



GRADUATE STUDIES
IN THE DEPARTMENT OF BOTANY AND MICROBIOLOGY
AT THE UNIVERSITY OF OKLAHOMA

The Department of Botany and Microbiology at The University of Oklahoma has world-class faculty and excellent research facilities. The Department offers advanced degrees—M.S., M.N.S., and Ph.D.—in the individual disciplines of Botany and Microbiology, focusing on programs in which the department has established internationally recognized reputations. Our areas of research strength include functional genomics and proteomics, microbial physiology, microbial pathogenesis, ecology, global change, phytoremediation and bioremediation, plant structure, and systematics. Resources include the state's largest herbarium, an electron/confocal microscopy facility, a sequencing facility, a microarray facility, plant growth facilities with three large greenhouses and 10 growth chambers, and a planned genomics research institute. We take pride in the fact that four of our faculty have served as recent Presidents of leading scientific societies, several faculty members serve on editorial boards of international scientific journals, and many are appointed to review panels of national granting agencies. In addition, the Department is consistently one of the top units on campus in procuring outside funding to support its research (\$7,500,000 funding over the last several years).

The combination of Botany and Microbiology in one academic unit provides our graduate students with unique opportunities for interdisciplinary studies not available at other universities. The interaction of researchers results in a ready exchange of ideas applicable to both plants and microorganisms and provides a greater depth of understanding and expertise. The diversity of climate across the state also provides investigators access to numerous ecological habitats with highly varied microbial and plant communities. The University of Oklahoma is able to offer excellent graduate training in both Botany and Microbiology, with an opportunity to expand beyond the confines of the traditional disciplines to explore and capitalize on the interactions of the component units. Clearly, with the easy and ready access to collective knowledge from both disciplines, our graduates are highly competitive and well prepared for entry into a variety of professional positions in government, industry, and academia.

The Department of Botany and Microbiology is located in George Lynn Cross Hall -- a modern nine-story building on the Norman campus that contains teaching classrooms and laboratories, research laboratories, faculty, graduate student and supporting staff offices, a media preparation center, microbiology culture collection and stockroom, and the Bebb Herbarium. The department also operates two greenhouses and several field sites, and is adjacent to the Noble Electron Microscopy Laboratory.

The laboratories and classrooms are well equipped for teaching and research. Examples of available equipment include polymerase chain reaction (PCR) equipment, high-performance liquid chromatographs, a fluorescence detector, spectrophotometers, lyophilizers, fermentors, growth chambers, anaerobic chambers and gassing apparatus, scintillation counters, cell fractionators, cell and tissue disintegrators, infrared gas analyzers, microcomputers, gas chromatographs, mass spectrometers, and ultracentrifuges.

RESEARCH FACILITIES ASSOCIATED WITH THE DEPARTMENT

Robert Bebb Herbarium

The herbarium, located in the department, houses more than 200,000 specimens and is operated jointly by the department and the Oklahoma Biological Survey.

Samuel Roberts Noble Electron Microscopy Laboratory

This campuswide EM center contains one of the most sophisticated collections of electron microscopes, cryogenic and conventional EM preparative equipment in the Southwest. This is a research and educational facility that is the leading EM lab in Oklahoma. More information is available on the Samuel Roberts Noble Electron Microscopy Laboratory website home page (<http://www.ou.edu/research/electron/>).

Greenhouses

Located next to the Botany and Microbiology Building, five greenhouse compartments are used for maintaining and propagating living plant collections for research and teaching. More than 300 species of flowering plants are currently in cultivation. A DNA containment greenhouse is located adjacent to the Botany and Microbiology Building. Graduate students in the botany program maintain their specimens in these growth facilities.

Biological Station

The University of Oklahoma Biological Station, established in 1950, is a permanent field station located on Lake Texoma in the south central part of the state. It is administered through the Department of Zoology and the Department of Botany and Microbiology and provides year-round research facilities.

Microbially Enhanced Oil Recovery Laboratory (MEOR)

This laboratory is a joint effort between this Department and the School of Petroleum and Geological Engineering to improve oil yield by capitalizing on the biological properties of microorganisms to alter the characteristics of pore size in oil-bearing rock.

Oklahoma Biological Survey

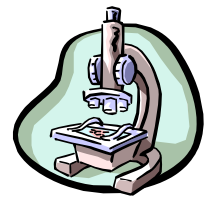
The Oklahoma Biological Survey is an organized research unit on the Norman campus and is a designated state agency. Personnel of the survey are involved in field-oriented inventories within the State. The Survey, through the Oklahoma Natural Heritage Inventory, also conducts research on the status and distribution of rare species, ecologically significant communities, and on other aspects of Oklahoma's biological diversity. More information is available on the Oklahoma Biological Survey website home page (<http://obssun02.ou.edu/biosurvey/home.htm>).

History of Science Collection

The History of Science collection is comparable only to that of Harvard among history of science collections in North America. Located in a special climate controlled facility occupying the fifth floor of the Bizzell Memorial Library, its holdings in biology have impressive breadth and coverage.

You can find a list of our faculty at <http://www.ou.edu/cas/botany-micro/faculty.shtml>. We invite you to visit the faculty web-site for more information about their specialized field of interest.

For more information about our Department and the University, please visit our award-winning website at www.ou.edu/cas/botany-micro/. To enter our graduate degree program, you must first be admitted to the Graduate College of The University of Oklahoma. For application forms from the Graduate College, please go to: <http://gradweb.ou.edu/>. At the same time, request application materials to our Department's graduate program (which is a separate application), from Ms. Adell Hopper at ahopper@ou.edu. Many of our graduate students are supported as research assistants by individual faculty investigators. **We also offer graduate teaching assistantships for 9-month appointments with the option of teaching during the summer for additional money. For highly qualified students, we award scholarships and fellowships to augment their assistantships.** If you have questions about our graduate program, please contact the Department Chair, Dr. Gordon E. Uno at guno@ou.edu (405/325-4321). Good luck in your future studies, which we hope will include The University of Oklahoma!



