

Experience.  
Explore.  
Discover.  
Achieve.

Departments  
and Programs  
in the College  
of Science

Biochemistry &  
Biophysics

Biology

Botany & Plant  
Pathology

Chemistry

Environmental  
Sciences

Geosciences

Mathematics

Microbiology

Molecular &  
Cellular Biology\*

Physics

Pre-professional  
Programs in the  
Health Sciences

Professional  
Science Masters\*

Science &  
Mathematics  
Education\*

Statistics\*

Zoology

\*graduate program only

# Botany & Plant Pathology

...the scientific study of plants. Botanists examine the structure, function, and classification of plants as organisms and relate them to their habitats, to their distribution in the world, and to other forms of life. In addition, botanists use plants as a vehicle to study the chemical, physical, and genetic processes common to all living things. Plant pathologists study diseases of plants caused by various microorganisms and environmental stress. Their goal is to protect food and fiber crops from loss by devising biological, cultural, and chemical disease management strategies.

## Career Opportunities

A bachelor's degree in botany prepares you for a career in most areas of biology. Opportunities exist in education, public service, and research, as well as in agricultural and ornamental crop production. Jobs are found wherever people are concerned with food production, energy supplies, and environmental quality. Although many botany majors continue their studies in graduate school, others find satisfying careers immediately after graduation. Some graduates with a B.S. degree are employed as:

Graduate students at major universities

Peace Corps volunteers

Field botanists doing endangered plant surveys

Laboratory and field research assistants

Park naturalists

Nursery consultants

Oregon State University is the only academic institution in Oregon where students can earn an undergraduate degree in botany. The varied geography, climate, and vegetation of Oregon, as well as its diverse managed crops, make this state an ideal place for the study of plant science. Natural vegetation ranges from coastal, temperate rain forests; through inland valley ecosystems with a Mediterranean-type climate; to both humid and dry mountain forests, shrublands, and grasslands.

The Department of Botany and Plant Pathology offers an excellent botany program. Faculty members in the Department of Botany and Plant Pathology have a broad range of interests in the fundamental and applied areas of botany and plant pathology. Most faculty engage in research, and students can gain valuable experience by participating in various research projects directed by faculty. Such opportunities also stimulate interaction with graduate students and research associates.

The Department of Botany and Plant Pathology, with its modern research laboratories and teaching classrooms and laboratories, is housed in Cordley Hall. Special facilities of the department include the Herbarium, a collection of over 360,000 named, preserved specimens of flowering plants, ferns, mosses, algae, and fungi of the Northwest; the Plant Disease Clinic, a service for identifying plant disease problems; and the Electron Microscopy Laboratory, a service facility for the entire campus that offers modern instrumentation for both transmission and scanning electron microscopy. Greenhouses and experimental farms are close by, and McDonald Forest, Peavy Arboretum, and the OSU Hatfield Marine Science Center at Newport are also used for research.



# Botany & Plant Pathology

## What to know about Oregon State University

Head Advisor  
College of Science  
128 Kidder Hall  
541-737-4811

OSU Admissions  
104 Kerr Administration  
541-737-4411  
800-291-4192

OSU Financial Aid  
Student Employment  
Loans & Scholarships  
College Work Study  
218 Kerr Administration  
541-737-2241

OSU Registrar  
102 Kerr Administration  
541-737-4331

OSU Housing  
102 Buxton Hall  
541-737-4771

OSU Website  
<http://oregonstate.edu>

## For more information, please contact:

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## Course of Study

A study program can be designed to fit your interests. You can explore related fields by selecting courses offered by the College of Science or courses offered by the Colleges of Forestry and Agricultural Sciences. Your program can be general, or you can emphasize a specific area by selecting one of the following options: plant ecology and systematics; plant molecular genetics and biotechnology; fungal biology; botanical research; or pre-professional teaching. Basic courses in the biological and physical sciences are required of all students but there is abundant opportunity to pursue special interests through the University baccalaureate core (BC) and elective credits. Requirements for graduation include 48 credits needed for the baccalaureate core, consisting of writing/speech (9 cr.), mathematics (3 cr.), fitness (3 cr.), physical and biological sciences (12 cr.), western culture/cultural diversity/literature & arts/social processes/difference, power, and discrimination (15 cr.), and contemporary global issues/science, technology and society (6 cr.).

## Sample Curriculum

An official graduation checklist may be obtained from an advisor.

Freshman and Sophomore Years		credits
Biology	BI 211, 212, 213	12
Cell and Molecular Biology	BI 314	4
General Chemistry	CH 121, 122, 123, or CH 221, 222, 223	15
Calculus	MTH 251, 252 or MTH 241, 245	8
Organic Chemistry	CH 331, 332	8
Systematic Botany	BOT 321	4
BC: Writing I, II, III		9
BC: Fitness		3
BC: Perspectives		5
BC: Computer science literacy	CS 101 or other	4
Electives		9
Junior and Senior Year		credits
General Physics	PH 201, 202, 203	15
Statistics	ST 351	4
Biochemistry	BB 350 or BB 450 & BB 451	4 or 7
Nonvascular Plants	BOT 416 or 461 or 465 or 466	4
Plant Structure	BOT 313	4
Plant Physiology	BOT 331	4
Experimental Plant Physiology	BOT 332	3
Plant Ecology	BOT 341	4
Plant Pathology or Microbiology	BOT 350 or MB 302	4 or 3
Genetics	BI 311	4
Additional upper-division biology from College of Science, outside Botany		4
BC: Synthesis		6
BC: Writing intensive course		3
Electives		26–30

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