

# What can I do with a degree in... Botany

COLLEGE OF  
**ARTS &  
SCIENCES**  
Career Services

OSU's program in Botany provides undergraduates with a broad program in plant biology. The Botany Department administers the B.S. in Botany. Together with the Departments of Zoology and Microbiology & Molecular Genetics, we are jointly responsible for the B.S. in Biological Science. To major in botany a student should have a strong interest in science with a good background in chemistry and mathematics. The B.S. curriculum may qualify students for secondary school licensure, for technical positions in plant inspection, for plant breeding programs and for various related activities in private industry such as plant biotechnology. The Department web site: <http://botany.okstate.edu/>

## Botany majors develop the following skills:

**Research Skills:** Design and execute experiments, systematically collect and analyze data, identify sources of error, and interpret the results and reach logical conclusions.

**Critical Thinking Skills:** Botany majors engage in aspects of critical thinking including: differentiate between fact and opinion; develop inferential skills; recognize logical fallacies and faulty reasoning, and; make judgments by drawing logical conclusions using quantitative or statistically-based reasoning.

**Problem-Solving Skills:** Assess the elements of a problem and develop and test a solution based on logic and the best possible information.

**Communications Skills:** Demonstrate competence in written & oral communication.

**Computer Skills:** Imperative for locating, organizing & presenting data and research.

**Information-Seeking Skills:** Able to: recognize when information is needed and to locate, evaluate, and use information effectively.

**Cooperation/Social Responsibility Skills:** Cooperating and working effectively with peers.

*Depending on your desired career path, additional skills may need to be developed to be competitive in the marketplace upon graduation. Make an appointment with a career consultant to design your individual career development plan.*

## College of Arts & Sciences Career Success E-Guide

Provided to all new, incoming students as an introduction to career planning process

**If you don't have an E-Guide...Get one!!!**

**Visit the A&S Career Services Office**

## Questions?

College of Arts & Sciences Career Services  
Student Success Center, LSE 2<sup>nd</sup> Floor  
Stillwater, OK 74078-3016

Visit the A&S website to make an appointment to see a Career Consultant @  
<http://ascareers.okstate.edu>

## Build Skills Beyond the Classroom:

- Join related clubs, professional associations, & organizations
- Athletics/Sports
- Military
- Part-time Employment (Summer/Work Study)
- Internships/Job Shadowing
- Travel/Work Abroad
- Volunteer/Community Service

## Job & Internship Web Sites

- USDA Agricultural Research Service  
<http://www.ars.usda.gov/careers/scientificcareers/>
- BSA's Careers in Botany  
<http://www.botany.org/bsa/careers/>
- Careers in Horticulture  
<http://www.ashs.org/hortcareer.html>
- American Society of Plant Physiologists  
<http://www.aspb.org/>
- American Society of Plant Taxonomists  
<http://www.sysbot.org/>
- American Institute of Biological Science.  
<http://www.aibs.org/index.html>
- America's Job Bank  
<http://www.oesc.state.ok.us/jobnet/>
- Oklahoma Office of Personnel Mgmt.  
<http://www.state.ok.us/~opm/>
- US Office of Personnel Management  
<http://www.usajobs.opm.gov/>
- Carl Albert Public Internship Program  
[http://www.opm.state.ok.us/html/policy\\_capiip](http://www.opm.state.ok.us/html/policy_capiip)
- Tulsa Zoo  
<http://www.tulsazoo.com/>
- Oklahoma City Zoo  
<http://www.okczoo.com/>
- The Student Conservation Assoc. Inc.  
<http://www.sca-inc.org/>
- National Science Foundation  
<http://www.nsf.gov/home/crssprgm/reu/reulist>
- Office of Science  
<http://www.scied.science.doe.gov/>
- Smithsonian Museum of Natural History  
<http://www.mnmh.si.edu/rtp/>
- Environmental Careers Organization  
<http://www.eco.org/> (Lists internships)

# Sample Careers for Botany Majors

## Potential Career Paths

The field of botany is very broad, with many different opportunities available from one industry to another. As highlighted below there are many different opportunities available in the field of botany.

