

Minnesota State University Moorhead

Minnesota State University Moorhead is a regional, comprehensive university that prepares students for a full range of today's most promising careers. A liberal arts foundation is the hallmark of an MSUM education, providing flexibility needed for a lifetime of careers.

Careers in Mathematics

Mathematics has always played a prominent role in scientific and technological achievements. Most of the technological advances in computer science, medicine, space exploration, etc., would not have been possible without the involvement of mathematicians. Less visible, but just as important, is the value of mathematics to daily achievements in business and industry.

Mathematicians are in demand in many areas of society, such as education, business and technology, and their importance likely will grow with the complexity of the modern world.

Mathematics at Minnesota State University Moorhead

Degrees

Major:
Bachelor of Arts (B.A.)
in Mathematics

Bachelor of Science
(B.S.) in Mathematics

Mathematics Major

- The Bachelor of Arts (B.A.) degree is designed to prepare students for graduate school in mathematics or other disciplines. This degree is also appropriate for students seeking a rigorous liberal arts degree in preparation for a variety of careers.
- The Bachelor of Science (B.S.) is a professional degree with three different emphases.
 - 1) The teaching emphasis is for students who intend to teach math at the middle school or high school level.
 - 2) The computational emphasis is for students who wish to prepare themselves for careers in industry that involve problem solving using computer technology.
 - 3) The actuarial emphasis prepares students for actuarial careers. Actuaries are concerned with the mathematical structure underlying insurance premiums and pension funds.

High Academic Achievement

- A MSUM mathematics honors apprentice assisted a math professor with the statistical study of the clinical traits of malaria treatment for children in Zambia.
- Since 1989 more than thirty-eight students have passed the first actuarial exam and five have passed the second. This pass rate of 80-100% far exceeds the national average of 33%.
- An MSUM student intern unified and set up a computer data base for the Fargo/Moorhead Council of Governments.
- In the past five years at least five MSUM graduates have earned Ph.D.'s and several more have obtained Master's Degrees.
- Senior math majors score well above the mean on the E.T.S. Major Field Test administered to over 150 colleges and universities.

Career Opportunities

Most mathematicians are employed in government or industry. Teaching positions at the secondary level or in colleges or universities are also popular options chosen by mathematics majors. Opportunities improve dramatically for those with advanced degrees.





Questions?

Admissions

1-800-593-7246

Math Department

MacLean Hall 362

Department Phone

218-477-2274

Chair

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Minnesota State University
Moorhead is an equal opportunity
educator and employer.

*This information will be made
available in alternate format, such
as Braille, large print or audio
cassette tape, upon request by
contacting Disability Services at
218.477.2652/V or
218.477.2047/TTY. For TTY
communication, contact the
Minnesota Relay Service at
1.800.627.3529.*

- The job outlook for students in the secondary education field is excellent. MSUM math graduates who have kept in touch with the university over the last few years have indicated a strong job market in secondary education for mathematics majors.
- Graduates from MSUM have found careers in actuarial science, biostatistics, reliability engineering, forward pricing analysis, tax consulting, pension fund managing, and systems analysis. Actuarial analysts' starting salaries are substantial.
- MSUM graduates have enjoyed an exceptional rate of acceptance into graduate schools, with choices including the University of Iowa, Northwestern University, University of Minnesota, Colorado State University, University of Kentucky, University of Michigan, University of Nebraska, Columbia University, Purdue University, and Yale University.

Recent Alumni at Work

- Angela Hodge, '02, Ph.D. student, Purdue University
- Charles Archer, '00, Ph.D. student, Columbia University, NYC.
- Troy Nelson, '99, Secondary mathematics teacher and assistant football coach, Brainerd, MN.
- Joella Ackerman, '98, Financial Assistant for Northwestern University's Medical Endocrinology Department
- Misti Schlager, '98, actuarial analyst, Towers Perrin, Bloomington, Minn.
- Chris Copeland, '96, actuarial analyst, Towers Perrin, Bloomington, Minn.
- Jason Mortenson, '95, high school algebra, geometry and computers teacher, New Ulm, Minn.
- Vanessa Jones, '94, master's degree from the University of Virginia, where she is a teaching assistant and a technical associate in the Information Services Department of Computer Science, First Boston.
- Corey Johnston, '94, claims auditor, Physicians Mutual Insurance Company, Omaha, Neb.
- Laura Schuette, '93, inventory analyst, Med Amicus, Inc., Plymouth, Minn.
- Tuan Pham, '92, assistant epidemiologist, M.D., Anderson Cancer Center, and a statistician, HIV/AIDS Prevention Center of Texas Southern University.

Small Classes

- Typically, classes at the calculus level and above have enrollments of less than 30 students.
- Junior and senior courses average fewer than 20 students per class.
- Personal attention is readily available in all classes.

Departmental Features

- MSUM mathematics professors have published many articles in professional journals.
- The Math Club organized a student chapter of the Mathematical Association of America (MAA).
- A fully staffed math tutor lab offers you help when you need it, and a math computer lab is available to students.
- MSUM math majors have competed and performed well in the international Mathematics Modeling Competition involving more than 320 teams from nine countries.
- Math students publish papers in professional journals and have presented posters at the Minnesota Academy of Science and the National Conference on Undergraduate Research.
- The department has a "computer classroom" equipped with computers for both faculty and students and a projection system.
- Students and faculty give presentations at regional meetings and conferences.