# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section Title</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>About the College</td>
<td>96</td>
</tr>
<tr>
<td>Admission Requirements</td>
<td>96</td>
</tr>
<tr>
<td>College-Level Requirements</td>
<td>96</td>
</tr>
<tr>
<td>Listing of Programs Offered</td>
<td>97</td>
</tr>
<tr>
<td>Advising Offices and Contact Information</td>
<td>99</td>
</tr>
<tr>
<td>Majors Offered</td>
<td>103</td>
</tr>
<tr>
<td>Minors Offered</td>
<td>235</td>
</tr>
<tr>
<td>Certificates Offered</td>
<td>256</td>
</tr>
</tbody>
</table>
About the College

Our Mission
The College of Arts and Sciences is the intellectual heart of the University of South Florida. We are a community of teachers and scholars united in the belief that broadly educated people are the basis of a just, free and prosperous society. By focusing on the big questions facing all of humanity, we prepare students for successful personal and professional lives. By conducting innovative, interdisciplinary research and scholarship, we advance knowledge in ways that prepare us to address vexing social problems and enhance quality of life for people and communities.

General Information
The College of Arts and Sciences Dean’s Office of Academics is located in the Behavioral Sciences Building (BEH), Room 201. For additional information about the College, visit our web site at http://www.cas.usf.edu and select the Academics tab. Information regarding advising, admission to the College, graduation requirements, special programs, and departments follows.

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. The Zimmerman School of Advertising and Mass Communications is a limited access degree program and has additional requirements.

Undergraduate students must submit a formal declaration of major 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 Academics (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 selecting the Academics tab.

College-Level 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. Students must complete all State and University level graduation requirements.
2. Maintain a minimum GPA of 2.0 in USF coursework. Note: Some Departments/program/major require a higher GPA. Students should refer to Department/program/major specific catalog requirements.
3. Physical Education coursework is limited to two (2) semester hours.
4. ROTC courses that are primarily physical training and field experiences will not be applied to College of Arts and Sciences degree programs. All other military Science coursework will apply, in particular, coursework utilized toward completing an established ROTC minor will be applied to the total hours toward degree.
5. When earning a double major/dual degree, 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/dual degrees
     requires prior approval.
6. 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 State Communication Requirement (formerly known as Gordon Rule Writing) and State Computation Requirement (formerly known as Gordon Rule Math) may not be taken S/U.
7. The Audit option is available only during the first 5 days of classes.
8. "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.

9. Complete all major course requirements.

10. Some College of Arts and Sciences Departments/programs/majors have established minimum major course hours to be taken in residency at USF. See the major or program section of the catalog for these credit-hour requirements.

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

<table>
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<th>Bachelor of Arts (B.A.)</th>
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<tr>
<td>Anthropology (ANT)</td>
<td>Public Administration (IPAD)</td>
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<tr>
<td>Chemistry (CHM)</td>
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<td>Religious Studies (IREL)</td>
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<tr>
<td>Biochemistry/Biotechnology (CBY)</td>
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<td>Deaf Studies (IDFT)</td>
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<td>Multidisciplinary Behavioral Sciences (IMDS)</td>
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<td></td>
<td>Political Science (IPOL)</td>
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International Studies (INT)

| 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) | Applied Linguistics (WLAL)                                           |
| General Mathematics (GMM)              | Chinese Language and Culture (WLCC)                                   |
| Pure Mathematics (PMM)                 | Classics (WLCL)                                                      |
| Philosophy (PHI)                       | East Asian Languages and Cultures (WLEA)                              |
| Physical Sciences (PSBA)               | French (WLFR)                                                        |
| Physics (PHY)                          | French International Studies and Business (WLFB)                      |
| Political Science (POL)                | German (WLGR)                                                        |
| Psychology (PSY)                       | Interdisciplinary Classical Civilizations (WLIC)                      |
| Religious Studies (REL)                | Italian (WLIT)                                                       |
| Sociology (SOC)                        | Russian (WLRS)                                                       |
|                                       | Spanish (WLSP)                                                       |
| Statistics (STC)                       | Spanish and International Studies and Business (WLSB)                |
| Women's and Gender Studies (WGS)       |                                                                        |

World Languages and Cultures (WLC)

| World Languages and Cultures (WLC)     | Applied Linguistics (WLAL)                                           |
|                                       | Chinese Language and Culture (WLCC)                                   |
|                                       | Classics (WLCL)                                                      |
|                                       | East Asian Languages and Cultures (WLEA)                              |
|                                       | French (WLFR)                                                        |
|                                       | French International Studies and Business (WLFB)                      |
|                                       | German (WLGR)                                                        |
|                                       | Interdisciplinary Classical Civilizations (WLIC)                      |
|                                       | Italian (WLIT)                                                       |
|                                       | Russian (WLRS)                                                       |
|                                       | Spanish (WLSP)                                                       |
|                                       | Spanish and International Studies and Business (WLSB)                |
# COLLEGE OF ARTS & SCIENCES

## Bachelor of Science (B.S.)
- Biomedical Sciences (BMS)
- Cell and Molecular Biology (CAM)
- Chemistry (CHS)
- Environmental Biology (ENB)
- Environmental Microbiology (EMB)
- Environmental Science and Policy (ESP)
- Geology (GLS)

### Health Sciences (HLS)
- Aging Health Studies (HAH)
- Aging Health Studies and Health Information Technology (HIT)
- Aging Health Studies and Health Management (HAM)
- Biological Health Sciences (HBH)
- Biological Health Sciences and Aging Health Studies (HBA)
- Biological Health Sciences and Health Information Technology (HBI)
- Biological Health Sciences and Health Management (HBM)
- Biological Health Sciences and Social and Behavioral Health Sciences (HSB)
- Health Information Technology (HHT)
- Health Management (HMM)

## Health Sciences (HLS) (continued)
- Health Management and Health Information Technology (HMT)
- Social and Behavioral Health Sciences (HBS)
- Social and Behavioral Health Sciences and Aging Health Studies (HAS)
- Social and Behavioral Health Sciences and Health Information Technology (HST)
- Social and Behavioral Health Sciences and Health Management (HMG)

### Information Studies (IFS)
- Data Science and Analytics (IDSC)
- Health Informatics (IHIC)
- Information Science and Technology (ISTC)
- Information Security (ISC)

### Integrative Animal Biology (IAB)
- Interdisciplinary Natural Sciences (INS)
- Marine Biology (MRN)
- Medical Technology (MET)
- Microbiology (MIC)
- Physical Sciences (PSBS)
- Physics (PHS)
- Quantitative Economics and Econometrics (QEE)

## Accelerated Programs
- B.S. Biomedical Sciences/M.A.T. Science Education
- B.S. Cell and Molecular Biology/M.S. Biology: Cell and Molecular Biology (non-thesis)
- B.A. Chemistry/M.A.T. Science Education
- B.S. Chemistry/M.S. Biomedical Engineering
- B.A. Economics/M.A. Economics
- B.A. English: Literary Studies/M.A. English: Literature
- B.S. Environmental Biology/M.A.T. Science Education
- B.S. Environmental Microbiology/M.A.T. Science Education

## Honors Programs
- Anthropology
- Communication
- English
- Geology
- Mathematics
- Philosophy

## Minors
- Africana Studies (AFA)
- American Studies (AMS)
- Anthropology (ANT)
- Astronomy (AST)
- Biomedical Anthropology (BAN)
- Biomedical Physics (BPH)
- Chemistry (CHM)
- Chinese Language (CHN)
- Classics (CLS)
- Communication (SPE)
- Creative Writing (CRW)
- Economics (ECO)
- Environmental Policy (ESP)
- Film and New Media Studies (FNM)
- French (FRE)
- Geographic Information Systems and Technology (GIST) (formerly Geography)
- Geology (GLY)
- German Studies (GMS)
- History (HTY)
- Humanities (HUM)
- Intelligence Studies (IOS)
- Interdisciplinary Classical Civilizations (ICC)
- International Studies (INT)
- Italian (ITA)
- Linguistics (LIN)
- Literary Studies (LTS)
- Mass Communications (COM)
Mathematics (MTH)  
Microbiology (MIC)  
Modern Greek (MGR)  
Philosophy (PHI)  
Physics (PHY)  
Political Science (POL)  
Professional Writing, Rhetoric and Technology (PRT)  
Psychology (PSY)  

Certificates  
Africana Literatures  
Agricultural Sustainability and Food Biosecurity  
Arabic Language and Culture  
Asian Studies  
Film Studies  
Food Studies  
India Studies  

The following majors and concentrations are accepting no new admission because they were discontinued effective Fall 2016:  
Classics-Latin/Greek (CLS)  
French (FRE)  
International Studies and Business (IFB)  
German Studies (GMS)  
Interdisciplinary Classical Civilizations (ICC)  
Italian (ITA)  
Russian Studies (RSS)  
Spanish (SPA)  
International Studies and Business (ISB)  

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<thead>
<tr>
<th>Major</th>
<th>Advisor(s)</th>
<th>Email</th>
<th>URL</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>
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<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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<td>Cell and Molecular Biology (CAM)</td>
<td>Jessica Davis</td>
<td><a href="mailto:bioadvise@usf.edu">bioadvise@usf.edu</a></td>
<td><a href="http://biology.usf.edu/bioadvising/people.aspx">http://biology.usf.edu/bioadvising/people.aspx</a></td>
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<tr>
<td>Environmental Biology (ENB)</td>
<td>Margaret Flores</td>
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<td>Environmental Microbiology (EMB)</td>
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<td>Marine Biology (MRN)</td>
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<tr>
<td>Biomedical Sciences (BMS)</td>
<td>Becky Cooperman</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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<tr>
<td></td>
<td>Adelia Douglass</td>
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<td>Shaun Richardson</td>
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<td>Ashley Sowell</td>
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<td>Karina Zimmerman</td>
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<tr>
<td>Chemistry B.A. (CHM)</td>
<td>Ashley Dees</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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<tr>
<td></td>
<td>Natasha Dorman</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>Andrea Sereno</td>
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<td><a href="http://communication.usf.edu/undergraduate/advising/">http://communication.usf.edu/undergraduate/advising/</a></td>
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<td>Ce'era Horton</td>
<td><a href="mailto:econadvise@usf.edu">econadvise@usf.edu</a></td>
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<td>English (ENG)</td>
<td>Mike Stowe,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>
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<td>Health Sciences (HLS)</td>
<td>Dana Barnes, Gina DiMauro, Melissa Lee, Emily Potts, Elicia Kimble</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>History (HTY)</td>
<td>James Lambert</td>
<td><a href="mailto:historyadvise@usf.edu">historyadvise@usf.edu</a></td>
<td><a href="http://history.usf.edu/ug/">http://history.usf.edu/ug/</a></td>
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<td>Humanities and Cultural Studies (HCS)</td>
<td>Shani Garza</td>
<td><a href="mailto:hcsadvise@usf.edu">hcsadvise@usf.edu</a></td>
<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>
<td><a href="mailto:infostudiesadvise@usf.edu">infostudiesadvise@usf.edu</a></td>
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<td>Ashley Sowell</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>Brandon Kroll</td>
<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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<tr>
<td>International Studies (INT)</td>
<td>Pamela Anderson</td>
<td><a href="mailto:iaadvise@usf.edu">iaadvise@usf.edu</a></td>
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<td>Mass Communications (COM)</td>
<td>Daniel Shelnutt</td>
<td><a href="mailto:masscomadvise@usf.edu">masscomadvise@usf.edu</a></td>
<td><a href="http://masscom.usf.edu/ug/ba/">http://masscom.usf.edu/ug/ba/</a></td>
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<tr>
<td>Mathematics (MTH)</td>
<td>Ana Greenspan</td>
<td><a href="mailto:mathadvise@usf.edu">mathadvise@usf.edu</a></td>
<td><a href="http://www.math.usf.edu/ug/advising/">http://www.math.usf.edu/ug/advising/</a></td>
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<tr>
<td>Medical Technology (MET)</td>
<td>Kelly Pearson</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>
</tr>
<tr>
<td>Microbiology (MIC)</td>
<td>Mary Cuthbertson, Margaret Flores, Jessica Davis, Briana Byers</td>
<td><a href="mailto:bioadvise@usf.edu">bioadvise@usf.edu</a></td>
<td><a href="http://biology.usf.edu/bioadvise/advisi">http://biology.usf.edu/bioadvise/advisi</a> ng/people.aspx</td>
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<tr>
<td>Philosophy (PHI)</td>
<td>Andrew Bird</td>
<td><a href="mailto:philosophyadvise@usf.edu">philosophyadvise@usf.edu</a></td>
<td><a href="http://philosophy.usf.edu/undergraduate/">http://philosophy.usf.edu/undergraduate/</a></td>
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<tr>
<td>Physics B.A. (PHY)</td>
<td>Karina Zimmerman</td>
<td><a href="mailto:physicsadvise@usf.edu">physicsadvise@usf.edu</a></td>
<td><a href="http://physics.usf.edu/ug/advising/">http://physics.usf.edu/ug/advising/</a></td>
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<tr>
<td>Physics B.S. (PHS)</td>
<td>Karina Zimmerman</td>
<td><a href="mailto:physicsadvise@usf.edu">physicsadvise@usf.edu</a></td>
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<tr>
<td>Physical Sciences B.A. (PSBA)</td>
<td>Karina Zimmerman</td>
<td><a href="mailto:physicsadvise@usf.edu">physicsadvise@usf.edu</a></td>
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<td>Physical Sciences B.S. (PSBS)</td>
<td>Karina Zimmerman</td>
<td><a href="mailto:physicsadvise@usf.edu">physicsadvise@usf.edu</a></td>
<td><a href="http://physics.usf.edu/ug/advising/">http://physics.usf.edu/ug/advising/</a></td>
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<tr>
<td>Political Science (POL)</td>
<td>Rahi Dayerizadeh</td>
<td><a href="mailto:polsciadvise@usf.edu">polsciadvise@usf.edu</a></td>
<td><a href="http://gia.usf.edu/ps/ug/home/">http://gia.usf.edu/ps/ug/home/</a></td>
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<tr>
<td>Psychology (PSY)</td>
<td>Samantha Hamm, Lauren Keroack, Camille Rivera, Urvick St Jean</td>
<td><a href="mailto:psychad@usf.edu">psychad@usf.edu</a></td>
<td><a href="http://psychology.usf.edu/ug/advising/">http://psychology.usf.edu/ug/advising/</a></td>
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<tr>
<td>Religious Studies (REL)</td>
<td>Andrew Bird</td>
<td><a href="mailto:reladvise@usf.edu">reladvise@usf.edu</a></td>
<td><a href="http://religious-studies.usf.edu/ugrad/about/">http://religious-studies.usf.edu/ugrad/about/</a></td>
</tr>
<tr>
<td>Sociology (SOC)</td>
<td>Shani Garza, Brandon Kroll</td>
<td><a href="mailto:socadvise@usf.edu">socadvise@usf.edu</a></td>
<td><a href="http://sociology.usf.edu/ug/">http://sociology.usf.edu/ug/</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, Shriner’s Hospital for Children, H. Lee Moffitt Cancer Center and Research Institute, University of South Florida Mental Health Institute, and Florida Hospital Tampa are 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 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
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 that are 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/BSC 2010L Cellular Processes and Laboratory
- BSC 2011/BSC 2011L Biodiversity and Laboratory
- MCB 3020/MCB 3020L General Microbiology and Laboratory
- PCB 3023/PCB 3023L Cell Biology (lab optional)
- PCB 3063/PCB 3063L General Genetics (lab optional)
- MCB 4115/MCB 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/CHM 2045L General Chemistry I and Laboratory
- CHM 2046/CHM 2046L General Chemistry II and Laboratory
- CHM 2210/CHM 2210L Organic Chemistry I and Laboratory
- CHM 2211/CHM 2211L Organic Chemistry II and Laboratory
- BCH 3023 Introductory Biochemistry or BCH 3053 or BCH 4033
Physic
PHY 2053/PHY 2053L General Physics I and Laboratory
PHY 2054/PHY 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 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 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
AML 4624 Black Women Writers
AMS 3700 Racism in American Society
ANT 4340 The Caribbean
PMH 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, IDS 4914 or IDH 4910 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
Rahi Dayerizadeh
Social Science Building (SOC) 383
rdayeriz@usf.edu

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 Linguistic Anthropology
- 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 Archeology
- ANT 4142 Old World Archaeology
- ANT 4143 European Archaeology
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ANT 4147</td>
<td>Environmental Archaeology</td>
</tr>
<tr>
<td>ANT 4153</td>
<td>North American Archaeology</td>
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<td>ANT 4158</td>
<td>Florida Archaeology</td>
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<tr>
<td>ANT 4165</td>
<td>South American Archaeology</td>
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<tr>
<td>ANT 4163</td>
<td>Mesoamerican Archaeology</td>
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<tr>
<td>ANT 4172</td>
<td>Historical Archaeology</td>
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<tr>
<td>ANT 4180</td>
<td>Laboratory Methods in Archaeology</td>
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<tr>
<td>ANT 4181</td>
<td>Museum Methods</td>
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<tr>
<td>ANT 4183C</td>
<td>Archaeological Science</td>
</tr>
<tr>
<td>ANT 4185</td>
<td>Ancient Diets</td>
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<tr>
<td>ANT 4260</td>
<td>Ancient Trade</td>
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<tr>
<td>ANT 4536</td>
<td>Bioarchaeology</td>
</tr>
<tr>
<td>ANT 4824</td>
<td>Archaeological Field Methods</td>
</tr>
</tbody>
</table>

### 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 4583 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

### 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, IDS 4914 or IDH 4910 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.

