Plant Biology

The Plant Biology program provides students with a deep understanding in botany and a broad knowledge in biology in general. It provides background in chemistry and mathematics to meet the requirements for graduate and professional schools (medical, dental, pharmacy, law schools). Plant Biology graduates are in high demand for jobs in government agencies, non-governmental organizations, industry, and education.

Curriculum

**Plant Biology majors develop the following skills:**

- Develop an understanding of the principles of cellular and molecular biology, genetics, ecology, and evolution
- Acquire a foundation in chemistry, physics and quantitative skills
- Develop critical thinking and communication skills
- Develop an appreciation for the diversity, complexity, and unity of life
- Understand current issues in biology
- Critically evaluate scientific evidence
- Engage in scientific inquiry
- Access electronic and print databases and resources
- Apply theoretical knowledge to practical situations
- Use analytical thinking to learn to analyze and interpret research findings and other data related to your experiments and lab work

Job and Internship Websites

- American Society of Plant Biologists
  http://my.aspb.org/?page=Career_Center
- American Institute of Biological Sciences
  http://www.aibs.org/classifieds/
- Botanical Society of America
  http://botany.org/careers/postingads.php
- Chicago Botanic Garden
  http://www.chicagobotanic.org/internship
- Environmental Career Opportunities
  http://www.ecojobs.com
- Ecological Society of America
  http://esa.org
- Natural Resources Conservation Services
- Missouri Botanical Garden
  http://www.missouribotanicalgarden.org
- Monsanto
  http://www.monsanto.com/careers/
- NASA
  http://nasajobs.nasa.gov
- National Institute of Environmental Health Sciences
  http://www.niehs.nih.gov/careers/jobs/index.cfm
- National Science Foundation
  http://www.nsf.gov/careers/openings/
- Office of Science
  http://science.energy.gov/about/jobs
- Research Gate
  http://researchgate.net/jobs/
- Science Careers
  http://www.sciencecareers.org
- The American Society of Plant Taxonomists
  www.aspt.net/careers
- The Student Conservation Association
  http://thesca.org
- The New York Botanical Garden
  http://www.nybg.org/science/intern/
- The Field Museum
  http://www.fieldmuseum.org/about/careers
- United States Department of Agriculture
  http://www.ars.usda.gov/Careers/Careers.htm

Get Involved

OSU Botanical Society (OSUBS)
ECO - OSU
Environmental Science Club
Beta Beta Beta Honor Society

A complete list of student clubs and organizations can be found online at: https://campuslink.okstate.edu

College of Arts & Sciences Career Services
213 Life Science East
Tel: 405 744 5658

For appointments and resources: http://cascareers.okstate.edu
Plant Biology Career Paths...

Plant biologists who like to be outdoors include ecologists and taxonomists. They often work for federal and state agencies and conservation organizations. For example, they may evaluate the effects of pollution (such as acid rain) on plants and work toward environmental protection. Or they may identify plant species and document their geographic distributions. They may evaluate all plant species that occur in a particular habitat, such as the tall grass prairie or the eastern deciduous forest.

Plant biologists who enjoy working in the laboratory may utilize their skills in the field of biotechnology to develop new or improved plants, such as introducing genes that provide drought tolerance. They may be employed by federal and state agencies, or in industries that deal with plants and plant products, such as agricultural and pharmaceutical companies.

Plant Biology also has a place in the classroom and careers include teaching at the college and K-12 grade level.

### Job Titles

- Community Agency Worker
- Agronomist
- Cooperative Extension Agent
- Field Contractor
- Nature Photographer
- Journalist
- Landscape Architect
- Horticulturist
- Naturalist Patent Specialist
- Plant Geneticist
- Public Health Administrator
- Botanist
- Plant Quarantine Specialist
- Wine Maker
- Scientific Librarian
- Physician
- Consumer Advocate
- Taxonomist
- Conservation Expert
- Food Buyer
- Food Technologist
- Forester
- Irrigation Engineer
- Lab Technician
- Natural Resource Manager
- Research Assistant
- Ecologist
- Quality Control Specialist
- Technical Writer
- Environmental Health Educator
- National Park Service Employee
- Food & Drug Inspector
- Crop Physiologist
- Forest Engineer
- Teacher/Professor

### Types of Employers

- Biological Supply Houses
- Biotechnology Companies
- Botanic Gardens & Museums
- Consumer Affairs
- Chemical Manufacturers & Suppliers
- Conservation Organizations
- Crop and Soil Management Firms
- Department of Interior
- Ecological Consulting Companies
- Environmental Regulatory Agencies
- Environmental Consulting Firms
- Floral Organizations
- Fermentation Organizations
- Food Manufacturers
- Forest Management Agencies
- Lumber and Paper Companies
- Municipal Governments
- Nurseries and Greenhouses
- Pharmaceutical Firms
- Peace Corps
- Petrochemical companies
- Public and Private Schools
- Public Health Service
- Research Laboratories
- Scientific Equipment Manufacturers & Suppliers
- Shade Tree Commission
- State Department
- NASA
- USDA
- US Food and Drug Administration
- US Forest Service
- Weed Control Industry