## College of Arts and Sciences

Main Office General Academic Building, Room 210 Mailing address: 1155 Union Circle #305189

Denton, TX 76203-5017 940-565-2497

Web site: www.cas.unt.edu

#### Warren Burggren, Dean

Jean B. Schaake, Associate Dean Floyd McDaniel, Associate Dean James Meernik, 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.

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 Linguistics and Technical Communication and the master's degree in speech-language 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
- Linguistics and Technical Communication
- 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 advisor.

## Professional Science Master's Degree Option

The Professional Science Master's (PSM) is an innovative graduate degree option designed to allow students to pursue advanced training in science while simultaneously developing workplace skills highly valued by employers. PSM degrees prepare students for science and technology careers in business, government and nonprofit organizations. PSM degrees are MS degrees in an emerging or interdisciplinary area of science, mathematics or technology and contain a set of professional skills courses selected from such areas as business, communication, policy, law and leadership. Contrary to a traditional master's degree, a thesis is not required but a 3 or 6 semester credit hour internship is included within the science requirement. The departments of biological sciences and chemistry offer three PSM degrees:

MS with a major in chemistry (industrial chemistry)

- MS with a major in molecular biology (biotechnology)
- MS with a major in environmental science

Additional information about these degrees can be found at *www.psm.unt.edu* and *www.sciencemasters.com*.

#### **Courses of Instruction**

All Courses of Instruction are located in one section at the back of this catalog.

#### **Course and Subject Guide**

The "Course and Subject Guide," found in the Courses of Instruction section of this book, serves as a table of contents and provides quick access to subject areas and prefixes.

# Department of Biological Sciences

Main Departmental Office Biology Building, Room 141 Mailing address: 1155 Union Circle #305220 Denton, TX 76203-5017 940-565-2011 Fax: 940-565-3821 Web site: www.biol.unt.edu

#### Art J. Goven, Chair

Graduate Faculty: Allen, Atkinson, Ayre, Beitinger, Benjamin, Burggren, Chapman, Dickstein, Dong, Dzialowski, Fitzpatrick, Fuchs, Goven, Gross, Hoeinghaus, Huggett, Hughes, Hunt von Herbing, Jagadeeswaran, Johnson, Kennedy, Kunz, LaPoint, O'Donovan, Padilla, Pirtle, Roberts, Root, Schwark, Shah, Sinclair, Smith, Stevens, Tam, Thompson, Venables, Wright.

#### 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 Life Science Complex, the Science Research Building and the Environmental Education, Science and Technology Building. Greenhouses and an aquatic field station are also available for research.