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
The Biomedical Sciences degree serves as a gateway into a variety of health-professional programs such as Medicine, Pharmacy, Dentistry, and Physician Assistant. 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  
CHM X045 & CHM X045L General Chemistry I & Lab or CHM X045C  
CHM X046 & CHM X046L General Chemistry II & Lab or CHM X046C  
CHM X210 & CHM X210L Organic Chemistry I & Lab or CHM X210C  
CHM X211 & CHM X211L Organic Chemistry II & Lab or CHM X211C  
PHY X053 & PHY X053L General Physics I & Lab and PHY X054 & PHY X054L General Physics II & Lab OR  
PHY X053C and PHY X053C OR  
PHY X048 & PHY X048L General Physics I & Lab and PHY X049 & PHY X049L General Physics II & Lab OR  
BSC X093C Human Anatomy & Physiology I and BSC X094C Human Anatomy & Physiology II OR  
BSC X093 & BSC X093L and BSC X094 & BSC X094L  
MAC X241 Life Sciences Calculus or MAC X281 or MAC X311  
MAC X242 Life Sciences Calculus II or MAC X282 or MAC X312 or STA X023 or STA X024

**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 choose 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 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
*BCH 3023L Satisfies Lab or Additional Biomedical Elective Only
**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 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
- Cell and Molecular Biology
- Chemistry B.A. - including Biochemistry/Biotechnology and Health Professions concentrations
- Chemistry B.S.
- Environmental Biology
- Environmental Microbiology
- Integrative Animal Biology
- Interdisciplinary Natural Sciences
- Marine Biology
- Medical Technology
- Microbiology, and
- Pre-Medical Sciences (PMS) students who have not yet declared a major

*Non-science majors are also subject to the D/F Policy

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. in Biomedical Sciences and M.A.T. in Science Education
This program intends for students to complete a B.S. in Biomedical Sciences (College of Arts and Sciences) and M.A.T. in Science Education (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 credit hours toward the M.A.T. in Science Education during their senior year in the Biomedical Sciences major.

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 X010C or BSC X040/X040L
BSC X011/X011L Biology II 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

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 Introduction to 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

REQUIREMENTS FOR THE MAJOR IN CELL AND MOLECULAR BIOLOGY

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
MCB 3410 Cell Metabolism
PCB 3063 General Genetics
PCB 3023 Cell Biology
PCB 3023L Cell Biology Laboratory and PCB 3063L General Genetics Laboratory or PCB 3186L Laboratory in
Molecular Biology
Choose two of the following courses:
PCB 4024 Molecular Biology of Cell
PCB 4026 Molecular Biology of Gene
PCB 4109 Cancer Biology

Major Electives (15 hours)
Students choose a minimum of 15 credit hours from the following list of courses:
BCH 3053 General Biochemistry
BOT 4434C Mycology
BSC 4434 Bioinformatics
BSC 4905 Independent Study (1 credit maximum)
BSC 4910 Undergraduate Research (1 or 2 credit hours/semester, no more than 4 credits total)
BSC 4933 Selected Topics in Biology*
BSC 5425 Genetic Engineering and Recombinant DNA Technology
BSC 5931 Selected Topics in Biology (for the accelerated program only)
MCB 3020 General Microbiology
MCB 3020L General Microbiology Lab
MCB 4503 Virology
PCB 3043 Principles of Ecology
PCB 3043L Principles of Ecology Laboratory
PCB 3712 General Physiology
PCB 3713L General Physiology Lab
PCB 4024 Molecular Biology of Cell (if not used as a core course)
PCB 4026 Molecular Biology of Gene (if not used as a core course)
PCB 4109 Cancer Biology (if not used as a core course)
PCB 4234 Principles of Immunology
PCB 4522C Experimental Genetics and Cell Biology
PCB 4663 Human Genetics
PCB 4671 Molecular Evolution
PCB 4744 Biomedical Physiology
PCB 4843 Principles of Neuroscience
ZOO 4753 Human Histology and Molecular Pathology of Disease
ZOO 4694 Developmental Biology

*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 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 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 B.S. in Cell and Molecular Biology and M.S. in Biology with a concentration in Cell and Molecular Biology (Non-Thesis)
This program allows Cell and Molecular Biology majors to take graduate courses for the elective part of the major and apply them to a non-thesis M.S. degree in Biology with a concentration in Cell and Molecular Biology. Successful students will be able to earn the M.S. degree in two additional semesters beyond the completion of the B.S. degree.

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

CELL AND MOLECULAR BIOLOGY FACULTY

• B.A. - CHEMISTRY (CHM) (CIP = 40.0501 - TRACK 1 OF 2)

TOTAL DEGREE HOURS: 120
http://chemistry.usf.edu/undergraduate/majors/ba/

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 include 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 Gen Physics I & Laboratory or PHY 2048C or PHY 2053C or PHY 2053 and PHY 2053L
PHY 2049/PHY 2049L Gen Physics II & Laboratory or PHY 2049C or PHY 2054C or PHY 2054 and PHY 2054L
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 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

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

REQUIREMENTS FOR THE MAJOR IN CHEMISTRY

TOTAL MAJOR HOURS: 39

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 six (6) credit hours of coursework at 3000-level or above; may not include more than 1 hour of CHM 4970.

- BCH 3023L Basic Biochemistry Laboratory
- BCH 4033 Advanced Biochemistry I
- BCH 4034 Advanced Biochemistry II
- 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 4300 Biomolecules
- CHM 4410L Physical Chemistry Laboratory
- CHM 4411 Physical Chemistry II
- CHM 4611 Advanced Inorganic Chemistry
- CHM 4970 Undergraduate Research
- CHM 4932 Selected Topics in Chemistry*
- CHS 4300 Fundamentals of Clinical Chemistry
- CHS 4301L Clinical Laboratory

*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
- Cell and Molecular Biology
- Chemistry B.A. - including Biochemistry/Biotechnology and Health Professions concentrations
- Chemistry B.S.
- Environmental Biology
- Environmental Microbiology
- Integrative Animal Biology
- Interdisciplinary Natural Sciences
- Marine Biology
- Medical Technology
- Microbiology, and
- Pre-Medical Sciences (PMS) students who have not yet declared a major

*Non-Science majors are also subject to the D/F policy

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/](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. in Chemistry and M.A.T. in Science Education**

This program intends for students to complete a B.A. in Chemistry (College of Arts and Sciences) and M.A.T. in Science Education (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 credit hours toward the M.A.T. in Science Education during their senior year in the Chemistry (B.A.) major.

**CHEMISTRY CONCENTRATIONS**

**BIOCHEMISTRY/BIOTECHNOLOGY (CBY)**

[http://chemistry.usf.edu/undergraduate/majors/ba/](http://chemistry.usf.edu/undergraduate/majors/ba/)

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**

**TOTAL CONCENTRATION HOURS: 39**

**Concentration 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 4033L Advanced Biochemistry Lab

**Concentration 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 Bio/Organic 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

**Other Requirements**

Other suggested electives important for advanced studies in Biochemistry:

- EVR 2001 Introduction to Environmental Science
- MCB 3020 General Microbiology
MCB 3020L General Microbiology Laboratory
PCB 3063 General Genetics
STA 2023 Introductory Statistics I

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

HEALTH PROFESSIONS (CHH)
This concentration is accepting no new admits.
http://chemistry.usf.edu/undergraduate/majors/ba/

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.

• B.S. - CHEMISTRY (CHS) (CIP = 40.0501 - TRACK 1 OF 2)
TOTAL DEGREE HOURS: 120
http://chemistry.usf.edu/undergraduate/majors/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 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 & Laboratory or CHM 2211C
PHY 2048/PHY 2048L Gen Physics I & Laboratory or PHY 2048C, or PHY 2053C or PHY 2053 and PHY 2053L
PHY 2049/PHY 2049L Gen Physics II & Laboratory or PHY 2049C, or PHY 2054C or PHY 2054 and PHY 2054L

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 suggested) or
One 2000-level Natural Science course (BSC 2111, GLY 2100, GLY 2100, EVR 2001)
REQUIREMENTS FOR THE MAJOR IN CHEMISTRY
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
CHM 2211L Organic Chemistry II Laboratory
BCH 4033 Advanced Biochemistry I
CHM 3120C Elementary Analytical Chemistry
CHM 3415C Physical Chemistry Methods
CHM 3610 Intermediate Inorganic Chemistry
CHM 3610L Intermediate Inorganic Chemistry Laboratory
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
- Cell and Molecular Biology
- Chemistry B.A. - including Biochemistry/Biotechnology and Health Professions concentrations
- Chemistry B.S.
- Environmental Biology
- Environmental Microbiology
- Integrative Animal Biology
- Interdisciplinary Natural Sciences
- Marine Biology
- Medical Technology
- Microbiology, and
- Pre-Medical Sciences (PMS) students who have not yet declared a major

*Non-Science majors are also subject to the D/F policy

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. in Chemistry and M.S.B.E. in Biomedical Engineering
This program intends for students to complete a B.S. in Chemistry and M.S.B.E. in Biomedical Engineering over the span of five years. Completion of this program allows students to complete nine (9) credit hours toward the M.S.B.E. during their junior or senior year in the Chemistry (B.S.) major.

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

CHEMISTRY FACULTY
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 and 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 skills and competencies in oral, written, visual, digital, and electronic communication;
3. analyze and create messages, presentations, and persuasive communication strategies;
4. understand, build, and strengthen personal and professional identities and relationships;
5. study and critique culture and media including: media organizations, communication technologies, and mediated 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., professional (health care; advertising and marketing; law and politics, not-for-profits); civic (public advocacy and social movements); religion and faith organizations; world cafés and public dialogues; performance and improv; 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)
Required Core Courses (18 credit hours)
There are six required core courses including one prerequisite and one department capstone. Once enrolled in the major, students 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] late in the students' junior year or early in 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)]

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 (family, friendships, and romantic);
professional relationships (patient-health care provider); personal identity (self-awareness and personal narrative); verbal and nonverbal communication (talk, conversations, and writing); performance (performing literary and real-life relationships); and communication and cultural diversity (communicating across differences based on gender, sexuality/sexual orientation, 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 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 and media texts (television, film, music, print, Internet and social media), media literacy skills; culture, social institutions, and power; public opinion and memory; political discourse, social protest and social movements; and public performances of literature and 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 includes 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

State Communication (formerly known as Gordon Rule Writing) 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)

Global Citizens Certified Courses (GCPC)
COM 2000 Introduction to Communication
ORI 4019 Performing Identity and Culture

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, IDS 4914 or IDH 4910 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
Chairperson: D. Payne; Professors: E. Bell, A.P. Bochner, E.M. Eisenberg, C.S. Ellis, L.S. Pettigrew; Associate Professors: M. Bartesaghi, A. Basu, K. Berry, A. Durham, R. Dubrofsky, N.C. James, J. Jorgenson, M Pal, D. Payne, L. Roscoe, F. Steier; Assistant Professors: M. Dean Kruzel, C. McRae; Instructor: A. Huber, B. Huff; Visiting Assistant Professor: L. Freidman Aytes; Courtesy Faculty: C. Noy; Emeritus Faculty: K. Cissna.

• 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
Introductory Statistics I

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 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 either 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, IDS 4914 or IDH 4910 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. in Economics and M.A. in Economics
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.
Advising Information
Advisors in the College of Arts and Sciences or the Office of Academic Advocacy 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/

A bachelor’s degree in English prepares students for any field that values critical thinking, high reading comprehension, clear and effective writing, and the ability to interpret and analyze data. It provides three concentrations 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 (including concentration)

ENGLISH CONCENTRATIONS
CREATIVE WRITING (CRW)
http://english.usf.edu/ug/concentrations/creative/

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.

REQUIREMENTS FOR THE CONCENTRATION IN CREATIVE WRITING
TOTAL CONCENTRATION HOURS: 36

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
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.

LITERARY STUDIES (LTS)
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.

STATE MANDATED COMMON COURSE PREREQUISITES
The State of Florida has identified common course prerequisites for the major in English. These courses must be completed with a minimum grade of "C" before the degree is grated. If the courses are not transferred in, they may be taken at USF:

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

REQUIREMENTS FOR THE CONCENTRATION IN LITERARY STUDIES
TOTAL CONCENTRATION HOURS: 36

Concentration Core (21 hours)
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):
   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:

1. **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

2. **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

3. **19th Century British**
   - ENL 3017 Studies in 19th Century British Literature
   - ENL 3251 British Literature 1780-1900
   - ENL 4122 19th Century British Novel

4. **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. in English with a concentration in Literary Studies and M.A. in English with a concentration in Literature

This program allows English majors who are concentrating in Literary Studies to take graduate courses toward the M.A. in English with a concentration 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.

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

PROFESSIONAL WRITING, RHETORIC AND TECHNOLOGY (PRT)

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.

REQUIREMENTS FOR THE CONCENTRATION IN PROFESSIONAL WRITING, RHETORIC AND TECHNOLOGY

TOTAL CONCENTRATION HOURS: 36

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 upper-level courses listed in the Literary Studies concentration.
Any upper-level courses listed in the Creative Writing concentration.

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 18 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.

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, IDS 4914 or IDH 4910 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 60 hours of coursework. 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.
   o All Honors students are required to complete at least one (three-hour) Honors seminar (ENG 4935 or ENG 4936).
   o Students may select from the following options to fulfill the remaining six hours of credit in Honors:
     - Up to two more (three-hour) Honors seminars (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.

3. 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.

4. 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 FACULTY


** 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 biology, field botany) or for careers in fields such as environmental biology, environmental consulting, agricultural and forestry resource management, conservation biology and education, 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**

**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).

**REQUIREMENTS FOR THE MAJOR IN ENVIRONMENTAL BIOLOGY**

**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 the following courses:**
    - **BOT 4601 Plant Ecology**
    - **BSC 4933 Selected Topics in Biology**
  - *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 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 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. in Environmental Biology and M.A.T. in Science Education

This program intends for students to complete a B.S. in Environmental Biology (College of Arts and Sciences) and M.A.T. in Science Education (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 credit hours toward the M.A.T. in Science Education during their senior year in the Environmental Biology major.

Advising Information

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


• B.S. - ENVIRONMENTAL MICROBIOLOGY (EMB)
  (CIP = 26.0101 - TRACK 1 OF 2)
  TOTAL DEGREE HOURS: 120
  http://biology.usf.edu/lb/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

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 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).

REQUIREMENTS FOR THE MAJOR IN ENVIRONMENTAL MICROBIOLOGY
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
- MCB 4202 Ecology of Infectious Diseases
- 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
- 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 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 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. in Environmental Microbiology and M.A.T. in Science Education

This program intends for students to complete a B.S. in Environmental Microbiology (College of Arts and Sciences) and an M.A.T. in Science Education (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 credit hours toward the M.A.T. in Science Education during their senior year in the Environmental Microbiology major.

Advising Information

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

ENVIRONMENTAL MICROBIOLOGY FACULTY


• B.S. - ENVIRONMENTAL SCIENCE AND POLICY (ESP)
(CIP = 03.0104 - TRACK 1 OF 2)
TOTAL DEGREE HOURS: 120
http://hennarot.forest.usf.edu/main/depts/geosci/ug/esp/

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

REQUIREMENTS FOR THE MAJOR IN ENVIRONMENTAL SCIENCE AND POLICY
TOTAL MAJOR HOURS: 61-69

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 4218 Research Methods in Wildlife Ecology
  - EVR 4807 Sustainable Healthy Environments
  - EVR 4930 Selected Topics
  - GIS 4035C Remote Sensing of the Environment
  - GIS 4043C Geographical Information Systems
  - GEO 3280 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
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 4218 Research Methods in Wildlife Ecology
- 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
- REL 4188 Religion and Ecology Seminar
- 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, IDS 4914 or IDH 4910 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/ 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

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

- 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, IDS 4914 or IDH 4910 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
GENERAL GEOGRAPHY (GGG)
REQUIREMENTS FOR THE CONCENTRATION IN GENERAL GEOGRAPHY
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 3280 Environmental Hydrology
- GEO 4210 Process Geomorphology
- GEO 4244 Tropical Meteorology
- GEO 4265 Soil Genesis and Classification
- GEO 4265 Soil Genesis and Classification
- 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
- GEO 4473 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.
PHYSICAL GEOGRAPHY (PGG)
REQUIREMENTS FOR THE CONCENTRATION IN PHYSICAL GEOGRAPHY
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 3280 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 (6 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.
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 Geographical 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)

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; Associate Chairperson: J. Firat; Professors: A. Njoh, G. Tobin; Associate Professors: F. Akiwumi, K. Alsharif, M. Bosman, J. Collins, J. Firat, R. Pu, S. Reader, P. van Beynen; Senior Instructor: C. Mizak; Instructors: L. Walker, E. Walton.

