



DEPARTMENT OF PLANT AND SOIL SCIENCES

WHAT IS PLANT PROTECTION?

Plant Protection focuses on keeping plants healthy---from diagnosing diseases to implementing environmentally friendly pest-management practices. With an ever-expanding population and increasing pressure on food and fiber supplies, Plant Protection plays a vital role in improving our quality of life.

AREAS OF EMPHASIS AT DELAWARE

Plant Protection (PLPR) studies both the basic and applied aspects of insect pests, plant diseases, and weeds. It includes courses emphasizing recognition of pests and strategies for pest management compatible with agriculture and the environment.

The major builds from a foundation of basic laboratory and lecture courses, like biology and chemistry. From there, students move into more specific courses in entomology and plant science, including plant pathology, genetics, botany, and soil science. An array of courses in mathematics, computers, English, social sciences, literature and the arts are included to ensure breadth in the education. There is also plenty of room for electives, which allows students to pursue

other academic interests. A faculty advisor works closely with each student to assist in course selection and career planning.

WHAT'S SPECIAL ABOUT THE PROGRAM?

At the University of Delaware, Plant Protection majors work closely with the faculty of two departments—Entomology & Wildlife Ecology and Plant & Soil Sciences. Their expertise spans a wide range of specialties, and their experience and real-world connections are invaluable. Not only do students learn from professors in class, but they get to know them and seek professional guidance from them outside of lecture and lab. Students here work with faculty on research projects, as part of the Science and Engineering Scholars program and in independent studies. Faculty are also great resources for leads on internships, part-time jobs, graduate school and more.

FACILITIES AND RESOURCES

The College of Agriculture and Natural Resources houses the Plant Protection major. From the modern Fischer Greenhouse Laboratory to the expansive University of Delaware Botanic Gardens, Plant Protection majors utilize an array of exciting resources. Townsend and Worrell Halls contain faculty

offices, classrooms, laboratories and insect collections, as well as a student commons, library and modern computing site with geographic information systems, Web and email access, and computer-aided design software. Also located on our complex is the USDA Beneficial Insects Introduction Research unit, a site often used for student internships. Besides the facilities on the Newark campus, the College has facilities throughout the state that can broaden the students learning and research experiences.

CAREER PATHS

A degree in Plant Protection, combined with good experience and strong academics, can lead to a variety of careers—from the lab to the field to the office. Companies like DuPont, Monsanto, Syngenta and many more hire Plant Protection graduates for positions in pest management, field consulting, sales, and research. While some students choose to enter the workforce right out of college, others opt for graduate school in areas like plant pathology, entomology, integrated pest management, weed science and agronomy. All students are encouraged to participate in job search workshops and career days; to seek internships; to develop communication skills; and to network with prospective employers. This, in addition to doing well academically, greatly enhances post-graduate opportunities.

THE PLANT PROTECTION CURRICULUM

Starting with the first semester, Plant Protection majors usually have at least one course in the major each term. To earn a bachelor's degree, students must complete **124 credits** and meet the specific requirements for their major, as outlined in the *University of Delaware Undergraduate Catalog*. Each semester's courses will vary, depending on the student's background and academic preparation. **The following plan is only one example; not every student will take every course in the same order.** The average number of credits per semester ranges from 12 -17; Winter and Summer sessions may be used to lighten the loads of regular semesters.

FRESHMAN YEAR

FALL SEMESTER

- Botany I (4 cr.) *Introduction to botany, including cell structure and function, anatomy, genetics, reproduction, physiology, taxonomy and ecology of plants. Includes one 2-hr. lab/week.*
- Mathematics (3 cr.) *The first math course is determined by the student's background, SAT scores, and a math placement test.*
- New Student Seminar (1 cr.) *Focus on academics, careers and resources as they relate to success in college.*
- General Chemistry (4 cr.) *Fundamental laws of chemical action and the properties and uses of elements and compounds. Includes one 3-hr. lab/week.*
- Breadth Requirement* (3 cr.)

SPRING SEMESTER

- Botany II (4 cr) *Focus on algae, bacteria, fungi, liverworts, mosses, ferns, horsetails, quillworts, gymnosperms and angiosperms. Includes lab.*
- Elements of Entomology (3 cr.) *Lives of insects, emphasizing interactions with humans. Basic identification, structure and function, behavior, ecology, evolution, history and culture.*
- Critical Reading and Writing (3 cr.) *Expository & argumentative composition through analysis of select readings.*
- General Chemistry II (4 cr.) *A continuation of first-semester chemistry. Includes one 3-hr. lab/week.*
- Introduction to Crop Science (3 cr.) *Plant structure and plant processes with practical application to the production and management of commercial crops.*

* There's a total of 21 University and College Breadth credits required for this degree including a minimum of nine credits from any three different College of Agriculture and Natural Resources subject area codes, outside the subject area codes of the student's major. Twelve credits are required (3 from each) from the following categories: Creative Arts and Humanities; History and Cultural Change; Social and Behavioral Sciences; Mathematics, Natural Sciences and Technology. At least one course in multicultural studies must be taken to fulfill graduation requirements.

SOPHOMORE YEAR

- Introductory Biology I & II (8 cr.)
- Introduction to Plant Pathology (4 cr.)
- Entomology Laboratory (2 cr.)
- Plant Science Courses (6-8 cr.)
- Entomology or Plant Science course (3-4 cr.)
- Breadth Requirements*
- Electives

JUNIOR AND SENIOR YEAR

- Entomology Seminar (1 cr.)
- Weed Biology and Control (4 cr.)
- Insect Identification (3 cr.)
- Integrated Pest Management (3 cr.)
- Entomology and Plant Science courses (9-12 cr.)
- Internship (3 – 6 cr.)
- Breadth Requirements*
- Electives

FOR MORE INFORMATION

You are welcome to come talk with us about our majors and the ways in which we can help you reach your goals. Please contact us:



College of Agriculture
& Natural Resources

The College of Agriculture and Natural Resources
104 Townsend Hall
Newark, DE 19716-2103
302/831-2508
FAX: 302/831-1360
Email: academics@anr.udel.edu
<http://ag.udel.edu>

The Office of Undergraduate Admissions
210 South College Av.
Newark, DE 19716-6210
302/831-8123
FAX 302/831-6905
Email: admissions@udel.edu
<http://www.udel.edu/admissions/>