Anatomy & Cell Biology

Master of Science

The Master of Science program in the Department of Anatomy and Cell Biology is designed to prepare you for academic teaching and research, or for a career in a variety of organizations that carry on research and development in biologically or medically related areas. Departmental research expertise is in cellular biology, developmental biology, and neuroscience. Research facilities include state-of –the-art instrumentation for transmission and scanning electron microscopy, confocal microscopy, tissue culture, immunohistochemistry, and molecular biology.

Admission Requirements

1. A four-year bachelor's degree from a recognized college or university.
2. An overall undergraduate GPA of at least 3.00.
3. A year-long sequence of General Biology/Zoology.
4. A year-long sequence of General Chemistry.
5. A course in Organic Chemistry, a course in College Algebra or the equivalent, and a course in Morphology, e.g., Human Anatomy, Comparative Anatomy, Embryology, Histology; courses in Cell Biology, Biochemistry, and Genetics are also recommended.
6. Scores from the GRE General Test and/or the MCAT must be submitted. The GRE Subject Test is not required, but applicants are encouraged to submit those scores if they have taken the test.
7. A minimum TOEFL Score of 550 on the paper-based test or 213 on the computer-based test, or for the Internet based TOEFL, a composite score of 79, with minimum scores of 21/30 (Speaking*); 19/30 (Listening); 19/30 (Reading); and 17/30 (Writing) for applicants whose native language is not English. Applicants may also meet language requirements by presenting IETLS scores of 6.5. *Applicants being considered for Graduate Teaching Assistantships must achieve these minimum TOEFL scores, but have a minimum score of 26/30 on the Speaking subtest.
8. Students who have received a bachelor's degree or higher from the United States or English-speaking Canada are not required to submit the TOEFL.
9. Admission to the Anatomy and Cell Biology graduate program can be made either through the M.S. degree program or by application directly to the Ph.D. degree program.
10. Students who elect to begin the M.S. degree program and later decide they wish to pursue the Ph.D. degree may choose to attempt to bypass the M.S. degree by taking a Diagnostic/Qualifying examination. Such an examination is administered by a departmental committee and consists, in part, of the preparation of a written research proposal by the student, with an oral defense of that proposal. By passing it and by meeting other requirements, such as a GPA of 3.5 or higher in graduate level coursework, a student may be admitted to the Ph.D. program without completing the M.S. program. Otherwise, a student admitted to the M.S. program must complete the degree as listed.

Degree Requirements

Students seeking the Master of Science degree through the Department of Anatomy and Cell Biology at the University of North Dakota must satisfy all general requirements set forth by the Graduate School as well as particular requirements set forth by the Department of Anatomy and Cell Biology.

1. Minimum of 35 semester hours of graduate credit (can be completed in four full semesters and one summer session).
2. A thesis written on an original research problem.
3. Consult Academic Catalog for complete course requirements

Last Updated 07/27/09

Faculty and Areas of Expertise

- **Michael M. Atkinson, Ph.D.,** Human Gross Anatomy, Cell Biology, Intercellular Communication
- **Edward C. Carlson, Ph.D.,** Human Gross Anatomy, Cell Biology, Cellular and Extracellular Ultrastructure
- **Patrick A. Carr, Ph.D.,** Neuroscience, Neurochemistry and Synaptology of Spinal Cord and Brainstem Neurons
- **Jane R. Dunlevy, Ph.D.,** Role of Specific Macromolecules in Diseases that Affect the Eye
- **Bryon Grove, Ph.D.,** Cell Biology, Intracellular Signaling Mechanisms
- **Jon Jackson, Ph.D.,** Human Gross Anatomy
- **Robert Kelley, Ph.D.,** University President
- **Mandy Meyer, Ph.D.**, Human Gross Anatomy, Neuroscience
- **Garl K. Rieke, Ph.D.,** Neurobiology of Alzheimer's Disease, Pathophysiology of Stroke
- **Kenneth G. Ruit, Ph.D.,** Embryonic Development of the Spinal Cord, Medical Educational Research
- **John A. Watt, Ph.D.,** Mechanisms of Cellular Communication Involved in Regenerative Events

Contact Information

Department of Anatomy & Cell Biology
University of North Dakota School of Medicine & Health Sciences
501 N. Columbia Rd, Stop 9037
Grand Forks, ND 58202- 9037

Phone: (701) 777-2101
Fax: (701) 777-2477
Web page: http://www.med.und.nodak.edu/depts/anatomy/

E-Mail Contacts:

Kenneth Ruit, Ph.D., Director of Graduate Education, kenruit@medicine.nodak.edu
Bryon Grove, Ph.D., Student Recruitment & Admissions, bgrove@medicine.nodak.edu
Bonnie Kee, Administrative Secretary**,** bkee@medicine.nodak.edu

Apply ONLINE
http://graduateschool.und.edu

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