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

**TOTAL DEGREE HOURS: 120**

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

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.

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

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

**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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 2045</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM 2046</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>STA 2023</td>
<td>Introductory Statistics I or STA 2122 Social Science Statistics</td>
</tr>
<tr>
<td>MAC 2281</td>
<td>Calculus I</td>
</tr>
<tr>
<td>GLY 3866</td>
<td>Computational Geology or MAC 2282 or MAC 2312</td>
</tr>
<tr>
<td>PHY 2048/2048L</td>
<td>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</td>
</tr>
</tbody>
</table>

**REQUIREMENTS FOR THE MAJOR IN GEOLOGY**

**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

*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 3280 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 3280 is not offered in a calendar year, the Undergraduate Advisor may approve GLY 4822C Hydrogeology to count in its 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 filed mapping requirement by the Undergraduate Advisor.

Note: The above Geology major capstone courses do not meet the University's FKL Capstone 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
- GLY 4822C Hydrogeology*
- GLY 4780 Geological Field Studies
- Other 3000- or 4000-level GLY courses, 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 *. Other comparable quantitative offerings in Geology may be approved by the undergraduate advisor.

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 State Communication Requirement (formerly known as Gordon Rule Writing): 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
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, IDS 4914 or IDH 4910 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

• B.A. - GEOLOGY (GLY) (CIP = 40.0601 - TRACK 1 OF 2)
TOTAL DEGREE HOURS: 120
http://hennarot.forest.usf.edu/main/depts/geosci/

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.

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
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 3280 Environmental Hydrology
- GLY 3311C Mineralogy, Petrology, Geochemistry
- GLY 3402C Structural Geology and Tectonics
- GLY 3552C Sedimentary Rocks and Processes

In the event that GEO 3280 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 4765 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 State Communication Requirement (formerly known as Gordon Rule Writing): 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, IDS 4914 or IDH 4910 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.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 XXXX 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
- CLT 3040 Scientific and Medical Terminology
- DEP 2004 The Life Cycle
- ENC 2210 Technical Writing
- HSC 2000 Introduction to Health Professions
- MAC 1105 College Algebra
- PHI 3633 Biomedical Ethics or PHI 3636 Professional Ethics
- PSY 2012 Introduction to Psychological Science
- STA 2023 Introductory Statistics I
  Choose one of the following courses:
  - ACG 2021 Principles of Financial Accounting
  - ANT 2511 Biological Anthropology
  - COM 2000 Introduction to Communication
  - GEY 2000 Introduction to Aging Sciences
  - 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:
- Aging Health Studies
- Aging Health Studies and Health Information Technology
- Aging Health Studies and Health Management
- Biological Health Sciences
- Biological Health Sciences and Aging Health Studies
- Biological Health Sciences and Health Information Technology
- Concentration in Biological Health Sciences and Health Management
- Biological Health Sciences and Social and Behavioral Health Sciences

Advising Information
hhsadvise@usf.edu
HEALTH SCIENCES CONCENTRATIONS

REQUIREMENTS FOR THE CONCENTRATION IN AGING HEALTH STUDIES (HAH)

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.

- BSC 3022 Biology of Aging
- GEY 3601 Physical Changes and Aging
- GEY 4322 Care Management for Older Adults
- GEY 4360 Counseling for Older Adults
- GEY 4507 Understanding Policies and Practices of Long Term Care
- 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
- LIS 4930 Selected Topics in Information Studies*
- MHS 4931 Selected Topics*
- PAD 4930 Special Topics in Public Administration and Public Policy*
- PHC 4931 Health Care Ethics
- SOW 3210 The American Social Welfare System
- SPA 3002 Introduction to Communication Sciences and Disorders
- SPA 4257 Adult Communication Disorders
*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN AGING HEALTH STUDIES AND HEALTH MANAGEMENT (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 4360 Counseling for Older Adults
- GEY 4507 Understanding Policies and Practices of Long Term Care
- 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
- LIS 4930 Selected Topics in Information Studies*
- MHS 4931 Selected Topics*
- PAD 4930 Special Topics in Public Administration and Public Policy*
- PHC 4931 Health Care Ethics
- SOW 3210 The American Social Welfare System
- SPA 3002 Introduction to Communication Sciences and Disorders
- 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
- 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*
- LIS 4930 Selected Topics in Information Studies*
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 4101 Overview of Public Health Programs and Policies
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
Two SPC, MMC and/or COM courses may apply to this concentration:
   SPC 3710 Communication and Cultural Diversity
   SPC 4930 Selected Topics
   Patient Provider Communication
   Intercultural Health Communication
   *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)
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 4776 Health Information Technology
   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
   PAD 4930 Selected Topics in Public Administration and Public Policy*
   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

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 4360 Counseling for Older Adults
GEY 4507 Understanding Policies and Practices of Long Term Care
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
LIS 4930 Selected Topics in Information Studies*
MHS 4931 Selected Topics*
PAD 4930 Special Topics in Public Administration and Public Policy*
PHC 4931 Health Care Ethics
SOW 3210 The American Social Welfare System
SPA 3002 Introduction to Communication Sciences and Disorders
SPA 4257 Adult Communication Disorders
*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 4462 Health, Illness, and Culture
ANT 4520C Forensic Anthropology
APK 3120 Exercise Physiology
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 3272 Sports Nutrition
HUN 3296 Nutrition and Disease
LIS 4785 Introduction to Health Informatics
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 3302 Introduction to Environmental & Occupational Health
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 Communication*
ZOO 4512 Sociobiology

Communication Sciences & Disorders Cluster (These courses are recommended for students interested in pursuing graduate degrees in communication sciences)
SPA 3002 Introduction to Communication Sciences and Disorders
SPA 3004 Introduction to Language Development and Disorders
SPA 3030 Introduction to Hearing Science
SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
SPA 4104 Neuroanatomy of Speech, Language & Hearing

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 4360 Counseling for Older Adults
GEY 4507 Understanding Policies and Practices of Long Term Care
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
LIS 4930 Selected Topics in Information Studies*
MHS 4931 Selected Topics*
PAD 4930 Selected Topics in Public Administration and Public Policy*
PHC 4931 Health Care Ethics
SOW 3210 The American Social Welfare System
SPA 3002 Introduction to Communication Sciences and Disorders
SPA 4257 Adult Communication Disorders

*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN BIOLOGICAL HEALTH SCIENCES (HBH)
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 4462 Health, Illness, and Culture
ANT 4520C Forensic Anthropology
APK 3120 Exercise Physiology
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 3272 Sports Nutrition
HUN 3296 Nutrition and Disease
LIS 4785 Introduction to Health Informatics
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 3302 Introduction to Environmental & Occupational Health
- 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 Communication*
- ZOO 4512 Sociobiology

*see health sciences advisor for approval

### Communication Sciences & Disorders Cluster (These courses are recommended for students interested in pursuing graduate degrees in communication sciences)
- SPA 3002 Introduction to Communication Sciences and Disorders
- SPA 3004 Introduction to Language Development and Disorders
- SPA 3030 Introduction to Hearing Science
- SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
- SPA 4104 Neuroanatomy of Speech, Language & Hearing

### 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 4462 Health, Illness, and Culture
- ANT 4520C Forensic Anthropology
- APK 3120 Exercise Physiology
- 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 3272 Sports Nutrition
- HUN 3296 Nutrition and Disease
- LIS 4785 Introduction to Health Informatics
- 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 3302 Introduction to Environmental & Occupational Health
- 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 Communication*
- ZOO 4512 Sociobiology

*see health sciences advisor for approval

### Communication Sciences & Disorders Cluster (courses recommended for students interested in pursuing graduate degrees in communication sciences)
- SPA 3002 Introduction to Communication Sciences and Disorders
SPA 3004 Introduction to Language Development and Disorders
SPA 3030 Introduction to Hearing Science
SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
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 3261 Introduction to Information Science
LIS 3352 Interaction Design
LIS 3353 IT Concepts for Information Professionals
LIS 3361 World Wide Web Page Design and Management
LIS 3783 Information Architecture
LIS 4204 Information Behaviors
LIS 4365 Web Design Technologies
LIS 4380 Information and Social Media
LIS 4414 Information Policy and Ethics
LIS 4477 Clinical Decision Support
LIS 4482 Networks and Communication
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*
PAD 4712 Managing Information Resources in the Public Sector
SPC 4930 Selected Topics: Online Communication

*see health sciences advisor for approval

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 4462 Health, Illness, and Culture
ANT 4520C Forensic Anthropology
APK 3120 Exercise Physiology
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 3272 Sports Nutrition
HUN 3296 Nutrition and Disease
LIS 4785 Introduction to Health Informatics
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 3302 Introduction to Environmental & Occupational Health
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 Communication*
ZOO 4512 Sociobiology

Communication Sciences & Disorders Cluster (courses recommended for students interested in pursuing graduate degrees in communication sciences)

SPA 3002 Introduction to Communication Sciences and Disorders
SPA 3004 Introduction to Language Development and Disorders
SPA 3030 Introduction to Hearing Science
SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
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
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*
LIS 4930 Selected Topics in Information Studies*
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 4101 Overview of Public Health Programs and Policies
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

Two SPC, MMC and/or COM course may apply to this concentration

SPC 3710 Communication and Cultural Diversity
SPC 4930 Selected Topics
Patient Provider Communication
Intercultural Health Communication

*see health sciences advisor for approval

REQUIREMENTS FOR THE CONCENTRATION IN SOCIAL AND BEHAVIORAL HEALTH SCIENCES (HBS)

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 4776 Health Information Technology
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
PAD 4930 Special Topics in Public Administration and Public Policy*
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)
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 3261 Introduction to Information Science
LIS 3352 Interaction Design
LIS 3353 IT Concepts for Information Professionals
LIS 3361 World Wide Web Page Design and Management
LIS 3783 Information Architecture
LIS 4204 Information Behaviors
LIS 4365 Web Design Technologies
LIS 4380 Information and Social Media
LIS 4414 Information Policy and Ethics
LIS 4477 Clinical Decision Support
LIS 4482 Networks and Communication
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*
PAD 4712 Managing Information Resources in the Public Sector
SPC 4930 Selected Topics: Online Communication
*see health sciences advisor for approval
REQUIREMENTS FOR THE CONCENTRATION IN HEALTH MANAGEMENT (HHM)
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
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*
LIS 4930 Selected Topics in Information Studies*
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 4101 Overview of Public Health Programs and Policies
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

Two SPC, MMC and/or COM courses may apply to this concentration:

SPC 3710 Communication and Cultural Diversity
SPC 4930 Selected Topics
- Patient Provider Communication
- Intercultural Health Communication

*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 4360 Counseling for Older Adults
GEY 4507 Understanding Policies and Practices of Long Term Care
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
LIS 4930 Selected Topics in Information Studies*
MHS 4931 Selected Topics*
PAD 4930 Selected Topics in Public Administration and Public Policy*
PHC 4931 Health Care Ethics
SOW 3210 The American Social Welfare System
SPA 3002 Introduction to Communication Sciences and Disorders
SPA 4257 Adult Communication Disorders

Health Information Technology courses (students must take 15 hours from this list):
ISM 3113 Systems Analysis and Design
LIS 3261 Introduction to Information Science
LIS 3352 Interaction Design
LIS 3353 IT Concepts for Information Professionals
LIS 3361 World Wide Web Page Design and Management
LIS 3783 Information Architecture
LIS 4204 Information Behaviors
LIS 4365 Web Design Technologies
LIS 4380 Information and Social Media
LIS 4414 Information Policy and Ethics
LIS 4477 Clinical Decision Support
LIS 4482 Networks and Communication
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*
PAD 4712 Managing Information Resources in the Public Sector
SPC 4930 Selected Topics: Online Communication
*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)
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
PAD 4930 Selected Topics in Public Administration and Public Policy*
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

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
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*
LIS 4930 Selected Topics in Information Studies*
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 4101 Overview of Public Health Programs and Policies
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

Two SPC, MMC and/or COM course may apply to this concentration:
SPC 3710 Communication and Cultural Diversity
SPC 4930 Selected Topics
Patient Provider Communication
Intercultural Health Communication
*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
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*
LIS 4930 Selected Topics in Information Studies*
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 4101 Overview of Public Health Programs and Policies
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

Two SPC, MMC and/or COM course may apply to this concentration:
SPC 3710 Communication and Cultural Diversity
SPC 4930 Selected Topics
Patient Provider Communication
Intercultural Health Communication

Health Information Technology courses (students must take 15 hours from this list):
ISM 3113 Systems Analysis and Design
LIS 3261 Introduction to Information Science
LIS 3352 Interaction Design
LIS 3353 IT Concepts for Information Professionals
LIS 3361 World Wide Web Page Design and Management
LIS 3783 Information Architecture
LIS 4204 Information Behaviors
LIS 4365 Web Design Technologies
LIS 4380 Information and Social Media
LIS 4414 Information Policy and Ethics
LIS 4477 Clinical Decision Support
LIS 4482 Networks and Communication
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*
PAD 4712 Managing Information Resources in the Public Sector
SPC 4930 Selected Topics: Online Communication

*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 4462 Health, Illness, and Culture
ANT 4520C Forensic Anthropology
APK 3120 Exercise Physiology
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 3272 Sports Nutrition
HUN 3296 Nutrition and Disease
LIS 4785 Introduction to Health Informatics
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 3302 Introduction to Environmental & Occupational Health
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 Communication*
ZOO 4512 Sociobiology

Communication Sciences & Disorders Cluster (These courses are recommended for students interested in pursuing graduate degrees in communication sciences)

- SPA 3002 Introduction to Communication Sciences and Disorders
- SPA 3004 Introduction to Language Development and Disorders
- SPA 3030 Introduction to Hearing Science
- SPA 3101 Anatomy and Physiology of the Speech & Hearing Mechanism
- 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 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 4776 Health Information Technology
- 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
- PAD 4930 Selected Topics in Public Administration and Public Policy*
- 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 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 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 4776 Health Information Technology
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
PAD 4930 Selected Topics in Public Administration and Public Policy*
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
Health Information Technology courses (students must take 15 hours from this list):
ISM 3113 Systems Analysis and Design
LIS 3261 Introduction to Information Science
LIS 3352 Interaction Design
LIS 3353 IT Concepts for Information Professionals
LIS 3361 World Wide Web Page Design and Management
LIS 3783 Information Architecture
LIS 4204 Information Behaviors
LIS 4365 Web Design Technologies
LIS 4380 Information and Social Media
LIS 4414 Information Policy and Ethics
LIS 4477 Clinical Decision Support
LIS 4482 Networks and Communication
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*
PAD 4712 Managing Information Resources in the Public Sector
SPC 4930 Selected Topics: Online Communication
*see health sciences advisor for approval
HEALTH SCIENCES FACULTY

Program Director and Instructor: C. Cooperman

• B.A. - HISTORY (HTY) (CIP = 54.0101)
  TOTAL DEGREE HOURS: 120
  http://history.usf.edu/ug/ba/

  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 3098 Race in America
  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
AMH 3341 American Food & Drink History
AMH 3342 Globalization and U.S. Culture
AMH 3390 19th Century American History
AMH 3402 Southern History, 1607-1865
AMH 3403 The South since 1865
AMH 3421 Early Florida
AMH 3423 Modern Florida
AMH 3500 American Labor
AMH 3512 U.S. Foreign Relations
AMH 3530 Immigration History
AMH 3545 War and American Empire
AMH 3561 American Women I
AMH 3562 American Women II
AMH 3571 African American History to 1865
AMH 3572 African American History since 1865
AMH 4940 Early American History and Archaeology Internship
ASH 3404 Modern China
EUH 3142 Renaissance and Reformation
EUH 3181 Medieval Culture
EUH 3185 Viking History
EUH 3188 Medieval Society
EUH 3189 Medieval Politics
EUH 3202 History of the 17th and 18th Century Europe
EUH 3205 History of Nineteenth Century Europe
EUH 3206 History of Twentieth Century Europe
EUH 3401 Classical Greece
EUH 3402 Age of Alexander
EUH 3412 Roman Republic
EUH 3413 Roman Empire
EUH 3451 Modern France and its Empire
EUH 3462 German History 1870 to the Present
EUH 3501 British History to 1688
EUH 3502 British History to Present
EUH 3533 Celtic History
EUH 3575 History of Imperial Russia, 1689-1717
EUH 3676 Christians, Pagans, Heretics
HIS 3308 War and Society
HIS 3930 Special Topics
HIS 3938 Major Issues in History
HIS 4900 Directed Reading
HIS 4920 Colloquium in History
HIS 4940 Internship
LAH 3130 Colonial Latin America
LAH 3200 Modern Latin America
LAH 3430 History of Mexico
LAH 3470 History of the Caribbean
LAH 3480 History of Cuba
WOH 3209 History of Terrorism
WOH 3245 History of Sports
WOH 3293 Islam in World History
WST 3210 European Feminist History: Pre-18th Century
WST 3220 European Feminist History: Enlightenment to the Present
WST 4310 History of Feminism in the U.S.

