



## Crops, Soils and Resource Conservation Certificate

The Departmental Certificate in Crops, Soils and Natural Resources trains students in basic plant and soil sciences, and resource management. It will assist students pursuing degrees in related fields such as forestry, environmental sciences or biology to attain some of the basic requirements for careers in federal or state agroforestry oriented agencies. Students will also attain skills that will afford them the opportunity to enter the agriculture industry. In addition, students will learn skills to help them produce their own food in a sustainable manner.

### Certificate Requirements

Required Courses.....14 hrs

AGR 130, 131 (1), 215, 216 (1), 318, and 340 or 345

Total Curriculum Requirements:.....14 hrs

### Course Descriptions

**AGR 130 Plant Science. (3) A.** Corequisite: AGR 131.

Principles of plant growth, reproduction, and plant-soil relationships. Provides foundations of information for further study in field crop production and soil management. Credit will not be awarded to students who have credit for OHO 131.

**AGR 131 Plant Science Laboratory. (1) A.** Corequisite: AGR 130.

Laboratory and field experiences related to plant growth, development, and management of crops. Credit will not be awarded to students who have credit for OHO 132.

**AGR 215 Principles of Soils. (3) I, II.** Corequisite: AGR 216.

Soil origin, classification and properties, soil conservation, soil microorganisms, organic matter, soil water, soil minerals, lime and commercial fertilizers, soil erosion, soil management.

**AGR 216 Principles of Soils Laboratory. (1) I, II.** Corequisite: AGR 215.

Laboratory and field experiences related to soils and their properties, including soil sampling, fertility, pH, liming, water and texture.

**AGR 318 Soil/Water Conservation Technology. (3) A, I.**

Principles and procedures for basic surveying and soil-water conservation systems. This will include how rainfall, run-off, erosion, contours, ponds, lagoons, drainage, and irrigation interact with the desired conservation system.

**AGR 340 Conservation of Agricultural Resources. (3) A.**

Cross-listed as ENV 341. Prerequisite: any ENV, AGR, or OHO course.

Conservation of soils and their fertility, erosion and control, soil conservation methods for individual farms, water supply and distribution, problems of water and air pollution, problems resulting from the population explosion. Credit will not be awarded for both AGR 340 and ENV 341.

**AGR 345 Sustainable Agroecosystems. (3) A, I.**

Prerequisites: any course in chemistry, AGR 130, and 131; or OHO 131 and 132 or BIO 131.

A comprehensive study of new technology related to crop, and pest management practices which could enhance economic returns, environmental quality, and the resource base for the short and long term.

### For More Information

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