3038 International Wealth and Power

**International Studies electives (3 credit hours):**
- INR 3018 World Ideologies
- INR 3202 International Human Rights
- POT 4109 Politics and Literature

**Required courses in Spanish (12 credit hours):**
- SPN 3440 Spanish for Business and International Trade I
- SPN 3500 Spanish Civilization
- SPN 3520 Spanish-American Civilization
- SPN 4301 Expository Writing

**Required courses in Business (18 credit hours):**
- ACG 3074 Managerial Accounting for Non-Business Majors
- ECO 1000 Basic Economics
- FIN 3403 Principles of Finance
- MAN 3025 Principles of Management
- MAR 3023 Basic Marketing
- XXX XXXX A Capstone Course

**Supporting courses in Business (6 credit hours):**
Choose any two (2) upper-level International Business courses.

Required overseas study courses and/or area studies courses (9 credit hours):
Select three (3) overseas study credit hours or three (3) credit hours overseas study plus six (6) credit hours area studies courses planned with an advisor (2 courses from International Studies or other departments).

SPANISH FACULTY
World Languages Chairperson: S.K. Schindler; Professors: P. Brescia (Spanish), G.A. Brulotte (French), M. Camara (Spanish), V.E. Peppard (Russian), C.M. Probes (French), S.K. Schindler (German); Associate Professors: C.J. Cano (Spanish), M. Grieb (German), I. Kantzos (Classics), A. Latowsky (French), E. Manolaraki (Classics), H. Scharm (Spanish), E. Shepherd (Chinese), K. Simeon-Jones (French), A. Thompson (Linguistics), C. Vasquez (Linguistics), W. Zhu (Linguistics); Assistant Professors: D. Arbesu (Spanish), M.H. Chiang (Chinese), A. Huensch (Linguistics), X. Qin (Chinese), N. Tracy-Ventura (Linguistics); Instructors: S. Amer (Arabic), M. Chinnea-Thomberry (Spanish), F. Colleoni (Italian), C. Davies (Portuguese), A. De La Pava (Spanish), S. Huber (German), M. Manzur-Leiva (Spanish), M. Nozu (Japanese), A. Oh (Classics), O. Oleynik (Russian), S. Wohlmuth (Spanish), Q. Wu (Chinese).

• B.A. - STATISTICS (STC) (CIP = 27.0501)

TOTAL DEGREE HOURS: 120
http://math.usf.edu/ug/stats/

Statistics is a science of information gathering, data analysis, and decision making. It is a discipline that blends the applied with the theoretical and our courses reflect this mix. These courses provide an excellent preparation for careers in industrial statistics, actuarial science, biostatistics, and statistical research.

STATE MANDATED COMMON COURSE PREREQUISITES
Students wishing to transfer to USF should complete an A.A. degree at a Florida College System institution. Some courses required for the major may also meet General Education requirements thereby transferring maximum hours to the university.

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

Students should complete the following prerequisite courses at the lower level prior to entering the university. If these courses are not taken at a Florida College System institution, they must be completed before the degree is granted.

Unless stated otherwise, a grade of C is the minimum acceptable grade in prerequisite courses.
COP XXXX A Scientific Programming Course designed for Computer Science Majors
MAC X311 Calculus I
MAC X312 Calculus II - Calculus with Analytic Geometry II
MAC X313 Calculus III
STA 2XXX Statistics
BSC XXXX / XXXXL or CHM XXXX / XXXXL or PHY XXXX / XXXXL or GLY XXXX / XXXXL

REQUIREMENTS FOR THE MAJOR IN STATISTICS
TOTAL MAJOR HOURS: 46

Major requirements for the B.A. Degree:

Major Core (31 hours)
Majors must complete the following five courses plus completion of one of the four lab-based Science courses (Minimum 19 credit hours):
MAC 2311 Calculus I or MAC 2281 Engineering Calculus I
MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
MAC 2313 Calculus III or MAC 2283 Engineering Calculus III
STA 4102 Computational Methods for Applied Statistics

Plus completion of one of the four lab-based Science courses below:
BSC XXXX / XXXXL
CHM XXXX / XXXXL
PHY XXXX / XXXXL
GLY XXXX / XXXXL

Required Courses (Minimum 12 credit hours):
STA 2023 Introductory Statistics I  
STA 3024 Introductory Statistics II  
STA 4321 Essentials of Statistics  
STA 4442 Introduction to Probability  

Major Electives (15 hours)  
Majors must complete four courses from the following electives (Minimum 15 credit hours):  
STA 4222 Sample Survey Design  
STA 4502 Nonparametric Statistical Methods  
STA 4504 Categorical Data Analysis  
STA 4702 Multivariate Statistical Methods  
STA 4852 Applied Time Series  
MAP 2302 Differential Equations  
MAS 3105 Linear Algebra  

One or two courses from another department which are of high statistical content may be taken as electives, with the prior approval of the Chair of the department.  
STA 4930 Selected Topics in Statistics may be taken as electives, with the prior approval of the Chair of the department.  

Grading Requirement  
In general, grades of C- or better are required for courses in the mathematics major and minor and in the statistics major. However, C- is not an acceptable grade for any course that is being used as a prerequisite for a follow-on course. For these courses a grade of C (2.00 grade points) or better is required. Students whose prerequisites are more than three years old will be expected to take a placement test prior to taking a follow-on course.  

Research Opportunities  
All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.  

Advising Information  
Please make sure to visit the following website http://math.usf.edu/resources/advising/ for additional information and all your advising needs.  

STATISTICS FACULTY  

• B.A. - WOMEN'S AND GENDER STUDIES (WGS) (CIP = 05.0207)  
TOTAL DEGREE HOURS: 120  
http://wgs.usf.edu/undergrad/requirements/  

The Women's and Gender Studies major focuses on feminist research and practice. WGS promotes social justice through the discovery and production of knowledge that emerges from feminist perspectives on culture and society. Students learn the analytic skills to engage the intersections of gender, race, ethnicity, class, sexuality, ability, and nationality in order to become responsible citizens in a diverse transnational environment. We expose limits in traditional higher education caused by excluding women and other marginalized groups and create knowledge that is transformative and inclusive. We connect academic work to the social, political, and economic world outside the university; in linking knowledge, research, and activism, students learn to think critically about social inequalities.
STATE MANDATED COMMON COURSE PREREQUISITES

Students desiring to transfer to USF should complete an A.A. degree at a Florida College System institution. If students transfer with fewer than 60 semester hours of acceptable credit, the students must meet the University's entering freshman requirements including ACT or SAT test scores, GPA, and course requirements. Transfer students are also required to comply with the immunization, foreign language, and continuous enrollment policies of the university.

There are no State Mandated Common Prerequisites for this program.

REQUIREMENTS FOR THE MAJOR IN
WOMEN'S AND GENDER STUDIES

TOTAL MAJOR HOURS: 36

Major requirements for the B.A. Degree:
Major Core (15 hours)

Students must choose a total of 36 credit hours from Women's and Gender Studies courses. Transfer students may not apply more than 12 hours taken elsewhere toward the major at the University of South Florida.

Students taking Women's and Gender Studies as a second major need to complete 30 credit hours. To do so, they must make a written request to the Undergraduate Director at the time they declare Women's and Gender Studies as a second major. Courses taken in the first major may not count toward the 30 hours in Women's and Gender Studies as a second major.

WST 3015 Introduction to Women's Studies
WST 3311 Issues in Feminism
WST 4002 Feminist Research Methods
WST 4522 Classics in Feminist Theory or WST 4561 Contemporary Feminist Theory
WST 4935 Capstone/Senior Project

Major Electives (21 hours)

The remaining 21 hours of Women's & Gender Studies coursework may be comprised of any courses offered by the Women's & Gender Studies department, including approved cross-listed courses. No more than twelve hours of WST 4930 may count toward the 36 hour minimum.

Grading Requirement

Only letter grades of at least C- will be counted credit hours required for the major.

Research Opportunities

All undergraduate students in any degree program can participate in undergraduate research. There are a number of options to receive academic credit for a mentored research experience and to have the experience show on the official transcript. Students who wish to enroll in an undergraduate research course should consult with their academic advisor to understand how the credit will apply towards the degree requirements. If no credit is needed, students may be eligible to enroll in the 0-credit IDS 2912 or IDS 4914 courses. These courses will not impact degree credits or GPA but will show on an official transcript and document the experience. The Office for Undergraduate Research will assist students in understanding the various course options.

Internship Opportunities

Women's and Gender Studies offers a number of internship opportunities to both majors and minors. Students work on-site and directly with a local organization and can earn from 1-3 credits. Majors may repeat the internship for a maximum of 6 credit hours; minors may repeat once for a maximum of 3 credit hours. Students interested in the internship should contact the Internship Director, Dr. Wendland.

Advising Information

Students electing to major, double major or minor in Women's and Gender Studies should consult the undergraduate advisor for timely scheduling of classes.

The WGS advisor, Briana Byers, is located on the second floor of SCA in room 239. She can be reached at WGSadvice@usf.edu.

WOMEN'S AND GENDER STUDIES FACULTY

REQUIREMENTS FOR THE MINOR IN AFRICANA STUDIES (AFA)

TOTAL MINOR HOURS: 18

http://africanastudies.usf.edu/undergraduate/minor/

The minor in Africana Studies consists of a minimum of 18 hours, which include three core courses (9 hours) and three electives (9 hours).

**Minor Core (9 hours)**
- AFA 2000 Introduction to the Black Experience in Africa and its Diaspora
- AFH 3100 African History to 1850 or AFH 3200 African History since 1850
- AMH 3571 African American History to 1865 or AMH 3572 African American History since 1865

**Minor Electives (9 hours)**
Students will complete the minor requirements with three additional Africana Studies elective courses.
- AFA 2380 History and Theory of Genocide
- AFA 4335 Black Women in America
- AFA 4350 African American Community Research
- AFA 4931 Selected Topics in Africana Studies
- AFS 2250 Culture and Society in Africa
- AML 3604 African American Literature
- AML 4624 Black Women Writers
- AMS 3700 Racism in American Society
- ANT 4340 The Caribbean
- INR 4254 Africa in World Affairs
- PHI 4073 African Philosophy
- PHM 4120 Major Black Thinkers

**Advising Information**
Andrew Bird, Undergraduate Advisor, Behavioral Science Building (BEH) 201

REQUIREMENTS FOR THE MINOR IN AMERICAN STUDIES (AMS)

TOTAL MINOR HOURS: 18

http://humanities.usf.edu/undergraduate/as/

American Studies is an interdisciplinary field dealing with the study of the United States. By means of a combination of foundational lecture courses, core seminars, American Studies courses, and courses from relevant disciplines (literature, history, the arts, and the social or behavioral sciences), students in the American Studies program explore diverse aspects of the American experience locally, nationally, and globally.

A total of 18 credit hours is required for the minor in American Studies. At least 8 credit hours for the minor must be USF coursework.

**Minor Core (6 hours)**
- AMS 2030 Introduction to American Studies
- AMS 2270 Twentieth-Century American Culture

**Minor Electives (12 hours)**
Twelve (12) hours of upper-level AMS courses or other courses approved by the undergraduate advisor.
- AMS 2201 Colonial American Culture
- AMS 2363 Issues in American Civilization
- AMS 3001 American Culture, 1880-1915
- AMS 3230 America During the 1920s and 1930s
- AMS 3260 American Culture, 1830-1860
- AMS 3302 Architecture and the American Environment
- AMS 3370 Southern Women: Myth and Reality
- AMS 3601 Material Culture and American Society
- AMS 3700 Racism in American Society
- AMS 3930 Selected Topics in American Studies
- AMS 4804 Major Ideas in America
- AMS 4910 Individual Research
- AMS 4930 Selected Topics in American Studies
- AMS 4935 Senior Seminar in American Studies
- AMS 4940 Internship in American Studies

**Residency Requirement**
At least 8 credit hours for the minor must be USF coursework.
REQUIREMENTS FOR THE MINOR IN ANTHROPOLOGY (ANT)
TOTAL MINOR HOURS: 19

http://anthropology.usf.edu/undergrad/minor/

Students in many other programs will find an anthropological perspective of benefit. The minor program is structured to allow the student maximum flexibility in course selection within a broadly defined progression of anthropological concerns. Thus, the student is able to tailor a minor in anthropology to best suit specific wants and needs in the context of an overall curriculum.