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 USF history department encourages students to take part in internships, and offers several for-credit opportunities within the major. Currently, the history department has a variety of internship partners available, including museums and historical societies. Potential internship activities can include working with collections, processing archival materials, research, leading guided tours, and building exhibits. Students will work closely with the undergraduate advisor and faculty coordinator to determine the level of involvement based on each student’s needs.

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) 265.

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/.

HUMANITIES AND CULTURAL STUDIES CONCENTRATIONS

AMERICAN STUDIES (AMSC)

The American Studies concentration is an interdisciplinary concentration dealing with the study of the United States.

REQUIREMENTS FOR THE CONCENTRATION IN AMERICAN STUDIES

TOTAL CONCENTRATION HOURS: 27

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.

FILM AND NEW MEDIA STUDIES (FMSC)

The Film and 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.

REQUIREMENTS FOR THE CONCENTRATION IN FILM AND NEW MEDIA STUDIES
TOTAL CONCENTRATION HOURS: 27

Concentration Core (12 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
Students select one course from the following list:
AMS 2270 Twentieth-Century American Culture
HUM 2250 Studies in Culture: The Twentieth Century

Concentration Electives (15 hours)
Students take an additional 15 credit hours of upper-level coursework from Humanities and Cultural Studies with an AMS, FIL, or HUM prefix.

Accelerated B.A. in Humanities and Cultural Studies with a concentration in Film and New Media Studies and M.A. in Liberal Arts with a concentration in Film Studies

This program intends for students to complete a B.A. in Humanities and Cultural Studies with a concentration in Film and New Media Studies and M.A. Liberal Arts with a concentration in Film Studies over the span of five years. Completion of this program allows students to complete 12 credit hours toward the M.A. in during their junior or senior year in the Humanities and Cultural Studies major. Students who decide not to pursue the M.A. but who complete the B.A. requirements will receive the B.A. degree.

HUMANITIES (HUMC)

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.

REQUIREMENTS FOR THE CONCENTRATION IN HUMANITIES
TOTAL CONCENTRATION HOURS: 27

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
- ECO X013 Principles of Economics (Macroeconomics)
- CGS XXXX Any Database Course
- COP XXXX Any Computer Programming course
- COP XXXX Any Object-Oriented Computer Programming course
- MAC XXXX Any Pre-Calculus or Discrete Math course
- PHI XXXX Any general ethics course

REQUIREMENTS FOR THE MAJOR IN INFORMATION STUDIES

TOTAL MAJOR HOURS: 39

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 4204 Information Behaviors
- LIS 4414 Information Policy and Ethics

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 following 21 credit hour concentrations:

- Data Science and Analytics
- Health Informatics
- Information Science and Technology
- Information Security
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, IDS 4914 or IDH 4910 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

DATA SCIENCE AND ANALYTICS (IDSC)

REQUIREMENTS FOR THE CONCENTRATION IN DATA SCIENCE AND ANALYTICS

TOTAL CONCENTRATION HOURS: 21

Concentration Core (18 hours)
Area of emphasis in deep knowledge discovery through data exploration, analysis, and inference.
LIS 4273 Advanced Statistics and Analytics
LIS 4317 Introduction to Visual Analytics
LIS 4370 R Programming for Data Science
LIS 4761 Introduction to Data & Text Mining
LIS 4800 Introduction to 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 Skills (CASB)
LIS 3352 Interaction Design
LIS 3361 World Wide Web Page Design 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 4930 Selected Topics in Information Studies (topic must be approved by the advisor or program director)

HEALTH INFORMATICS (IHIC)

REQUIREMENTS FOR THE CONCENTRATION IN HEALTH INFORMATICS

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 4477 Clinical Decision Support
LIS 4482 Networks and Communication
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 Design and Management
LIS 3783 Information Architecture
INFORMATION SECURITY (IISC)

REQUIREMENTS FOR THE CONCENTRATION IN INFORMATION SECURITY
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 Assurance and Security Management for IT
- 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 Sills (CASB)
- LIS 3352 Interaction Design
- LIS 3361 World Wide Web Page Design and Management
- LIS 3783 Information Architecture
- LIS 4029 Professional & Technical Communication for Analysts
- LIS 4273 Advanced Statistics and Analytics
- LIS 4317 Introduction to Visual Analytics
- LIS 4365 Web Design Technologies
- LIS 4370 R Programming for Data Science
- LIS 4477 Clinical Decision Support
- LIS 4761 Introduction to Data & Text Mining
- 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 4805 Predictive Analytics
- LIS 4930 Selected Topics in Information Studies (topic must be approved by the advisor or program director)

INFORMATION SCIENCE AND TECHNOLOGY (ISTC)

REQUIREMENTS FOR THE CONCENTRATION IN INFORMATION SCIENCE AND TECHNOLOGY
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 Sills (CASB)
- LIS 3352 Interaction Design
- LIS 3361 World Wide Web Page Design and Management
LIS 3783 Information Architecture
LIS 4029 Professional & Technical Communication for Analysts
LIS 4273 Advanced Statistics and Analytics
LIS 4317 Introduction to Visual Analytics
LIS 4365 Web Design Technologies
LIS 4370 R Programming for Data Science
LIS 4477 Clinical Decision Support
LIS 4482 Networks and Communication
LIS 4761 Introduction to Data & Text Mining
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 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
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).

REQUIREMENTS FOR THE MAJOR IN INTEGRATIVE ANIMAL BIOLOGY

TOTAL MAJOR HOURS: 40

Major requirements for the B.S. Degree:

Major Core (24 hours)

Biology Core Curriculum: 16 credit hours
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory
- PCB 3043 Principles of Ecology
- PCB 3043L Principles of Ecology Laboratory
- PCB 3063 General Genetics
- PCB 3063L General Genetics Laboratory

Structure and Function Courses: 8 credit hours
Choose one Structure & Function Pairing from the following list:
- Invertebrate Biology
  - ZOO 3205C Advanced Invertebrate Zoology AND PCB 3712/PCB 3713L General Physiology and Lab
- Vertebrate Biology
  - BSC 4933 Selected Topics in Biology: Vertebrate Natural History and Lab OR ZOO 3713C Comparative Vertebrate Anatomy OR BSC 4933 Selected Topics in Biology: Mammalogy and Lab AND PCB 3712/PCB 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 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 elective

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. in Integrative Animal Biology and M.A.T. in Science Education
This program intends for students to complete a B.S. in Integrative Animal Biology (College of Arts and Sciences) and M.A.T. in Science Education (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 credit hours toward the M.A.T. in Science Education during their senior year in the Integrative Animal Biology major.

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

INTEGRATIVE ANIMAL BIOLOGY FACULTY

• B.S. - INTERDISCIPLINARY NATURAL SCIENCES (INS) (CIP = 30.0101 - TRACK 16 OF 16)
TOTAL DEGREE HOURS: 120
http://chemistry.usf.edu/undergraduate/majors/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 General Education and State Communication Requirement (formerly known as Gordon Rule Writing) and State Computation Requirement (formerly known as Gordon Rule Math) courses. Unless otherwise stated, a grade of “C” is the minimum acceptable grade.

Biology I and II (BSC 2010, BSC 2010L, BSC 2011, BSC 2011L)
Calculus I and II (MAC 2241 and MAC 2242 or MAC 2311 and MAC 2312 or MAC 2281 and MAC 2282)
General Chemistry I and II (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 2049L)
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
- Cell and Molecular Biology
- Chemistry B.A. - including Biochemistry/Biotechnology and Health Professions concentrations
- Chemistry B.S.
- Environmental Biology
- Environmental Microbiology
- Integrative Animal Biology
- Interdisciplinary Natural Sciences
- Marine Biology
- Medical Technology
- Microbiology, and
- Pre-Medical Sciences (PMS) students who have not yet declared a major

*Non-Science majors are also subject to the D/F policy

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
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. in Interdisciplinary Natural Sciences and M.A.T. in Science Education
This program intends for students to complete a B.S. in Interdisciplinary Natural Sciences (College of Arts and Sciences) and M.A.T. in Science Education (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 credit hours toward the M.A.T. in Science Education during their senior year in the Interdisciplinary Natural Sciences major.

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.

This major has been certified as a Global Pathway. Global Pathway majors have significant global content and align with the goals of USF’s Quality Enhancement Plan, the Global Citizens Project. Students in Global Pathway majors are well positioned to earn the Global Citizen Award and become eligible to apply for a study abroad scholarship offered by the Global Citizens 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.

XXX XXXX (6 credit hours) Two introductory courses in a Social Sciences discipline.
REQUIREMENTS FOR THE MAJOR IN INTERDISCIPLINARY SOCIAL SCIENCES

TOTAL MAJOR HOURS: 42

Major requirements for the B.A. Degree:
Students in the ISS major complete a total of 42 credit hours of coursework in three categories:

- Major Core Requirements (9 credit hours)
- Diversity and Global Context Courses (4-9 credit hours)
- Two Concentrations Areas (24-29 credit hours)

Note: A minimum of 30 of the 42 hours must be at the 3000-level or above.

Major Core (13-18 hours)

Required Core Courses (9 credit hours)
- ISS 3010 Introduction to the Social Sciences
- ISS 4935 Seminar in the Social Sciences
- STA 2122 Social Sciences Statistics

Note: A minimum grade of C- or higher is required for each of the major core courses.

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 the application of these concepts and methods to issues and questions of contemporary local and global significance. STA 2122 Social Science Statistics is the third core course required for majors in Interdisciplinary Social Sciences and teaches students to use quantitative reasoning to address social science issues of local and global concern.

Diversity and Global Context Courses (4-9 credit hours)

The remainder of the 42 hours of major coursework will be selected from courses in the following categories:

- Africana Studies
- Disability Studies
  - SYO 4430 Disability and Society, ASL 3514 Deaf Culture, or Special Topics courses in other departments such as Women's and Gender Studies or Communication, approved by an advisor.
- International Studies
- Women's and Gender Studies
- Upper-Level Courses (3000- or 4000-level) with an ISS prefix

Note: If one or more of the student's areas of concentration require(s) more than 12 hours of coursework, fewer than 9 hours of coursework will be required in the Diversity and Global Context category.

Major Electives (24-29 hours)

Concentrations (12-15 hours in each of two areas of concentration)
ISS students choose two concentration areas and complete at least twelve (12) credit hours in each concentration:
- Africana Studies; Aging Sciences; American Studies; Anthropology; Communication; Communication Sciences and Disorders; Criminology; Deaf Studies; Economics; Environmental Science and Policy; Geography; History; Humanities; Information Studies; International Studies; 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.

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.
A minimum grade of C- or higher is required for each of the major core courses.

Other Requirements

ISS majors must satisfy two semesters of a foreign language in order to graduate. American Sign Language (ASL) satisfies the Foreign Language Exit Requirement (FLEX).

Research Opportunities

All ISS majors participate in a Senior Research Project as part of the requirements for ISS 4935 Seminar in the Social Sciences. Other research opportunities may be provided in courses related to the student's area of concentration or courses selected in the Diversity and Global Context category. ISS advisors can assist students in selecting courses that provide these research opportunities.
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

AFRICANA STUDIES (IAFA)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN AFRICANA STUDIES
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
Nine (9) credit hours of Upper-Level Major Electives (3000-4000)
Option 2:
Twelve (12) credit hours of Upper-Level Major Electives (3000-4000)

AGING SCIENCES (IAGE)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN AGING SCIENCES
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
GEY 2000 Introduction to Aging Sciences
Nine (9) credit hours of GEY Upper-Level Electives (3000-4000)

AMERICAN STUDIES (IAMS)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN AMERICAN STUDIES
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
AMS 2030 Introduction to American Studies or AMS 2270 Twentieth-Century American Culture
Nine (9) credit hours of AMS Upper-Level Major Electives (3000-4000)

ANTHROPOLOGY (IANT)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN ANTHROPOLOGY
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
One of the following courses:
ANT 2000 Introduction to Anthropology
ANT 2410 Cultural Anthropology
ANT 2511 Biological Anthropology
ANT 3101 Archaeology
ANT 3610 Linguistic Anthropology
Nine (9) credit hours of ANT Upper-Level Electives (3000-4000)

COMMUNICATION (ISPE)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN COMMUNICATION
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
COM 2000 Introduction to Communication
Choose one of the following courses:
- ORI 3004 Communication as Performance
- SPC 3301 Interpersonal Communication
- SPC 3544 Persuasion and Media
- SPC 3710 Communication and Cultural Diversity
Six (6) credit hours of COM, SPC, or ORI Upper-Level Electives (3000-4000)

COMMUNICATION SCIENCES AND DISORDERS (ICSD)
http://iss.usf.edu/concentrations/
REQUIREMENTS FOR THE CONCENTRATION IN COMMUNICATION SCIENCES AND DISORDERS
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
Students should choose four (4) courses from the following list:
- SPA 3002 Introduction to Communication Sciences and Disorders
- SPA 3004 Introduction to Language Development and Disorders
- SPA 3011 Introduction to Speech Science
- SPA 3030 Introduction to Hearing Science
- SPA 3101 Anatomy and Physiology of the Speech and Hearing Mechanism
- SPA 3112 Applied Phonetics in Communication Disorders
- SPA 3310 Introduction to Disorders of Hearing
- SPA 3470 Culture and Diversity in CSD
- SPA 4901 Research Methods in Communication Sciences and Disorders

CRIMINOLOGY (ICCJ)
http://iss.usf.edu/concentrations/
REQUIREMENTS FOR THE CONCENTRATION IN CRIMINOLOGY
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
CCJ 3024 Survey of the Criminal Justice System
CCJ 3117 Theories of Criminal Behavior
Six (6) credit hours of Upper-Level Major Electives (3000-4000)

DEAF STUDIES (IDFT)
http://iss.usf.edu/concentrations/
REQUIREMENTS FOR THE CONCENTRATION IN DEAF STUDIES
TOTAL CONCENTRATION HOURS: 14

Concentration Core (14 hours)
ASL 2140C Basic American Sign Language
ASL 2150C Intermediate American Sign Language
ASL 3514 Deaf Culture
SYO 4430 Disability and Society or Upper-Level ASL or INT course (3000-4000)

ECONOMICS (IECO)
http://iss.usf.edu/concentrations/
REQUIREMENTS FOR THE CONCENTRATION IN ECONOMICS
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
ECO 2013 Economic Principles (Macroeconomics)
ECO 2023 Economic Principles (Microeconomics)
Six (6) credit hours of Upper-Level Major Electives (3000-4000)

ENVIRONMENTAL SCIENCE AND POLICY (IESP)
http://iss.usf.edu/concentrations/
REQUIREMENTS FOR THE CONCENTRATION IN ENVIRONMENTAL SCIENCE AND POLICY
TOTAL CONCENTRATION HOURS: 13
GEOGRAPHY (IGPY)

REQUIREMENTS FOR THE CONCENTRATION IN GEOGRAPHY
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)
- Two (2) credit hours of Upper-Level Major Electives (3000-4000)

HISTORY (IHTY)

REQUIREMENTS FOR THE CONCENTRATION IN HISTORY
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- Twelve (12) credit hours of Upper-Level Major Electives (3000-4000)

HUMANITIES (IHSC)

REQUIREMENTS FOR THE CONCENTRATION IN HUMANITIES
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- Three (3) credit hours of HUM Lower-Level Electives (2000) or Approved Equivalents
- Nine (9) credit hours of HUM Upper-Level Electives (3000-4000)

INFORMATION STUDIES (IIFS)

REQUIREMENTS FOR THE CONCENTRATION IN INFORMATION STUDIES
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- LIS 2937 Selected Topics in Library/Information Science or Approved Lower-Level LIS Elective (2000)
- LIS 3361 World Wide Web Page Design and Management
- Six (6) credit hours of LIS Upper-Level Electives (3000-4000)

INTERNATIONAL STUDIES (IINT)

REQUIREMENTS FOR THE CONCENTRATION IN INTERNATIONAL STUDIES
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- 12 credit hours of Upper-Level Major Electives (3000-4000)
LATIN AMERICAN, CARIBBEAN, AND LATINO STUDIES (ILAS)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN LATIN AMERICAN, CARIBBEAN, AND LATINO STUDIES
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
Twelve (12) credit hours of Upper-Level coursework relating to Latin America, the Caribbean, or the Latino/Latina diaspora selected from at least four of the following areas:
- Anthropology/Sociology/Philosophy
- Political Science/International Studies
- Geography/History
- Education/Social Work
- Global Studies/Public Health

Note: Coursework must be approved by an advisor and at least 50% of the graded assignments in the selected course must be related to Latin America, the Caribbean, or the Latino/Latina diaspora.

