ENVS Graduate Program Goals and Objectives

Approved by the ENVS Graduate Committee 11/17/15 and ENVS Department on 11/23/15

Huxley College and Department of Environmental Studies (ENVS) mission statement

Huxley College of the Environment addresses today's environmental issues and prepares tomorrow's interdisciplinary problem solvers. We accomplish this mission by integrating outstanding educational programs, faculty-student collaboration, applied research, and professional and community service.

ENVS Graduate Program Goals

By the time they graduate from the ENVS Graduate Program students will be able to:

I. Critically understand an environmental issue using appropriate knowledge
II. Investigate that environmental issue using an interdisciplinary framework
III. Effectively communicate through written, visual, and oral means
IV. Independently design, implement, and complete a research project

ENVS Graduate Program Learning Objectives

Upon graduation, Environmental Studies masters students will be able to:

1. Identify and explain the complexity of issues and processes that contribute to an environmental problem.
2. Describe how their research¹ is situated in the history and scope of environmental studies.
3. Identify a range of theoretical frameworks and methodologies used in environmental studies and explain the appropriate contexts for their application.
4. Demonstrate a fundamental knowledge of disciplines relevant to their research topic.
5. Explain, justify, and correctly execute a method appropriate to their research topic.
6. Use effective verbal presentation skills to share their research plans and results.
7. Use writing skillfully to communicate theory, methods, results, and relevance of their research project.
8. Independently design, implement, and complete a research project.

¹ All references in these objectives to “research” or “application” refer to the thesis and the project. Students can choose to do a thesis or a project, but both contain research.
Mapping of Program Goals to Program Objectives

Table 1. The relationships between program goals and the program objectives.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Goal I</th>
<th>Goal II</th>
<th>Goal III</th>
<th>Goal IV</th>
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<tr>
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<td>X</td>
<td>x</td>
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<tr>
<td>ENVS history and scope</td>
<td>2</td>
<td>X</td>
<td>x</td>
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<tr>
<td>Range of theories &amp; methodologies</td>
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<td>x</td>
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<tr>
<td>Fundamental knowledge</td>
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<td>X</td>
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<tr>
<td>Master appropriate method(s)</td>
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<tr>
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<td>Written presentation of research</td>
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<td>Independent researcher</td>
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Mapping of Course and Thesis Outcomes to Program Objectives.

Table 2. The relationships between student activity performance and program objectives.

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Student learning outcomes.

Outcomes will be measured according to particular assessment tools. Below is a list of where and how we generally expect to assess each objective. For this year, we have chosen to focus on assessment of Objective #3, which will be accomplished in ENVS 502 offered in Winter 2016. Our more detailed plan is at the end of this general list.

ENVS 501 Research and Projects in Environmental Studies (Objectives 1,2,6,7)

After completing ENVS 501, students should be able to:

- Identify the complexity of issues and processes that contribute to environmental problems.
- Identify their area of research.
- Situate their research within the history and scope of environmental studies.
- Write and orally present a paper describing their research.

ENVS 502 Environmental Research and Projects Frameworks (Objectives 3, 6, 7)

After completing ENVS 502, students should:

- Be able to identify and discuss a range of research methodologies that may be used to apply to their research project.
- Students present their research proposal orally and in a paper

ENVS 503 Communicating Research Results (Objective 6,7)

After completing ENVS 503, students should:

- Know how to present research in an organized and professional manner.

Students present their research proposal orally

Thesis or Project Proposal (Objectives 1,4,5,6,7)

After presenting their thesis or project proposal, students should be able to:

- Explain the complexity of issues and processes that contribute to their research problem. [1]
- Demonstrate a fundamental knowledge of disciplines relevant to their research topic. [4]
- Explain and justify using a method(s) appropriate to their research topic. [5]
- Use effective verbal presentation skills to share their research plans. [6]
- Use writing skillfully to communicate theory, methods, and relevance of their research project. [7]

Thesis or Project Defense (Objectives 1,2,4-8)

After presenting their thesis or project defense and written thesis or report, students should be able to:

- Thoroughly explain the complexity of issues and processes which contribute to their research problem. [1]
- Demonstrate a thorough knowledge of disciplines relevant to their research topic. [4]
- Explain and correctly apply a method(s) appropriate to their research topic. [5]
- Use effective verbal presentation skills to share their research results. [6]
- Use writing skillfully to communicate theory, methods, results and relevance of their research project. [7]
 Independently design, implement, and complete a research project [8]

**Assessment Plan for Objective #3**

We will perform a course-embedded assessment of ENVS 502 (Environmental Research and Project Framework). This course is required for all Environmental Studies Graduate Students. Students take the course in Winter term after an introductory course in the Fall term. ENVS 502 is designed to aid graduate students in the development of their thesis or project proposal. The course objective is to:

- Be able to identify and discuss a range of research methodologies that may be used to apply to their research project.

During the course students review issues and methodologies related to quantitative and qualitative research methodologies available to them to complete their research project. During the second week of the term, the students are given an assignment to define their research problem and sketch a research framework. During subsequent weeks students refine their research framework and learn how to develop a research statement, conceptual frameworks, research design, hypotheses, research questions, and data sources available to answer those questions. Various methods -- quantitative, qualitative and mixed -- are introduced. Methodological considerations such as indicators, measurements, instrumentation and questions of internal validity, external validity, reliability, replicability are covered. At the end of the term, students (working with their Graduate advisor) produce a research proposal draft, which represents their refined research framework. They also make an oral presentation of their analysis of their research question, design, and methodological choice.

For assessment of ENVS Graduate Program Objective #3, we will collect a sample of student work, final written research proposals, and instructor feedback for the oral presentations. We will look for comprehension of their knowledge base in theory and method. We will also assess their ability to explain how those methodologies apply to their research problem.