

Degree Objectives and Expected Competencies

“Getting what you pay for!”

As a student ready to pursue a college education, it is important to know what is expected of you as a student and what you can expect from your faculty and instructors. The objectives and competencies listed within this document were created in partnership from employer, alumni, and industry feedback. Upon graduation, you should have successful mastery of these skills, thus granting you competitive edge amongst other university and college graduates in similar programs.

DEGREE OBJECTIVES

The broad objectives for a person getting a B.S. degree in one of the Natural Resource Sciences majors is to:

1. learn and use the facts and concepts central to a specific field of study and future career options;
2. acquire skills to collect, analyze, summarize, synthesize and interpret data in their field of study;
3. develop the ability to work independently and in teams to propose solutions to natural resources questions using systems thinking or analysis;
4. communicate information effectively to a variety of audiences.

EXPECTED COMPETENCIES

Natural Resource Specific Skills

- Describe and explain the basic characteristics of natural resource systems which include the atmosphere, hydrosphere, geosphere and biosphere.
- Describe the physical and biological interactions among the various natural resource systems.
- Describe the impact of humans as stewards, managers and components of natural resources systems.

Communication Skills

- Give an organized and professional oral presentation that uses appropriate visual aids on natural resources topics.
- Write to effectively communicate research results and opinions in a manner appropriate to an audience.

Problem Solving Skills

- Organize and conduct research using a systematic approach.
- Locate and use various data sources that are available for natural resource science, policy, management, and/or economics.
- Collect data using appropriate laboratory and field techniques.
- Use the following quantitative methods to evaluate applied problems in natural resources.
 - A. construct graphical and tabular summaries of quantitative data.
 - B. use mathematical concepts to represent the dynamics of physical biological, and socioeconomic processes.
 - C. construct a simple dynamic model that incorporates key pools, fluxes and feedback mechanisms to represent a biological or physical system.
 - D. conduct simple statistical analysis of data.