MASS COMMUNICATIONS (ICOM)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN MASS COMMUNICATIONS
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

MULTIDISCIPLINARY BEHAVIORAL SCIENCES (IMDS)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN MULTIDISCIPLINARY BEHAVIORAL SCIENCES
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

POLITICAL SCIENCE (IPOL)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN POLITICAL SCIENCE
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
POS 2041 American National Government
Nine (9) credit hours of Upper-Level Major Electives (3000-4000)
PSYCHOLOGY (IPSY)

REQUIREMENTS FOR THE CONCENTRATION IN PSYCHOLOGY
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
PSY 3213 Research Methods in Psychology
Nine (9) credit hours of Upper-Level Major Electives (3000-4000)

PUBLIC ADMINISTRATION (IPAD)

REQUIREMENTS FOR THE CONCENTRATION IN PUBLIC ADMINISTRATION
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
Twelve (12) credit hours of Upper-Level Major Electives (3000-4000)

PUBLIC HEALTH (IPUB)

REQUIREMENTS FOR THE CONCENTRATION IN PUBLIC HEALTH
TOTAL CONCENTRATION HOURS: 15

Concentration Core (12 hours)
HSC 4537 Medical Terminology
HSC 4551 Survey of Human Diseases
PHC 4030 Introduction to Epidemiology
PHC 4101 Overview of Public Health Programs and Policies

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
PHC 4931 Health Care Ethics
RELIGIOUS STUDIES (IREL)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN RELIGIOUS STUDIES
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- REL 3040 Introduction to Religious Studies
- Nine (9) credit hours of REL Electives, of which six (6) credit hours must be upper-level (3000-4000)

SOCIOLOGY (ISOC)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN SOCIOLOGY
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- SYG 2000 Introduction to Sociology or Upper-Level Elective in Sociology (3000-4000)
- SYA 3110 Classical Theory
- SYA 3300 Research Methods or SYA 3310 Qualitative Inquiry
- Three (3) credit hours of Sociology Upper-Level Electives (3000-4000)
- Students choosing this concentration may take SYA 4935 Senior Seminar in place of ISS 4935 Seminar in the Social Sciences.

WOMEN'S AND GENDER STUDIES (IWGS)
http://iss.usf.edu/concentrations/

REQUIREMENTS FOR THE CONCENTRATION IN WOMEN'S AND GENDER STUDIES
TOTAL CONCENTRATION HOURS: 12

Concentration Core (12 hours)
- WST 3015 Introduction to Women's Studies or WST 3311 Issues in Feminism
- Nine (9) credit hours of Upper-Level Electives (3000-4000) offered by the Department of Women's and Gender Studies

INTERDISCIPLINARY SOCIAL SCIENCES FACULTY
Director: Sara Green.

B.A. - INTERNATIONAL STUDIES (INT) (CIP = 45.0901)
TOTAL DEGREE HOURS: 120
http://usf.edu/sigs/undergraduate/

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 credit hours. At least 27 of these credit 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
  - Two (2) area studies courses from the INT upper-division electives (3 credit hours each)

Major Electives (18 hours)
- The additional 18 credit hours must include at least three elective courses (9 credit hours) from within the International Studies discipline offered in the School of Interdisciplinary Global Studies; the remaining 9 credit 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. Please see the International Studies advisor for a full list of courses to meet the INT elective requirements.
  - 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 Capital.

Residency Requirement
- Students transferring credit hours toward a major in International Studies must complete a minimum of 21 credit hours within the School of Interdisciplinary Global Studies, 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, IDS 4914 or IDH 4910 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 School of Interdisciplinary Global Studies 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 School of Interdisciplinary Global Studies allows up to 6 credits of paid or 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 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://usf.edu/sigs/undergraduate/.

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://usf.edu/sigs/undergraduate/.
• **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 X292 or MAC X234 or STA X023 or STA X024 or STA X321

**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).
REQUIREMENTS FOR THE MAJOR IN MARINE BIOLOGY
TOTAL MAJOR HOURS: 37-41

Major requirements for the B.S. Degree:

**Major Core (24-26 hours)**
- BSC 2010 Cellular Processes
- BSC 2010L Cellular Processes Laboratory
- BSC 2011 Biodiversity
- BSC 2011L Biodiversity Laboratory
- BSC 3312 Marine Biology
- BSC 4937 Seminar in Marine Biology
- PCB 3043 Principles of Ecology
- PCB 3043L Principles of Ecology Laboratory
- PCB 3063 General Genetics
- PCB 3063L General Genetics Laboratory

**Choose one of the following:**
- BOT 3373C Vascular Plants: Form and Function
- BSC 4933 Selected Topics in Biology*
- MCB 3020 and MCB 3020L General Microbiology and Laboratory
- ZOO 3205C Advanced Invertebrate Zoology
- ZOO 3713C Comparative Vertebrate Anatomy

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

**Major Electives (13-15 hours)**
Students choose 13-15 credit hours of coursework from the following list:
- BCH 4033 Advanced Biochemistry I
- 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
- MCB 3020 General Microbiology
- MCB 3020L General Microbiology Laboratory
- MCB 4404 Microbial Physiology and Genetics and MCB 4404L Microbial Physiology and Genetics Laboratory
- PCB 3712 General Physiology and PCB 3713L General Physiology Laboratory
- PCB 4674 Organic Evolution
- PCB 4723 Animal Physiology and PCB 4723L Animal Physiology Laboratory
- 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

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

Note: Course taken to fulfill structure requirement cannot also apply toward 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.

A minimum of 8 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. in Marine Biology and M.A.T. in Science Education

This program intends for students to complete a B.S. in Marine Biology (College of Arts and Sciences) and M.A.T. in Science Education (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 credit hours toward the M.A.T. in Science Education during their senior year in the Marine Biology major.

Advising Information

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

MARINE BIOLOGY FACULTY


• B.A. - MASS COMMUNICATIONS (COM) (CIP = 09.0102)

TOTAL DEGREE HOURS: 124
http://masscom.usf.edu/ug/ba/

The Bachelor of Arts in Mass Communications is a pre-professional, hands-on program that allows students to be prepared for careers in Advertising, Public Relations, and Multimedia Journalism.

LIMITED ACCESS - THIS MAJOR HAS ADDITIONAL ADMISSIONS REQUIREMENTS AS LISTED IN THIS SECTION.

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
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 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 and State Communication Requirement (formerly known as Gordon Rule Writing) and State Computation Requirement (formerly known as Gordon Rule Math) 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: 43-55

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.
  MMC 2100 Writing for the Mass Media
  MMC 3602 Mass Communication and Society

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 not 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, IDS 4914 or IDH 4910 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

ADVERTISING (ADV)

REQUIREMENTS FOR THE CONCENTRATION IN ADVERTISING
TOTAL CONCENTRATION HOURS: 37

Concentration Core (34 hours)
Required Courses (22 credit hours):
- 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 Internship
- MMC 4200 History and Principles of Communications Law or MMC 4203 Communication Ethics

Specialization Courses (6 credit hours):
Students choose one specialization from below:

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 (6 credit hours):
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.

Advising Information
Daniel Shelnutt, Academic Advisor
BROADCAST NEWS (NWS)
REQUIREMENTS FOR THE CONCENTRATION IN BROADCAST NEWS
TOTAL CONCENTRATION HOURS: 43

Concentration Core (33 hours)
  Required Courses (21 credit 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 (12 credit hours):
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.

Advising Information
Daniel Shelnutt, Academic Advisor

BROADCAST-PROGRAM AND PRODUCTION (PGM)
REQUIREMENTS FOR THE CONCENTRATION IN BROADCAST-PROGRAM AND PRODUCTION
TOTAL CONCENTRATION HOURS: 37

Concentration Core (27 hours)
  Required Courses (21 credit 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 (6 credit hours):
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

Advising Information
Daniel Shelnutt, Academic Advisor

JOURNALISM-MAGAZINE (MAG)
REQUIREMENTS FOR THE CONCENTRATION IN JOURNALISM-MAGAZINE
TOTAL CONCENTRATION HOURS: 49

Concentration Core (42 hours)
  Required Courses (24 credit hours):
    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 (18 credit hours):
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

Advising Information
Daniel Shelnutt, Academic Advisor

JOURNALISM-NEWS-EDITORIAL (JOU)

REQUIREMENTS FOR THE CONCENTRATION IN JOURNALISM-NEWS-EDITORIAL
TOTAL CONCENTRATION HOURS: 46

Concentration Core (36 hours)

Required Courses (21 credit hours):
- 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 4213 Newspaper and News Publication Design or PGY 3610C Photojournalism I

Other Requirements (15 credit hours):
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

Public Relations (PUR)

REQUIREMENTS FOR THE CONCENTRATION IN PUBLIC RELATIONS
TOTAL CONCENTRATION HOURS: 49

Concentration Core (45 hours)

Required Courses (27 credit 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 (18 credit hours):
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

Advising Information
Daniel Shelnutt, Academic Advisor

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
- 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.

**MATHEMATICS CONCENTRATIONS**

**APPLIED/COMPUTATIONAL MATHEMATICS (ACM)**
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.

REQUIREMENTS FOR THE CONCENTRATION IN APPLIED/COMPUTATIONAL MATHEMATICS

**TOTAL CONCENTRATION HOURS: 15**

**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.

**GENERAL MATHEMATICS (GMM)**

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.

**REQUIREMENTS FOR THE CONCENTRATION IN GENERAL MATHEMATICS**

**TOTAL CONCENTRATION HOURS: 15**

**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.

**PURE MATHEMATICS (PMM)**
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.

REQUIREMENTS FOR THE CONCENTRATION IN PURE MATHEMATICS

TOTAL CONCENTRATION HOURS: 15

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.

**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, IDS 4914 or IDH 4910 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. in Mathematics and M.A. in Mathematics

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. in Mathematics and M.A. in Mathematics in four to five years.

Advising Information

Please visit the following website: http://math.usf.edu/resources/advising/ for additional information and all your advising needs.

MATHEMATICS FACULTY


• B.S. - MEDICAL TECHNOLOGY (MET) (CIP = 51.1005)

TOTAL DEGREE HOURS: 120

http://chemistry.usf.edu/undergraduate/majors/medical/

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 a 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 - USF’s course recommendation: BSC 2010/BSC 2010L

Human Anatomy and Physiology I with Laboratory - USF’s course recommendation: BSC 2093C or BSC 2085/BSC 2085L

Human Anatomy and Physiology II with Laboratory - USF’s course recommendation: BSC 2094C or BSC 2086/BSC 2086L.

General Microbiology with Laboratory - USF’s course recommendation: MCB 3020/MCB 3020L.

General Chemistry I with Laboratory - USF’s course recommendation: CHM 2045/CHM 2045L.

General Chemistry II with Laboratory - USF’s course recommendation: CHM 2046/CHM 2046L.

Organic Chemistry I with Laboratory - USF’s course recommendation: CHM 2210/CHM 2210L.

Organic Chemistry II with Laboratory - USF’s course recommendation: CHM 2211/CHM 2211L.


REQUIREMENTS FOR THE MAJOR IN MEDICAL TECHNOLOGY

TOTAL MAJOR HOURS: 89

Major requirements for the B.S. Degree:

Major Core (89 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
MCB 3020 General Microbiology
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
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 4860 Clinical Urinalysis and Body Fluid
- MLS 4861 Clinical Immunology
- MLS 4862 Clinical Hematology
- MLS 4863 Clinical Microbiology
- MLS 4864 Clinical Chemistry
- MLS 4865 Clinical Immunohematology
- 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. State Communication Requirement (formerly known as Gordon Rule Writing) and State Computation Requirement (formerly known as Gordon Rule Math).
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
- Cell and Molecular Biology
- Chemistry B.A. - including Biochemistry/Biotechnology and Health Professions concentrations
- Chemistry B.S.
- Environmental Biology
- Environmental Microbiology
- Integrative Animal Biology
- Interdisciplinary Natural Sciences
- Marine Biology
- Medical Technology
- Microbiology, and
- Pre-Medical Sciences (PMS) students who have not yet declared a major

*Non-Science majors are also subject to the D/F policy

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

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

REQUIREMENTS FOR THE MAJOR IN MICROBIOLOGY TOTAL MAJOR HOURS: 43

Major requirements for the B.S. Degree:
Major Core (31 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
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 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 another major 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. in Microbiology and M.S. in Microbiology
This program allows undergraduate Microbiology to take graduate courses for the elective part of the Microbiology major and apply them to a non-thesis M.S. 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.

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.

I. 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

II. Logic – 3 credit hours:
Choose one of the following courses:
- PHI 3130 Formal Logic (Strongly encouraged)
- PHI 2101 Introduction to Formal Logic

III. 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, IDS 4914 or IDH 4910 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 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, abird@usf.edu
Undergraduate Program Director: Alex Levine, 813-974-5508, Levineat@usf.edu

PHILOSOPHY FACULTY


• B.A. - PHYSICAL SCIENCES (PSBA) (CIP = 40.0801 - TRACK 1 OF 2)
  TOTAL DEGREE HOURS: 120

The degree in Physical Sciences will prepare students for employment in technical fields requiring a background in one or more of the physical 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 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

Required Supporting Courses for the Major: 28 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.

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 2281 Engineering Calculus I
- MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
- MAC 2313 Calculus III or MAC 2283 Engineering Calculus III
- PHY 2048 General Physics I – Calculus Based and PHY 2048L General Physics I Laboratory or PHY 2060 Enriched General Physics I with Calculus and PHY 2048L is strongly recommended
- PHY 2049 General Physics II – Calculus Based and PHY 2049L General Physics II Laboratory or PHY 2061 Enriched General Physics II with Calculus and PHY 2049L is strongly recommended

REQUIREMENTS FOR THE MAJOR IN PHYSICAL SCIENCES

TOTAL MAJOR HOURS: 25

Major requirements for the B.A. Degree:

Major Core (6 hours)

Computational Science Requirement (6 credit hours)

Choose any two of the following courses:

- COP 4313 Symbolic Computations in Mathematics (PR: MAS 3105 and MAP 2302)
- GLY 3866 Computational Geology
- PHZ 4151C Computational Physics
- MAD 4401 Numerical Analysis I (PR: MAP 2302 and MAS 3105)
- MAD 4471 Introduction to Cryptography and Coding Theory (PR: MAS 3105 and MGF 3301)
- MAD 4504 Theory of Computation (PR: MGF 3301 and MAD 3107)

Major Electives (19 hours)

Choose 19 credit hours from the following list of courses:

- CHM 2210 Organic Chemistry I
- CHM 2210L Organic Chemistry I Laboratory
- CHM 3120C Elementary Analytical Chemistry
- CHM 3610 Intermediate Inorganic Chemistry
- CHM 3610L Intermediate Inorganic Chemistry Laboratory
- CHM 4410 Physical Chemistry I
- CHM 4410L Physical Chemistry I Lab
CHM 4413 Biophysical Chemistry  
ESC 2000 Introduction to Earth Science  
GEO 3280 Environmental Hydrology  
GLY 2010 Dynamic Earth: Introduction to Physical Geology  
GLY 3311C Mineral, Petrology, Geochemistry  
MAP 2302 Differential Equations  
MAS 3105 Linear Algebra  
MAS 3156 Vector Calculus  
MGF 3301 Bridge to Abstract Math  
OCE 2001 Introduction to Oceanography  
PHY 3101 Modern Physics  
PHY 3220 Classical Mechanics (PR: PHY 3101 and PHZ 3113)  
PHY 3323 Electricity and Magnetism I (PR: PHY 3101 and PHZ 3113)  
PHY 3822L Intermediate Laboratory (CR: PHY 3101)  
PHY 4424 Optics (PR: PHY 3101)  
PHY 4604 Introduction to Quantum Mechanics (PR: PHY 3101 and PHZ 3113)  
PHY 4744C Introduction to Electronics and Test Instrumentation (PR: PHY 3822L)  
PHY 4823L Advanced Laboratory (PR: PHY 3822L)  
PHY 4930 Undergraduate Seminar  
PHZ 3113 Mathematical Methods in Physics  
PHZ 4151C Computational Physics (may not count for both the computational science and major electives requirements)  

Other courses may count, subject to approval by the Physics Undergraduate Coordinator. A maximum of 12 credit hours may be included from courses in Chemical, Biomedical, Electrical, Mechanical, and Civil Engineering that have PHY 2049, PHY 2061 or CHM 2046 as prerequisites.  

Note: Students may need to satisfy additional prerequisites prior to taking some of the listed courses.  

GPA Requirements  
Students must maintain a minimum GPA of 2.0 in courses required for the major.  

Course Grade Requirement  
The minimum satisfactory letter grade for any course used to satisfy requirements for the major is C-.  

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, IDS 4914 or IDH 4910 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.  