Students will normally progress through these areas in the general order listed below, as the core courses often serve as prerequisites for the electives.

Minor Core (13 hours)
- ANT 2410 Cultural Anthropology
- ANT 2511 Biological Anthropology
- ANT 2511L Biological Anthropology Laboratory
- ANT 3101 Archaeology
- ANT 3610 Anthropological Linguistics

Minor Electives (6 hours)
 Six (6) credit hours of 4000-level elective courses are required as described in the listing of elective courses in archaeology, biological anthropology and cultural anthropology.
- ANT 4012 Fantastic Archaeology
- ANT 4014 Anthropology of American Culture
- ANT 4034 Theories of Culture
- ANT 4114 Seminar in Archaeological Method and Theory
- ANT 4142 Old World Archaeology
- ANT 4143 European Archaeology
- ANT 4147 Environmental Archaeology
- ANT 4153 North American Archaeology
- ANT 4158 Florida Archaeology
- ANT 4163 Mesoamerican Archaeology
- ANT 4165 South American Archaeology
- ANT 4172 Historical Archaeology
- ANT 4176 Archaeology of Africa
- ANT 4178 The History & Archaeology of the African Diaspora
- ANT 4180 Laboratory Methods in Archaeology
- ANT 4181 Museum Methods
- ANT 4183C Archaeological Science
- ANT 4185 Ancient Diets
- ANT 4241 Anthropology of Religion
- ANT 4243 The Middle East and North Africa
- ANT 4260 Ancient Trade
- ANT 4285 Oral History
- ANT 4302 Gender in Cross-Cultural Perspective
- ANT 4312 North American Indians
- ANT 4316 Ethnic Diversity in the United States
- ANT 4323 Mexico and Central America
- ANT 4340 The Caribbean
- ANT 4352 Peoples of Africa
- ANT 4390 Visual Anthropology
- ANT 4401 Exploring Cross-Cultural Diversity
- ANT 4403 Environmental Anthropology
- ANT 4432 The Individual and Culture
- ANT 4442 Urban Life and Culture
- ANT 4462 Health, Illness, and Culture
- ANT 4465 The Anthropology of Food
- ANT 4467 Food, Health, and Culture
- ANT 4472 Work and Migration in the Americas
- ANT 4475 Anthropology of Childhood
- ANT 4495 Methods in Cultural Research
- ANT 4516 Human Variation
- ANT 4520C Forensic Anthropology
- ANT 4525 Human Osteology and Osteometry
ANT 4532 Anthropology of Infectious and Contagious Diseases  
ANT 4536 Bioarchaeology  
ANT 4586 Prehistoric Human Evolution  
ANT 4593 Evolution and Health  
ANT 4620 Language and Culture  
ANT 4701 Applied Anthropology  
ANT 4750 Language and Social Interaction  
ANT 4930 Special Topics in Anthropology  
ANT 4935 Rethinking Anthropology  
Note: ANT 4932 Honors Seminar and ANT 4970 Honors Thesis will not count toward the Anthropology minor.

GPA Requirements  
A 2.0 GPA is required for the minor.

Grading Requirement  
A C average is required for the minor.

Residency Requirement  
Fifty percent of the minor must be completed through USF Tampa coursework.

Advising Information  
Students are urged to consult with an advisor to create the most beneficial set of courses.  
Anthroadvise@usf.edu

REQUIREMENTS FOR THE MINOR IN ASTRONOMY (AST)  
TOTAL MINOR HOURS: 12

The Astronomy Minor provides an in-depth overview of Astronomy from a mainly conceptual perspective. Any student wanting to learn more about the universe can earn the Minor in Astronomy regardless of their degree, including physics majors.

Minor Core (12 hours)  
AST 2002 Descriptive Astronomy  
AST 2004 Stellar and Galactic Astronomy  
AST 3033 Contemporary Thinking in Astronomy  
AST 3044 Archaeoastronomy

GPA Requirements  
A minimum 2.0 GPA average in the 12 credit hours is required for obtaining this minor.

Grading Requirement  
A "C-" is the minimum acceptable grade for any course in the minor.

Other Information  
None of the courses for the Astronomy minor count towards a Physics B.A. or B.S., and consequently Physics majors may earn a minor in Astronomy along with their Physics B.A. or B.S. degree.

Advising Information  
Physics Advising: physics.usf.edu/ug/advising/

REQUIREMENTS FOR THE MINOR IN BIOMEDICAL ANTHROPOLOGY (BAN)  
TOTAL MINOR HOURS: 19

This minor prepares undergraduates for futures in medical-related disciplines such as medicine, nursing, and dentistry. The required courses give students a strong foundation on evolutionary and cross-cultural factors affecting human biological variation. The elective course list provides students with ample choices among more specialized topics in biomedical anthropology.

Minor Core (7 hours)  
ANT 2511 Biological Anthropology  
ANT 2511L Biological Anthropology Laboratory
ANT 4516 Human Variation

Minor Electives (12 hours)

Students must choose among any of the following courses for a total of twelve (12) credit hours:

ANT 2410 Cultural Anthropology
ANT 4520C Forensic Anthropology
ANT 4462 Health, Illness and Culture
ANT 4465 The Anthropology of Food
ANT 4525 Human Osteology and Osteometry
ANT 4532 Anthropology of Infectious and Contagious Diseases
ANT 4593 Evolution and Health
ANT 4930 Special Topics in Anthropology, when taught as:

Nutritional Anthropology
Paleopathology
Neuroanthropology
Global Health
Human Reproductive Ecology
Anthropology of Human Growth and Development
Human Sexuality
Physician-Patient Interaction

Grading Requirement
A C average is required for all courses that count toward the minor.

Residency Requirement
Fifty percent of the minor must be completed through USF Tampa coursework.

Advising Information
Students are urged to consult with an advisor to create the most beneficial set of courses.
AnthroAdvise@usf.edu

REQUIREMENTS FOR THE MINOR IN BIOMEDICAL PHYSICS (BPH)

TOTAL MINOR HOURS: 16

http://physics.usf.edu/ug/degree/

This minor combines fundamental knowledge of physics acquired through the General Physics lectures and laboratories to applications that cover a wide spectrum of topics of interest to students pursuing a future clinical or research career in biology, medicine, and other related areas.

Minor Core (16 hours)

PHY 2048 or 2053 General Physics I
PHY 2048L or 2053L General Physics I Lab
PHY 2049 or 2054 General Physics II
PHY 2049L or 2054L General Physics II Lab
PHZ 4702 Applications of Physics to Biology and Medicine I
PHZ 4703 Applications of Physics to Biology and Medicine II

GPA Requirements
A minimum 2.0 GPA average in the 16 credit hours is required for obtaining this minor.

Grading Requirement
A "C-" is the minimum acceptable grade for any course in the minor.

Other Requirements
The Biomedical Physics minor is not available to Physics majors. Physics majors with an interest in Biophysics should consider taking the Biophysics course which is available as an upper-level elective.

REQUIREMENTS FOR THE MINOR IN CHEMISTRY (CHM)

TOTAL MINOR HOURS: 24

http://chemistry.usf.edu/undergraduate/degree/minor/

The Chemistry minor provides a broad and general exposure to the traditional areas of the chemical sciences.

Minor Core (14 hours)
CHM 2045 General Chemistry I
CHM 2045L General Chemistry I Laboratory
CHM 2046 General Chemistry II
CHM 2046L General Chemistry II Laboratory
CHM 2210 Organic Chemistry I
CHM 2210L Organic Chemistry I Laboratory
CHM 4060 Use of Chemical Literature

**Minor Electives (10 hours)**
Choose 10 hours of structured classes applicable to the major. Chemistry courses used to satisfy a major requirement cannot be used toward a minor in Chemistry.

**NOTE:** In all laboratory classes the lecture is PR/CR.

BCH 3053 General Biochemistry
BCH 4033 Advanced Biochemistry I
BCH 4034 Advanced Biochemistry II
BCH 3023L Basic Biochemistry Laboratory
CHM 2211 Organic Chemistry II
CHM 2211L Organic Chemistry II Laboratory
CHM 3120C Elementary Analytical Chemistry
CHM 3610 Intermediate Inorganic Chemistry
CHM 3610L Intermediate Inorganic Chemistry Laboratory
CHM 4230 Spectroscopic Analysis of Organic Compounds
CHM 4274 Introduction to Drug Discovery
CHM 4292 Introduction to Medicinal Chemistry
CHM 4300 Biomolecules I
CHM 4307 BioOrganic Chemistry
CHM 4410 Physical Chemistry I
CHM 4410L Physical Chemistry Laboratory
CHM 4411 Physical Chemistry II
CHM 4413 Biophysical Chemistry
CHM 4455 Chemistry of High Polymers
CHM 4932 Selected Topics in Chemistry
CHS 4300 Fundamentals of Clinical Chemistry

**Grading Requirement**
A grade of C or better is required for each course in the Chemistry minor. Courses in the chemistry minor must be taken with letter grade (A, B, C, D, F, I) except those courses which are graded S/U only.

**Residency Requirement**
Eight hours of approved Chemistry coursework must be completed at USF.

**Other Requirements**
Chemistry, Biomedical Sciences, Interdisciplinary Natural Sciences, and Medical Technology majors are not eligible for the minor in Chemistry.

**Advising Information**
Department of Chemistry Advising: chemadvise@usf.edu or http://chemistry.usf.edu/advising/.

## REQUIREMENTS FOR THE MINOR IN CHINESE LANGUAGE (CHN)
**TOTAL MINOR HOURS: 18**


The Minor in Chinese Language is designed for majors in any field who wish to demonstrate in-depth knowledge of Chinese language, culture and society. The minor in Chinese is designed to equip students with a foundation in Chinese language and culture necessary to successfully interact with Chinese people.

A total of 18 semester hours is required for the minor in Chinese Language. Of those 18 hours, 12 hours are to be fulfilled with required core courses in language, culture, and literature. An additional 6 hours are to be fulfilled with electives selected in consultation with a Chinese faculty advisor.

**Minor Core (12 hours)**
CHI 3241 Advanced Chinese Conversation I
CHI 3242 Advanced Chinese Conversation II
CHT 3500 Introduction to Chinese Culture
REQUIREMENTS FOR THE MINOR IN CLASSICS (CLS)
TOTAL MINOR HOURS: 15
http://languages.usf.edu/undergraduate/classics/

The interdisciplinary minor is designed to make the study of the ancient world available to students, in a programmatic way, without the requirement of learning Latin or Greek. Students learn about the history, literature, art and culture of antiquity in courses that emphasize the study of primary texts in English translation.
The Classics minor requires 17 credit hours, which are divided between language and civilization requirements.

Minor Core (17 hours)
Language Requirements (8 credit hours)
Students are required to take at least two (2) successive courses in a single language, Latin or Ancient Greek (LAT, LNW, GRE, GRW).
Civilization Requirements (9 credit hours)
Students are required to take three (3) of the core courses offered by Classics:
CLA 3103 Daily Life in Ancient Greece
CLA 3124 Daily Life in Ancient Rome
CLT 3103 Epic Battles and Dramatic Reversals in Greek Thought
CLT 3123 Voyages and Metamorphoses in Roman Imagination
CLT 3370 Gods, Heroes, and Monsters in the Ancient World

Advising Information
Yury Riascos (yuryr@usf.edu) or Dr. Eleni Manolaraki (emanolar@usf.edu)

REQUIREMENTS FOR THE MINOR IN COMMUNICATION (SPE)
TOTAL MINOR HOURS: 18
http://communication.usf.edu/undergraduate/minor/

Minor Core (6 hours)
SPC 2608 Public Speaking
COM 2000 Introduction to Communication

Minor Electives (12 hours)
Twelve credit hours may be selected from among departmental offerings and must include a minimum of 6 hours at the 3000-level or higher.

