

## **ENVIRONMENTAL SOIL SCIENCE MAJOR ASSESSMENT PLAN**

### **Learning Outcomes:**

As a result of training received in this major, students will be able to understand and solve environmental problems associated with physical, chemical, and biological processes that affect the fate and potential movement to ground and surface waters of xenobiotic substances, fertilizer nutrients, and various types of wastes applied on or in the soil. As a result, the students will be qualified to enter technical and management positions in companies or agencies that deal with the use, disposal and regulation of these materials and wastes. In addition, they will be given insights into the ecological risks and potential environmental contamination associated with the use and disposal of these materials with the overall perspective being focused on managing the water and soil resources in a balanced ecological environment.

### **Expected Results:**

Environmental Soil Science graduates will be expected to develop a broad understanding of the sciences related to soils, environmental contamination, and the use of soils as a medium for waste disposal.

Graduates will be familiar with principles of chemistry, physics, geology, microbiology, ecology, and ethics and understand how these principles relate to soil processes and the fate of contaminants applied on or in soils.

Environmental Soil Science graduates will also be expected to develop strong communication, computational and leadership skills and to become familiar with real-world problems and operational considerations in the environmental area.

### **Assessment Methods:**

Exit interviews - The department head or his designee will conduct an in-depth interview during the semester of graduation. An exit interview form will be used to ensure uniformity in questions and to quantify interview results.

Internship evaluation - Employers of students who participate in required internships will be asked to complete an evaluation of the intern.

Survey of alumni - Graduates will be surveyed during the third year after graduation.

Survey of employers - Employers of Environmental Soil science graduates will be surveyed after the graduate has been employed three to five years.

### **Faculty Involvement:**

Undergraduate Teaching Committee (faculty representatives of each major in the department and the undergraduate coordinator) will formulate assessment techniques; compile assessment results; and communicate these to the faculty on an annual basis.

Results of assessment plan will be discussed at annual faculty meeting and means of addressing concerns will be formulated.