ENVIRONMENTAL SCIENCE & POLICY. BA

Academic year 2016-2017

College: Arts and Sciences
Degree: B.A.
Limited Access: NO
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Description of Major
Environmental Science is the interdisciplinary study of environmental systems from a scientific perspective. Drawing principally from the areas of oceanography, geology, and meteorology, the Environmental Science program will prepare students in the broader area of geosciences and is an attractive option for students seeking a broader interdisciplinary major with the rigor of mathematics and the physical sciences at its core.

FSU offers both the BS and BA degrees in Environmental Science. The BA degree differs from the BS degree in lower-level mathematics requirements and a greater emphasis on policy. The goals of these programs are to prepare exceptionally well-qualified graduates prepared to work in the interdisciplinary earth sciences, whether in government agencies, NGOs, or the private sector. They also provide a strong basis for graduate study in environmental and interdisciplinary earth sciences.

Prerequisite Coursework: 18 hours
The following are being proposed as common program prerequisites.
MAC X105 (3) College Algebra
MAC X140 (3) Precalculus Algebra or STA X122 (3) Introduction to Applied Statistics
BSC X010,X010L (3,1) Biological Science I, Lab
CHM X045,X045L (3,1) General Chemistry I, Lab
GLY X010C (4) Physical Geology with Lab
BSC 2011, 2011L (3,1) Biological Science II, Lab or CHM 1046. 1046L (3.1) General Chemistry II, Lab

Note: State-wide common prerequisites are always under review. For the most current information and for acceptable alternative courses, visit the “Common Prerequisites Manual.” This is available from the “College Students” section of http://FACTS.org/.

Requirements for graduation in the College of Arts and Sciences include:
The College of Arts and Science requires proficiency in a foreign language through the intermediate (2220 or equivalent) level or sign language through the advanced (2614 or equivalent) level.

Admission/Continuation Requirements to Major Program of Studies
Students should complete the prerequisite coursework for entrance to the major program of study. Students must also have completed a minimum of 52 hours of credit and at least half the required hours in Liberal Studies, including required English composition and Math, or an A.A degree. No required course in which a student has earned a grade below C- may be applied toward the degree in Environmental Science. A student who has received more than five unsatisfactory grades (U, F, D-, D, D+) in science, statistics, or mathematics courses (and their prerequisites) taken at Florida State University or elsewhere, including repeated unsatisfactory grades in the same course, will not be permitted to graduate with a degree in this major.

Mapping
Mapping is FSU’s academic advising and monitoring system. Academic progress is monitored each Fall and Spring semester to ensure that students are on course to earn their degree in a timely fashion. Transfer students must meet mapping guidelines to be accepted into their majors. You may view the map for this major at www.academic-guide.fsu.edu.
**Major Program of Studies at FSU: 37 hours**

**A. Basic Environmental Science Courses (13 hours)**
- MET 1010 (3) Introduction to the Atmosphere **or** MET 2700 (3) General Meteorology
- OCE 4008 (3) Principles of Oceanography
- OCE 4017 (3) Current Issues in Environmental Science **or** GLY 3039 (3) Energy, Resources, and Environment

**EVR 4922 (4) Capstone (This course also counts as an upper division writing requirement)**

**B. Required Policy Courses (choose 6 hours selected from the following)**
- GEO 4602 (3) Urban Geography
- PAD 4391 (3) Found. In Emergency Management
- PHI 2100 (3) Reasoning and Critical Thinking
- PHI 2620 (3) Environmental Ethics
- PUP 3002 (3) Introduction to Public Policy
- URP 3000 (3) Introduction to Urban and Regional Planning
- URP 4423 (3) Env. Planning and Resource Management

**C. Required Environmental Science courses (choose a total of 15 hours from the lists below)**
At least 9 hours must be from List 1. You must satisfy all course pre-requisites prior to enrolling.

