



## College of Arts and Sciences

Main Office  
 General Academic Building, 210  
 P.O. Box 305189  
 Denton, TX 76203-5189  
 (940) 565-2497  
 Web site: [www.cas.unt.edu](http://www.cas.unt.edu)

### Warren Burggren, Dean

Jean B. Schaake, Associate Dean  
 Kathryn Gould Cullivan, Associate Dean  
 Michael Monticino, Associate Dean

### Programs of Study

The College of Arts and Sciences, through its disciplines of humanities and arts, social sciences and sciences, offers course work leading to the following degrees:

- Master of Arts,
- Master of Fine Arts,
- Master of Science,
- Doctor of Audiology, and
- Doctor of Philosophy degrees.

Master's degrees are offered by all academic departments in the college. Among the more specialized master's programs are the master's degree with

a major in English as a second language offered by the Department of English and a master's degree in speech pathology offered by the Department of Speech and Hearing Sciences.

Doctoral programs in the college typically reflect the areas of academic specialization or focus of the various departments (see individual departmental descriptions in this catalog for specific information). All areas offer challenging programs that provide students with the opportunity to become experts in their chosen fields. A major emphasis in the college is to train graduate students in the fundamentals of research and to prepare them, especially on the doctoral level, to be critical thinkers who can advance human knowledge through research.

The college is composed of 17 academic departments.

- Biological Sciences
- Chemistry
- Communication Studies
- Dance and Theatre
- Economics
- English
- Foreign Languages and Literatures
- Geography
- History
- Journalism
- Mathematics
- Philosophy and Religion Studies
- Physics
- Political Science
- Psychology
- Radio, Television and Film
- Speech and Hearing Sciences

## Research

Innovative research in the arts, humanities and social sciences is under way in such areas as technical writing, regional history, health psychology and applied communication skills. Research programs in the natural sciences, mathematics and technologies cover the fields of biology, chemistry, physics, mathematics and environmental science. Research initiatives within these fields include molecular biology and biotechnology, neuroscience, applied geography, environmental toxicology, artificial intelligence, environmental health, image processing, organometallic chemistry, laser and accelerator-based physics, materials characterization, and applications of geographic information systems.

## Advising

For general information, contact the Toulouse School of Graduate Studies. For specific requirements for graduate degrees, contact the appropriate department chair or graduate adviser.

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# Department of Biological Sciences

Main Departmental Office  
Biology Building, 210

P.O. Box 305220  
Denton, TX 76203-5220  
(940) 565-2011  
Fax: (940) 565-3821

Web site: [www.biol.unt.edu](http://www.biol.unt.edu)

## Art J. Goven, Chair

*Graduate Faculty:* Atkinson, Ayre, Beitinger, Benjamin, Burggren, Chapman, Dickson, Dickstein, Dzialowski, Fitzpatrick, Fuchs, Goven, Gross, Jagadeeswaran, Kennedy, Kunz, LaPoint, O'Donovan, Padilla, Pirtle, Root, Schafer, Schwark, Sinclair, Smith, Stevens, Tam, Venables, Waller, Zimmerman.

## Mission

The Department of Biological Sciences provides contemporary education of the highest quality to students pursuing graduate degrees in four degree programs: biology, biochemistry, molecular biology and environmental science. Research, strong professor-student mentoring, high-quality instruction and professional community service are the foundation of our mission.

## Research

The cornerstone of our graduate programs is the creation of new knowledge through research. We offer students the opportunity to conduct research that leads to theses and dissertations in aquatic biology, aquatic toxicology, biochemistry, cell and molecular biology, ecology, environmental science, forensic biology, genetics, limnology, microbiology, neurobiology, physiology and plant sciences. Our research is supported through numerous public- and private-sector sources.

Department resources for research and graduate training occupy more than 200,000 square feet in the Biology Building, the Science Research Building and the Environmental Education, Science and Technology Building. Greenhouses and an aquatic field station are also available for research.

## Degree Programs in Biological Sciences

The department offers graduate programs leading to the following degrees:

- Master of Arts (non-thesis or research problems in lieu of thesis), and
- Master of Science, both with majors in biology;
- Master of Science with a major in biochemistry;
- Master of Science with a major in environmental science;
- Master of Arts, and
- Master of Science, both with majors in molecular biology;
- Doctor of Philosophy with a major in biology;
- Doctor of Philosophy with a major in biochemistry;
- Doctor of Philosophy with a major in environmental science; and
- Doctor of Philosophy with a major in molecular biology, offered as part of the Federation of North Texas Area Universities.

Concentrations at the master's and doctoral level are available in ecology, microbiology and plant science.

The department offers research programs leading to the degrees listed above. Each MS requires a scholarly thesis based on original research by the student. The PhD represents attainment of the highest level of scholarship and achievement in the creation of new knowledge through independent research that culminates in a dissertation of scientific merit. The candidate is expected to have published or have accepted for publication at least one original research article in a refereed scientific journal prior to graduation.

The department offers a non-thesis option in the following degree programs: MS in biology (Teaching in the Life Sciences); MS (course work only)