Mathematics
Master of Education

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. Satisfy the undergraduate requirements in Education, i.e., 18 credit hours in Education including student teaching.
2. The equivalent of a bachelor’s degree with a major in mathematics.
3. 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).
4. Students who have not completed the equivalent of the following courses will be required to do so as part of their graduate program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 409</td>
<td>Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 421</td>
<td>Statistical Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 431</td>
<td>Introduction to Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 441</td>
<td>Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 442</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

5. Satisfy the School of Graduate Studies’ English Language Proficiency requirements as published in the graduate catalog.

Degree Requirements

1. A minimum of 32 semester credits is required for the M.Ed. degree, including two credits for the 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. A minimum of 16 credits, including 2 for the independent study, in Mathematics with at least 8 credits at or above the 500 level.

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Deadline applies. See our website for more details.
5. A minimum of 6 credits in an area cognate to the area of concentration.
6. A minimum of 6 credits in the Foundations of Education.
7. Preparation of a written independent study approved by the faculty advisor.
8. Comprehensive final exam.

Graduate Minor in Statistics
The requirements consist of 9 hours of which Math 421 and Math 422 are required if they were not taken as an undergraduate. The remaining credits may be selected from various probability and statistics-oriented courses in mathematics and other disciplines. For further information about this option, contact the chair of the Mathematics Department.

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. Giltsdorf**, Professor, Ph.D. 1988 (Washington State), Locally Convex Spaces, Ethnomathematics
- **Cheryl L. Halcrow**, Associate Professor, Ph.D. 2004 (University of North Dakota), Mathematics Education
- **Dojin 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

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