

## **Assessment Plan**

Program Environmental Studies, BS

Assessment Coordinator for the program Tim Farnham

Department(s) or Interdisciplinary Council Responsible for the Program

Environmental Studies Faculty and Helen R. Neill, Chair

Five-Year Implementation Dates (2004-2005 to 2009-2010)

**1. Student Learning Outcomes for the program.** List the Student Learning Outcomes for the program.

I. ENV majors will develop and enhance the following cognitive abilities:

- A. Explain and apply fundamental environmental theories from natural science.
- B. Explain and apply fundamental environmental theories from social science.
- C. Identify the multiple dimensions of environmental issues.
- D. Understand and apply detailed knowledge of law and policy to environmental issues.

II. ENV majors will be able to apply professional evaluative methodologies to solving environmental management problems:

- A. Employ models and other decision support methods to analyze environmental issues and contribute to management decisions.
- B. Describe technical and socioeconomic trade-offs associated with diverse approaches to environmental management.
- C. Identify and understand practical issues currently faced by environmental decision makers.
- D. Design and complete a professional report addressing a research question related to the environment.

III. ENV majors will be able exhibit competency in research, analytical, and technical tools used in finding solutions in environmental management fields:

- A. Demonstrate the ability to locate and access information on an environmental issue.
- B. Demonstrate technical skills required for basic fieldwork laboratory experiments, and/or other data acquisition and analysis.

C. Display proficiency in oral presentation.

D. Demonstrate proficiency in physical science and analysis.

E. Develop the skills and qualifications to compete for a career as an environmental professional, including positions requiring quantitative analytical skills

## UNDERGRADUATE PROGRAMS

1. ENV 101, Introduction to Environmental Science (formerly ENV 100 Humans and the Environment):

2. ENV 260 Environmental Measurement and Analysis

3. NRES 411 Environmental Law (formerly ENV)

4. ENV 377 Environmental Economics (formerly ECO 407)

5. ENV 410 Environmental Policy

6. ENV 490 Seminar in Environmental Studies

7. ENV 499A Senior Thesis I Environmental Studies

8. ENV 499B Senior Thesis I Environmental Studies

9. Ecology (ENV 220/BIOL 220, BIOL 341, BIOL 444,)

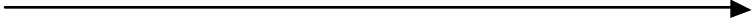
10. Earth Systems (GEY 101, GEO 101, GEY 303, or GEY 330)

11. Environmental Social Science/Humanities (SOC 407, HIS 441, HIS 443, GEY 310)

12. Problem Solving (ENV 460 Environmental Modeling or ENV 411 Environmental Risk Management)

13. Applied Skills (NRES 432 Advanced Environmental Toxicology; ENV 420 Environmental Impact Analysis; ENV430/AAL 430 Land Use Management; ENV 480 Geographical Information Systems for Management)

**2. Curriculum Alignment of Student Learning Outcomes.** Where is the information introduced, enriched, and/or reinforced in the courses required in the program?

Program Outcome Goals	Required Courses 				
	MATH 181	MATH 182	BIOL 189	CHE 121	PHY 151/151L
I. A	I	I	I	I	I
I. B					
I. C					
I. D					
II. A					
II. B					
II. C					
II. D					
III. A					
III. B			I	I	I
III. C					
III. D	I	I	I	I	I
III. E	I	I	I	I	I

I = Introduced E = Enhanced R = Reinforced

Required Courses




Program Outcome Goals




PHY 152/152L	One of: ECON 202 ECON 190 HON200BH	ENV 101	ENV 205	ENV 260
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I. A	I		I, E		I, E
I. B		I	I, E	E	
I. C			I	E	E
I. D			I	E	
II. A			I	E	E
II. B			I	E	
II. C			I	E	E
II. D					I
III. A			I	E	E
III. B	I				E
III. C				I	
III. D	I				E
III. E	I	I	I, E	E	E

I = Introduced E = Enhanced R = Reinforced

Required Courses 

Program Outcome Goals 	NRES 411 (ENV 300)	ENV 377	ENV 490	ENV 499A	ENV 499B
I. A			R	R	R
I. B	E, R	E, R	R	R	R
I. C	E, R	E, R	R	R	R
I. D			R	R	R
II. A	E		R	R	R
II. B		E, R	R	R	R
II. C	E, R	E, R	R	R	R
II. D			R	R	R
III. A	E, R	E, R	R	R	R
III. B			R	R	R
III. C	I, E		R	R	R
III. D			R	R	R
III. E	E	E	R	R	R

I = Introduced E = Enhanced R = Reinforced

Required  
Courses



Program  
Outcome  
Goals



One of: ENV 220 BIOL 341 BIOL 441 BIOL 444	One of: GEY 101 GEO 101, GEY 303, GEY 330	One of: SOC 407, HIS 441, HIS 443, GEY 310 PHI 249 PHI 430 PSC 421	One of: ENV 460, ENV 411	One of: NRES 432, ENV 420, AAL 430 ENV 480
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I. A	E, R	I, E			
I. B			E, R	E, R	
I. C				E, R	E, R
I. D			E, R	E, R	
II. A				E, R	
II. B				E, R	
II. C				E, R	E, R
II. D					
III. A				E, R	
III. B	E, R				E, R
III. C					
III. D	E, R	E, R			
III. E	E, R	E, R	E, R	E, R	E, R

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**3. Evidence/Artifacts used to assess Student Learning Outcomes over the 5 year period of this Plan.** What instruments will be used in each of the five years? When and where will they be administered in each of the five years? Which Student Learning Outcomes will be assessed during each of the 5 years? How will results be reported (e.g. percentages, ranks, state or national comparisons) for each of the 5 years?

Student Learning Outcomes for the Program	Methods/Instruments (Direct and Indirect) to be used	Expected Measures from the Methods/Instruments	When and where will the Methods/Instruments be administered and data collected?
I. A	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
I. B	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
I. C	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
I. D	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
II. A	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
II. B	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
II. C	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
II. D	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
III. A	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades

III. B	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
III. C	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
III. D	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades
III. E	1. Thesis presentation evaluation 2. Grade Report	Average Percentages Qualitative Summary	At the end of each academic year, faculty who teach courses will provide the chair with summary data. Annual electronic review of grades

**4. Dissemination of Information over the 5 year period of this Plan.** When, where, and how will results be disseminated to stakeholders?

Student Learning Outcomes for the Program	Who will analyze the data?	When, where, and how will the results be disseminated to stakeholders?
I. A	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
I. B	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
I. C	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
I. D	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
II. A	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.

II. B	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
II. C	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
II. D	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
III. A	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
III. B	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
III. C	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
III. D	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.
III. E	Teaching Faculty and Chair	At the beginning of each academic year, the results of assessment data collection will be posted to the departmental website.