AGRONOMY

Not all courses are offered every semester. Refer to the schedule of courses for each term's specific offerings.
More Info (https://one.uf.edu/soc/)

Unless otherwise indicated in the course description, all courses at the University of Florida are taught in English, with the exception of specific foreign language courses.

Department Information

The Department of Agronomy's vision is to improve and sustain food production while conserving natural resources and promoting healthy and active lives by creating and disseminating knowledge in the plant sciences. The department's mission is to achieve excellence in the science of using plants for food, feed, fuel, fiber and turf, as well as in the management of weed species, through research, teaching, and outreach programs that serve the people of Florida, the nation, and the world.
More Info (https://agronomy.ifas.ufl.edu/)

CONTACT

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Map (http://campusmap.ufl.edu/#/index/0496)

Curriculum

- Agroecology and Sustainable Food Systems Certificate
- Combination Degrees
- Golf and Sports Turf Management Minor

Courses

AGG 3501 Environment, Food and Society 3 Credits
Grading Scheme: Letter Grade
Global issues and trends in population growth, natural resource (soil, water, and plant genetic biodiversity) utilization, climate change, and potential impacts of current trends on agriculture, natural resources, global food security, and sustainability.
Prerequisite: Sophomore standing or higher.

AGR 3303 Genetics 3 Credits
Grading Scheme: Letter Grade
The science and physical basis of inheritance, genes as units of heredity and development, and the qualitative and quantitative aspects of genetic variation.
Prerequisite: basic course in biology, botany or zoology.

AGR 4212 Alternative Cropping Systems 3 Credits
Grading Scheme: Letter Grade
Examines alternative cropping systems, focusing on issues of sustainability, against a backdrop of trends occurring in conventional agriculture.
Prerequisite: Junior or Senior standing.

AGR 4214C Applied Field Crop Production 3 Credits
Grading Scheme: Letter Grade
Plant and manage a group of field crops to gain experience in soil sampling, interpretation of nutrient and nematode test results, fertilization, pest control, and harvesting. Requires a term report.
Prerequisite: PLS 3004C.

AGR 4231C Forage Science and Range Management 4 Credits
Grading Scheme: Letter Grade
Scientific and technological developments in the selection, production, and utilization of forage crops, and in the development and management of grazing areas.
Prerequisite: Junior or Senior standing.

AGR 4304 Plant Chromosomes and Genomes 3 Credits
Grading Scheme: Letter Grade
Concepts of plant DNA organization in chromosome structure, the principles and technologies of cytogenetics, the plant genomic DNA structure and function, concepts of transcriptome, the plant genomic databases, the DNA sequencing technologies and the basic tools for nucleotide sequence analysis.
Prerequisite: AGR 3303 or PCB 3063.

AGR 4320 Plant Breeding 3 Credits
Grading Scheme: Letter Grade
The science and technology of plant improvement.
Prerequisite: AGR 3303 or PCB 3063.

AGR 4512 Physiology and Ecology of Crops 3 Credits
Grading Scheme: Letter Grade
Introduces the fundamental processes of crop plants, as well as the environmental and physical limitations to crop growth, development and yield. Focus is on physiology and ecology of agronomic crop plants.
Prerequisite: AGR 3005 or the equivalent.

AGR 4900 Supervised Extension in Agronomy 0-3 Credits
Grading Scheme: S/U
Firsthand, authentic extension experiences in agronomy under the supervision of a faculty member. Projects may involve program planning, development, implementation, and evaluation.
Prerequisite: Instructor permission.

AGR 4905 Individual Study 1-3 Credits
Grading Scheme: Letter Grade
Scientific study of individual problems in crop production, weed science, genetics or plant breeding.
Prerequisite: minimum of one course in agronomy and instructor permission.

AGR 4911 Supervised Research in Agronomy 0-3 Credits
Grading Scheme: S/U
Firsthand, authentic research in agronomy under the supervision of a faculty member. Projects may involve inquiry, design, investigation, scholarship, discovery, or application.
Prerequisite: Instructor permission.

AGR 4915 Honors Thesis Research in Agronomy 0-3 Credits
Grading Scheme: S/U
Independent research in agronomy leading to an honors thesis. Student will be mentored by a faculty member. Projects may involve inquiry, design, investigation, scholarship, discovery or application.
Prerequisite: junior standing, upper division GPA of 3.75 or higher and completed honors thesis proposal on file.

