Biomedical Sciences
Master of Science Degree

The Biomedical Sciences Graduate Program at the University of North Dakota School of Medicine and Health Sciences emphasizes basic research and scholarship in the biomedical sciences. Research and educational opportunities within the program provide students with focused training in multiple fields including Inflammation and Infectious Disease, Neuroscience, or Molecular and Cellular Biology.

The goal of our graduate program is to educate students in a rigorous and challenging environment that fosters creativity, innovation and discovery. The M.S degree can be customized to the career goals of the individual student.

The mission of the Biomedical Sciences Graduate Program leading to the Master of Science degree is to prepare students for careers in education or technical careers in biomedical sciences.

**Goal 1:** Students will possess and be capable of applying knowledge in biomedical sciences related to their field of study.

**Goal 2:** Students will demonstrate the ability to understand, develop, and apply multiple approaches to test ideas using the scientific method.

**Goal 3:** Students will master communication skills necessary to convey the results of their scholarly work.

**Goal 4:** Students will recognize and abide by professional and ethical standards and participate in service to their institution, the scientific community, and society in general.

**Admission Requirements**

1. Completion of a four-year Bachelor’s degree or equivalent from a recognized college or university as described in the UND Undergraduate and Graduate Academic Catalog. Exceptions must be approved by the Dean of the School of Graduate Studies.

2. Coursework: Admission into the Biomedical Sciences Graduate Program is dependent upon the applicant's demonstration of effective academic skills and appropriate undergraduate training. Ideally, the applicant will have completed the following coursework:
   a. General Biology with laboratory
   b. General Chemistry with laboratory
   c. Organic Chemistry with laboratory
   d. Physics with laboratory
   e. Biochemistry or equivalent
   f. Calculus
   g. Advanced undergraduate coursework in at least one of the following areas: molecular biology, cell/developmental biology, genetics, neuroscience, biochemistry, microbiology, immunology, anatomy, or physiology.

3. Applicants must have a cumulative undergraduate GPA of at least 3.0/4.0. Applicants with previous graduate education should have a cumulative GPA of 3.5/4.0 in their graduate level course work.

4. Graduate Record Examination scores: Applicants must submit Graduate Record Examination scores. The General test is required; the Subject test is strongly recommended. The Biochemistry, Cell and Molecular Biology, Biology, or Chemistry subject tests are acceptable. Preference for admission will be given to applicants whose averaged test scores are at or above the 50th percentile.

5. International applicants must satisfy the School of Graduate Studies English Language Proficiency Requirements.

6. A Statement of Goals must be included with the application materials. This statement will describe the student's academic achievements, research experience and accomplishments, career goals, and objectives for applying to the Biomedical Sciences Graduate Program.

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*Email: questions@gradschool.und.edu*
7. Three letters of recommendation addressing the student’s academic performance and research or professional experience are required to complete the application. At least two letters must be from faculty having direct knowledge of the student’s academic capabilities.

8. Preference will be given to students who can demonstrate undergraduate research and/or a record of scholarly publication or other relevant experience.

Degree Requirements

Students seeking the Master of Science degree in the Biomedical Sciences Graduate Program must satisfy all general requirements set forth by the School of Graduate Studies as well as particular requirements set forth by the Biomedical Sciences Graduate Program. In addition to course work, the M.S. degree requires completion of an acceptable thesis in a program of study designed by the student with Faculty Advisory Committee approval.

1. A minimum of 30 credit hours of graduate level courses including research and thesis.

2. Completion of the following core graduate courses:
   a. BIMD501 – Scientific Discovery I - 6 credits
   b. BIMD510 – Basic Biomedical Statistics – 2 credits*
   c. BIMD516 – Responsible Conduct in Research – 2 credits
   d. BIMD590 – Research – at least 8 credits
   e. BIMD998 – Thesis – 4 credits
   *BIMD510 – Basic Biomedical Statistics fulfills the scholarly tool requirement.

3. Completion of a minimum of 4 credit hours of graduate level elective courses. Please refer to the academic catalog for course options.

4. A student must obtain at least a “B” in all required courses in order to remain in good standing in the graduate program. If less than a “B” is received, the student will be given the opportunity to remediate in a manner determined by the course director. If remediation is unsuccessful, the student may petition the Graduate Faculty to take the course a second time. In the event that the student is unable to raise the grade to at least a “B”, the student must petition the Graduate Faculty to be allowed to remain the program.

5. Students must maintain a minimum 3.0 GPA in accordance with School of Graduate Studies guidelines (UND Graduate and Undergraduate Academic Catalog).

In addition to course work, the Master of Science degree requires completion of a thesis based scholarly project completed by the graduate student under the guidance of a faculty advisor. It is expected that the results of the scholarly work will be publishable in a peer-reviewed journal.

Faculty and Areas of Expertise

We encourage all applicants for the Biomedical Sciences degree to review the faculty listing on the Department of Basic Sciences website to learn more about their research expertise. Visit med.und.edu/basic-sciences

Contact Information

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