Grading Requirement
A grade of “C-minus” is required for a departmental course to count toward a Communication minor. Courses may not be taken S/U where a grade option exists.

REQUIREMENTS FOR THE MINOR IN CREATIVE WRITING (CRW)
TOTAL MINOR HOURS: 15
http://english.usf.edu/ug/concentrations/creative/

Minor Core (15 hours)
CRW 3111 Form and Technique of Fiction
CRW 3311 Form and Technique of Poetry
Any two of the following:
CRW 3112 Fiction I
CRW 3121 Fiction II
CRW 3312 Poetry I
CRW 3321 Poetry II
CRW 4930 Selected Topics in Creative Writing
Any major course listed in the Literary Studies concentration

REQUIREMENTS FOR THE MINOR IN ECONOMICS (ECO)
TOTAL MINOR HOURS: 18
http://economics.usf.edu/undergraduate/minor/

Economics focuses on critical thinking and problem solving skills, which means the Minor in Economics can pair well with any Major.

All students, regardless of college, can earn a minor in Economics by satisfactorily completing 18 hours in Economics.

Minor Core (6 hours)
- ECO 2013 Economic Principles: Macroeconomics
- ECO 2023 Economic Principles: Microeconomics
- ECO 1000, if taken before both ECO 2013 and ECO 2023 and student receives a C- or better, may be substituted for 3 hours of upper-level economics elective credit. Before being recognized as a minor in economics a student must obtain program approval by the Economics Department Undergraduate Advisor. A grade point average of 2.0 or higher must be achieved in the minor course work at USF and in all minor courses completed at any institution. Unless stated otherwise, a grade of "C-" is the minimum acceptable grade for all minor and supporting minor courses.

Minor Electives (12 hours)
Students must choose twelve (12) credit hours of Economics electives numbered 3000 or higher (may include QMB 3200).

Residency Requirement
At least 9 hours of Economics credit must be taken in residence at USF Tampa.

Other Information
The Economics Pre-Law Curriculum
Economic principles provide the foundation for much of our legal system. Economics offers a series of courses to provide the abstract and applied skills required by those seeking legal careers.


The Economics Pre Law Curriculum fits easily within the Economics major or minor but is open to other students.

Advising Information
econadvise@usf.edu

REQUIREMENTS FOR THE MINOR IN ENVIRONMENTAL POLICY (ESP)
TOTAL MINOR HOURS: 19

Minor Core (16 hours)
Required Core Courses (7 credit hours):
- EVR 2001 Introduction to Environmental Science
- EVR 2001L Introduction to Environmental Science Lab
- EVR 2861 Introduction to Environmental Policy

Three of the following four courses (9 credit hours):
- PUP 4203 Environmental Politics and Policy
- PHI 3640 Environmental Ethics
- GEO 4502 Economic Geography
- POS 3697 Environmental Law

Minor Electives (3 hours)
Plus one approved policy-related elective.
Residency Requirement
12 credits must be completed at USF.

Advising Information
Please see http://hennarot.forest.usf.edu/main/depts/geosci/ug/advising/ and or contact Rene Alvarez, the Environmental Science and Policy Academic Advisor, for a current list of electives.
Rene Alvarez can be contacted via email at: GeoAdvise@usf.edu; by phone at (813) 974-3250; and his office location is Science Center (SCA) 230.

REQUIREMENTS FOR THE MINOR IN
FILM AND NEW MEDIA STUDIES (FNM)
TOTAL MINOR HOURS: 18
http://humanities.usf.edu/undergraduate/film/

The Minor in Film and New Media Studies is designed to train students in the historical contexts and analytical skills necessary to understand how film and new media (including television, video games, and Internet culture) communicate cultural values and shape our apprehensions of the world.

Minor Core (9 hours)
FIL 1002 Introduction to Film Studies
FIL 3052 Foundations of Film & New Media (prerequisite is FIL 1002)
FIL 3077 Contemporary Film & New Media (prerequisite is FIL1002)

Minor Electives (9 hours)
One 3000- or 4000-Level Genres/Auteurs/Production Course
Students should choose a course from the following list:
ART 3612C Beginning Video, Animation and Digital Arts
COM 3052 Cultural Studies and Communication
COM 4931 Selected Topics in Media Analysis
GET 3522 Fantastic Films of Early German Cinema
GEW 4930 Selected Topics
HUM 4582 Film Auteurs
HUM 4890 Genres and Media

One 3000- or 4000-Level National Cinemas/Themes Course
Students should choose a course from the following list:
AMS 3615 Film & American Society
COM 4414 Race and Gender in Popular Film and Television
ENG 4674 Film and Culture
FRE 4392 African Images in Francophone Film
GET 3524 German Popular Film
GET 4523 New German Cinema to Present
ITT 3504 Italian Culture through Film
ITT 4505 Italy & the Italian-American Experience
LIT 4930 Selected Topics in English Studies
REL 3111 The Religious Quest in Contemporary Films
SPC 4310 Relationships on Film
SYG 3011 Social Problems through Film
WST 4335 Women and Film

One additional 3000- or 4000-Level Elective Film Course, 3 credits
Students should choose from either the Genres/Auteurs/Production or National Cinemas/Themes course lists or consult with the undergraduate advisor.

REQUIREMENTS FOR THE MINOR IN FRENCH (FRE)
TOTAL MINOR HOURS: 15
http://languages.usf.edu/undergraduate/french/

French is a truly global language, the official or second language in over 40 countries worldwide and an important tool in business and diplomacy. Our faculty offer a large variety of courses including literature and culture across genres, centuries, and geographical regions. Our faculty, a good mix of French and American scholars, is attentive and our students are close-knit. The placement record for our students is impressive, including graduates who continue to
obtain advanced degrees, teachers in public and private schools including in IB programs, or even abroad in institutions such as the École Normale Supérieure in France; others apply their French to international law, business, politics, federal government jobs and to writing novels recognized by The New York Times.

**Minor Core (6 hours)**
- FRE 2240 Intermediate Spoken French in Cultural Context
- FRE 3420 Written French in Cultural Context

**Minor Electives (9 hours)**
- Select nine (9) hours in 3000-, 4000-, or 5000-level courses, except courses in translation.

**Other Requirements**
The French minor strongly encourages study abroad and provides advice on the same. USF World offers several programs in France and Francophone countries, sometimes led by our faculty.

**Advising Information**
The French faculty work with the Department of World Languages' advisor to optimize student success. Yury Riascos, languagesadvise@usf.edu

### REQUIREMENTS FOR THE MINOR IN GEOGRAPHY (GPY)

**TOTAL MINOR HOURS: 19**

**Minor Core (7 hours)**
- GEO 2200 Introduction to Physical Geography
- GEO 2200L Introduction to Physical Geography Lab
- GEO 2400 Human Geography

**Minor Electives (12 hours)**
- One GEA elective
- Three upper-level electives (3000-5000 level) with prefixes in GEO, GIS, MET.

**GPA Requirements**
A minimum grade-point average of 2.00 is required.

**Other Information**
Students may not apply upper-level Geography electives to the Geography minor if these electives are being used to satisfy their requirements in another major.

### REQUIREMENTS FOR THE MINOR IN GEOLOGY (GLY)

**TOTAL MINOR HOURS: 16**

Sixteen (16) credit hours are required. The completion of the introductory sequence courses (4 credit hours) listed and any three Geology Core courses (12 hours).

**Minor Core (4 hours)**

**Introductory Sequence (4 credit hours):**
- One course, chosen from:
  - GLY 2010 Dynamic Earth: Introduction to Physical Geology
  - GLY 2030 Hazards of the Earth’s Surface: Environmental Geology
  - GLY 2100 History of Life
  - OCE 2001 Introduction to Oceanography
  - Or other comparable acceptable course offerings, as approved by the undergraduate advisor
- GLY 2000L Essentials of Geology Laboratory

**Minor Electives (12 hours)**
- Any three Geology Core courses.

**Teacher Education Programs**
Prospective elementary and secondary school teachers desiring to teach science should include basic courses in geology and related sciences as part of their curriculum.
REQUIREMENTS FOR THE MINOR IN GERMAN STUDIES (GMS)

TOTAL MINOR HOURS: 15

Minor Core (6 hours)
Students should select 6 hours of 3000- or 4000-level GEW or GER coursework in German (taught in German).

Minor Electives (9 hours)
Students should select 9 hours of 2000-, 3000-, or 4000-level GER, GET or GEW coursework in German.

REQUIREMENTS FOR THE MINOR IN HISTORY (HTY)

TOTAL MINOR HOURS: 18

The discipline of history embraces a diverse world of ideas, people and events and seeks to inform and to question, to provoke and to challenge students to a higher level of understanding of the past. A minor in History is an excellent complement to any undergraduate degree that benefits from a humanities discipline.

Minor Core (6 hours)
Lower-Level Elective Courses (6 hours)
Students must select 6 credit hours from 2000-level History Department course offerings.

Minor Electives (12 hours)
Upper Level Elective Courses (12 hours)
Students must select 12 credit hours from 3000- and 4000 upper-level History department course offerings.

Grading Requirement
A minimum grade of C- or better must be attained in each course.

Residency Requirement
A minimum of eight (8) hours must be completed at the University of South Florida.

Other Information
Students who wish to minor in History may declare the minor via the www.history.usf.edu Undergraduate web page; or may contact the undergraduate advisor at HistoryAdvise@usf.edu.

Advising Information
Undergraduate Advisor, History Department
HistoryAdvise@usf.edu
Location: Social Science Building (SOC) 274

REQUIREMENTS FOR THE MINOR IN HUMANITIES (HUM)

TOTAL MINOR HOURS: 18

The Humanities minor program offers an interdisciplinary curriculum that investigates the visual arts, music, and literature, and the cultures from which they emerge. The curriculum for the Humanities minor is comparable to that of the program for the B.A. degree, but it is less comprehensive.

Minor Core (18 hours)
Eighteen semester hours of Humanities courses (HUM prefix).
No more than six of these eighteen hours may be taken below the 3000 level.

REQUIREMENTS FOR THE MINOR IN INTELLIGENCE STUDIES (IQS)

TOTAL MINOR HOURS: 12

The Minor in Intelligence Studies provides an introductory foundation to the profession and practice of intelligence. Students are acquainted with the structure and function of the US Intelligence Community; ethical and professional issues in the intelligence field; intelligence analytic methods; tools and techniques for collecting/analyzing data and information from publicly available sources; and professional writing and briefing skills that are essential for effective
analytic communication. This minor can complement undergraduate majors such as Political Science, International Studies, Foreign Language studies, Criminology, Business, or Social/Behavioral Sciences.

**Minor Core (12 hours)**
- LIS 4671 Introduction to Intelligence Studies
- LIS 4672 Critical Thinking and Methods for Intelligence Analysis
- LIS 4673 Open Source Intelligence (OSINT)
- LIS 4029 Professional and Technical Communication for Analysts

**GPA Requirements**
A GPA of 3.0, or better is required to meet the requirements of the minor.

**Residency Requirement**
Six credit hours must be taken at USF.

**Advising Information**
For questions regarding the minor, please email Dr. Randy Borum: borum@usf.edu.

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**REQUIREMENTS FOR THE MINOR IN INTERDISCIPLINARY CLASSICAL CIVILIZATIONS (ICC)**

**TOTAL MINOR HOURS: 15-18**

http://languages.usf.edu/undergraduate/classics/icc/

The ICC Minor (15 hours minimum) can be fulfilled in one of two ways:

**Minor Core (15-18 hours)**
Courses are divided by level, with the "field" of study unrestricted (15-18 credit hours):
- Two courses (6 hours) from the ICC Minor "Core":
  - CLA 3103 Daily Life in Ancient Greece or CLT 3103 Epic Battles and Dramatic Reversals in Greek Thought
  - CLA 3124 Daily Life in Ancient Rome or CLT 3123 Voyages and Metamorphoses in Roman Imagination
  - CLT 3370 Gods, Heroes, and Monsters in the Ancient World
- Three to four credit hours from 2000- or 3000-level courses in Anthropology, History, Philosophy and Religious Studies, selected with the guidance and approval of the Coordinator.
- Six to eight credit hours from 3000- or 4000-level courses in Anthropology, History, Philosophy and Religious Studies, selected with the guidance and approval of the Coordinator.