• B.S. - PHYSICAL SCIENCES (PSBS) (CIP = 40.0801 - TRACK 1 OF 2)  
TOTAL DEGREE HOURS: 120  
The degree in Physical Sciences will prepare students for employment in technical fields requiring a background in one or more of the physical 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.

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

Required Supporting Courses for the Major: 28 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.

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 2281 Engineering Calculus I
MAC 2312 Calculus II or MAC 2282 Engineering Calculus II
MAC 2313 Calculus III or MAC 2283 Engineering Calculus III
PHY 2048 General Physics I – Calculus Based and PHY 2048L General Physics I Laboratory
or PHY 2060 Enriched General Physics I with Calculus and PHY 2048L is strongly recommended
PHY 2049 General Physics II – Calculus Based and PHY 2049L General Physics II Laboratory
or PHY 2061 Enriched General Physics II with Calculus and PHY 2049L is strongly recommended

REQUIREMENTS FOR THE MAJOR IN PHYSICAL SCIENCES
TOTAL MAJOR HOURS: 39

Major requirements for the B.S. Degree:

Major Core (6 hours)
Computational Science Requirement (6 credit hours)
Choose any two of the following courses:
COP 4313 Symbolic Computations in Mathematics (PR: MAS 3105 and MAP 2302)
GLY 3866 Computational Geology
PHZ 4151C Computational Physics
MAD 4401 Numerical Analysis I (PR: MAP 2302 and MAS 3105)
MAD 4471 Introduction to Cryptography and Coding Theory (PR: MAS 3105 and MGF 3301)
MAD 4504 Theory of Computation (PR: MGF 3301 and MAD 3107)

Major Electives (33 hours)
Choose 33 credit hours from the following list of courses:
CHM 2210 Organic Chemistry I
CHM 2210L Organic Chemistry I Laboratory
CHM 3120C Elementary Analytical Chemistry
CHM 3610 Intermediate Inorganic Chemistry
CHM 3610L Intermediate Inorganic Chemistry Laboratory
CHM 4410 Physical Chemistry I
CHM 4410L Physical Chemistry I Lab
CHM 4413 Biophysical Chemistry
ESC 2000 Introduction to Earth Science
GEO 3280 Environmental Hydrology
GLY 2010 Dynamic Earth: Introduction to Physical Geology
GLY 3311C Mineral, Petrology, Geochemistry
MAP 2302 Differential Equations
MAS 3105 Linear Algebra
MAS 3156 Vector Calculus
MGF 3301 Bridge to Abstract Math
OCE 2001 Introduction to Oceanography
PHY 3101 Modern Physics
PHY 3220 Classical Mechanics (PR: PHY 3101 and PHZ 3113)
PHY 3323 Electricity and Magnetism I (PR: PHY 3101 and PHZ 3113)
PHY 3822L Intermediate Laboratory (CR: PHY 3101)
PHY 4424 Optics (PR: PHY 3101)
PHY 4604 Introduction to Quantum Mechanics (PR: PHY 3101 and PHZ 3113)
PHY 4744C Introduction to Electronics and Test Instrumentation (PR: PHY 3822L)
PHY 4823L Advanced Laboratory (PR: PHY 3822L)
PHY 4930 Undergraduate Seminar
PHZ 3113 Mathematical Methods in Physics
PHZ 4151C Computational Physics (may not count for both the computational science and major electives requirements)

Other courses may count, subject to approval by the Physics Undergraduate Coordinator. A maximum of 12 credit hours may be included from courses in Chemical, Biomedical, Electrical, Mechanical, and Civil Engineering that have either PHY 2049, PHY 2061 or CHM 2046 as prerequisites.

Note: Students may need to satisfy additional prerequisites prior to taking some of the listed courses.

GPA Requirements
Students must maintain a minimum GPA of 2.0 in courses required for the major.

Course Grade Requirement
The minimum satisfactory letter grade for any course used to satisfy requirements for the major is C-.

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, IDS 4914 or IDH 4910 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.

• B.S. - PHYSICS (PHS) (CIP = 40.0801 - TRACK 1 OF 2)
  TOTAL DEGREE HOURS: 120
  http://physics.usf.edu/ug/degree/

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
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

Requirements for the Major in Physics
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
  - PHY 4605 Quantum Mechanics II

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, IDS 4914 or IDH 4910 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/; physicsadvise@usf.edu

Physics Faculty
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

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

REQUIREMENTS FOR THE MAJOR IN PHYSICS

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, IDS 4914 or IDH 4910 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. in Physics and M.A.T. in Science Education
This program intends for students to complete a B.A. in Physics (College of Arts and Sciences) and M.A.T. in
Science Education (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 credit hours toward the M.A.T. in Science Education during their senior year in the Physics (B.A.) major.

Teacher Education Programs
For information concerning the degree programs for secondary school teachers, see College of Education,
Department of Secondary Education.

Advising Information
physicsadvice@usf.edu

PHYSICS FACULTY
Witanachchi; Associate Professors: M. Batzill, D. Haynie, X. Jiang, G. Matthews, M. Muschol, I. Ponomareva, D.
Rabson, L. Woods; Assistant Professor: R. Hoy, D. Karaiskaj, A. Muller, J. Pan, S. Pandit, Z. Shi, G. Ullah, J. Zhou;

• 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
POS 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 not to 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
- POS 3273 Practical Politics
- POS 4413 The American Presidency
- POS 2112 State and Local Government and Politics
- POS 3453 Political Parties and Interest Groups
- POS 4424 The American Congress
- POS 3173 Southern Politics
- POS 4204 Political Behavior, Public Opinion and Elections
- PUP 4323 Women and Politics

### 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, IDS 4914 or IDH 4910 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/.

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:
  - CBH 4004 Comparative Psychology
  - CLP 4134 Abnormal Child Psychology
  - CLP 4314 Health Psychology**
  - CLP 4414 Behavior Modification
  - CLP 4941 Community Practicum
  - EXP 4640 Psychology of Language
  - GEY 4612 Psychology of Aging**
  - IDS 4942 Community Internship
  - SOP 4702 Psychology of Gender**
  - PSB 4004 Drugs and Behavior**
  - 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 requires 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, IDS 4914 or IDH 4910 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 Office of Academic Advocacy 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 Mysticim
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
Religious Studies

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, IDS 4914 or IDH 4910 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)

Religious Studies Faculty
Chair: D. deChant; Distinguished University Professor: J.F. Strange; Professor: D. Jorgensen; Associate Professors: M. DeJonge, C. Fisher; Emeritus Professors: S. Garcia, S. Mandell, M.G. Mitchell; Assistant Professors: G. Ben-Herut;
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 XXXX or SYG XXXX or SYO XXXX or SYP XXXX (6 credit hours)

Required Supporting Courses for the Major: 3 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.

STA 2122 Social Science Statistics or its equivalent

REQUIREMENTS FOR THE MAJOR IN SOCIOLOGY

TOTAL MAJOR HOURS: 36

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.

The minimum of 36 credit hours in Sociology must include the following four core courses (12 credit hours):

SYG 2000 Introduction to Sociology

(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 (PR: 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.

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.
IDENTITY AND COMMUNITY (IDC)

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.

REQUIREMENTS FOR THE CONCENTRATION IN IDENTITY AND COMMUNITY

TOTAL CONCENTRATION HOURS: 24

Concentration Core (3 hours)
- SYP 4111 Identity and Community

Concentration Electives (21 hours)
Select nine (9) credit hours of coursework from the following list:
- 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

INEQUALITY AND SOCIAL JUSTICE (ISJ)

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.

REQUIREMENTS FOR THE CONCENTRATION IN INEQUALITY AND SOCIAL JUSTICE

TOTAL CONCENTRATION HOURS: 24

Concentration Core (3 hours)
- STA 2122 Social Science Statistics or its equivalent
SYO 4536 Inequalities and Social Justice

Concentration Electives (21 hours)
Select nine (9) credit hours of coursework from the following list:
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
SYO 4430 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

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
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, (813) 974-9249 or Brandon Kroll, Cooper Hall (CPR) 235, (813) 974-6893.

SOCIOLOGY FACULTY


• 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):**

Students must complete the following five courses plus completion of one of the four lab-based Science courses (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 (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):**

Students must complete five courses from the following list of electives (Minimum 15 credit hours):

- MAP 2302 Differential Equations
- MAS 3105 Linear Algebra
- 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

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, IDS 4914 or IDH 4910 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://www.math.usf.edu/ug/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.

225
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, IDS 4914 or IDH 4910 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, Tangelia Serls, is located in SCA 232, and can be reached at WGSAdvise@usf.edu.

WOMEN'S AND GENDER STUDIES FACULTY

B.A. - WORLD LANGUAGES AND CULTURES (WLC) (CIP = 16.0101)
TOTAL DEGREE HOURS: 120
The B.A. in World Languages and Cultures offers students a solid foundation in language and linguistic skills as well as knowledge of diverse cultures. Students may choose one concentration: Applied Linguistics, Chinese Language and Culture, Classics, East Asian Languages and Cultures, French, French International Studies and Business, German, Italian, Russian, Spanish, Spanish International Studies and Business, or may combine two concentrations (36 credit hours: 6 credit hours major core and 15 credit hours per concentration; the French International Studies and Business and the Spanish International Studies and Business concentrations are excluded). Upon completion of the program, students will be able to interact and participate in a global environment.

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.
Students should demonstrate proficiency at the intermediate level within the concentration’s 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 WORLD LANGUAGES AND CULTURES
TOTAL MAJOR HOURS: 30-69
Major requirements for the B.A. Degree:
Major Core (6 hours)
  LIN 3003 Language Matters
  LIT 4804 Literature as Cultural Study
Major Electives (24-63 hours)

Students must select one of the following concentrations:

- Applied Linguistics
- Chinese Language and Culture
- Classics
- East Asian Languages and Cultures
- French
- French International Studies and Business
- German
- Interdisciplinary Classical Civilizations
- Italian
- Russian
- Spanish
- Spanish International Studies and Business

WORLD LANGUAGES AND CULTURES CONCENTRATIONS

APPLIED LINGUISTICS (WLAL)

The Applied Linguistics concentration will help students comprehend a broad range of language-related issues to better understand how language functions both in the lives of individuals and in society. The coursework in this concentration will prepare students for a wide-range of career options, including pedagogical formation for language teaching domestically or internationally, cross-culture competency for careers in industry, and foundation knowledge in applied linguistics to be successful in graduate work in the field.

REQUIREMENTS FOR THE CONCENTRATION IN APPLIED LINGUISTICS

TOTAL CONCENTRATION HOURS: 24

Concentration Core (6 hours)

Recommended Language Preparation:
Four semesters in any language or equivalent language competency prior to taking courses in the concentration.

- LIN 3010 Introduction to Linguistics
- LIN 4721 Second Language Acquisition (GCPC)

Concentration Electives (18 hours)

Students choose a total of six courses (18 credit hours) of Applied Linguistics coursework from the following list:

- FLE 4390 Teaching Foreign/Second Languages
- LIN 2002 Language, Culture and Film
- LIN 3801 Language and Meaning
- LIN 4350 Sound Systems in American English
- LIN 4701 Psycholinguistics
- LIN 4903 Directed Readings
- LIN 4930 Special Topics (may be repeated; title must be different)
- TSL 4362 Teaching English Overseas

Of these six elective courses, one literature or culture course can be substituted (e.g. Russian Literature in Translation, Introduction to Chinese Culture, etc.)

Note: Advanced undergraduates may be able to register for the graduate-level seminars upon the recommendation of the faculty.

CHINESE LANGUAGE AND CULTURE (WLCC)

The Chinese Language and Culture concentration is designed for students who wish to achieve advanced level proficiency in modern Mandarin Chinese language at the same time they develop the sociocultural skills necessary for interaction with Chinese counterparts in professional contexts. Chinese is spoken by more than one billion people across the globe and has been designated a national Critical Language in the US government. High level Chinese language skills equip students to be highly competitive for China-related jobs in government, international business, international law, education and the non-profit sector.

Required Supporting Courses for the Concentration (16 credit hours)

The following courses are prerequisite/supporting courses for this concentration. They are required for the concentration, but are not counted in the total hours for this major.

- CHI 1120 Modern Chinese I
- CHI 1121 Modern Chinese II
CHI 2220 Modern Chinese III
CHI 2221 Modern Chinese IV

REQUIREMENTS FOR THE CONCENTRATION IN CHINESE LANGUAGE AND CULTURE
TOTAL CONCENTRATION HOURS: 24

Concentration Core (21 hours)
Required Courses (9 credit hours):
CHI 3241 Advanced Chinese Conversation I
CHI 3242 Advanced Chinese Conversation II
CHI 4443 Networking in China and America

Culture, Literature and Film Courses (12 credit hours):
Student chooses 12 credit hours of coursework from the following list of courses:
CHI 4930 Selected Topics
CHT 3110 Traditional Chinese Literature in Translation
CHT 3124 Introduction to Modern Chinese Literature
CHT 3500 Introduction to Modern Chinese Culture
CHT 3512 Contemporary Chinese Language and Society
CHT 3520 Chinese Film

Concentration Electives (3 hours)
Student chooses three credit hours of coursework in advanced language courses (3000-4000 level), study abroad coursework in a USF program in China, or coursework in culture, literature, and film. These three credit hours of electives should be planned with a World Languages advisor.

CLASSICS (WLCL)
http://languages.usf.edu/undergraduate/classics/
The Classics concentration is an interdisciplinary humanities field. We provide instruction in the Greek and Latin languages and in the Greek and Roman civilization, literature, mythology and religion. Faculty offer courses in diverse aspects of the Greek and Roman world and mentor students in the acquisition of specific applied skills through their studies. The Classics section combines the intimacy of a small liberal arts college with the wide-ranging educational and professional possibilities of a large state university. This concentration is of special interest to students who wish to teach Latin and Greek at the pre-college level, and to those who plan graduate study in a humanistic discipline including law and medicine.

REQUIREMENTS FOR THE CONCENTRATION IN CLASSICS
TOTAL MAJOR HOURS: 24-25

Concentration Core (18-19 hours)
CLT 3370 Gods, Heroes and Monsters in the Ancient World
Student chooses one of two language tracks in either Latin or Greek:
Required courses for the Latin Track (16 credit hours):
LAT 1120 Beginning Latin I
LAT 1121 Beginning Latin II
AT 2220 Intermediate Latin
AT 2221 Intermediate Latin II
Required courses for the Greek Track (15 credit hours):
GRE 1120 Beginning Classical Greek I
GRE 1121 Beginning Classical Greek II
GRE 2220 Intermediate Classical Greek
GRW 3502 Survey of Greek Literature: Plato's Republic

Concentration Electives (6 hours)
Student chooses any two courses (six credit hours) with a CLA or CLT prefix that has not been used for another requirement with the major and/or concentration.

EAST ASIAN LANGUAGES AND CULTURES (WLEA)
The East Asian Languages and Cultures concentration is designed to provide students with opportunities to develop broad understandings of East Asia as a region through interdisciplinary explorations into the languages, literatures, cultures, film, humanities, history, geography, arts, and political institutions of China, Japan, and Korea. USF has strong programs in Chinese and Japanese, two critical languages that serve as the core of the East Asian Languages and
Cultures concentration. The concentration prepares students to be highly attractive in the global marketplace and to be immediate contributors to globally-oriented organizations, companies, and institutions with strong language skills as well as broad sociocultural knowledge that situates the use of those languages in two or more countries in the region. High-level critical language skills equip students to be highly competitive for Japan- and China-related jobs in government, international business, international law, law enforcement, defense, intelligence, and the non-profit sector.

**Required Supporting Courses for the Concentration (8 credit hours)**
The following courses are prerequisite/supporting courses for this concentration. They are required for the concentration, but are not counted in the total hours for this major. A student chooses either Chinese or Japanese coursework from the following list:
- CHI 1120 Modern Chinese I
- CHI 1121 Modern Chinese II
  OR
- JPN 1120 Modern Japanese I
- JPN 1121 Modern Japanese II

**REQUIREMENTS FOR THE CONCENTRATION IN EAST ASIAN LANGUAGES AND CULTURES**

**TOTAL CONCENTRATION HOURS: 24**

**Concentration Core (20 hours)**

**Concentration Language Requirement (11 credit hours)**

Students completing the East Asian Studies concentration must complete a minimum of two semesters of coursework in two East Asian languages and complete at least two courses beyond CHI 1121 or JPN 1121 in one of those languages.