- Government agency measuring toxicity in environment in relation plants, measuring toxicities affect on nature.
- In Laboratories some botanists will do experiments to discover how different plants grow under different conditions.
- Some Botanists will perform experiments in relation to plants converting simple chemical compounds into more complex chemicals and seeking explanations.
- Botany explorers seek new species.
- Administration work in biotechnology organization.
- Teaching Students basics of botany in high schools through field of biology.
- Researching plant development and its relation to DNA.
- Write journal articles for Botanical Association of America about the various fauna and flora.

Students should begin on focusing on job opportunity possibilities during their degree not at the end of it. By obtaining relevant 'hands on' part-time positions, volunteer, internships, work experience with organizations in the field increases your chances of a graduate position success.

It is also not necessary to follow a botany career path if students wish to follow another direction. There are many skills from studying and working in botany that can be attributed to many other science fields and will assist in transition.

## OSU Botanical Society (OSUBS)

Botany undergraduate and graduate students, and anyone interested in plants may participate in OSUBS.

Activities include:

- social events
- special seminars
- educational events
- field trips
- fundraisers
- public service

For additional information visit the OSUBS web site:

<http://www.orgs.okstate.edu/botanical/about.htm>

The College of Arts & Sciences Career Services offers:

**Arts & Sciences 4111**

**Job Search Strategies Course**

(AS 4111) 1 Credit Course

Arts & Sciences Majors (for Juniors & Seniors only)

For Course description visit the Arts & Sciences

Career Services website: <http://ascareers.okstate.edu>

## Sample of Related Occupations

|                             |                               |                               |
|-----------------------------|-------------------------------|-------------------------------|
| Agronomist                  | Botanist                      | Community Agency Worker       |
| Consumer Advocate           | Cooperative Extension Agent   | Crop Physiologist             |
| Ecologist                   | Environmental Health Educator | Field Contractor              |
| Food Buyer                  | Food & Drug Inspector         | Food Technologist             |
| Forest Engineer             | Forester                      | Horticulturist                |
| Irrigation Engineer         | Journalist                    | Lab Technician                |
| Landscape Architect         | Natural Resources Mgr         | Naturalist                    |
| Patent Specialist           | Pest Control                  | Pharmaceutical Sales          |
| Physician                   | Plant Geneticist              | Research Assistant            |
| Public Health Administrator | Quality Control Specialist    | Plant Quarantine Specialist t |
| Sales Representative        | Scientific Librarian          | Taxonomist                    |
| Teacher/Professor           | Technical Writer              | Wine Maker                    |

## Types of Employers

### Private & Non-Profit Organizations

|                            |                        |
|----------------------------|------------------------|
| Biological supply houses   | Laboratories           |
| Botanical gardens          | Lumber/Paper companies |
| Biotechnology firms        | Museums                |
| Chemical manufacturers     | Nature Conservancy     |
| Colleges/Universities      | Nurseries              |
| Conservation organizations | Petrochemical firms    |
| Consulting firms           | Pharmaceutical firms   |
| Crop/Soil mgmt. firms      | Public/Private schools |
| Fermentation organizations | Research facilities    |
| Floral organizations       | Weed control industry  |
| Food manufacturers         | Wholesale distributors |
| Forest management agencies |                        |

### Government Agencies

|                          |                         |
|--------------------------|-------------------------|
| Agricultural Research    | Public Health Service   |
| Consumer Affairs         | Teach for America       |
| County Extension Service | Shade Tree Commission   |
| EPA                      | Smithsonian Institution |
| Department of Interior   | State Department        |
| Municipal Government     | US Dept. of Agriculture |
| NASA                     | US Food & Drug Admin.   |
| Peace Corps              | US Forest Service       |

For further research on career & employment options, utilize any internet search engine. The following websites are a great place to begin:

[www.monstertrak.com](http://www.monstertrak.com)  
[www.quintcareers.com](http://www.quintcareers.com)  
[www.careerbuilder.com](http://www.careerbuilder.com)  
[www.experience.com](http://www.experience.com)

[www.mymajor.com](http://www.mymajor.com)  
[www.monster.com](http://www.monster.com)  
[www.bls.gov/oco](http://www.bls.gov/oco)  
[www.jobcentral.com](http://www.jobcentral.com)