Courses are organized along an interdisciplinary principle (15-18 credit hours):
- Two courses (6 hours) from the ICC Minor "Core":
  - CLA 3103 Daily Life in Ancient Greece or CLT 3103 Epic Battles and Dramatic Reversals in Greek Thought
  - CLA 3124 Daily Life in Ancient Rome or CLT 3123 Voyages and Metamorphoses in Roman Imagination
  - CLT 3370 Gods, Heroes, and Monsters in the Ancient World
- Nine to twelve credit hours from the Interdisciplinary Requirements. The student will complete three 3-4 credit courses, one each from three of the following four fields:
  - Anthropology
  - History
  - Philosophy
  - Religious Studies

Courses are chosen with the guidance and approval of the Coordinator from the list certified for the major.

**Advising Information**
ICC Coordinator: William Murray, Ph.D. | murray@usf.edu
Undergraduate Academic Advisor: Andrew Bird | ICCadvise@usf.edu
REQUIREMENTS FOR THE MINOR IN INTERNATIONAL STUDIES (INT)
TOTAL MINOR HOURS: 18
http://gia.usf.edu/is/

The minor in International Studies is a set of International Studies courses taken by a student that approximates one half of the upper level credits required for a major. The minor consists of 18 credit hours made up of six courses as follows:

**Minor Core (12 hours)**
- INR 3011 Globalization
- INR 4083 Conflict in the World
- INR 3038 International Wealth and Power or CPO 4034 Politics of the Developing Areas
- INR 3202 International Human Rights or INR 4502 International Organizations

**Minor Electives (6 hours)**
- Two (2) upper-level courses (6 hours) chosen from the International Studies Program’s offerings.

**Advising Information**
Each student’s program must be planned with the International Studies program major advisor, who is empowered to approve appropriate substitutions when educationally justified.
For information on INT advising, please visit http://gia.usf.edu/advisor/.

REQUIREMENTS FOR THE MINOR IN ITALIAN (ITA)
TOTAL MINOR HOURS: 15
http://languages.usf.edu/undergraduate/italian/

**Minor Core (6 hours)**
- ITA 2240 Italian Conversation I or ITA 2241 Italian Conversation II
- ITA 3420 Composition

**Minor Electives (9 hours)**
- Students must select 9 hours in 3000- or 4000-level courses except courses in translation.

**Advising Information**
Ms. Yury Riascos
languagesadvise@usf.edu

REQUIREMENTS FOR THE MINOR IN LINGUISTICS (LIN)
TOTAL MINOR HOURS: 15
http://languages.usf.edu/undergraduate/linguistics/

The linguistics minor can complement any language major, as well as many other majors. In the linguistics minor, you will have the opportunity to take upper-level classes focusing on language, culture, pedagogy and theoretical linguistics. The minor can prepare you for teaching a foreign language in the United States, teaching English overseas, working for a company in which there are multinational employees, and other similar careers. It will also give you a foundation to pursue graduate work in applied linguistics or languages. Knowledge of the structure of language will help you hone your analytic thinking skills, which can be transferred to other areas such as succeeding on the LSAT or entering a career in the field of computer science. Linguistics courses can also help you improve your writing-related skills, oral communication skills, and intercultural communication.

**Minor Core (3 hours)**
- LIN 3010 Introduction to Linguistics

**Minor Electives (12 hours)**
- ANT 3610 Anthropological Linguistics
- CLT 3040 Scientific and Medical Terminology
- FRE 4700 French Linguistics
- LIN 2002 Language, Culture & Film
- LIN 4671 Traditional English Grammar
- LIN 4701 Psycholinguistics
- LIN 4721 Second Language Acquisition
- LIN 4930 Special Topics (may be repeated; title must be different)
- SPA 3004 Introduction to Language Development and Disorders
- SPN 4700 Spanish Linguistics
- TSL 4362 Methodology of Teaching English Overseas
GPA Requirements
A minimum 2.0 GPA is required.

Grading Requirement
A minimum grade of C- or better must be attained in each course.

Residency Requirement
A minimum of nine (9) hours must be completed at the University of South Florida.

Advising Information
For more information, please contact the World Languages Undergraduate Advisor, Yury Riascos (LanguagesAdvise@usf.edu), or the Linguistics Minor Coordinator, Amanda Huensch.

REQUIREMENTS FOR THE MINOR IN LITERARY STUDIES (LTS)
TOTAL MINOR HOURS: 15
http://english.usf.edu/data/UG_LTSminor.pdf

Minor Core (15 hours)
One AML major course
Two ENL major courses
One 4000-level course from the Literary Studies concentration
One additional course from any English Department concentration: LTS, CRW, TCM

REQUIREMENTS FOR THE MINOR IN MASS COMMUNICATIONS (COM)
TOTAL MINOR HOURS: 18
http://masscom.usf.edu/ug/minor/

The minor in Mass Communications is available to students pursuing any other major at USF.

Minor Core (6 hours)
MMC 2100 Writing for the Media
MMC 3602 Mass Communications and Society

Minor Electives (12 hours)
Twelve (12) hours may be selected from among School offerings and must include a minimum of nine (9) hours at the 3000-level or higher.
FIL 3011 The Film as Mass Com II: Rhetor & Stylis
PGY 3610C Photojournalism I
PGY 3620 Photojournalism II
Any MMC, ADV, JOU, PUR, RTV, VIC course
All major course prerequisites must be met.

GPA Requirements
A 2.5 GPA in all minor coursework must be maintained.

Course Grade Requirement
A grade of "D" or "F" will not be counted toward a Mass Communications minor.

Residency Requirement
All minor hours must be completed at USF.

Other Information
Students who wish to minor must apply for admission to the School of Mass Communications and must meet all admission standards required of majors. Please see "Requirements for the Major in Mass Communications" for more admission information.
REQUIREMENTS FOR THE MINOR IN MATHEMATICS (MTH)
TOTAL MINOR HOURS: 27
http://math.usf.edu/ug/mminor/

The Mathematics minor offers a diversity of courses designed to emphasize the broad nature of modern mathematics and its close associations with the real world.

Minor Core (21 hours)
- MAC 2311 Calculus I or MAC 2281 Engineering Calculus I
- MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
- MAC 2313 Calculus III or MAC 2283 Engineering Calculus III
- MGF 3301 Bridge to Abstract Mathematics
- MAS 3105 Linear Algebra
- MAS 3156 Vector Calculus

Minor Electives (6 hours)
Complete any two (2) Mathematics courses from the following list
- COP 4313 Symbolic Computations in Mathematics
- MAA 4211 Intermediate Analysis I
- MAA 4212 Intermediate Analysis II
- MAA 4402 Complex Variables
- MAD 4203 Introduction to Combinatorics
- MAD 4301 Introduction to Graph Theory
- MAD 4401 Numerical Analysis I
- MAD 4402 Numerical Analysis II
- MAD 4504 Theory of Computation
- MAD 4471 Introduction to Cryptography and Coding Theory
- MAP 2302 Differential Equations
- MAP 4202 Optimization
- MAP 4341 Introduction to Partial Differential Equations
- MAS 4301 Elementary Abstract Algebra
- MAS 4302 Elementary Abstract Algebra II
- MGF 4406 The History of Modern Mathematics
- MTG 4214 Modern Geometry
- MTG 4254 Differential Geometry
- MTG 4302 Introduction to Topology
- STA 4321 Essentials of Statistics
- STA 4442 Introduction to Probability
- MAT 4930 Selected Topics in Mathematics may be taken as an elective with the prior approval of the department chair.

One course from another department which is of high mathematical content may also be taken as an elective, with the prior approval of the department chair.

Residency Requirement
A student wishing to receive a minor in Mathematics is required to take a minimum of eight (8) credit hours of required courses in the Department of Mathematics and Statistics at USF Tampa.

Other Information
The minor in Mathematics is open to all students. Students with majors in the sciences, engineering, business, and the social sciences are particularly encouraged to pursue the minor.

Advising Information
Please visit the following website http://math.usf.edu/resources/advising/ for additional information and all your advising needs.

REQUIREMENTS FOR THE MINOR IN MICROBIOLOGY (MIC)
TOTAL MINOR HOURS: 26

The Microbiology minor exists to recognize those students who wish to add a limited but sound understanding of microbiology to their major.

Minor Core (26 hours)
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
GPA Requirements
A minimum 2.0 average in the 26 credits is required for obtaining this minor.

Grading Requirement
A grade of C- is the minimum acceptable grade for courses in the minor. Students must have less than 3 D and/or F grades in Microbiology minor lecture courses.

Residency Requirement
Students must complete a minimum of 8 hours in Microbiology minor coursework at USF Tampa.

Other Information
Students who are declared Microbiology and Cell and Molecular major students are ineligible for this minor. All other Biology majors and concentrations must meet with an advisor to determine eligibility.

Advising Information
http://biology.usf.edu/bioadvise/
(813) 974-3250, Email: bioadvise@usf.edu

REQUIREMENTS FOR THE MINOR IN MODERN GREEK (MGR)
TOTAL MINOR HOURS: 16

Minor Core (16 hours)
GRK 2220 Modern Greek III
GRK 2221 Modern Greek IV
Two, four-credit hour GRK 4905 Directed Studies Courses

Advising Information
Yury Riascos (languagesadvise@usf.edu), Dr. Ippokratis Kantzios (kantzios@usf.edu)
Dr. Ippokratis Kantzios (kantzios@usf.edu)

REQUIREMENTS FOR THE MINOR IN PHILOSOPHY (PHI)
TOTAL MINOR HOURS: 18

Minor Core (6 hours)
History of Philosophy – 6 credit hours:
Choose two of the following courses:
PHH 3062 History of Western Philosophy: Ancient Philosophy
PHH 3280 Medieval and Renaissance Philosophy
PHH 3420 Early Modern Philosophy
PHH 3442 Late Modern Philosophy
PHH 4440 Continental Philosophy
PHH 4600 Contemporary Philosophy
PHH 4700 American Philosophy
PHH 4820 Chinese Philosophy
PHM 4331 Modern Political Philosophy
PHP 3786 Existentialism
PHP 4000 Plato
PHP 4010 Aristotle
PHP 4410 Kant

http://philosophy.usf.edu
COLLEGE OF ARTS & SCIENCES

UNIVERSITY OF SOUTH FLORIDA 2016-2017 UNDERGRADUATE CATALOG

PHP 4784 Analytical Philosophy
PHP 4788 Philosophy of Marxism

Minor Electives (12 hours)
Choose four courses (12 credit hours) from the following prefixes: PHH, PHI, PHM and PHP. No more than three elective hours taken at the 1000 and 2000 level may count toward the Philosophy minor. Courses taken to fulfill the six hours of History of Philosophy requirement will not count toward elective hours in the minor.

Grading Requirement
No course taken on an "S/U" basis may be applied toward the minor.

