# BOTANY

What can I do with this degree?

## PLANT BIOLOGY

<table>
<thead>
<tr>
<th>Areas</th>
<th>Employers</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>Research organizations</td>
<td>Obtain a Ph.D. for teaching and advanced research positions.</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>Colleges and universities</td>
<td>Conduct undergraduate research with professors.</td>
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<tr>
<td>Biophysics</td>
<td>Museums</td>
<td>Apply for undergraduate research fellowships or other student research programs.</td>
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<tr>
<td>Cytology</td>
<td>Botanical gardens and arboretums</td>
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<tr>
<td>Ecology</td>
<td>U.S. Department of Agriculture branches including Medical Plant Resources</td>
<td>Develop excellent computer skills.</td>
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<tr>
<td>Genetics</td>
<td>Laboratory, Germplasm Resources Laboratory, Animal and Plant Health</td>
<td>Join related professional associations.</td>
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<tr>
<td>Molecular Biology</td>
<td>Inspection Service, National Arboretum, U.S. Forest Service</td>
<td>Learn federal and state government job application process.</td>
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<tr>
<td>Morphology</td>
<td>Federal agencies including Departments of Interior and State, U.S. Public</td>
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<tr>
<td>Paleobotany</td>
<td>Public Health Service, National Aeronautics and Space Administration, the</td>
<td></td>
</tr>
<tr>
<td>Physiology</td>
<td>Smithsonian Institution, and Environmental Protection Agency</td>
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<tr>
<td>Systematics</td>
<td>State agencies</td>
<td></td>
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<tr>
<td>Systems Ecology</td>
<td>Ecological consulting companies</td>
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<tr>
<td>Taxonomy</td>
<td>Industries including petrochemical, chemical, and lumber and paper</td>
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<tr>
<td></td>
<td>Companies including pharmaceutical, food, seed and nursery, fruit growers</td>
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<tr>
<td></td>
<td>, biological supply houses, and biotechnology firms</td>
<td></td>
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<tr>
<td></td>
<td>Environmental and biotechnical regulatory agencies</td>
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</tbody>
</table>

## APPLIED PLANT SCIENCE

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<tr>
<th>Areas</th>
<th>Employers</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agronomy</td>
<td>College and universities including Departments of Agriculture</td>
<td>Take courses or double major in your area of interest.</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>Research organizations</td>
<td>Learn a foreign language for international work.</td>
</tr>
<tr>
<td>Breeding</td>
<td>Agriculture industry including lumber and paper, seed and nursery, fruit</td>
<td>Gain relevant laboratory research experience through volunteer positions, part-time work, or</td>
</tr>
<tr>
<td>Economic Botany</td>
<td>and vegetable growers, fermentation, food industry, and biological supply</td>
<td>internships.</td>
</tr>
<tr>
<td>Food Science and Technology</td>
<td>houses</td>
<td></td>
</tr>
<tr>
<td>Forestry</td>
<td>Biotechnology firms</td>
<td>Obtain a Ph.D. for teaching, advanced research positions, and administration.</td>
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<tr>
<td>Horticulture</td>
<td></td>
<td></td>
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<tr>
<td>Natural Resource Management</td>
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<tr>
<td>Plant Pathology</td>
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</tbody>
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### AREAS

**Applied Plant Science, Continued**

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

**Bryology**

- 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

**Lichenology**

**Microbiology**

**Pteridology**

**Mycology**

**Phycology**

**ORGANISMIC SPECIALTIES**

**EDUCATION**

- Colleges and universities
- Museums, botanical gardens and herbaria
- Non-profit organizations

**Teaching**

**Research**

**Administration**

A master's degree is a minimum requirement for most areas.

Obtain a Ph.D. for positions in college teaching, research, and advanced administration.

Gain experience through tutoring.

Learn to work well with different types of people.

**WRITING**

- Publishing companies including newspapers, magazines, books, and textbooks
- Professional associations
- Scientific and educational software companies
- Non-profit organizations

Take courses in technical writing.

Develop word processing and desktop publishing skills.

Find an internship with a magazine, newspaper, or publisher.

Obtain a master's degree in scientific journalism.
### AREAS

#### LAW
- Agricultural
- Environmental
- Biotechnological

#### EMPLOYERS
- Law firms with environmental focus
- Government agencies and regulatory agencies
- Biotechnical regulatory firms or agencies

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

#### MARKETING AND ADMINISTRATION

<table>
<thead>
<tr>
<th>Sales</th>
<th>Pharmaceutical houses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>Seed companies</td>
</tr>
<tr>
<td>Administration</td>
<td>Biotechnology firms</td>
</tr>
<tr>
<td>Management</td>
<td>Scientific publishers</td>
</tr>
<tr>
<td></td>
<td>Biological supply houses</td>
</tr>
</tbody>
</table>

- Earn a minor in business.
- Hold leadership positions in campus organizations.
- Join student American Marketing Association.
- Develop good communication skills; take a course in public speaking.
- Learn various software packages including spreadsheets, databases, and word processing.

#### ILLUSTRATION

- Scientific publishers
- Colleges and universities
- Educational and scientific software companies
- Non-profit organizations

- Double major or minor in illustration.
- Become competent in computer-aided design.
- Seek related work experience through internships or co-op positions.

#### 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, college teaching, and independent research.
- 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.
- Join organizations concerned with the world food supply and other related areas. Read scientific journals related to botany.
- Develop excellent mathematics and verbal and written communication skills.
- Select a broad range of courses in English, social sciences, arts, and humanities.
- Become proficient with computers.