

2007 MASTER PLAN/PROGRESS REPORT

Academic Program: BS Environmental Science

Person Responsible: Bruce Wyman, Associate Professor

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Mission: To provide graduates with skills necessary for responsible employment in environmental quality management and to prepare students for advanced study in graduate or professional schools. We fulfill our mission if the following obtain:

- Candidates for the Bachelor of Science degree recognize and interpret the chemical, biological, and physical principles underlying public health, environmental health, and sustainability.
- Candidates for the Bachelor of Science degree gather, test, calculate, and interpret information used to characterize and assess public health, environmental health, and sustainability.
- Candidates for the Bachelor of Science degree evaluate and select appropriate policies, standards, and technologies for the prevention and control of harm to public health, environmental health, and sustainability.

Institutional Mission Reference: The B.S. degree in Environmental Science provides a sound scientific understanding of environmental issues and the technical expertise required for environmental protection. Our graduates are trained to become community leaders with the knowledge and perspective to shape public policy in environmental management encourages. We contribute toward the institutional mission by meeting these student learning outcomes:

- Students apply critical thinking in academic and professional environments,
- Students formulate and express ideas effectively through oral, written, and/or technical communications in academic and professional environments, and
- Students analyze the global community and apply information from diverse groups to make sound judgment in academic and professional environments.

Assessment Methods Utilized

- Standardized Exam (nationally normed)
- Standardized Exam (state-normed)
- Major Field Examination
- Internally-developed Examination
- Student Opinion Survey (SOS)
- National Survey of Student Engagement (NSSE)
- Employer Survey
- Graduate Survey
- Alumni Survey
- Exit Survey/Interview/Exam
- Program-specific Survey
- Scoring of Essay
- Portfolio Evaluation
- Capstone Project

Data Repository Location:

Frasch 230

Frasch 236

- Presentation
- Research Paper
- Research Project
- Course Summary
- Excel Spreadsheet
- Access Database
- Other - Please describe: embedded exam questions

Frasch 236

Student Learning Outcome 1: Graduates apply critical thinking in academic and professional environments.

<u>Expected Level of Achievement</u>	<u>Actual Data From Assessment</u>	<u>Actions/Decisions</u>
<p>80% of graduates score 75% or better in the capstone course.</p> <p>80% of graduates score 75% or better on embedded examination questions.</p>	<p>The expected levels of achievement listed under each student learning outcome have not been assessed prior to the preparation of the master plan for 2007. As indicated under Actions/Decisions, the current master plan is a new document and not an amendment of the 2006 plan. The first set of data will be generated during the 2007-2008 academic year and be available for use in the 2008 Master Plan/Progress Report.</p>	<p>The 2006 Master Plan for the program did not contain Student Learning Outcomes directly related to the core mission of the university. The 2006 plan included a variety of process objectives but not direct student learning outcomes. Consequently, the program outcomes associated with the 2007 Master Plan/Progress Report were completely rewritten, and there are no numerical assessment data. After one cycle with the new Student Learning Outcomes, the 2008 plan will reflect the revised projected outcomes.</p>

Student Learning Outcome 2: Graduates formulate and express ideas effectively through oral, written, and/or technological communications in academic and professional environments.

<u>Expected Level of Achievement</u>	<u>Actual Data From Assessment</u>	<u>Actions/Decisions</u>
<p>80% of graduates score 75% or better in the capstone course.</p> <p>80% of graduates score 75% or better on embedded examination questions.</p>	<p>The expected levels of achievement listed under each student learning outcome have not been assessed prior to the preparation of the master plan for 2007. As indicated under Actions/Decisions, the current master plan is a new document and not an amendment of the 2006 plan. The first set of data will be generated during the 2007-2008 academic year and be available for use in the 2008 Master Plan/Progress Report.</p>	<p>The 2006 Master Plan for the program did not contain Student Learning Outcomes directly related to the core mission of the university. The 2006 plan included a variety of process objectives but not direct student learning outcomes. Consequently, the program outcomes associated with the 2007 Master Plan/Progress Report were completely rewritten, and there are no numerical assessment data. After one cycle with the new Student Learning Outcomes, the 2008 plan will reflect the revised projected outcomes.</p>

Student Learning Outcome 3: Graduates analyze the global community to make sound judgments in academic and professional environments.

<u>Expected Level of Achievement</u>	<u>Actual Data From Assessment</u>	<u>Actions/Decisions</u>
<p>80% of graduates score 75% or better in the capstone course.</p> <p>80% of graduates score 75% or better on embedded examination questions.</p>	<p>The expected levels of achievement listed under each student learning outcome have not been assessed prior to the preparation of the master plan for 2007. As indicated under Actions/Decisions, the current master plan is a new document and not an amendment of the 2006 plan. The first set of data will be generated during the 2007-2008 academic year and be available for use in the 2008 Master Plan/Progress Report.</p>	<p>The 2006 Master Plan for the program did not contain Student Learning Outcomes directly related to the core mission of the university. The 2006 plan included a variety of process objectives but not direct student learning outcomes. Consequently, the program outcomes associated with the 2007 Master Plan/Progress Report were completely rewritten, and there are no numerical assessment data. After one cycle with the new Student Learning Outcomes, the 2008 plan will reflect the revised projected outcomes.</p>

Student Learning Outcome 6: Candidates for the Bachelor of Science degree evaluate and select appropriate policies, standards, and technologies for the prevention and control of harm to public health, environmental health, and sustainability. (Synthesis and Evaluation levels of Bloom’s Taxonomy of Educational Objectives, Benjamin S. Bloom, 1984).

<u>Expected Level of Achievement</u>	<u>Actual Data From Assessment</u>	<u>Actions/Decisions</u>
<p>80% of graduates score 75% or better on embedded examination questions in these required courses: ENSC 404, 420, 493, 496</p> <p>80% of graduates score 75% or better in the capstone course.</p> <p>ENSC 404 Introduction to Water Pollution ENSC 420 Introduction to Air Pollution ENSC 493 Introduction to Environmental Laws ENSC 496 Environmental Science Internship</p>	<p>The expected levels of achievement listed under each student learning outcome have not been assessed prior to the preparation of the master plan for 2007. As indicated under Actions/Decisions, the current master plan is a new document and not an amendment of the 2006 plan. The first set of data will be generated during the 2007-2008 academic year and be available for use in the 2008 Master Plan/Progress Report.</p>	<p>The 2006 Master Plan for the program did not contain Student Learning Outcomes directly related to the core mission of the university. The 2006 plan included a variety of process objectives but not direct student learning outcomes. Consequently, the program outcomes associated with the 2007 Master Plan/Progress Report were completely rewritten, and there are no numerical assessment data. After one cycle with the new Student Learning Outcomes, the 2008 plan will reflect the revised projected outcomes.</p>