Advising Information
Andrew Bird, 813-974-6957, aibird@usf.edu

REQUIREMENTS FOR THE MINOR IN PHYSICS (PHY)
TOTAL MINOR HOURS: 17
http://physics.usf.edu/ug/degree/

Minor Core (11 hours)
PHY 2048 General Physics I
PHY 2048L General Physics I Lab
PHY 2049 General Physics II
PHY 2049L General Physics II Lab
PHY 3101 Modern Physics

Minor Electives (6 hours)
Plus 6 hours of upper level physics electives, subject to approval by the undergraduate advisor.
PHY 3221 Mechanics I
PHY 3323 Electricity and Magnetism
PHY 4222 Mechanics II
PHY 4604 Introduction to Quantum Mechanics
PHZ 5115 Methods of Theoretical Physics I
PHZ 5405 Solid State Physics I

GPA Requirements
A minimum 2.0 GPA average in the 17 credit hours is required for obtaining this minor.

Grading Requirement
A "C-" is the minimum acceptable grade for any course in the minor.

REQUIREMENTS FOR THE MINOR IN POLITICAL SCIENCE (POL)
TOTAL MINOR HOURS: 18
http://gia.usf.edu/ps/ughome/

Minor Core (6 hours)
Students must choose 6 credit hours from the following:
CPO 2002 Introduction to Comparative Politics or INR 2002 Introduction to International Relations
POS 2041 American National Government
POT 3003 Introduction to Political Theory

Minor Electives (12 hours)
An additional 12 credit hours of courses included in the Political Science major are required.

Students transferring credit hours toward a minor in Political Science must complete 12 credit hours within the department, regardless of the number of credit hours transferred.

Advising Information
To contact your advisor and schedule an appointment, please go to: http://gia.usf.edu/advisor/.
REQUIREMENTS FOR THE MINOR IN PROFESSIONAL WRITING, RHETORIC AND TECHNOLOGY (PRT)
TOTAL MINOR HOURS: 15
http://english.usf.edu/ug/concentrations/technical/

Minor Core (15 hours)
ENC 3242 Technical Communication for Majors
One of the following:
   ENC 4260 Advanced Technical Writing or
   ENC 4311 Advanced Composition
Any three of the following:
   ENC 3250 Professional Writing
   ENC 3310 Expository Writing
   ENC 3371 Rhetorical Theory for Technical Communication
   ENC 3416 New Media for Technical Communication
   ENC 3435 Rhetoric and Gaming
   ENC 4218 Visual Rhetoric for Technical Communication
   ENC 4931 Selected Topics in Professional and Technical Writing
   ENC 4931 Selected Topics in Professional and Technical Writing: Editing
   ENC 4931 Selected Topics in Professional and Technical Writing: Workplace Writing and Culture
One course from the Literary Studies concentration

REQUIREMENTS FOR THE MINOR IN PSYCHOLOGY (PSY)
TOTAL MINOR HOURS: 18
http://psychology.usf.edu/ug/minor/

The purpose of the minor is to help students majoring in other disciplines to obtain an appropriate psychology background that will complement their work in their major.

Minor Core (6 hours)
PSY 2012 Introduction to Psychological Science
PSY 3213 Research Methods or any Statistics course

Minor Electives (12 hours)
12 credit hours of four upper-level psychology courses, except PSY 4913 and DEP 3103.

GPA Requirements
A GPA of 2.0 or better in the minor is required for certification.

Course Grade Requirement
Students minoring in Psychology must obtain a "C" or better in any college level statistics course or PSY 3213.

Residency Requirement
Students must complete at least eight credit hours toward the minor in residency at USF.

Other Requirements
Permits are required for students to register for upper-level Psychology minor electives. Permits are available online at http://psychology.usf.edu/forms/CoursePermit/.

Advising Information
Department of Psychology Undergraduate Advising: psychad@usf.edu or http://psychology.usf.edu/ug/advising/.

REQUIREMENTS FOR THE MINOR IN PUBLIC ADMINISTRATION (PAN)
TOTAL MINOR HOURS: 15
http://spa.usf.edu/undergraduate/minor/

The Public Administration minor provides an introduction to public administration, public policy, state and local government. It is a smart choice for any student considering future employment in the public sector.

Minor Core (9 hours)
PAD 3003 Introduction to Public Administration
PAD 4204 Public Financial Administration
Minor Electives (6 hours)
Select 3 credit hours from:
- PAD 4930 Selected Topics in Public Administration and Public Policy
- PUP 4002 Public Policy
- PAD 4144 Non-Profit Organizations and Public Policy
- PAD 4712 Managing Information Resources in the Public Sector
- URS 3002 Introduction to Urban Studies
- URP 4052 Urban and Regional Planning

Advising Information
Please contact our advisers in the School of Public Affairs at HHSAdvise@USF.edu

REQUIREMENTS FOR THE MINOR IN RELIGIOUS STUDIES (REL)
TOTAL MINOR HOURS: 18
http://religious-studies.usf.edu/ugrad/requirements/

Minor Core (6 hours)
All minors must take:
- REL 3040 Introduction to Religious Studies
- REL 3043 Introduction to Major Religious Texts

Minor Electives (12 hours)
An additional 12 credit hours chosen from Religious Studies courses are required.

Grading Requirement
Only letter grades will be counted for coursework taken for the minor.

Other Information
It is the prerogative of the Department of Religious Studies to determine whether courses taken at other universities may be applied toward the minor at USF. This will be decided as soon as the student declares a minor in the Department of Religious Studies at USF.
Transfer students may not apply more than 6 credit hours taken elsewhere toward the minor at USF. Requests for transfer of credit must be made to the Undergraduate Director in writing when declaring a minor.

REQUIREMENTS FOR THE MINOR IN RUSSIAN STUDIES (RSS)
TOTAL MINOR HOURS: 15
http://languages.usf.edu/undergraduate/russian/

Minor Core (8 hours)
- RUS 2220 Intermediate Russian I
- RUS 2221 Intermediate Russian II

Minor Electives (7 hours)
Select seven (7) hours in 3000- or 4000-level courses:
- RUS 3240 Russian Language & Culture through Film
- RUS 3470 Overseas Study
- RUS 4241 Russian Language & Culture through Film II
- RUS 4900 Selected Topics
- RUS 4905 Directed Study
- RUT 3110 Nineteenth Century Russian Literature in English
- RUT 3111 Twentieth Century Russian Literature in English

Please contact a World Languages advisor to plan the appropriate coursework.

Other Requirements
Prerequisites: RUS 1200 Beginning Russian I (4 hrs) and RUS 1201 Beginning Russian II (4 hrs). Students may be able to place out of prerequisites if they pass as proficiency test. Heritage students will be placed in languages courses according to their proficiency.

Advising Information
Yury Riascos, languagesadvise@usf.edu
REQUIREMENTS FOR THE MINOR IN SOCIOLOGY (SOC)

TOTAL MINOR HOURS: 18

http://sociology.usf.edu/ug/major

Sociology is the study of human social relationships and institutions. Sociology's subject matter is diverse, ranging from crime to religion, from the family to the state, from the divisions of race and social class to the shared beliefs of a common culture, and from social stability to radical change in whole societies.

Minor Core (6 hours)
Minors must take:
- SYG 2000 Introduction to Sociology
- SYA 3110 Classical Theory

Minor Electives (12 hours)
Choose 12 credit hours from the following list:
- SYA 3310 Qualitative Inquiry
- SYA 4121 Queer Theory
- SYA 4930 Topics in Sociology
- SYD 3700 Racial and Ethnic Relations
- SYD 4238 Immigrants to America
- SYD 4410 Urban Sociology
- SYD 4411 Urban Life
- SYG 3235 Latina/Latino Lives
- SYO 3120 Sociology of Families
- SYO 3200 Sociology of Religion
- SYO 3460 Sociology of the Media
- SYO 4204 Religion and Immigration
- SYO 4536 Inequalities and Social Justice
- SYO 4573 Sociology of Childhood and Youth
- SYP 3562 Family Violence
- SYP 4012 Emotions in Society
- SYP 4111 Identify and Community
- SYP 4420 Consumer Culture
- SYP 4510 Sociological Aspects of Deviance
- SYP 4650 Sport in Society
- SYP 4675 Animals & Society
- SYP 4763 Sociology of Childhood and Youth

Grading Requirement
Only courses in which a grade of "C-" or better is attained will count toward the minimum hours.

Residency Requirement
At least 12 credits must be USF Tampa credits.

Other Information
No more than three hours of SYA 4910 "Individual Research" and no more than three hours of SYA 4949 Sociological Internship may count toward the 18 hour minimum.

While students do not declare a Sociology minor until application for graduation, they are encouraged to make an appointment with the Sociology department undergraduate advisor if they wish to discuss which Sociology electives offered each semester would best meet their educational and career goals.

Advising Information
While students minoring in Sociology are not required to see an advisor, it is strongly encouraged for students to make an appointment with the advisor, if he/she has questions about which Sociology courses might best contribute to their future career plans.

Shani Garza, Cooper Hall (CPR) 369, 974-9249 or Brandon Kroll, Cooper Hall (CPR) 235, 974-6983.
REQUIREMENTS FOR THE MINOR IN SPANISH (SPA)

TOTAL MINOR HOURS: 18

http://languages.usf.edu/undergraduate/spanish/degree/

Minor Core (6 hours)
- SPN 3300 Advanced Spanish Grammar and Composition*
- SPN 4301 Expository Writing
*SPN 3300 Advanced Spanish Grammar and Composition may be substituted for native speakers with SPN 2340 Advanced Spanish for Native Speakers I or SPN 2341 Advanced Spanish for Native Speakers II.

Minor Electives (12 hours)
Select 12 hours in 3000-, 4000- or 5000-level SPN or SPW courses, may include one course (three credit hours) of Spanish/Spanish American Literature in translation. Two of these courses must be at the 4000-level. All electives must be approved by a department advisor prior to enrollment.

Advising Information
Yury Riascos Email: languagesadvise@usf.edu

REQUIREMENTS FOR THE MINOR IN URBAN STUDIES (UST)

TOTAL MINOR HOURS: 15

This highly interdisciplinary minor is a great complement to any degree program. Students who are interested in pursuing a Masters of Urban and Regional Planning are strongly encouraged to consider this field of study. Understanding the economic, social, cultural, political and spatial phenomena of urban areas, and how they came to be, is essential if one is to thrive in today's world. The Urban Studies minor offers students the opportunity to supplement their education and training with a focus on the problems and potentials of the urban world around us. Eighty percent of Americans live in one of the country's nearly 400 major metropolitan areas. The Urban Studies curriculum begins with an interdisciplinary Introduction to Urban Studies and then weaves the multidisciplinary urban offerings into a coherent understanding of urban life.

Minor Core (9 hours)
- PAD 3003 Introduction to Public Administration
- URP 4052 Urban and Regional Planning
- URS 3002 Introduction to Urban Studies

Minor Electives (6 hours)
- AMH 3530 Immigration History
- ANT 4442 Urban Life and Culture
- ARC 4784 The City
- CCJ 3014 Crime and Justice in America
- PAD 4930 Selected Topics in Public Administration and Public Policy
- PUP 4002 Public Policy
- SOW 3210 The American Social Welfare System
- SYD 4410 Urban Sociology
- SYD 4411 Urban Life
- URP 4050 City Planning and Community Development
- URS 4930 Special Topics in Urban Studies

Course Grade Requirement
Only courses in which a grade of "C-" or better is attained will count toward the minimum hours.

Residency Requirement
A minor in Urban Studies consists of a minimum of 15 credit hours, at least 12 of which must be USF credits.

Other Information
Please visit our webpage at http://spa.usf.edu.

Advising Information
For more information, please contact our advisers in the School of Public Affairs at HHSAdvise@USF.edu.
REQUIREMENTS FOR THE MINOR IN
WOMEN'S AND GENDER STUDIES (WGS)
TOTAL MINOR HOURS: 18

http://wgs.usf.edu/undergrad/requirements/

The minor in Women's and Gender Studies is available to students pursuing any other major at USF.

Minor Core (6 hours)
WST 3015 Introduction to Women's Studies
One other WST core course

Minor Electives (12 hours)
12 credit hours selected from among departmental offerings and must include a minimum of six (6) hours at the 4000-level or higher.