Department Of Botany And Microbiology

The University of Oklahoma

770 Van Vleet Oval #136

Norman OK 73019

APPLICATION FOR ADMISSION AND ASSISTANTSHIP

NOTE: Applications should be submitted to the Chairperson of the Department no later than **April 1st** for the Fall Semester, **September 1st** for the Spring Semester, and **February 1st** for the Summer Semester. It is important that all Letters Of Recommendation, transcript(s), and any other credentials be received by the same date.

Mr./Ms. _____ Soc. Sec. No.: _____
(Circle) (Surname) (First) (Middle Initial)

Permanent Address: _____ Telephone: _____
(Business Address unacceptable)

Mailing Address: _____ Telephone: _____

Date of Birth: ___/___/___ Place: _____ (Married ___/Single ___) Children (Ages): _____

College Major: _____ Minor: _____ Citizenship: _____

Proposed major subject of study: _____

Extracurricular Activities and Honors (College): _____

Membership in Professional or Scientific Organizations: _____

Books, Pamphlets or Articles Published: _____

List any Physical or Health Conditions (past or present), that have caused you to miss classes, be absent from work or may require special consideration on field trips:

REFERENCES: At least 3 Letters of References should be sent directly to the Department Chair.

	<u>NAME</u>	<u>TITLE</u>	<u>ADDRESS</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

Your application file should include **Application to the University**, **official transcript(s)** of your college record indicating grades (sent to Office of Admission), a **detailed letter** outlining your plans and purposes with a brief description of any relevant work experience in science, **Summary of College Work**, **3 letters of recommendation**, **GRE score** (Microbiology majors only), and International applicants should include **TOEFL Score** less than 2 years old (strongly recommended). You may also submit **any other documents or credentials** that you feel to be pertinent for consideration.

Appointment applying for: None / Teaching / Research / Other _____ Date Available: _____

E-Mail Address: _____ Signature: _____

* Undergraduate or Graduate

(Surname, First, Middle Initial)

SUMMARY OF COLLEGE WORK

[NOTE: This form MUST be completed; Transcripts will not be used in its place]

COURSE NUMBER	DESCRIPTIVE TITLE	YEAR TAKEN	HOURS* U / G	GRADE	WHERE TAKEN
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BIOLOGICAL SCIENCES:

TOTAL NUMBER OF HOURS:

PHYSICS:

TOTAL NUMBER OF HOURS:

CHEMISTRY:

TOTAL NUMBER OF HOURS:

MATHEMATICS:

TOTAL NUMBER OF HOURS:

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LETTER TO SUPPORT APPLICATION FOR GRADUATE ADMISSION

Applicant: _____ Applicant's Field: Botany ___ Microbiology ___
EEB ___ MNS ___

INSTRUCTIONS:

We are particularly interested in the applicant's ability to carry on advanced study and research, teaching ability, and capacity to pursue a successful career in the area of biological sciences. Your opinion of this applicant's ability and promise would be appreciated. This form should be returned directly to the Department of Botany and Microbiology at the address indicated above. Thank you for your time.

Among approximately _____ students I have known in this field in recent years, I would rank this applicant in the upper _____%.

Would you be willing to accept this applicant on your staff or in your laboratory? _____

Signature: _____

Date: _____

Type or Print Name: _____

Position: _____

Institution: _____

Country: _____

(If outside of U.S.A.)

Address: _____

E-Mail Address: _____

OTHER USEFUL INFORMATION

We thank you for your interest in our graduate programs in the Department of Botany and Microbiology at the University of Oklahoma. If you would prefer a hard copy of this Department Information Packet, please send us your complete mailing address.

ECOLOGY & EVOLUTIONARY BIOLOGY PROGRAM

An EEB Ph.D. program is also offered in Botany & Microbiology and Zoology departments at the University of Oklahoma. Please visit our web-site at <http://www.ou.edu/eeb/>.

GRADUATE MAJOR CODES

The University application will ask "in what area do you plan to do your major work," so you should refer to the major code web-site at <http://www.ou.edu/bulletins/application/grad-mjrcodes.pdf> or indicate one of the following:

0402M	Botany (MS)
0402R	Botany (PhD)
0411M	Microbiology (MS)
0411R	Microbiology (PhD)
1901M	Natural Science (M Nat Sciences)
0420R	Ecology & Evolutionary Biology: Botany & Microbiology (PhD)

CHECKLIST OF ADMISSION APPLICATION

[All documents MUST be mailed in with original signatures]

To Department (for Admission Committee Use: 770 Van Vleet Oval, Norman OK 73019):

Web-site: www.ou.edu/cas/botany-micro/

1. Department Admission and Assistantship
2. Summary of College Work (Committee requires this summary taken from transcript)
3. Letter of Intent (Statement of Purpose)
4. 3 Letters of Recommendation (On Department form or letterhead with signatures)
5. GRE Score (required for Microbiology majors, recommended for Botany majors)

To OU Office of Admissions (1000 Asp Ave., Norman OK 73019-4076):

Web-site: <http://admissions.ou.edu/admissions.htm>

1. University Application (<http://admissions.ou.edu/AM-2PG.pdf>);
or OU graduating senior application (<http://admissions.ou.edu/AdmGradSr.html>)
2. Official Transcripts (from each school attended)
3. Application fee (University will not waive as it is used to process applications)