Mathematics
Master of Science

The Department offers courses leading to the M.S. (thesis and non-thesis) and M.Ed. degrees with a major in mathematics. The Department also offers a graduate minor in statistics.

The mission of the Mathematics Department graduate program is to provide a quality education in a variety of areas at the master’s level and to produce graduates who are qualified to pursue doctoral work, if they should desire, or careers in government, industry, and teaching. The program maintains high standards while also providing an atmosphere in which capable students with less developed academic backgrounds can maximize their potentials. The program attempts to immerse students in an atmosphere of scholarly and creative activity in a way that will encourage them to interact with each other, with the faculty, and with undergraduates. The program seeks to expand the creative abilities of students and encourages them to communicate their results effectively in written and oral forms and to become involved in mathematical and social communities.

Overall, the mission is to produce graduates who love to create and use mathematics and who are able to take an active part in their own learning.

Admission Requirements

The applicant must meet the School of Graduate Studies’ current minimum general admission requirements as published in the graduate catalog.

1. The equivalent of a bachelor’s degree with a major in mathematics.
2. A cumulative grade point average (GPA) of at least 2.75 for all undergraduate work or a GPA of at least 3.0 for the junior and senior years of undergraduate work (based on A=4.0).
3. Students who have not completed the equivalent of MATH 431 Introduction to Analysis I and MATH 432 Introduction to Analysis II will be required to do so as part of their graduate program.
4. Satisfy the School of Graduate Studies’ English Language Proficiency requirements as published in the graduate catalog.

Students without the required degree, or equivalent, may be admitted but will be required to satisfactorily complete undergraduate courses to make up their deficiency before advancement to Approved status.

Degree Requirements

Students seeking the Master of Science degree at the University of North Dakota must satisfy all general requirements set forth by the School of Graduate Studies as well as particular requirements set forth by the Mathematics Department.

Thesis Option

1. A minimum of 30 semester credits in a major field, including the credits granted for the thesis and the research leading to the thesis.
2. The program may include just the major, the major and a minor, or the major and a cognate area. The major must include 20 credits from the major department, and a minor or cognate area must include at least nine credits.
3. At least one-half of the credits must be at or above the 500-level.
4. A maximum of one-fourth of the credit hours required for the degree may be transferred from another institution.
5. Comprehensive final examination.
6. Please refer to the academic catalog for a list of required courses.
Non-Thesis Option

1. Thirty-two (32) credits including a minimum of two credits of MATH 997 Independent Study.
2. At least one-half of the credits must be at or above the 500-level.
3. A maximum of one-fourth of the credit hours required for the degree may be transferred from another institution.
4. The program may include just the major, the major and a minor, or the major and a cognate area. The major must include 20 credits from the major department, and a minor or cognate area must include at least nine credits.
5. Preparation of a written independent study approved by the faculty advisor.
6. Comprehensive final examination.
7. Please refer to the academic catalog for required courses and descriptions.

Faculty and Areas of Expertise

- Anthony J. Bevelacqua, Professor, Ph.D. 2000 (Kentucky), Algebra
- John B. Collings, Associate Professor, Ph.D. 1987 (Washington State), Applied Mathematics
- Bruce Dearden, Professor, Ph.D. 1982 (Washington State), C*-Algebras
- Gerri M. Dunnigan, Associate Professor and Associate Department Chair, Ph.D. 1994 (Iowa State), Statistics
- Thomas E. Gilsdorf, Professor, Ph.D. 1988 (Washington State), Locally Convex Spaces, Ethnomathematics
- Cheryl L. Halcrow, Associate Professor, Ph.D. 2004 (University of North Dakota), Mathematics Education
- Doojin Hong, Associate Professor, Ph.D., 2004 (University of Iowa), Differential Geometry
- Joel E. Iiams, Professor and Department Chair, Ph.D. 1993 (Colorado State), Algebraic Combinatorics
- Michele A. Iiams, Associate Professor, Ph.D. 2002 (University of North Dakota), Mathematics Education
- Mohammad Khavanin, Associate Professor, Ph.D. 1986 (Texas at Arlington), Differential Equations
- Jerry Metzger, Professor, Ph.D. 1970 (Connecticut), Combinatorics
- Richard P. Millspaugh, Professor, Ph.D. 1989 (Oklahoma), Topology
- Michael C. Minnotte, Professor, Ph.D. 1993, (Rice University), Statistics
- Lawrence J. Peterson, Associate Professor, Ph.D. 1998 (University of Iowa), Differential Geometry and Geometric Analysis
- Thomas L. Richards, Assistant Professor, Ph.D. 1991 (Washington State), Dynamical systems
- Shuzo Takahashi, Associate Professor, Ph.D. 1998 (University of California, Berkeley), Number Theory
- Ryan J. Zerr, Professor, Ph.D. 2003 (Iowa State), C*-Algebras

Contact Information

Dr. Joel E. Iiams, Chairperson
Mathematics Department
University of North Dakota
Witmer Hall Room 313
101 Cornell Street, Stop 8376
Grand Forks, ND 58202-8376

P: 701-777-2881
F: 701-777-4827
E: joel.iiams@und.edu
http://arts-sciences.und.edu/math

Apply online: http://graduateschool.und.edu
Deadlines apply. See our website for more details.

Last Updated: 6/26/2014
Email: questions@gradschool.und.edu