**Japanese Focus Required Language Courses:**
- JPN 2220 Modern Japanese III
- JPN 2221 Modern Japanese IV
- JPN 3400 Modern Japanese V
  OR
- Chinese Focus Required Language Courses:
  - CHI 2220 Modern Chinese III
  - CHI 2221 Modern Chinese IV
  - CHI 3241 Advanced Chinese Conversation I

**Concentration Regional Focus Requirement (3 credit hours)**

Student chooses three (3) credit hours of coursework from the following list of courses:
- ASN 3201 East Asian Cinema
- ASN 4414 Introduction to East Asian Cultures

**Concentration Literature Culture and Film Requirement (6 credit hours)**

Student chooses six (6) credit hours of coursework from the following list of courses:
- ARH 4530 Asian Art
- ASN 3012 Japan Today
- CHI 4905 Directed Study
- CHI 4930 Selected Topics
- CHT 3110 Traditional Chinese Literature in Translation
- CHT 3124 Introduction to Modern Chinese Literature in Translation
- CHT 3500 Introduction to Modern Chinese Culture
- CHT 3512 Contemporary Chinese Language and Society
- CHT 3520 Chinese Film
- JPN 4930 Selected Topics

**Concentration Electives (4 hours)**

Student chooses four credit hours of coursework in Chinese or Japanese language courses, study abroad coursework in a USF program in China or Japan, or coursework in culture, literature, and film with a significant focus on China, Japan, or East Asia as a region. These three credit hours of electives should be planned with a World Languages advisor.

**FRENCH (WLFR)**

The undergraduate concentration in French offers solid academic and practical training in the language, literature, and culture of France and the French-speaking world in an engaged, full-immersion environment. Students have the opportunity to attain an advanced level of French with regard to comprehension, reading, writing, and speaking. Successful students become conversant in many of the major issues, past and present, relating to French and
Francophone cultures, literatures, and civilizations. French graduates are attractive to employers in numerous fields, in addition to graduate and professional schools. USF alumni in French may be found in such professions as education, business, foreign service, politics, law and health.

REQUIREMENTS FOR THE CONCENTRATION IN FRENCH

TOTAL CONCENTRATION HOURS: 27

Concentration Core (27 hours)

Recommended Language Preparation
Four semesters or equivalent language competency prior to taking courses in the concentration.

Student chooses nine courses from the following list of courses:

- FRE 2201 French IV
- FRE 2240 Intermediate Spoken French in Cultural Context
- FRE 2241 Spoken French in Cultural Context
- FRE 3234 Reading in French Literature and Culture
- FRE 3420 Written French in Cultural Context
- FRE 3440 French for Business
- FRE 3500 French Civilization (CPST)
- FRE 3502 The Francophone World: A Global Culture
- FRE 4421 Advanced Written French in Cultural Context
- FRE 4471 Advanced Overseas Study
- FRE 4700 French Linguistics
- FRE 4930 Selected Topics (with prior approval of the advisor)
- FRT 3001 Great French Love Stories in Translation (taught in English)
- FRT 3140 French Literary Masterpieces in English Translation (taught in English)
- FRW 4100 The French Novel
- FRW 4101 Introduction to French Drama and Poetry

Please note the following restrictions:
- Students may choose only one FRT prefixed course (taught in English) to count toward the concentration requirements.

FRENCH INTERNATIONAL STUDIES AND BUSINESS (WLFB)

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

The undergraduate concentration in French International Studies and Business prepares students academically and practically for professions in international business, government and politics where proficiency in French is an asset.

REQUIREMENTS FOR THE CONCENTRATION IN FRENCH INTERNATIONAL STUDIES AND BUSINESS

TOTAL CONCENTRATION HOURS: 63

Concentration Core (63 hours)

Concentration Core (12 credit hours)
- FRE 2201 French IV
- FRE 2240 Intermediate Spoken French in Cultural Context
- FRE 3234 Reading in French Literature and Culture
- FRE 3420 Written French in Cultural Context

Concentration Supporting French Courses (12 credit hours)
Student chooses 12 credit hours of 3000- and 4000-level FRE, FRT, or FRW coursework

Note: It is strongly recommended student take FRE 3440 French for Business and courses utilized for other requirement within this concentration may not be utilized for this requirement.

Concentration Business Courses (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 (to be determined by the Muma College of Business)

Concentration Supporting Business Courses (6 credit hours)
Choose any two (2) upper-level International Business courses (FIN 3604 or MAN 4600 or MAR 4156)

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

GERMAN (WLGR) (CIP = 16.0101)
http://languages.usf.edu/undergraduate/german/
The concentration in German prepares students to understand and critically evaluate the language and cultures of German-speaking countries. The program prepares students in communicative proficiency and cultural literacy so that they are able to competently engage in global and transcultural interactions in the 21st century. Students will be prepared for positions in education, international business, foreign affairs, the arts, politics, and international law.

REQUIREMENTS FOR THE CONCENTRATION IN GERMAN
TOTAL CONCENTRATION HOURS: 24

Concentration Core (9 hours)
Student chooses nine credit 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 & 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

Concentration Electives (15 hours)
Student chooses 15 credit hours of 2000-, 3000- or 4000-level coursework in German (taught in German or English), including approved courses in related disciplines, planned with an advisor.
GER 2200 German III
GER 2201 German IV
GER 2240 Conversation I
GET 3103 German Literature in English Translation
GET 3522 Fantastic Films of Early German Cinema
GET 3524 German Popular Film
GET 4250 Dungeons, Dragons & Dwarves Germanic Myth and Pop Cult
GET 4523 New German Cinema to Present
GET 4528 German Directors in Hollywood (FKL CPST, FKL HHCP)
GEW 4100 Survey of German Literature I
GEW 4101 Survey of German Literature II
GEW 4900 Directed Study
GEW 4930 Selected Topics (topics approved in advance by advisor)

Note: A maximum of 6 credits hours of 2000-level coursework may be applied toward the concentration electives.

INTERDISCIPLINARY CLASSICAL CIVILIZATIONS (WLIC)
http://languages.usf.edu/undergraduate/classics/dreg/
This concentration is of special interest to students who wish to study broadly the literature, history art, and archaeology, philosophy, and religion of Greece, Rome and the Near East, equally emphasizing language and translation courses.

REQUIREMENTS FOR THE CONCENTRATION IN INTERDISCIPLINARY CLASSICAL CIVILIZATIONS
TOTAL CONCENTRATION HOURS: 25

Concentration Core (7 hours)
Recommended Language Preparation
Two semesters or equivalent language competency prior to taking the language core course.
CLT 3370 Gods, Heroes and Monsters in the Ancient World
LAT 2220 Intermediate Latin or GRE 2220 Intermediate Classical Greek

Concentration Electives (18 hours)
Concentration Classics Field Electives (3 credit hours)
Student choose one course from the following list of courses:  
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  

Concentration Interdisciplinary Field Electives (15 credit hours)  
Student chooses five 3000- and 4000-level courses from the following prefixes: ANT, ARH, CLA, CLT, EUH, GRW, HIS, HUM, LIT, LNW, PHH, PHP, and REL, with prior approval from the Interdisciplinary Classical Civilizations concentration advisor.

**ITALIAN (WLIT)**  
[http://languages.usf.edu/undergraduate/italian/](http://languages.usf.edu/undergraduate/italian/)  
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.

**REQUIREMENTS FOR THE CONCENTRATION IN ITALIAN**  
**TOTAL CONCENTRATION HOURS: 24**  

Concentration Core (9 hours)  
Recommended Language Preparation  
Two semesters or equivalent language competency prior to taking the language core course.  
Student choose nine credit hours from the following list of courses:  
ITA 2240 Italian Conversation  
ITA 3234 Reading and Writing in Italian  
ITA 4930 Special Topics (topics approved in advance by an advisor)  
ITT 4505 Italy & the Italian-American Experience  
ITT 4531 Italian Food in Film  

Concentration Electives (15 hours)  
Student chooses 15 credit hours from the following list of courses:  
ITA 2200 Italian III  
ITA 2201 Italian IV  
ITA 3420 Composition  
ITA 4930 Special Topics (topics approved in advance by an advisor)  
ITT 3504 Italian Culture through Cinema Film  
ITW 4100 Survey of Italian Literature I  
ITW 4101 Survey of Italian Literature I  
ITA 4930 Special Topics (topics approved in advance by an advisor)  
ITW 4905 Directed Study  

**RUSSIAN (WLRS)**  
[http://languages.usf.edu/undergraduate/russian/](http://languages.usf.edu/undergraduate/russian/)  
The concentration in Russian 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.

**REQUIREMENTS FOR THE CONCENTRATION IN RUSSIAN**  
**TOTAL CONCENTRATION HOURS: 26**  

Concentration Core (8 hours)  
RUS 2220 Intermediate Russian I  
RUS 2221 Intermediate Russian II  
Students who demonstrate sufficient proficiency may be excused from RUS 2220 and RUS 2221 (e.g., heritage learners).  

Concentration Electives (18 hours)
Student chooses 18 credit hours from the following list of courses:
RUS 3240 Russian Language & Culture through Film
RUS 3470 Overseas Study
RUS 4241 Russian Language & Culture through Film II
RUS 3500 Russian Civilization
RUT 3110 19th Century Russian Literature in English
RUT 3111 20th Century Russian Literature in English
RUS 4900 Selected Topics
RUS 4905 Directed Study
One course from an EUH, INR or PHI prefixed course, dealing with Russia (prior approval from an advisor is required)

SPANISH (WLSP)
http://languages.usf.edu/undergraduate/spanish/

The concentration in Spanish is an interdisciplinary program, which focuses on the language and culture of the Spanish-speaking world. Spanish is a global language, the second most spoken native language in the world. The historical ties with Spain, the proximity of Spanish America, and the presence of many Spanish speakers in the United States make knowledge of Spanish and the culture of the Spanish-speaking world highly relevant to students in all disciplines.

REQUIREMENTS FOR THE CONCENTRATION IN SPANISH
TOTAL CONCENTRATION HOURS: 27

Concentration Core (6 hours)
Recommended Language Preparation
Four semesters Spanish or equivalent language competency and SPN 2240 Conversation I prior to taking the core and elective courses toward the concentration. (SPN 2240 will count as a concentration elective.)
Choose one of the following courses:
- SPN 2340 Advanced Spanish for Native Speakers I
- SPN 2341 Advanced Spanish for Native Speakers II (PR: SPN 2340)
- SPN 3300 Advanced Spanish Grammar and Composition
- SPW 3030 Introduction to Hispanic Literary Studies

Concentration Electives (21 hours)
Student chooses 21 credit hours of 3000- and 4000-level coursework from the following prefixes: SPN, SPT, or SPW.
Please note the following restrictions:
- A student may take no more than two courses with an SPT prefix.
- SPN 2240 Conversation I and SPN 2341 may also be counted as concentration electives, unless the course has been used to fulfill another concentration and/or major requirement.
- The requirements of SPN 3300 or SPN 2340 can be waived for qualified students. These students will take an additional coursework to satisfy the concentration requirements.

SPANISH INTERNATIONAL STUDIES AND BUSINESS (WLSB)
http://languages.usf.edu/undergraduate/spanish/

The concentration in Spanish International Studies and Business is an interdisciplinary program which prepares students for careers with a focus on the Spanish-speaking world. Spanish is a global language, the second most spoken native language in the world. The historical ties with Spain, the proximity of Spanish America, and the presence of many Spanish speakers in the United States make knowledge of Spanish and the culture of the Spanish-speaking world highly relevant to careers in business, international relations, and diplomacy.

REQUIREMENTS FOR THE CONCENTRATION IN SPANISH INTERNATIONAL STUDIES AND BUSINESS
TOTAL CONCENTRATION HOURS: 48-54

Concentration Core (48-54 hours)
Concentration Core (12 credit hours)
- SPN 2201 Spanish IV
- SPN 2240 Conversation I
- SPN 3300 Advanced Spanish Grammar & Composition or SPN 2340 Advanced Spanish for Native Speakers I
  or SPN 2341 Advanced Spanish for Native Speakers II (PR: SPN 2340)
SPW 3030 Introduction to Hispanic Literary Studies
Note: SPN 2201 and SPN 2240 are required courses for the concentration. Students who place out of these two courses will take 6 credit hours of coursework approved in advance by an advisor.

Concentration Supporting Spanish Courses (3-9 credit hours)
Student chooses 3-9 credit hours of coursework from the following list of courses:
- SPN 3440 Spanish for Business and International Trade I
- SPN 3441 Spanish for Business and International Trade II
- SPN 3391 Latin American Cinema
- SPN 3520 Spanish-American Civilization
- SPN 3564 Spain Today: Culture and Politics in the Media
- SPN 4410 Advanced Conversation
- SPW 3393 Spanish Culture through Literature and Film

Concentration Business Courses (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 (to be determined by the Muma College of Business)

Required courses in International Studies (9 credit hours)
- CPO 2002 Introduction to Comparative Politics
- CPO 4930 Comparative Government & Politics of Select Areas
- INR 1015 World Perspective

Required overseas study courses and/or area studies courses (6 credit hours):
Select six (6) overseas study credit hours or three (3) credit hours of overseas study plus three (3) credit hours of area studies courses planned with an 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, IDS 4914 or IDH 4910 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
Yuri Riascos and Andrew Bird, World Languages Academic Advisor: languagesadvise@usf.edu

WORLD LANGUAGES AND CULTURES FACULTY

World Languages Chairperson: S.K. Schindler; Associate Chair: A. Thompson (Linguistics); Professors: P. Brescia (Spanish), M. Camara (Spanish), V.E. Peppard (Russian), C.M. Probes (French), S.K. Schindler (German); Associate Professors: C.J. Cano (Spanish), M. Grieb (German), L. Kanzios (Classics), A. Latowsky (French), P. La Trecchia (Italian), E. Manolaraki (Classics), H. Scharm (Spanish), E. Shepherd (Chinese), K. Simeon-Jones (French), A. Thompson (Linguistics), C. Vazquez (Linguistics), W. Zhu (Linguistics); Assistant Professors: D. Arbesu (Spanish), J. Cazenave (French), M.H. Chiang (Chinese), A. Huenesch (Linguistics), J. Nethercut (Classics), X. Qin (Chinese), N. Tracy-Ventura (Linguistics); Instructors: S. Amer (Arabic), M. China-Thornberry (Spanish), C. Davies (Portuguese), A. De La Pava (Spanish), S. Huber (German), M. Nozu (Japanese), A. Oh (Classics), O. Oleynik (Russian), A. Perez Franco (Spanish), S. Savona (French), S. Wohlmuth (Spanish), Q. Wu (Chinese).

MINOR IN AFRICANA STUDIES (AFA)

TOTAL MINOR HOURS: 18
http://africanastudies.usf.edu/undergraduate/minor/

REQUIREMENTS FOR THE MINOR IN AFRICANA STUDIES
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
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.

REQUIREMENTS FOR THE MINOR IN AMERICAN STUDIES
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.
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.

REQUIREMENTS FOR THE MINOR IN ANTHROPOLOGY

The minor in Anthropology consists of a minimum of 19 credit hours.

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 4156 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

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.

REQUIREMENTS FOR THE MINOR IN ASTRONOMY
A minor in Astronomy consists of 12 credit hours.
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/

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.

REQUIREMENTS FOR THE MINOR IN BIOMEDICAL ANTHROPOLOGY

The minor in Biomedical Anthropology consists of a minimum of 19 credit hours.

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

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.

REQUIREMENTS FOR THE MINOR IN BIOMEDICAL PHYSICS
A minor in Biomedical Physics consists of 16 credit hours.

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.

MINOR IN CHEMISTRY (CHM)
TOTAL MINOR HOURS: 24
http://chemistry.usf.edu/undergraduate/minor/
The Chemistry minor provides a broad and general exposure to the traditional areas of the chemical sciences.

REQUIREMENTS FOR THE MINOR IN CHEMISTRY

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/.
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 Language is designed to equip students with a foundation in Chinese language and culture necessary to successfully interact with Chinese people.

REQUIREMENTS FOR THE MINOR IN CHINESE LANGUAGE

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
- CHT 3110 Traditional Chinese Literature in Translation or CHT 3124 Modern Chinese Literature in Translation

Minor Electives (6 hours)
- CHI 4905 Directed Study
- CHI 4930 Selected Topics

Residency Requirement
A minimum of 10 of the 18 hours required for the minor must be completed in residence at USF.

Advising Information
Dr. Eric Shepherd
Director of the Chinese Language Program
erics@usf.edu

Yury Riascos, World Languages Academic Advisor: languagesadvise@usf.edu

MINOR IN CLASSICS (CLS)
TOTAL MINOR HOURS: 17
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.

REQUIREMENTS FOR THE MINOR IN CLASSICS

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
World Languages Academic Advisor: languagesadvise@usf.edu;
Yury Riascos (languagesadvise@usf.edu) or Dr. Eleni Manolaraki (emanolar@usf.edu)
MINOR IN COMMUNICATION (SPE)
TOTAL MINOR HOURS: 18
http://communication.usf.edu/undergraduate/minor/

The minor in Communication prepares students to communicate effectively and ethically in a variety of relationships and contexts (see description of the major). Students may choose to emphasize a particular area of study including human relationships, health communication, public communication, media and culture, public advocacy, performance, organizational communication, leadership, diversity, or applied communication.

REQUIREMENTS FOR THE MINOR IN COMMUNICATION
The minor in Communication requires a minimum of 18 hours of departmental coursework.

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.