AGR 4932 Agronomy Topics 1-3 Credits
Grading Scheme: Letter Grade
Critical review of selected topics in specific agronomic areas.
Prerequisite: Instructor permission.

ALS 4914 Project Team Research: Building Skills in Agrobiology 3 Credits
Grading Scheme: Letter Grade
Hands-on experience in addressing a real-world problem faced by an agricultural industry partner. Production of a detailed plan, project design, and preliminary data for evaluating and solving the problem. Offered every term.
Prerequisite: Junior standing or higher.

ORH 3222C Turfgrass Culture 4 Credits
Grading Scheme: Letter Grade
Comparisons of turfgrass for their landscape and recreational uses. Covers growth characteristics, method of propagation, and basic management requirements, including control of important pest problems.
Prerequisite: (BOT 2010C or BSC 2010) and CHM 1025.

ORH 4223 Golf and Sports Turf Management 2 Credits
Grading Scheme: Letter Grade
Strategies involved in golf course and athletic field operations, including development of management cultural practices, adherence to environment regulations, personnel management and budgeting. Students may be expected to attend Saturday field trips.
Prerequisite: ORH 3222C.

ORH 4933 Professional Seminar in Environmental Horticulture 1 Credit
Grading Scheme: Letter Grade
A senior-level course for students seeking career opportunities in environmental horticulture. Special emphasis is placed on the expectations of and the relevant issues facing the landscape plant production, landscape management and turfgrass industries. Field trips and attendance at selected commercial trade shows are mandatory.
Prerequisite: AEC 3030C and AEC 3033C and ORH 3513C.

PCB 2441 Biological Invaders 3 Credits
Grading Scheme: Letter Grade
This course affords students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena using an introduction to plants and animals that are invading Florida and the U.S.; learning why biological invaders are second only to habitat destruction as threatens to natural ecosystems; what makes some species invasive; how to control or prevent invasions; where international commerce may be regulated; and who is affected by such issues. This course affords students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.
Attributes: General Education - Biological Science

PLS 2002 Biological Factors Affecting Food Systems 3 Credits
Grading Scheme: Letter Grade
The role and use of pesticides in contemporary society; agriculture, urban pest control and public health. Characteristics of pesticide classes, how they work, toxicity, degradation, regulation and related environmental issues. (B)
Prerequisite: Quest 1 course with a minumum grade of C.
Attributes: Quest 2

PLS 2003C Plants That Feed the World 3 Credits
Grading Scheme: Letter Grade
Introduction of 25 of humankind's most important food crop plants with emphasis on soil and climatic adaptations. Major producers and consumers, nutritional attributes, processing needs and types of products. Students will see the plants and seeds, as well as food and industrial products of the crop plants under study. This is an introductory course for majors and non-majors who have no previous academic experience with food crop plants. This course affords students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.
Attributes: General Education - Biological Science

PLS 2030 The Evolution Of Eating 3 Credits
Grading Scheme: Letter Grade
This course will explore the history of agricultural innovations while examining their social, political, economic, and environmental consequences within the context of the global food system. Through analysis of how eating evolved, we will formulate ideas on how global food systems will change and function in the future. This course affords students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.
Prerequisite: Quest 1 course with minimum grade of a C.
Attributes: Quest 2, General Education - Biological Science, General Education - International

PLS 3004C Principles of Plant Science 3 Credits
Grading Scheme: Letter Grade
Introduces the principles and practices of plant production systems. An overview of plant evolution, anatomy, physiology, improvement, pest, water and nutrient management as applied to a variety of plant production systems.
Prerequisite: BOT 2010C or BSC 2010.

PLS 4601C Principles of Weed Science 3 Credits
Grading Scheme: Letter Grade
Introduces basic and applied aspects of weed science. Topics include weed biology and ecology, herbicide physiology, and weed control techniques. The lab covers weed identification, herbicide application technology, and other aspects of weed science.
Prerequisite: PLS 3004C.

PLS 4613 Aquatic Weed Control 3 Credits
Grading Scheme: Letter Grade
Florida's aquatic weed problems and methods of chemical, biological, mechanical and physical weed control. Topics include plant biology/ecology, herbicide residue, lake reclamation, fish-plant interactions and laws regulating aquatic weed control.
Prerequisite: refer to the department.

PLS 4941 Practical Work Experience 1-3 Credits
Grading Scheme: S/U
Practical, hands-on experience in the plant sciences through a paid internship in the industry. This must be a new experience and related to the student's field of study. One month of full-time work is required for each credit.
Prerequisite: Plant Science major of junior standing or higher.