Course Grade Requirement
A grade of "C-" is required for a departmental course to count toward a Women's and Gender Studies minor.

Grading Requirement
Courses may not be taken S/U, where a grade option exists.

Other Information
Students may petition the undergraduate advisor to focus their minor on a specific area within Women's and Gender Studies, such as sexualities, women's health or social justice.

REQUIREMENTS FOR THE CERTIFICATE IN
AFRICANA LITERATURES
TOTAL CERTIFICATE HOURS: 18

The College of Arts and Sciences offers this Certificate through the collaboration of the departments of Africana Studies, English, and World Languages. It is designed for majors in all colleges as well as non-degree seeking students who wish to engage in a focused study of Africana literatures, acquire appreciation and knowledge of these literatures, and have that knowledge formally recognized in their academic record. The Certificate is designed to enhance the student's academic and professional growth.

Students are required to take 18 credit hours. There are twelve hours of core courses and 6 hours of required elective courses. Other courses may be substituted for elective hours with the approval of the Undergraduate Director. Students must declare their intention to acquire the Certificate prior to completing nine hours of program coursework.

Certificate Core (12 hours)
AFS 3153 African Literature Survey
AML 3604 African American Literature
AFA 4430 Afro-Diasporic Literature and Political Movements
ENG 4013 Literary Criticism

Certificate Electives (6 hours)
Select any two of the following:
AFA 4931 Selected Topics in Africana Studies
AML 4624 Black Women Writers
WST 4410 Postcolonial Women Writers

Students are encouraged to make practical experience in the literary discipline an important component of their academic work. Students can enroll for 3 credit hours in the Africana Studies Internship course to fulfill this objective.

GPA Requirements
A cumulative overall GPA of 3.0 must be maintained in all work for the Certificate.

Grading Requirement
A grade of B or better is required in core courses.

Advising Information
Andrew Bird, Undergraduate Advisor, Behavioral Science Building (BEH) 201
REQUIREMENTS FOR THE CERTIFICATE IN AGRICULTURAL SUSTAINABILITY AND FOOD BIOSECURITY

TOTAL CERTIFICATE HOURS: 24

The certificate is designed to enhance majors within the Integrative Biology Department, particularly majors in Environmental Biology. It addresses a national need for increased agricultural training opportunities outside Land Grant institutions. The certificate will enhance the student’s academic growth, facilitate the student’s use of academic training to address important societal problems, and improve the student’s prospects of finding gainful employment.

Certificate Core (24 hours)

AMS 4804 Major Ideas in America: Ethics of Food Production or SWS 4207 Sustainable Agriculture and Urban Land Management (online course at University of Florida)
ECO 1000 Basic Economics or ECO 2013 Economic Principles (Macroeconomics)
BSC 4933 Selected Topics in Biology: Seminar in Environmental Risk Assessment
BSC 4940 Biology Internship
Two of the following courses:
   BSC 4933 Selected Topics in Biology
   GEO 3280C Environmental Hydrology
   GEO 4265 Soil Genesis and Classification
   GEO 4284 Water Resources Management
   GIS 5049 GIS for Non-Majors
Two of the following courses:
   BOT 3015C General Botany
   BOT 3152C Field Botany
   BOT 3373C Vascular Plants: Form and Function
   BSC 4933 Selected Topics in Biology
   ENY 3004C Introduction to Entomology
   ENY 5236 Insect/Pest/Vector Management (online course at University of Florida)
   PCB 3712 General Physiology
   ZOO 4233 Parasitology

Courses required for the certificate cannot be used to satisfy major's requirements.

Course Grade Requirement
Only the internship may be taken S/U. Nine credits of the certificate program must be completed before registering for BSC 4940 Biology Internship.

Other Requirements
Students must declare their intention to be awarded the certificate by notifying a Biology undergraduate advisor at least one full semester prior to graduation.

If a student chooses to take one of the approved University of Florida courses listed above, it is the student's responsibility to provide USF with an official transcript showing the approved course with a final grade.

For those students using financial aid, please be aware of USF’s cross enrollment/transient student policy, as stated in the undergraduate catalog.

REQUIREMENTS FOR THE CERTIFICATE IN ARABIC LANGUAGE AND CULTURE

TOTAL CERTIFICATE HOURS: 17

This certificate is constructed for individuals who are pursuing a bachelor’s degree in any field and are interested in developing their knowledge and understanding of the Arabic language and Middle Eastern culture. This certificate will prepare students for working in global business companies, the U.S. Department of State and other governmental or diplomatic positions, research centers, etc. in the future. It is offered through the Department of World Language Education.

Students must complete the following two courses before applying for the certificate program:
   ARA 1120 Modern Arabic I
   ARA 1121 Modern Arabic II

Certificate Core (11 hours)
   ARA 2220 Modern Arabic III
   ARA 2221 Modern Arabic IV
   FOL 4102 General Foreign Language II

Certificate Electives (6 hours)
Student choose two courses from the following list of electives:
- ASN 3030 The Middle East
- CPO 4034 Politics of the Developing Areas
- INR 3011 Globalization
- INR 3038 International Wealth and Power
- INR 4083 Conflict in the World

**GPA Requirements**
A minimum 3.0 GPA is required.

**Course Grade Requirement**
A minimum grade of a C or higher must be attained in each course.

**Residency Requirement**
A minimum of nine (9) hours must be completed at USF. In the case of study abroad programs, exceptions can be made.

**REQUIREMENTS FOR THE CERTIFICATE IN ASIAN STUDIES**

**TOTAL CERTIFICATE HOURS: 18**

[http://gia.usf.edu/astudies/](http://gia.usf.edu/astudies/)

The certificate in Asian Studies is designed for majors in any field who wish to gain a broad knowledge of a world area that is of unique importance.

**Certificate Core (18 hours)**

**Group A (at least two courses)**

*Art:*
- ARH 4530 Asian Art
- ARH 4557 Chinese Art

*Humanities:*
- HUM 2271 Eastern and Western Culture from Antiquity to 1400
- HUM 2273 Eastern and Western Culture Since 1400

*Languages:*
- CHI 1120 Modern Chinese I
- CHI 1121 Modern Chinese II
- CHI 2220 Modern Chinese III
- CHI 4905 Directed Study
- CHI 4930 Special Topics
- JPN 1120 Modern Japanese I
- JPN 1121 Modern Japanese II
- JPN 2220 Modern Japanese III
- JPN 2221 Modern Japanese IV
- JPN 4905 Directed Study
- JPN 4930 Selected Topics

*Religion:*
- REL 3318 Introduction to Chinese Religion
- REL 3330 Religions of South Asia
- REL 3335 Gods and Goddesses of India
- REL 3340 Buddhism Truths and Paths
- REL 4333 Hindu Texts and Contexts

**Group B (at least two courses)**

*Geography:*
- GEA 3703 Geography of Asia

*History:*
- ASH 2270 Southeast Asian History
- ASH 3404 Modern China
- HIS 2931* Special Topics

*International Studies:*
- ASN 3012 Japan Today
- ASN 3014 China Today
- INR 4900* Directed Readings
- INR 4910* Directed Research
INR 4931* Selected Topics

Political Science:
- CPO 4930* Comparative Government and Politics of Select Areas
- CPO 5934 Selected Topics in Comparative Politics
- INR 5086 Issues in International Relations

* with approval by the Advisor for the Certificate in Asian Studies

1. 18 semester hours from the courses listed.
2. At least two courses must be from Group A (no more than one course from the Languages will be counted for Group A) and at least two courses must be from Group B. (Other relevant courses may be substituted with the approval of the program advisor.)
3. Students must declare their intention to be awarded the certificate by notifying the program advisor at least one full semester prior to graduation.

GPA Requirements
Students who fail to achieve a cumulative 2.50 GPA or higher in the program will be denied the certificate.

Residency Requirement
A minimum of 12 credits must be taken at USF.

Advising Information
The advisor for the Certificate in Asian Studies is Pamela Anderson; she may be contacted at pkander2@usf.edu.

REQUIREMENTS FOR THE CERTIFICATE IN FILM STUDIES
TOTAL CERTIFICATE HOURS: 12-15
http://languages.usf.edu/undergraduate/cert/

The Certificate in Film Studies is designed for undergraduate students majoring in another field who also desire a concentration in film studies. The certificate program is a carefully structured, interdisciplinary sequence of four courses (12-15 credits) that provides students with a broad introduction to the field of film studies. Receipt of a Certificate in Film Studies is recorded on the student's transcript.

Spanning colleges, departments, and academic disciplines, the Certificate in Film Studies provides students with a balanced and multi-faceted course of study that will focus on the functions and manifestations of film as a medium in contemporary western society.

The proposed course of study grants the student a multi-disciplinary comprehension of film as an aesthetic medium and an understanding of how it describes, and has helped shape, the socio-political situation of western civilizations.

Certificate Core (3 hours)
FIL 1002 Introduction to Film Studies

Certificate Electives (9-12 hours)

Group I (Area Studies):
Students will take 3-4 credits of elective courses chosen from the following list:
- FRE 4392 African Images in Francophone Film
- GET 3522 Fantastic Films of Early German Cinema
- GET 3524 German Popular Film
- GET 4523 New German Cinema to Present
- HUM 4930 Selected Topics in Humanities*
- ITT 3504 Italian Culture through Film
- INR 4931 Selected Topics*
- LAS 3116 Latin America through Film

*Please see academic advisor for appropriate General Foreign Language and Special/Selected Topics courses.

Group II (Film Medium & History):
Students will take 3-4 credits of elective courses chosen from the following list:
- ENG 3113 Film as Narrative Art
- FIL 2000 Film and Culture
- FIL 3427C Beginning Film
- HUM 4581 Film and Media Theory
- THE 2252 Great Performances on Film

Group III (Socio-Political & Historical Perspectives):
Students will take 3-4 credits of elective courses chosen from the following list:
- AMS 3615 Film and American Society
- ARH 4744 Selected Topics in the History of Film
- HUM 4582 Film Auteurs
LAH 2733 Latin American History in Film
REL 3111 The Religious Quest in Contemporary Films
REL 3170 Religion, Ethics and Society through Film
SYG 3011 Social Problems through Film
WST 4335 Women and Film

The student and the Coordinator will plan the individual course of study, which requires between 12 and 15 semester hours. Students must declare their intention to be awarded the certificate by notifying the Coordinator at least one full semester prior to graduation.

GPA Requirements
A cumulative GPA of 2.50 in the certificate course work is required.

Grading Requirement
Courses must be taken on a letter-grade basis.

Other Information
Course of study must be approved by the Coordinator. Ideally, students should take at least one course from each group. Courses not included in the above groups may be included in the program if approved by the Coordinator.

Advising Information
To receive an application and for more information contact Dr. Margit Grieb, Coordinator of the Certificate in Film Studies, at grieber@usf.edu.

REQUIREMENTS FOR THE CERTIFICATE IN FOOD STUDIES
TOTAL CERTIFICATE HOURS: 12-15

http://humanities.usf.edu/undergraduate/food/

Offered through the Department of Humanities and Cultural Studies, the Certificate in Food Studies is designed for majors in any field who wish to gain an interdisciplinary knowledge of the relationships between humans and their food, especially focusing on the sociocultural relevance of food and food systems. Food Studies is a growing field that offers students the opportunity to be interdisciplinary in their methodological approach, while studying a subject that is of tremendous social, personal, ethical, environmental and global significance.

Certificate Core (3 hours)
HUM 3309 Introduction to Food Studies (GCP course)

Certificate Electives (12 hours):
An additional 12 credit hours of coursework must be selected from the categories Culture & History and System & Environments.

Group I – Culture & History (6 hours):
Courses in this category examine the cultural, historical, psychological, ethical and ideological factors involved in domestic and/or international patterns and practices of food production and consumption. Courses may address historical shifts (industrialization, for instance), cultural rituals, race and ethnicity, gender, socioeconomic class, labor and social justice movements, food security, media analysis, aesthetics and art.