MINOR IN CREATIVE WRITING (CRW)
TOTAL MINOR HOURS: 15
http://english.usf.edu/ug/concentrations/creative/

REQUIREMENTS FOR THE MINOR IN CREATIVE WRITING

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 including a 2000-level LIT course

Grading Requirement
A grade of below C- will not be counted toward fulfilling the minor requirements.

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.

REQUIREMENTS FOR THE MINOR IN ECONOMICS
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.

Advising Information
econadvise@usf.edu

MINOR IN ENVIRONMENTAL POLICY (ESP)
TOTAL MINOR HOURS: 19

REQUIREMENTS FOR THE MINOR IN ENVIRONMENTAL POLICY
A total of 19 credits are required for the minor in Environmental Policy.

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):
- EVR 4033 Environmental Regulation
- GEO 4372 Global Conservation
- GEO 4502 Economic Geography
- PHI 3640 Environmental Ethics

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.

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.

REQUIREMENTS FOR THE MINOR IN FILM AND NEW MEDIA STUDIES
The minor consists of 18 credit hours.

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)
Students take an additional nine (9) credit hours of upper-level coursework from Humanities and Cultural Studies with an AMS, FIL, or HUM prefix.
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.

REQUIREMENTS FOR THE MINOR IN FRENCH

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
Yury Riascos, World Languages Academic Advisor, languagesadvise@usf.edu

MINOR IN GEOGRAPHIC INFORMATION SYSTEMS AND TECHNOLOGY (GIST)
TOTAL MINOR HOURS: 15

A minor in Geography consists of 15 credit hours.

Minor Core (9 hours)
GEO 3164C Research Methods in Geography
GIS 4035C Remote Sensing of the Environment
GIS 4043C Geographic Information Systems

Minor Electives (6 hours)
Students choose two of the following courses:
EVR 4051 Environmental Field Methods
EVR 4218 Research Methods in Wildlife Ecology
GEO 4114C Geographic Techniques and Methodology
GEO 4700 Transportation Geography
GIS 3006 Computer Cartography

GPA Requirements
A minimum grade point average of 2.00 is required.

Residency Requirement
At least 12 credit hours must be USF Tampa coursework.

Other Requirements
Students may not apply electives to the Geographic Information Systems minor if these electives are being used to satisfy their requirements in another major.

MINOR IN GEOLOGY (GLY)
TOTAL MINOR HOURS: 16

REQUIREMENTS FOR THE MINOR IN GEOLOGY

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)**
Choose three of the following Geology courses:
- GEO 3280 Environmental Hydrology
- GLY 3104C Stratigraphy and Paleontology
- GLY 3311C Mineralogy, Petrology, Geochemistry
- GLY 3402C Structural Geology and Tectonics
- GLY 3552C Sedimentary Rocks and Processes

**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.

**MINOR IN GERMAN STUDIES (GMS)**
**TOTAL MINOR HOURS: 15**
http://languages.usf.edu/undergraduate/german/
The 15-credit hour minor in German Studies provides students with advanced oral and written proficiency in German, as well as an in-depth familiarity of the culture(s) of the German-speaking countries.

**REQUIREMENTS FOR THE MINOR IN GERMAN STUDIES**
The minor in German Studies comprises mid-to-advanced language and culture classes.

**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.

**Advising Information**
Dr. Stefan Huber (huber@usf.edu)

**MINOR IN HISTORY (HTY)**
**TOTAL MINOR HOURS: 18**
http://history.usf.edu/ug/minor/
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.

**REQUIREMENTS FOR THE MINOR IN HISTORY**
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; Location: Social Science Building (SOC) 265; HistoryAdvise@usf.edu

MINOR IN HUMANITIES (HUM)
TOTAL MINOR HOURS: 18
http://humanities.usf.edu/undergraduate/as/

The Humanities minor program offers an interdisciplinary curriculum that investigates the visual arts, music, and literature, and the cultures from which they emerge.

REQUIREMENTS FOR THE MINOR IN HUMANITIES
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.

MINOR IN INTELLIGENCE STUDIES (IQS)
TOTAL MINOR HOURS: 12
http://information-analytics.cas.usf.edu/Certificates.html

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.

REQUIREMENTS FOR THE MINOR IN INTELLIGENCE STUDIES

Minor Core (12 hours)
LIS 4029 Professional and Technical Communication for Analysts
LIS 4671 Introduction to Intelligence Studies
LIS 4672 Critical Thinking and Methods for Intelligence Analysis
LIS 4673 Open Source Intelligence (OSINT)

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.

MINOR IN INTERDISCIPLINARY CLASSICAL CIVILIZATIONS (ICC)
TOTAL MINOR HOURS: 15-18
http://languages.usf.edu/undergraduate/classics/icc/

REQUIREMENTS FOR THE MINOR IN INTERDISCIPLINARY CLASSICAL CIVILIZATIONS
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":
COLLEGE OF ARTS & SCIENCES

MINOR IN INTERNATIONAL STUDIES (INT)
TOTAL MINOR HOURS: 18
http://usf.edu/sigs/undergraduate/

REQUIREMENTS FOR THE MINOR IN INTERNATIONAL STUDIES

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 credit 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://usf.edu/sigs/undergraduate/.

MINOR IN ITALIAN (ITA)
TOTAL MINOR HOURS: 15
http://languages.usf.edu/undergraduate/italian/

REQUIREMENTS FOR THE MINOR IN 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.
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.

REQUIREMENTS FOR THE MINOR IN LINGUISTICS

<table>
<thead>
<tr>
<th>Minor Core (3 hours)</th>
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</thead>
<tbody>
<tr>
<td>LIN 3010 Introduction to Linguistics</td>
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</table>

<table>
<thead>
<tr>
<th>Minor Electives (12 hours)</th>
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</thead>
<tbody>
<tr>
<td>ANT 3610 Anthropological Linguistics</td>
</tr>
<tr>
<td>CLT 3040 Scientific and Medical Terminology</td>
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<tr>
<td>FLE 4390 Teaching Foreign/Second Languages</td>
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<tr>
<td>FRE 4700 French Linguistics</td>
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<tr>
<td>LIN 2002 Language, Culture &amp; Film</td>
</tr>
<tr>
<td>LIN 4671 Traditional English Grammar</td>
</tr>
<tr>
<td>LIN 4701 Psycholinguistics</td>
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<tr>
<td>LIN 4721 Second Language Acquisition</td>
</tr>
<tr>
<td>LIN 4930 Special Topics (may be repeated; title must be different)</td>
</tr>
<tr>
<td>SPA 3004 Introduction to Language Development and Disorders</td>
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<tr>
<td>SPN 4700 Spanish Linguistics</td>
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<tr>
<td>TSL 4362 Methodology of Teaching English Overseas</td>
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</tbody>
</table>

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.

MINOR IN LITERARY STUDIES (LTS)
TOTAL MINOR HOURS: 15
http://english.usf.edu/data/UG_LT3minor.pdf

REQUIREMENTS FOR THE MINOR IN LITERARY STUDIES

<table>
<thead>
<tr>
<th>Minor Core (15 hours)</th>
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</thead>
<tbody>
<tr>
<td>One AML major course</td>
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<tr>
<td>Two ENL major courses</td>
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<tr>
<td>One 4000-level course from the Literary Studies concentration</td>
</tr>
<tr>
<td>One additional course from any English Department concentration: LTS, CRW, PRT</td>
</tr>
</tbody>
</table>

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

REQUIREMENTS FOR THE MINOR IN MASS COMMUNICATIONS

The minor in Mass Communications requires a minimum of 18 hours of School coursework.

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.
- 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.

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.

REQUIREMENTS FOR THE MINOR IN MATHEMATICS

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
### Minor in Mathematics (MATH)

#### Course Requirements
- **MA 4301** Elementary Abstract Algebra
- **MA 4302** Elementary Abstract Algebra II
- **MAH 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://www.math.usf.edu/ug/advising/](http://www.math.usf.edu/ug/advising/) for additional information and all your advising needs.

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### 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.

#### REQUIREMENTS FOR THE MINOR IN MICROBIOLOGY

**Minor Core (26 hours)**
- **BSC 2010** Cellular Processes
- **BSC 2010L** Cellular Processes Laboratory
- **PCB 3023** Cell Biology
- **PCB 3023L** Cell Biology Laboratory
- **PCB 3063** General Genetics
- **MCB 3410** Cell Metabolism or **BCH 3053** General Biochemistry
- **MCB 3020** General Microbiology
- **MCB 3020L** General Microbiology Laboratory
- **MCB 4115** Determinative Bacteriology
- **MCB 4115L** Determinative Bacteriology Laboratory
- **MCB 4320** Molecular Microbiology

**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 in any Biology or Microbiology major offered by the Department of Cell Biology, Microbiology, and Molecular Biology or the Department of Integrative Biology are ineligible for this minor.
MINOR IN MODERN GREEK (MGR)
TOTAL MINOR HOURS: 16
http://languages.usf.edu/undergraduate/

REQUIREMENTS FOR THE MINOR IN MODERN GREEK

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)

MINOR IN PHILOSOPHY (PHI)
TOTAL MINOR HOURS: 18
http://philosophy.usf.edu

REQUIREMENTS FOR THE MINOR IN PHILOSOPHY

A minor in Philosophy consists of the completion of at least 18 credit hours, which includes the following courses:

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
    - 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, ajbird@usf.edu
MINOR IN PHYSICS (PHY)
TOTAL MINOR HOURS: 17
http://physics.usf.edu/ug/degree/

REQUIREMENTS FOR THE MINOR IN PHYSICS

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)
Students must choose six (6) credit hours of upper-level physics electives from the following list, subject to approval by the undergraduate advisor:
AST 3930 Astrophysics
PHY 3220 Classical Mechanics
PHY 3323 Electricity and Magnetism
PHY 3822L Intermediate Lab
PHY 4151 Computational Physics
PHY 4324 Electricity and Magnetism II
PHY 4424 Optics
PHY 4523 Statistical Physics
PHY 4604 Introduction to Quantum Mechanics
PHY 4605 Quantum Mechanics II
PHY 4744C Introduction to Quantum Mechanics and Test Instrumentation
PHY 4823L Advanced Lab
PHY 4936 Biophysics
PHZ 3113 Mathematical Methods in Physics
PHZ 4434 Material Physics

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.

Other Requirements
Students who require PHY 2048/L and PHY 2049/L for their core major requirements must meet with the Physics advisor prior to declaring the minor.

Advising Information
http://physics.usf.edu/ug/advising/; PhysicsAdvise@usf.edu

MINOR IN POLITICAL SCIENCE (POL)
TOTAL MINOR HOURS: 18
http://gia.usf.edu/ps/ughome/

REQUIREMENTS FOR THE MINOR IN POLITICAL SCIENCE

A minor in political science requires the completion of a minimum of 18 credit hours.

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/.

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 upper-level course from the Literary Studies concentration

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

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.

REQUIREMENTS FOR THE MINOR IN PSYCHOLOGY
A minor in Psychology consists of a minimum of 18 credit hours.

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/.
COLLEGE OF ARTS & SCIENCES

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.

REQUIREMENTS FOR THE MINOR IN PUBLIC ADMINISTRATION

The minor in Public Administration consists of 15 credit hours.

Minor Core (9 hours)
PAD 3003 Introduction to Public Administration
PAD 4204 Public Financial Administration
PAD 4415 Personnel & Supervision for Today’s Diverse Organizations

Minor Electives (6 hours)
Select six (6) credit hours from the following list:
   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 4050 City Planning and Community Development
   URP 4052 Urban and Regional Planning

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 Public Administration consists of a minimum of 15 credit hours, at least 12 of which must be USF credits.

Advising Information
Please contact our advisers in the School of Public Affairs at: issadvise@usf.edu.

MINOR IN RELIGIOUS STUDIES (REL)
TOTAL MINOR HOURS: 18
http://religious-studies.usf.edu/ugrad/requirements/

REQUIREMENTS FOR THE MINOR IN RELIGIOUS STUDIES

Students choose a total of 18 credit hours from Religious Studies courses.

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.
MINOR IN RUSSIAN STUDIES (RSS)
TOTAL MINOR HOURS: 15
http://languages.usf.edu/undergraduate/russian/

REQUIREMENTS FOR THE MINOR IN RUSSIAN STUDIES

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 1120 Beginning Russian I (4 credit hours) and RUS 1121 Beginning Russian II (4 credit hours).
- 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, World Languages Academic Advisor, languagesadvise@usf.edu

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.

REQUIREMENTS FOR THE MINOR IN SOCIOLOGY

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 Social Networks
  - SYP 3562 Family Violence
  - SYP 4012 Emotions in Society
  - SYP 4111 Identify and Community
MINOR IN SPANISH (SPA)
TOTAL MINOR HOURS: 18

REQUIREMENTS FOR THE MINOR IN SPANISH

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, World Languages Academic Advisor, languagesadvise@usf.edu

MINOR IN URBAN STUDIES (UST)
TOTAL MINOR HOURS: 15

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.

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.

REQUIREMENTS FOR THE MINOR IN URBAN STUDIES

Minor Core (9 hours)
- PAD 3003 Introduction to Public Administration
- URP 4052 Urban and Regional Planning
MINOR IN 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 ISSadvise@usf.edu.

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.

REQUIREMENTS FOR THE MINOR IN WOMEN'S AND GENDER STUDIES

The minor in Women's and Gender Studies requires a minimum of 18 hours of departmental coursework.

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.

Advising Information
The WGS advisor, Tangela Serls, is located in SCA 232, and can be reached at WGSadvise@usf.edu.

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.

REQUIREMENTS FOR THE CERTIFICATE IN AFRICANA LITERATURES

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)
AFA 4430 Afro-Diasporic Literature and Political Movements
AML 3604 African American Literature
AML 4624 Black Women Writers
ENG 4013 Literary Criticism

Certificate Electives (6 hours)
Select any two of the following:
AFA 4931 Selected Topics in Africana Studies
Haiti: Legacy of Resilience and Freedom
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

CERTIFICATE IN AGRICULTURAL SUSTAINABILITY AND FOOD BIOSECURITY
TOTAL CERTIFICATE HOURS: 24
http://biology.usf.edu/ib/ug/certificates/

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 3280 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.

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.

REQUIREMENTS FOR THE CERTIFICATE IN ARABIC LANGUAGE AND CULTURE

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.

CERTIFICATE IN ASIAN STUDIES

TOTAL CERTIFICATE HOURS: 18

http://usf.edu/sigs/undergraduate/

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.

REQUIREMENTS FOR THE CERTIFICATE IN ASIAN STUDIES

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.

CERTIFICATE IN FILM STUDIES
TOTAL CERTIFICATE HOURS: 12
http://languages.usf.edu/undergraduate/cert/film-studies/

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 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 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 civilizations.

REQUIREMENTS FOR THE CERTIFICATE IN FILM STUDIES

Certificate Core (3 hours)
FIL 1002 Introduction to Film Studies

Certificate Electives (9 hours)

Group I (Area Studies):
Students will take 3 credit hours 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 credit hours 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 credit hours 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 12 credit 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.
CERTIFICATE IN FOOD STUDIES
TOTAL CERTIFICATE HOURS: 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.

REQUIREMENTS FOR THE CERTIFICATE IN FOOD STUDIES

Certificate Core (3 hours)
- HUM 3309 Introduction to Food Studies

Certificate Electives (12 hours)
An additional 12 credit hours of coursework must be selected from the categories of 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
- 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
- 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.

Other Requirements
HUM 3309 is an approved Global Citizens Project (GCP) course and can be used toward the 6 credit hours needed to qualify for the Global Citizens Award.

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.

REQUIREMENTS FOR THE CERTIFICATE IN INDIA STUDIES

Certificate Core (3 hours)
GEA 3194 Regional Geography – India

Certificate Electives (12 hours)
Four electives (12 credit 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 pbsau@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

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.

**REQUIREMENTS FOR THE CERTIFICATE IN ITALIAN STUDIES**

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 2200 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.
ITALIAN

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.

CREDENTIAL 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.

REQUIREMENTS FOR THE CERTIFICATE IN JAPANESE

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.

CREDENTIAL IN LATIN AMERICAN AND CARIBBEAN STUDIES

TOTAL CERTIFICATE HOURS: 15

http://islac.usf.edu/

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.

The certificate requires a minimum of 15 semester hours of courses about Latin America and the Caribbean.

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
AN 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.
Course offerings can be checked at: http://islac.usf.edu/course/.

Advising Information
For information and advice about the certificate program, contact the Institute for the Study of Latin America and The Caribbean (ISLAC), CPR 478, call 974-3772, or send an email to plezama@usf.edu.

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.

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.

Advising Information
Dr. Christine M. Probes, Department of World Languages, LanguagesAdvise@usf.edu

CERTIFICATE IN NATIONAL INTELLIGENCE
TOTAL CERTIFICATE HOURS: 26
http://si.usf.edu/ms/certificates/

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.
Requirements for the Certificate in National Intelligence

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.

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.

REQUIREMENTS FOR THE CERTIFICATE IN RUSSIAN STUDIES
Students must complete 23-26 semester hours in related coursework.

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 2220 (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.