

# AGROECOLOGY (AG)

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## **AG101 Introduction To Agroecology** 5 credits (3 lec, 4 lec lab hrs/wk)

An introductory course in the principles and concepts of agroecology. This course will examine the biological and physical attributes of farming and land management systems and their associated ecological and social impacts. Students will look at the scope of career opportunities and skills necessary to succeed in job pathways in the wide field of agriculture. Topics will examine our local food systems, as well as the ecological results from conventional globalized agriculture, to agrarian methods, and indigenous food and fiber production systems. This is the first in the series of Agroecology courses. These courses will have a large hands-on component with field trips, and outdoor labs at the campus instructional garden.

This course may be taken 1 time for credit.

Course classification: LDC

## **AG102 Agroecology II** 5 credits (3 lec, 4 lec lab hrs/wk)

The second course in the Agroecology series, introducing the strategies and examining the principles of agroecology. The topics include the regulatory agencies and regulations, ethics and responsibilities, appropriate tools and technologies, and best practices. We will look at applied practices such as agroforestry systems, rotational grazing, and orchard maintenance. The lab section will be working in the instructional garden and on field trips. Students will be getting hands on winter season crop, farm, and land maintenance skills.

This course may be taken 1 time for credit.

Course classification: LDC

## **AG103 Agroecology III** 5 credits (3 lec, 4 lec lab hrs/wk)

The third course in the Agroecology series, provides experiences applying strategies to build on the concepts and principles from previous courses. Projects will include spring crop production and field trips to implement and practice skills. Students will demonstrate skills to make them more competitive in agricultural industries such as teamwork, problem solving, and best practices. The course will include a case study of local, national, and global agroecosystems. The lab will have a large hands-on component with field trips, and outdoor labs in the instructional garden.

This course may be taken 1 time for credit.

Course classification: LDC

## **AG150 Applied Plant Biology** 3 credits (2 lec, 2 lec lab hrs/wk)

An introduction to plant science that examines agriculture, landscaping, and other significant uses of plants. Emphasizes structure, growth, physiology and reproduction of plants and their responses to changes in the environment. This course applies the principles of plant science to agricultural systems. Topics covered are plant taxonomy, plant reproduction and breeding, the role of soil and water, and the use of scientific literature for applied plant and crop issues.

This course may be taken 1 time for credit.

Course classification: CTE

## **AG180 Agroecology Internship** 1-12 credits

An individualized assignment with a professional, industry partner, or agency to provide a guided field experience

This course may be taken 1 time for credit.

Course classification: CTE

## **AG201 Horticulture Science** 4 credits (3 lec, 2 lec lab hrs/wk)

Horticulture is the science and art of cultivating fruits, vegetables, and ornamental plants. This course covers the principles of plant growth and development relating to production of annual and perennial food crops and native plants. Historical, economic, and global importance of horticultural crops and services. Topics will range from general plant propagation techniques, seed saving, to grafting for orchards, depending on student interest and industry need.

This course may be taken 1 time for credit.

Course classification: LDC

## **AG202 Integrated Pest Management** 4 credits (3 lec, 2 lec lab hrs/wk)

Integrated Pest Management (IPM) is a broad ecological approach to pest management utilizing a variety of pest control techniques that target the entire pest complex of a crop ecosystem. This course is an introduction to the study of integrated pest management with emphasis on sustainable management practices of landscape and crop pests. Includes identification and study of insects, weeds, plant diseases, vertebrate pests, and beneficial organisms. Studies least toxic pest control strategies, labeling, formulations, and safe handling techniques.

This course may be taken 1 time for credit.

Course classification: CTE

## **AG203 Plant Ecology Of The Pacific Northwest** 4 credits (3 lec, 2 lec lab hrs/wk)

This course is designed to introduce students to the basic concepts of plant ecology. The focus will be on the Pacific Northwest ecology covering plant-environment relations, plant species interactions, plant community concepts, and the role of plants in ecosystem processes. Plant Ecology is a basic course that provides a broad foundation in ecology that is relevant to many agriculture and natural resource issues.

This course may be taken 1 time for credit.

Course classification: CTE

## **AG204 Mushroom Cultivation** 3 credits (2 lec, 2 lec lab hrs/wk)

This course will introduce the methods of growing edible mushrooms. With a focus on low-technology, outdoor growing techniques. The history of mushroom production, recent trends, and resources for sourcing materials will be discussed. The concepts of sterile and laboratory techniques will be introduced. Students will gain hands-on experience with substrate preparation, composting, and spawn generation techniques.

This course may be taken 1 time for credit.

Course classification: CTE

## **AG205 Ecological Landscape Design** 3 credits (2 lec, 2 lec lab hrs/wk)

This course applies agroecology and regenerative practices for urban to rural landscape areas. Students will conduct site evaluations and draft a concept and design. Topics will include surveying of ecosystem services, principles of design and space, pollinators, native landscaping, rain gardens, and bioswales.

This course may be taken 1 time for credit.

Course classification: CTE

**AG277 Agroecology Capstone** 2 credits (2 lec hrs/wk)

An independent Agricultural project carried out in concert with industry professionals or Instructor of Record. Students develop a project highlighting their program completion achievements. Throughout this course the student will be guided towards integrating their learning using a variety of activities such as reflecting, documenting, interviewing, volunteering, or taking part in other academic or community based events.

This course may be taken 1 time for credit.

Course classification: CTE

**AG280 Cooperative Work Experience- Agroecology** 1-12 credits

An individualized assignment with a professional, industry partner, or agency to provide a guided field experience

This course may be taken 1 time for credit.

Course classification: CTE