Students must successfully complete two courses from the following list (or another suitable course chosen with the direction and approval of the certificate director and/or certificate advisor):
AMS 4804 Major Ideas in America*
AMH 3341 American Food and Drink History
ANT 4185 Ancient Diets (PR: ANT 3101)
ANT 4467 Food, Health, and Culture (PR: ANT 3101)
ANT 4465 The Anthropology of Food (PR: ANT 2000 or ANT 2410)
HUM 4930 Selected Topics in Humanities*
HUM 4940 Internship in Humanities
ITT 4531 Italian Food in Film (GCP course)
REL 4108 Religion and Food
SYD 4512 Sustainable Consumption (PR: SYG 2000)
SYP 4420 Consumer Culture (PR: SYG 2000)
*Variable Topics courses must be approved by the certificate director and the certificate advisor.

Group II – Systems & Environments (6 hours):
Courses in this category examine the biological, ecological, geographic, economic and political factors involved in domestic and/or international patterns and practices of food production and consumption. Courses may
address commodity chains, regulatory systems and policy, food safety, principles and practices of sustainable agriculture, applied urban farming, resource consumption, biodiversity, and migration patterns.

Students must successfully complete two courses from the following list (or another suitable course chosen with the direction and approval of the certificate director and/or certificate advisor):

- ANT 4403 Environmental Anthropology (PR: ANT 2410)
- BSC 1005 Biological Principles for Non Majors (FKL Life Science course)
- DIE 3310 Community Nutrition (PR: HUN 2201)
- EVR 4033 Environmental Regulation (PR: EVR 2861)
- FOS 4041 Food Quality and Composition (PR: HUN 2201)
- GEO 4265 Soil Genesis and Classification (PR: GEO 2200 or GLY 2010 or CI)
- HSC 4573 Foundations of Food Safety
- HUN 3126 Food and Culture (PR: HUN 2201)
- HUN 3296 Nutrition and Disease (PR: HUN 2201)
- MCB 4223 Food Microbiology (PR: MCB 3020/L)
- PHC 3320 Environmental Health Science

Students must declare their intention to be awarded the Certificate by notifying the Humanities and Cultural Studies Undergraduate Advisor at least one full semester prior to graduation.

GPA Requirements
A cumulative GPA of 2.5 in the Certificate coursework is required.

Grading Requirement
Courses must be taken on a letter-grade basis.

Additional Information
HUM 3309 is an approved Global Citizens Project (GCP) course and can be used towards the 6 credit hours needed to qualify for the Global Citizens Award.

REQUIREMENTS FOR THE CERTIFICATE IN INDIA STUDIES
TOTAL CERTIFICATE HOURS: 15

The certificate in India Studies is designed for majors in any field who wish to gain a broad knowledge of Indian culture and society.

Certificate Core (3 hours)
- GEA 3194 Regional Geography – India

Certificate Electives (12 hours)
Four electives (12 hours) must be taken--two each from Group A and two each from Group B.

Group A: History, Geography, Society, Politics (6 credit hours):
Courses that may be applied as electives to the India Studies Certificate are as follows:
- GEO 4930 Selected Topics
- INR 4931 Selected Topics

Group B: Language, Culture, Philosophy, and Religion (6 credit hours):
Courses that may be applied as electives to the India Studies Certificate are as follows:
- REL 2300 Introduction to World Religions
- REL 3043 Introduction to Major Religious Texts
- REL 3308 World Religions
- REL 3330 Religions of South Asia
- REL 3335 Gods and Goddesses of India
- REL 4333 Hindu Texts and Contexts
- HUM 3930 Special Topics in Humanities

Group C: Study Abroad (6 credit hours) (Optional):
Students with Study Abroad experience in India may substitute one course each from Group A and Group B for six credit hours. The Advisory Committee will determine which courses taken as part of the overseas experience will count toward fulfilling the requirement for the certificate. Please contact Advisory Committee members: Dr. Gurleen Grewal at grewal@usf.edu or Dr. Pratyusha Basu at pbasu@usf.edu to determine the study abroad courses that will count.

Students in the India Studies Certificate program are strongly encouraged to study abroad on at least one USF in India Program. Courses taken as part of the overseas experience will count toward fulfilling the requirements for the certificate.
GPA Requirements
Students must maintain a minimum cumulative 3.00 GPA

Grading Requirement
Students must maintain a minimum 3.00 GPA in courses applied to the India Studies certificate.

Advising Information
Dr. Gil Ben-Herut, Asst. Professor of South Asian Religions, Department of Religious Studies, (813) 974-2221

REQUIREMENTS FOR THE CERTIFICATE IN ITALIAN STUDIES
TOTAL CERTIFICATE HOURS: 23-28
http://italianstudies.cas.usf.edu/Italian_Studies_Program.pdf

The College of Arts and Sciences and the College of Visual and Performing Arts offer a certificate in Italian Studies. The history of the geographic expression that today we call Italy is the sum of many particular histories and cultures. Yet, in their diversity and diaspora, the people of Italy have preserved, through time and place, a sense of common identity. For this reason, to understand the complexity of past and present experiences of Italians in the peninsula and of their descendants abroad, the Undergraduate Certificate in Italian Studies is designed with a broad interdisciplinary perspective.

The certificate will encompass courses in several departments in two colleges. The majority of courses will focus on the study of history and culture of the people who inhabit or originated from the Italian peninsula and the islands of Sardinia and Sicily from pre-historic times to the present. In addition, however, offerings will also focus on the Italian diaspora with specific reference to the experiences of people of Italian descent in the many nations in which they settled from the early 19th century to the present.

Students are required to take between 23 and 28 semester hours from a list of courses approved for the certificate. A Faculty Advisory Committee will coordinate the Certificate of Italian Studies. Students may receive credit for courses, not included in the below list, or (if circumstances require it) may substitute a required course with another, by petitioning and if approved by the Advisory Committee.

Certificate Core (9 hours)
Each student will take three courses at the 3000 or 4000 level on topics related to Italy in either Art History (ARH), Italian literature and culture (ITW), or History (HIS). However, only one course will be allowed from each department.

Certificate Electives (6-8 hours)
Students will take 6-8 credits of elective courses related to Italy. Course topics may vary. The following lists some of the possible courses:

Anthropology:
ANT 4143 European Archaeology
ANT 4930 Special Topics in Anthropology*

Art History:
ARH 4318 Venetian Art [instructor's consent]

English:
LIT 4930 Special Topics in English Studies*

Government and International Affairs:
POT 4936 Selected Topics in Political Theory*

History:
EUH 3412 Roman Republic
EUH 3413 Roman Empire
HIS 3930 Special Topics*

World Languages:
CLA 3124 Daily Life in Ancient Rome
CLT 3123 Voyages and Metamorphoses in Roman Imagination
ITA 1120 Beginning Italian I
ITA 1121 Beginning Italian II
ITA 1200 Italian III
ITA 2240 Italian Conversation I
ITA 2241 Italian Conversation II
ITA 3420 Composition
ITA 3470 Overseas Study
ITW 4100 Survey of Italian Literature I
ITW 4101 Survey of Italian Literature II
ITW 4905 Directed Study
LAT 1120 Beginning Latin I

Theatre:
THE 4480 Drama - Special Topics
*Please see an academic advisor for appropriate Special/Selected Topics courses.

Study Abroad: Students in the Italian Studies Certificate program are strongly encouraged to study abroad for the summer, a semester or a year in the USF in Italy program or in any other accredited program. The Advisory Committee will determine which courses taken as part of the overseas experience will count toward fulfilling the requirements for the certificate.

Students may apply a maximum of sixteen credits in the same department toward fulfilling the requirements for the certificate.

Language Requirement: Students must demonstrate proficiency in Italian or complete two semesters of language courses chosen from the following courses.
- ITA 1120 Beginning Italian I
- ITA 1121 Beginning Italian II
- ITA 2200 Intermediate Italian I
- ITA 2240 Italian Conversation I
- ITA 2241 Italian Conversation II
- ITA 3420 Composition
- LAT 1120 Beginning Latin I

Advising Information
For additional information, send a message to Dr. Giovanna Benadusi or Dr. Fraser Ottanelli, Coordinators of the Certificate in Italian Studies at itastudies@cas.usf.edu.

REQUIREMENTS FOR THE CERTIFICATE IN JAPANESE
TOTAL CERTIFICATE HOURS: 15-17

The certificate is constructed for individuals who are pursuing a bachelor's degree in any field and desire to advance their Japanese learning. By developing individuals' knowledge and understanding for the Japanese language and culture, this certificate will prepare them for working in Japan or for Japanese companies, working as a foreign service officer in the U.S. Department of State, or applying for the Japanese Exchange and Teaching (JET) program, etc. in the future. The certificate is offered through the Department of World Languages.

Students must complete the following two courses or their equivalents before applying to the certificate program.
- JPN 1120 Modern Japanese I
- JPN 1121 Modern Japanese II

Certificate Core (11 hours)
- JPN 2220 Modern Japanese III
- JPN 2221 Modern Japanese IV
- FOL 4102 General Foreign Language II: Japanese V

Certificate Electives (4-6 hours)
- Students choose two (2) courses from the following list of electives:
  - FOL 2100 General Foreign Language I: Japanese Calligraphy
  - FOL 4102 General Foreign Language II: USF Japanese Study Program (summer)
  - FOL 4102 General Foreign Language II: Japanese VI

GPA Requirements
A minimum 2.0 GPA is required.

Course Grade Requirement
A minimum grade of C or higher must be attained in each course.

Residency Requirement
A minimum of 9 credit hours must be completed at the University of South Florida. In case of study abroad programs, exceptions can be made.
The College of Arts and Sciences offers a Certificate in Latin American and Caribbean Studies for students who wish to gain an intensive multi-disciplinary understanding of this important area, and have that knowledge formally recognized in their academic record. This program is open to all USF majors of all colleges.

**Certificate Core (3 hours)**
- Core Seminar LAS 3002 Latin America (3 credit hours)

**Certificate Electives (12 hours)**
Students should choose four courses (12 credit hours) from the following list of courses:

**Anthropology**
- ANT 4165 South American Archaeology
- ANT 4316 Ethnic Diversity in the United States
- ANT 4323 Mexico and Central America
- ANT 4340 The Caribbean
- ANT 4472 Work and Migration in the Americas

**Geography/Government & International Affairs**
- CPO 4034 Politics of the Developing Areas
- CPO 4930 Comparative Government and Politics of Select Areas (when selected area is Latin America)*
- GEA 3405 Geography of Latin America

**History**
- LAH 2733 Latin American History in Film
- LAH 3430 History of Mexico
- LAH 3470 History of the Caribbean
- LAH 3480 History of Cuba
- LAH 3743 Spanish America in the Age of Revolution
- LAS 4023 African Diaspora in Latin America and the Caribbean
- LAS 4934 Selected Topics: Latin American Studies
- LAS 4940 Internship in Latin America and the Caribbean

**Art/Humanities/Literature**
- AML 3630 U.S. Latino/Latina Literature in English
- HUM 2466 Modern Latin American Cultures
- HUM 3463 Latin American Civilization I: Pre-Columbian and Colonial
- HUM 4462 Pre-Columbian and Colonial Latin American Culture
- HUM 4464 Modern Latin American Culture
- SPN 3520 Spanish-American Civilization
- SPT 3100 Masterpieces of Hispanic Literature
- SPW 3030 Introduction to Hispanic Literary Studies
- SPW 4130 Survey of Spanish-American Literature I
- SPW 4131 Survey of Spanish-American Literature II

**Others**
- AFA 4500 Slavery in the Americas and the Caribbean
- REL 3375 Issues in Caribbean Religions
- SOW 4522 Multicultural America in a Global Society
- SSE 4380 Global and Multicultural Perspectives in Education
- SYD 4238 Immigrants to America
- SYG 3235 Latina/Latino Lives
- SYO 4204 Religion and Immigration
- WST 4262 Literature by Women of Color in the Diaspora

Study abroad programs are encouraged and will be credited toward the Certificate. Up to 6 study abroad credits earned in residence in Latin America and/or the Caribbean will count for the certificate.

