

## MASTER OF SCIENCE IN ENVIRONMENTAL STUDIES

### Mission Statement

*The Department of Environmental Studies equips students to function, not only in the world of today, but also to adapt to and perform in the world of tomorrow. Each program track in the major contributes to the University's mission by preparing students to think critically, communicate effectively, and act with reason. The Department aspires to educate students, to help them accept modifications of views, and to discard concepts that have proven to be flawed. The Department seeks truth in science, relying upon the testing of theory by experiment to yield an evolving understanding of environmental phenomena. We stimulate students' thought processes to encourage the intellectual breadth that will forge them into future leaders.*

### Student Learning Outcomes

The graduate student in Environmental Science should be able to the following:

#### Content

- Comprehend and describe the concepts, theories, and frameworks in relevant subfields of the geo-, environmental, or spatial sciences
- Apply knowledge of basic physical processes to predict range of environmental responses

#### Critical Thinking

- Select appropriate research techniques to solve problems in the environmental sciences
- Use library resources and other information technology to access environmental databases and bibliographies.
- Solve environmental problems through skilled use of theory and methods in the relevant subfields of the geo-, environmental, or spatial sciences.
- Evaluate local environmental issues within the context of global environmental processes
- Create compelling arguments to justify technology and research methods appropriate to environmental projects

#### Communication

- Demonstrate proficiency in professional writing skills, including use of professional editorial style and organization
- Deliver clear oral presentations about environmental research before a peer audience, such as at a professional meeting
- Integrate geographic information technologies and science into research projects

## **Integrity/Ethics**

- Adhere to the basic principles of the Code of Ethics for Environmental Professionals
- Design ethically-appropriate solutions for complex human-environment interactions
- Articulate how values systems can influence the success of environmental proposals

## **Project Management**

- Organize and execute research projects in a systematic and timely manner, using the scientific method where appropriate
- Capture and integrate project-relevant environmental data from various sources, including written, graphic, digital, and photographic forms
- Collaborate effectively with team members on complex environmental solutions
- Design and prepare a basic grant proposal

## **Assessment of Student Learning Outcomes**

The Department of Environmental Studies is committed to providing learning opportunities of the highest possible quality. Our faculty members will assess master's students' progress in a number of ways including direct measures such as a thesis defense or comprehensive exam. Project management skills will be assessed in specific courses such as Research Design, Sampling and Analysis in Environmental Science, and Advanced Topics in GIS. Indirect assessment measures include alumni surveys, employer surveys, and feedback from the Department of Environmental Studies Advisory Board.

## **Job Prospects**

Environmental Educator  
Environmental Specialist  
Natural Resource Manager  
GIS Specialist  
GIS Coordinator  
Environmental Manager  
Environmental Planner  
Environmental Remediation Specialist

Coastal Manager  
Coastal Research Specialist  
Hydrology Specialist  
Soils Specialist  
Land-use Planner  
Park Ranger, Conservation Specialist  
Scientific Research Associate

***For more information about graduate education in Environmental Studies, please see the following website:***

***<http://uwf.edu/environmental>***

# Assessment Plan

## *M.S. in Environmental Science program*

### *Department of Environmental Studies, UWF*

The UWF Department of Environmental Studies has identified **Student Learning Outcomes** (SLOs) in its Master's-level **Academic Learning Compact** (ALC, attached). The SLOs fall into five major **domains**. To ensure that each domain is covered in the academic curriculum, a **curriculum audit** has been conducted for the Master of Science curriculum tracks (attached)

To ensure that students who graduate from the department with an M.S. degree in Environmental Science have achieved the identified SLOs, the department proposes to assess the students in the following manner:

#### **NOTIFICATION**

1. The need for assessment, and the expectations of the students, will be clearly stated in the SLO section of all course syllabi.
2. The assessment plan will be outlined in the departmental Graduate Guidelines (which are posted online and distributed to all graduate students) and take effect with the incoming graduate students in Fall 2006.

#### **DIRECT MEASURES**

3. All students, in their last semester of residency, will be given an **exam**. Thesis-track students will have a **thesis defense**, an oral exam in which they are tested on their knowledge of the thesis topic as well as content knowledge of the discipline (or subdiscipline). Non-thesis-track students will take a **comprehensive exam** that will consist of written and oral components. This exam will assess the students within the domains of content, critical thinking, communication, and integrity/values.
4. The domain of project management is covered in individual courses. All graduate students will enroll in GEO 6118 Research Design, a course designed to convey the essentials of project management. All students will prepare a project proposal, and present it formally before peer students and faculty. Thesis-track students will, of course, hone their project management skills via completion of a thesis. Furthermore, all graduate students will enroll in either EVS 6196C Sampling and Analysis in Environmental Science or GEO 6159 Advanced Topics in GIS, both of which stress project management as a key domain.

## INDIRECT MEASURES

5. We will periodically poll our alumni of the M.S. program to determine to what extent the graduate program assisted them in their careers.
6. We will assemble feedback from employers who hire graduates of our M.S. in Environmental Science program or from Ph.D. programs into which our M.S. students entered.
7. We will continue to rely upon our departmental Advisory Board to provide feedback as to the relevance of our M.S. curriculum as well as the preparedness of our M.S. graduates upon entering the environmental professions.

## EVR GRADUATE-LEVEL ASSESSMENT PLAN IN MATRIX FORMAT

Measure	Content	Critical Thinking	Communication writing	Communication speaking	Integrity/Ethics	Project Mgm't
Direct Measure— <b>Thesis Defense</b>	X	X	X	X	X	X
Direct Measure— <b>Comprehensive Exam</b>	X	X	X	X	X	
Direct Measure— <b>GEO 6118 Research Design</b>		X	X	X	X	X
Direct Measure— <b>EVS 6196C Sampling &amp; Analysis</b>	X	X				X
Direct Measure— <b>GEO 6159 Advanced GIS</b>	X	X	X			X
Indirect Measure— <b>Alumni Survey</b>	X	X	X	X	X	X
Indirect Measure— <b>Employer Survey</b>	X	X	X	X	X	X
Indirect Measure— <b>Advisory Board feedback</b>	X	X	X	X	X	X