**List 1**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EOC 4631</td>
<td>Marine Pollution (3)</td>
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<tr>
<td>OCB 4631</td>
<td>Estuarine and Coastal Ecology (3)</td>
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<tr>
<td>GLY 2100</td>
<td>Historical Geology (3)</td>
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<tr>
<td>GLY 3200C</td>
<td>Mineralogy and Crystallography (3)</td>
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<tr>
<td>GLY 3310C</td>
<td>Igneous and Metamorphic Petrology (3)</td>
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<tr>
<td>GLY 3400C</td>
<td>Structural Geology (4)</td>
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<tr>
<td>GLY 3610C</td>
<td>Paleontology (4)</td>
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<tr>
<td>GLY 4240</td>
<td>Principles of Geochemistry (3)</td>
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<tr>
<td>GLY 4544C</td>
<td>Sedimentation and Stratigraphy (4)</td>
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<td>GLY 4751C</td>
<td>Introduction to Remote Sensing, Air Photo Interpretation and GIS for the Earth Sciences (3)</td>
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<tr>
<td>GLY 4820</td>
<td>Principles of Hydrology (3)</td>
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<td>GLY 4884</td>
<td>Environmental Geology I (3)</td>
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<td>GLY 4905</td>
<td>Directed Individual Study (Geohazards) (3)</td>
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<tr>
<td>MET 2101</td>
<td>Physical Climatology (3) <strong>or</strong> MET 3103C Climate Change Science (3) <strong>or</strong> ISC 2003 Global Change: Its Scientific and Human Dimensions (3)</td>
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<td>MET 3220C</td>
<td>Meteorological Computations (3)</td>
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<td>MET 3300</td>
<td>Introduction to Atmospheric Dynamics (3)</td>
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<td>MET 4159r</td>
<td>Special Topics in Meteorology (1–3)</td>
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<tr>
<td>MET 4400C</td>
<td>Meteorological Instrumentation and Observation (3)</td>
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<tr>
<td>OCB 4631</td>
<td>Estuarine and Coastal Ecology (3)</td>
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<tr>
<td>OCB 4637</td>
<td>Marine Benthic Ecology (3)</td>
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<td>OCC 4002</td>
<td>Introduction to Chemical Oceanography (3)</td>
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<td>OCE 4060</td>
<td>Environmental Science Modeling (3)</td>
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<td>OCE 3555</td>
<td>Environmental Science II: Habitable Planet (3)</td>
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<tr>
<td>OCE 4064</td>
<td>Marine Conservation Biology (3)</td>
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<tr>
<td>OCE 4265</td>
<td>Coral Reef Ecology (3)</td>
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<tr>
<td>OCP 4005</td>
<td>Introduction to Physical Oceanography (3)</td>
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<tr>
<td>OCE 4930</td>
<td>Studies in Oceanography (1–4) (Topics vary: Biodiversity, Earth Systems, Marine Microbial Ecology, Geomicrobiology, (consent of adviser), Physics and Flow of Water Bodies, Environmental Toxicology,</td>
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</tbody>
</table>

**List 2 – (6-7 hours may be selected from the following list)**

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BSC 2011, BSC 2011L</td>
<td>Biological Science II and Lab (3, 1)</td>
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<tr>
<td>CHM 1046, CHM 1046L</td>
<td>General Chemistry II and Lab (3, 1)</td>
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<tr>
<td>CHM 4080</td>
<td>Environmental Chemistry I (3)</td>
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<tr>
<td>HFT 3700</td>
<td>Tourism Management and the Environment (3)</td>
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</tbody>
</table>
URP 3000 Introduction to Planning and Urban Development (3) If not used as a required policy class
URP 4022 Collective Decision Making (3)
URP 4314 Introduction to Growth Management and Comprehensive Planning (3)
URP 4318 Growth Management and Environmental Planning (3)
URP 4402 Sustainable Development Planning in the Americas (3)
URP 4404 River Basin Management and Planning (3)
URP 4423 Introduction to Environmental Planning and Resource Management (3)
URP 4618 Planning for Developing Regions (3)
URP 4710 Introduction to Transportation Issues and Transportation Planning (3)
URP 4741 Introduction to Issues in Housing and Community Development (3)

**Additional Requirements for the Bachelor of Arts Degree.** 9 hours
The Bachelor of Arts degree requires nine (9) semester hours in the fields of humanities and/or history in addition to the Liberal Studies and the foreign language requirements.

**Minor.** At least 12 hours.
A minor is required. While many minors require only 12 hours, others require 18 hours or more. No courses used for satisfying Liberal Studies / general education requirements, the College foreign language requirement, or major requirements may also be counted toward the minor.

**Computer Skills Competency:** 0 hours beyond other requirements. BSC 2010L (1).

**Oral Communication Competency:** 0-3 hours.
Students must demonstrate the ability to orally transmit ideas and information clearly. This requirement may be met through appropriate high school speech training or with an approved college-level approved course, such as SPC 1017 or SPC 2608.

**Minimum Program Requirements Summary**
Total Hrs. Required 120
Liberal Studies 36*
BA Prerequisite Coursework 18*
BA Major Coursework 37*
BA Additional Requirements 9
Minor Coursework 12 or more
Foreign Language 0-12 (depending on placement)
Computer Skills 0 beyond major
Oral Communication Competency 0-3
Electives to bring total hours to 120
*Note: Some coursework required for this major (prerequisite/major) may also be applied to Liberal Studies or minor requirements.

**Remarks:**
1. A minimum of 45 hours at the 3000 level or above, 30 of which must be taken at this University.
2. Half of the major course semester hours must be completed in residence at this University.
3. The final 30 hours must be completed in residence at this University.
4. The B. A. degree requires 9 additional hours in the fields of history and humanities.

**Employment Information**
Representative Job Titles Related to this Major: Environmental technician, geoscientist, environmental scientist, hydrologist, general physical scientist, and oceanographer. Some positions may require additional education or training.

Representative Employers: Federal, state, and local governments; NGOs; private employers.

Updated: February, 2017