FORESTRY BS OUTCOMES ASSESSMENT REPORT 2008-2009

Version: 1.0

Natural Resources Management	Forestry	Bachelors of Science
Department	**Program (major or minor)**	**(Degree)**

Edward Martinez/ Ken Bentson	/s/ Kbentson	10/16/09
Assessment Coordinator (Print)	**Signature**	**Date**

Edward Martinez/ Ken Bentson	/s/Kbentson	10/16/09
Program Chair (Print)	**Signature**	**Date**

I. NEW MEXICO HIGHLANDS UNIVERSITY MISSION

NMHU is a diverse comprehensive university serving the global community by integrating education, research, public service, and economic development, while celebrating our distinctive New Mexico cultures and traditions. We achieve this through a University-wide commitment to quality student-centered education.

II. FORESTRY PROGRAM GOALS

Mission

Forestry is the application of scientific principles to the management of forest resources, including non-wood products. The mission of the Forestry Program at NMHU is to provide students the skills needed to excel in a natural resources management field of study.

- Providing a broad-based undergraduate education in the Liberal Arts and Sciences;

- Promoting study and quality research in forestry and natural resource management sciences;
- Providing a superior learning experience for students through dedicated teaching, hands-on learning, research, and commitment to the individual student; and
- Providing a combination of state of the art computer and science facilities and close access to a diversity of ecosystems for student experiential learning.

Goals

The primary goal of the forestry program is to produce technically competent forest and natural resources managers who understand the ecological, economic, social and legal basics that underpin human uses of natural resources. Students are trained in the various techniques used to determine resource quantities and qualities, economic values, resource productivity, and social constraints in management of natural and forest resources.

III. STUDENT LEARNING OUTCOMES	IV. OUTCOMES ASSESSMENT
• Effectively describe the process of scientific inquiry.	• Score of ≥ 70% on class and laboratory examinations emphasizing the scientific method (FOR 105–*Humans and Ecosystems*, FOR 315—*Soil Science*, and FOR 340--*Quantitative Methods*,).
• Effectively read and critically evaluate relevant professional literature.	• Score of ≥ 70% on comprehensive literature review paper and oral presentation assigned in most 200- through 400- level courses.
• Effectively communicate scientific ideas, information, and results, both verbally and in writing, that (1) demonstrate consistent logic; (2) are well organized; (3) state and defend a thesis; and (4) demonstrate competent use of language.	
• Think critically.	• Score of ≥ 70% on all courses.
• Know U.S. laws and policy issues relevant to the natural sciences.	• Completion (with grade ≥ C) of a Forestry Law and Policy course.
• Competently use appropriate tools from geology, chemistry, physics, and mathematics to solve discipline-specific problems.	• Completion (with grade ≥ C) of a field based course (FOR 300- *Field Practices*, FOR 315—*Soil Science*, FOR 318—*Natural Resources Ecology*, FOR 333—*Water Science*, FOR 408—*Limnology*, FOR 412—*Surveying and Geographic Information Systems*, and a senior capstone course consisting of an open-ended advanced Forestry project).

• Competently use appropriate laboratory and field methods and instrumentation.	• Completion (with grade ≥ C) of the above mentioned courses; and • Completion of research that demonstrates achievement in areas of ethics, field methods, analytical instrument usage, problem-solving, written and/or oral presentation of work; and • Query of student abilities, employability, and overall satisfaction with the program via course exit questionnaires.
• Effectively apply quantitative analysis to scientific problems by selecting and performing appropriate quantitative analyses of scientific observations.	• Completion (with grade ≥ C) of FOR 305—*Natural Resources Economics*, FOR 310—*Mensuration and Biometrics*, and FOR--340—*Quantitative Methods*.
• Attain employment in forestry, natural resources management, environmental science, or related fields and/or continue graduate studies.	• Query of relevance of degree program to success in employment or graduate school via Alumni Survey.

V. Results

Assessment	Results
• Score of ≥ 70% on class and laboratory examinations emphasizing the scientific method (FOR 105–*Humans and Ecosystems*, FOR 315—*Soil Science*, and FOR 340--*Quantitative Methods*,).	FOR 105 Quiz - 24/48 FOR 105 Lab – 35/48
• Score of ≥ 70% on comprehensive literature review paper and oral presentation assigned in most 200- through 400- level courses.	FOR 435 - ¾
• Score of ≥ 70% on all courses.	FOR 300 – 16/16 FOR 305 – 8/9 FOR 318 – 4/8 FOR 450 – 3/3
• Completion (with grade ≥ C) of a Forestry Law and Policy course.	
• Completion (with grade ≥ C) of a field based course (FOR 300- *Field Practices*, FOR 315—*Soil Science*, FOR 318—*Natural Resources Ecology*, FOR 333—*Water Science*, FOR 408—*Limnology*, FOR 412—*Surveying and Geographic Information Systems*, and a senior capstone course consisting of an open-ended advanced Forestry project).	FOR 300 – 16/16 FOR 333 – 83%>C (6) FOR 318 – 4/8

• Query of student abilities, employability, and overall satisfaction with the program via course exit questionnaires.	Not instituted
• Completion (with grade ≥ C) of FOR 305—*Natural Resources Economics*, FOR 310—*Mensuration and Biometrics*, and FOR--340—*Quantitative Methods*.	FOR 305 – 8/9
• Query of relevance of degree program to success in employment or graduate school via Alumni Survey.	Not instituted

VI. Use of Results

This year Forestry is instituting some of the activities that were not instituted last year to better appraise the program with student input. Grades and scores tell us about content mastery, but little else. For instance, grades do not inform Forestry of the reasons for students performing as they do. The four traits NMHU has adopted as student outcomes are not covered adequately by this outcomes assessment plan. Thus one of the uses of this data is to upgrade the outcomes assessment process for Forestry by focusing on student perceptions and their stated confidence in basic academic skills.