**Foreign Language Requirement**
Two semesters of course work in a relevant language such as: Spanish, Portuguese, French, or an Amerindian language such Quechua, Haitian Creole, etc.

**Other Information**
The program is open to all majors in all colleges.
REQUIREMENTS FOR THE CERTIFICATE IN MODERN WESTERN EUROPEAN STUDIES
TOTAL CERTIFICATE HOURS: 21-24
http://mwestudies.cas.usf.edu/certificate_requirements.html

The College of Arts and Sciences offers this certificate through the collaboration of the Departments of English, Geography, History, Humanities and Cultural Studies, Government and International Affairs, World Languages, and Philosophy. It is designed for majors in any field who wish to gain a multi-disciplinary understanding of a part of the world that has shaped much of our civilization and holds great significance for Americans in the present and the future.

Certificate Core (15-16 hours)
Students will take a total of three courses from the following; one of them must be either EUS 3000 or GEA 3500. Students will take two additional semesters of the foreign language they have taken in fulfillment of the College of Arts and Sciences language requirement.

Core Courses (9-10 credit hours)
- EUS 3000 Europe
- GEA 3500 Geography of Europe
- EUH 3205 History of Nineteenth Century Europe or EUH 3206 History of Twentieth Century Europe
- HUM 2250 Studies in Culture: The Twentieth Century
- LIT 3144 Modern European Novel
- PHM 4331 Modern Political Philosophy

Language Requirement (6 credit hours)

Certificate Electives (6-8 hours)

Students should make Western European study and travel an important component of their academic work. They are required to enroll for at least 3 elective credit hours in courses that involve Western European study and travel. These may be taken in one of three ways:

*Elective courses under options (2) and (3) will be chosen in consultation with the Coordinator and an Advisory Committee.

Western European study and travel allows students to concentrate on one of the areas of electives. Students may want to use overseas experience credits to fulfill their summer enrollment requirement.

A structured alternative experience in the United States may be substituted for the Overseas Experience. The Certificate accepts IDS 4955 or 4956 (Off-Campus Term Special Project) or any of the courses listed below as Elective Courses for credit for this requirement. Coordinator, Advisory Committee and student will tailor the experience to fit the student's individual needs.

(Note: the student should take courses from the list below after completing the two additional semesters of the foreign language requirement (see I) or, if already advanced in a language, with the instructor’s approval. These courses are generally taught in the target language.)

Overseas Experience
as IDS 4955 (Off-Campus Term International Program), as one or two of the courses listed below as Elective Courses, or as part of overseas study courses offered by other USF colleges and other universities.

English
- ENL 3230 British Literature 1616-1780
- ENL 3251 British Literature 1780-1900
- ENL 3273 British Literature 1900-1945
- ENL 3331 Early Shakespeare
- ENL 3332 Late Shakespeare
- LIT 3102 Literature of the Western World Since the Renaissance

History
- EUH 3142 Renaissance and Reformation
- EUH 3202 History of 17th and 18th Century Europe
- EUH 3205 History of 19th Century Europe
- EUH 3206 History of 20th Century Europe
- EUH 3462 German History 1870 to Present
- EUH 3501 British History to 1688
EUH 3502 British History 1688 to Present
HIS 3930 Special Topics
HIS 4900 Directed Reading

**Humanities and Cultural Studies**
HUM 4905 Directed Study
HUM 4941 Study on Location

**Government and International Affairs**
CPO 4930 Comparative Government and Politics of Select Areas
INR 3955 Overseas Study
INR 4900 Directed Readings
INR 4910 Directed Research
INR 4931 Selected Topics
POS 3931 Selected Topics
POS 4905 Independent Study
POT 4054 Modern Political Theory

**World Languages**

**FRENCH**
FRE 3234 Reading in French Literature and Culture
FRE 3440 French for Business
FRE 3500 French Civilization
FRW 4100 The French Novel
FRW 4101 Introduction to French Drama and Poetry
FRE 4905 Directed Study
FRE 4930 Selected Topics

**GERMAN**
GER 3500 German Civilization
GET 3103 German Literature in English Translation
GET 3522 Fantastic Films of Early German Cinema
GEW 4100 Survey of German Literature I
GEW 4101 Survey of German Literature II
GEW 4900 Directed Study
GEW 4930 Selected Topics

**ITALIAN**
ITW 4100 Survey of Italian Literature I
ITW 4101 Survey of Italian Literature II
ITW 4905 Directed Study

**SPANISH**
SPN 3440 Spanish for Business and International Trade I
SPN 3441 Spanish for Business and International Trade II
SPN 3500 Spanish Civilization
SPW 3030 Introduction to Hispanic Literacy Studies
SPW 4100 Survey of Spanish Literature I
SPW 4101 Survey of Spanish Literature II
SPW 4900 Directed Study
SPW 4930 Selected Topics

**Philosophy**
PHH 3420 Early Modern Philosophy
PHH 4440 Continental Philosophy
PHM 4331 Modern Political Philosophy
PHP 3786 Existentialism
PHP 4410 Kant

Students must declare their intention to be awarded the certificate by notifying the Coordinator at least one full semester prior to graduation.

**GPA Requirements**
A cumulative GPA of 2.5 in the certificate course work is required.

**Research Opportunities**
Students may avail themselves of Research Opportunities through Undergraduate Research and/or WLE’s annual Research Colloquium where they may present their research. Students will want to contact professors in the areas they may wish to do research.
REQUIREMENTS FOR THE CERTIFICATE IN
NATIONAL INTELLIGENCE
TOTAL CERTIFICATE HOURS: 26

http://information-analytics.cas.usf.edu/INTEL/Index.htm

The Certificate Program in National Intelligence is designed to promote students' analytical capabilities, not only improving their competitiveness in the employment process, but also giving them solid intellectual foundations for demanding professional careers. The program specifically helps prepare students for careers in government, especially intelligence positions, as well as analytical executive positions in the banking, insurance, and the pharmaceutical industries. The flexible program includes workshops and seminars which each student can fit with his or her major course of study. Those who complete the certificate program should be able to effectively gather, analyze, and evaluate information and present conclusions both orally and in writing.

Certificate Core (26 hours)

Foreign Language Proficiency: (minimum 4 semesters of language study, or proficiency):
Students must pass an exam administered by the World Languages Department to determine if the student has the equivalent of two years of language instruction in any foreign language. The placement exam will be administered after a student has taken language instruction at USF or for students who claim foreign language proficiency upon enrolling at USF. Those students who want to pursue additional training in a “hard” language (Chinese, Arabic, for example) are eligible for some funding support under this program. Interested students should submit a language-study proposal to the Director of the Program.

Professional Writing: (3 credit hour minimum):
The certificate program places a heavy emphasis on developing writing skills. Certificate holders must have satisfactorily completed one of the following professional writing courses:
- ENC 3242 Technical Communication for Majors
- ENC 3250 Professional Writing
- ENC 3310 Expository Writing
- PHC 4720 Foundation to Professional Writing in Public Health
- LIS 4029 Professional and Technical Communication for Analysis

International Relations: (3 credit hour minimum):
Certificate holders must have satisfactorily completed one of the following international relations courses:
- CPO 2002 Introduction to Comparative Politics
- INR 3102 American Foreign Policy
- CPO 4930 Comparative Government and Politics of Select Areas

Analytical Skills and Critical Thinking Courses: (6 credit hour minimum):
Certificate holders must satisfactorily complete courses in their majors/minors that promote analytical skills and critical thinking. The Program Director, in consultation with the Dean of the College or Department of a requesting student, can include proposed courses (such as independent study) to fulfill this requirement; course approval will be made on a case-by-case basis. The Analytical Skills and Critical Thinking requirement should be met by taking the appropriate courses for your major.
- AMS 4935 Senior Seminar in American Studies
- CEG 4850 Capstone Geotechnical/Transportation Design
- CES 4704 Capstone Structural/Materials Design
- CIS 4250 Ethical Issues and Professional Conduct
- CWR 4812 Capstone Water Resources/Environmental Design
- ECH 4615 Product and Process Design
- EEL 4914 EE Design 2
- EIN 4891 Capstone Design
- EML 4551 Capstone Design
- GEB 4890 Strategic Management and Decision Making
- HIS 4936 Pro-Seminar in History
- HSC 4631 Critical Issues in Public Health
- MHS 4731 Writing for Research and Publication in Behavioral and Community Sciences
- MAN 4631 Global Perspectives and Management Choices
Workshops and Seminars: (2 credit hour minimum):
The Program Director will conduct workshops (one-day) and seminars (four consecutive days during the summer break). Students pursuing a certificate must participate in one workshop prior to registering for a seminar. The workshops will be conducted frequently during the academic year and the four-day seminar will be offered during the summer months (ideally, one in June, one in July and one in August). Satisfactory completion of the seminar constitutes a 2-credit course. The seminars may be repeated for credit.
The requirements for the undergraduate certificate are:
- Minimum of four (4) semesters of instruction in one foreign language, and passing a foreign language proficiency test in the subject matter. Students who are proficient in a foreign language may take a foreign language proficiency examination as administered by the University.
- Satisfactory completion of at least one professional writing course
- Satisfactory completion of at least one international relations course
- Satisfactory completion of at least two courses in college/major departments that promote analytic skills and critical thinking
- Satisfactory completion of a 4-day summer seminar organized by the Program Director
- Only degree-seeking undergraduate students may apply for this certificate.

Grading Requirement
Satisfactory completion of all coursework for the certificate with a grade of C or better, C- is not sufficient.

Residency Requirement
18 hours of coursework for the minor must be completed at USF Tampa.

REQUIREMENTS FOR THE CERTIFICATE IN RUSSIAN STUDIES
TOTAL CERTIFICATE HOURS: 23-26
http://history.usf.edu/ug/russian/

This certificate is designed for majors in any field who wish to enhance their understanding of the peoples and cultures of Russia, Eastern Europe, and Central Asia. The College of Arts and Sciences offers this certificate through the collaboration of the Department of World Languages, Government and International Affairs, and History. Courses from other departments may count if their subject matter has significant Russian or Eurasian content.

Certificate Core (10-11 hours)
Two of the following courses:
- EUH 3575 History of Imperial Russia, 1689-1917
- EUS 3022 Russia

One of the following courses:
- RUS 3500 Russian Civilization
- RUT 3110 Nineteenth Century Russian Literature English
- RUT 3111 Twentieth Century Russian Literature in English

Certificate Electives (13-15 hours)
- HIS 3930 Special Topics*
- HIS 4900 Directed Reading*
- INR 3018 World Ideologies
- INR 4900 Directed Readings*
- INR 4910 Directed Research*
- INR 3955 Overseas Study*
- RUS 2221 Intermediate Russian II
- RUS 3240 Russian Language & Culture through Film
- RUS 4241 Russian Language & Culture through Film II
- RUS 2270 Overseas Study
- RUS 3470 Overseas Study

*When topic is defined as Russia, Eastern Europe or Eurasia

Students must declare their intention to be awarded the certificate by notifying the coordinator at least one full semester prior to graduation. Please contact Dr. Kees Boterbloem in the Department of History by e-mail: cboterbl@usf.edu.

Language
All students are encouraged to develop their language skills to the highest possible level. Non-heritage All students are encouraged to develop their language skills to the highest possible level, whether they are working in a Slavic, Turkic, or other language of the region. Russian language students who are non-native speakers should complete at
least RUS 2200 (Intermediate Russian I), and native speakers should complete one semester of RUS 4900 Selected Topics: Analytical Reading. It is very important that students begin developing their language skills as early as possible. Although students only have to declare their intention one semester before graduation, it takes significantly longer to learn a language such as Russian. It is recommended that students take as many years of language study as possible.

GPA Requirements
Maintain a GPA of 3.0.