

BOTANY

What can I do with this degree?

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

Applied Plant Science, Continued

Applied Plant Science, Continued

Industries including petrochemical, pharmaceutical, and chemical
Ecological consulting companies
Federal, state, and local government agencies
Environmental and biotechnical regulatory agencies

Applied Plant Science, Continued

Learn federal, state and local government job application process.

ORGANISMIC SPECIALTIES

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.

EDUCATION

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.

COMMUNICATION

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
<u>LAW</u> 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.
<u>BUSINESS</u> 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.
<u>COMPUTER PROGRAMMING</u>	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.