

**2005-07 Catalog Paradigm  
Environmental Science**

<b>First Year</b>	
1.	BIOL 120 (GS4) (1 <sup>st</sup> semester)
2.	BIOL 121 (2 <sup>nd</sup> semester)
3.	GEOL 105 or 107
4.	MATH 124 or 131 (GS8)
5.	CSCI 110
6.	General Education
7.	General Education
8.	General Education

<b>Second Year</b>	
1.	BIOL 228 (1 <sup>st</sup> semester)
2.	ENVS 300 (2 <sup>nd</sup> semester)
3.	GEOL 225 (1 <sup>st</sup> semester)
4.	CHEM 105 (1 <sup>st</sup> semester)
5.	CHEM 107 (2 <sup>nd</sup> semester)
6.	General Education
7.	General Education
8.	General Education

<b>Third Year</b>	
1.	BIOL Elective (225, 350, 355, 380, 390, 450)
2.	BIOL 338
3.	ENVS 310 (2 <sup>nd</sup> semester)
4.	BUAD 284 or SSCI 224
5.	CHEM 216 or 220
6.	General Education
7.	General Education
8.	Elective/Minor

<b>Fourth Year</b>	
1.	BIOL 428, GEOL 428, or ENVS 428 (2 <sup>nd</sup> semester)
2.	BIOL Elective (225, 350, 355, 380, 390, 450)
3.	General Education
4.	General Education
5.	Elective/Minor
6.	Elective/Minor
7.	Elective/Minor
8.	Elective/Minor

Elective/Minor courses can be used to take additional major courses, free electives, or to fulfill a minor.

## Progress Sheet Environmental Science

Student Name: Student ID:	
<b>General Education – Lower Biennium</b>	<b>Major</b>
<input type="checkbox"/> <b>GS1</b> – Religious Studies <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS2</b> – Philosophy of Human Nature <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS3</b> – Human Relationships <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS4</b> – Natural Science <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS5</b> – Creative Expression <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS6</b> – United States Heritage <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS7</b> – Foreign Heritages <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS8</b> – Quantitative Skills <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS9</b> – Writing <hr style="width: 25%; margin-left: 0;"/>	<b>Required Courses:</b> <input type="checkbox"/> BIOL 120 – General Biology I <input type="checkbox"/> BIOL 121 – General Biology II <input type="checkbox"/> BIOL 228 – Ecology <input type="checkbox"/> BIOL 338 – Limnology <input type="checkbox"/> BIOL 428 OR GEOL 428 OR ENVS 428 – Environmental Research <input type="checkbox"/> ENVS 300 – Environmental Science <input type="checkbox"/> 1 of BIOL 225, 350, 355, 380, 390, 450 <input type="checkbox"/> 1 of BIOL 225, 350, 355, 380, 390, 450 <input type="checkbox"/> GEOL 105 – Geology or GEOL 107 – Environmental Geology <input type="checkbox"/> GEOL 225 - Hydrogeology <input type="checkbox"/> CHEM 105 – General Chemistry I <input type="checkbox"/> CHEM 107 – General Chemistry II <input type="checkbox"/> CHEM 216 – Organic Chemistry or CHEM 220 – Organic Chemistry I <input type="checkbox"/> ENVS 310 – Environmental Chemistry <input type="checkbox"/> MATH 124 – Survey of Calculus or MATH 131 – Calculus and Analytic Geometry I <input type="checkbox"/> CSCI 110 – Introduction to Computer Programming <input type="checkbox"/> BUAD 284 – Statistics for Business and Economics or SSCI 224 – Basic Statistics
<b>General Education – Upper Biennium</b>	
<input type="checkbox"/> <b>GS1</b> – Religious Studies <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS10</b> – Western Tradition <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS11</b> – Global Society <hr style="width: 25%; margin-left: 0;"/> <input type="checkbox"/> <b>GS12</b> – Senior Colloquium (GENS 400) <hr style="width: 25%; margin-left: 0;"/>	<p>Note – It is recommended that the student select courses as electives in the physical and earth sciences such as PHYS 121 and 122, and GEOL 307. For students interested in graduate study, we also recommend course work in biology at the suborganismal level (BIOL 224).</p>

## **College Catalog** **Environmental Science (ENVS)**

Environmental Science is an interdisciplinary major which requires advanced course work in the areas of biology, geology, and chemistry. The Environmental Science program has several objectives: a) to provide the student with a solid science foundation balanced with a liberal arts education; b) to provide a foundation in the specifics, theory, and concepts of environmental science as a prerequisite for post-graduate study, or for positions in government service and industry; c) to develop research skills in the student; and d) to develop in the student a contemporary environmental ethic based on a scientific understanding of natural processes.

A key component of the Environmental Science major is the requirement to complete independent research by taking BIOL 428, GEOL 428, or ENVS 428 under the supervision of an appropriate faculty member. The products of this research (at the minimum a written report, but in some cases including an oral presentation) not only arm the student with evidence that the major's objectives have been accomplished, but also will serve as a primary vehicle for assessment of the major.

**Graduate School Advisor:** Dr. David Poister

### **2005-07 Catalog** **Environmental Science Requirements**

**Environmental Science Major (17 courses, 6 in Biology):** The major is expected to satisfy all the requirements for each of the areas below. (See Biology, Natural Science and Chemistry.)

**Biology courses:**

BIOL 120 General Biology I  
BIOL 121 General Biology II  
BIOL 228 Ecology  
BIOL 338 Limnology  
BIOL 428 Environmental Biology Research **or**  
GEOL 428 Environmental Geology Research **or**  
ENVS 428 Environmental Science Research  
ENVS 300 Environmental Science

**Biological Electives** (minimum of one of the following):

BIOL 225 Vertebrate Natural History  
BIOL 350 Microbiology  
BIOL 355 Invertebrate Biology  
BIOL 380 Plant Ecology  
BIOL 390 Ichthyology  
BIOL 489 Special Topics

**Geology Courses:**

Either GEOL 105 Geology **or** GEOL 107 Environmental Geology  
GEOL 225 Hydrogeology

**Chemistry Courses:**

CHEM 105 General Chemistry I  
CHEM 107 General Chemistry II  
Either CHEM 216 Organic Chemistry **or** CHEM 220 Organic Chemistry I  
ENVS 310 Environmental Chemistry

**Required Cognates:**

Either MATH 124 Survey of Calculus **or** MATH 131 Calculus and Analytical Geometry  
Either CSCI 110 Introduction to Computer Programming **or** BUAD 140 Business Information Systems  
Either BUAD 284 Statistics for Business and Economics **or** SSCI 224 Basic Statistics

It is recommended that the student select courses as electives in the physical and earth sciences, such as PHYS 121, PHYS 122, and GEOL 307. For students interested in graduate study, we also recommend course work in biology at the suborganismal level (e.g., BIOL 244).

**Environmental Science Academic Minor (6 courses):**

BIOL 120 or 180, BIOL 228, ENVS 300, and three electives above the BIOL 200 level chosen from the core or elective listing of the environmental science major program.