

BOTANY

What can I do with this major?

AREAS

EMPLOYERS

STRATEGIES

PLANT BIOLOGY

Anatomy
Biochemistry
Biophysics
Cytology
Ecology
Genetics
Molecular Biology
Morphology
Paleobotany
Physiology
Systematics
Systems Ecology
Taxonomy

Research organizations
Colleges and universities
Museums
Botanical gardens and arboreta
U.S. Department of Agriculture branches
 including Medical Plant Resources Laboratory,
 Germplasm Resources Laboratory, Animal and
 Plant Health Inspection Service, National
 Arboretum, U.S. Forest Service
Federal agencies including Departments of
 Interior and State, U.S. Public Health Service,
 National Aeronautics and Space
 Administration, the Smithsonian Institution, and
 Environmental Protection Agency
State agencies
Environmental and biotechnical regulatory
 agencies
Ecological consulting companies
Industries including petrochemical, chemical,
 and lumber and paper
Companies including pharmaceutical, food, seed
 and nursery, fruit growers, biological supply
 houses, and biotechnology firms

Obtain a Ph.D. for teaching and advanced research
positions.
Conduct undergraduate research with professors to
gain experience.
Apply for undergraduate research fellowships or other
student research programs.
Maintain a high grade point average and develop good
references in preparation for graduate school.
Develop excellent computer skills.
Join related professional associations.
Read scientific journals or articles to stay abreast of
current research.
Learn federal and state government job application
process.

APPLIED PLANT SCIENCE

Agronomy
Biotechnology
Breeding
Economic Botany
Food Science and Technology
Forestry
Horticulture
Natural Resource Management
Plant Pathology

Colleges and universities
Research organizations
Agriculture industry including lumber and paper,
 seed and nursery, fruit and vegetable growers,
 fermentation, food industry, and biological
 supply houses
Biotechnology firms

Take courses or double major in your area of interest.
Gain relevant experience through volunteer positions,
part-time work, or internships.
Obtain a Ph.D. for teaching, advanced research
positions, and administration.
Learn a foreign language for international work such as
plant studies in the tropics.

AREAS	EMPLOYERS	STRATEGIES
<u>Applied Plant Science, Continued</u>	<u>Applied Plant Science, Continued</u> Industries including petrochemical, pharmaceutical, and chemical Ecological consulting companies Federal, state, and local government agencies Environmental and biotechnical regulatory agencies	<u>Applied Plant Science, Continued</u> Learn federal, state and local government job application process.
<u>ORGANISMIC SPECIALTIES</u> Bryology Lichenology Microbiology Pteridology Mycology Phycology/Marine Botanists	Colleges and universities Research organizations Federal and state government laboratories including Agriculture, Health, etc. Pharmaceutical companies Food and beverage industries including brewing and fermentation Hospitals Related industries	Gain experience working with technology. Become familiar with laboratory procedures and equipment. Assist a professor with research or find a part-time job in a laboratory. Obtain a graduate degree in area of interest.
<u>EDUCATION</u> Teaching Research Administration	Public and private high schools Colleges and universities Museums, botanical gardens and herbaria	Gain certification or licensure for high school science teaching. Obtain a Ph.D. for positions in college teaching and research. Gain experience through tutoring. Learn to work well with different types of people.
<u>COMMUNICATION</u> Writing Editing Botanical Illustration	Publishing companies including newspapers, magazines, books, and textbooks Professional associations Scientific and educational software companies Non-profit organizations	Take courses in technical writing, journalism, or illustration. Develop word processing and desktop publishing skills or computer-aided design. Find an internship with a magazine, newspaper, or publisher. Obtain a master's degree in scientific journalism.

AREAS

EMPLOYERS

STRATEGIES

LAW

Agricultural
Environmental
Biotechnological

Law firms with environmental focus
Government agencies and regulatory agencies
Biotechnical regulatory firms or agencies

Obtain law degree after completion of bachelor's degree.
Gain relevant experience by working at a law firm.

BUSINESS

Sales/Marketing
Administration/Management

Pharmaceutical companies
Seed companies
Biotechnology firms
Scientific publishers
Biological supply houses

Earn a minor in business.
Hold leadership positions in campus organizations.
Join related professional associations.
Develop good communication skills; take a course in public speaking.
Learn various software packages including spread sheets, databases, and word processing.

COMPUTER PROGRAMMING

Scientific and educational software companies

Double major or minor in computer programming.
Gain related work experience through internships or part-time and summer jobs.

GENERAL INFORMATION

- Bachelor's degree qualifies one for work as a laboratory technician or technical assistant in education, industry, government, museums, parks, and gardens.
- Master's degree opens some opportunities in research and administration.
- Ph.D. is required for advanced research and administrative positions or college teaching. Most plant scientists work in higher education.
- Build good relationships with science professors and secure strong recommendations. Maintain a high g.p.a. for graduate school admission.
- Obtain part-time, summer, co-op, volunteer, or internship experience with government agencies, college/university labs, agricultural experiment stations, freshwater and marine biological stations, or private companies.
- Complete an undergraduate research project to decide on a specific area of interest in botany.
- Enjoy outdoor activities if planning to conduct research in an outdoor environment.
- Join organizations concerned with the world food supply and other related areas. Read scientific journals related to botany.
- Develop an excellent background in mathematics and strong verbal and written communication skills.
- Select a broad range of courses in English, social sciences, arts, and humanities.
- Become proficient with computers.