



Mathematics

College of Science & Health

The Mathematics Department consists of twenty-six teacher-scholars who are dedicated to excellence in undergraduate education. In addition to our teaching program, department members are engaged in a variety of scholarship, research, and professional service activities including: conducting traditional research-scholarship, supporting undergraduate mathematics research programs, participating in national mathematics organizations, and performing middle/high school mathematics outreach activities. Research interests within the department include algebra, analysis, combinatorics, fluid dynamics, graph theory, harmonic analysis, logic, mathematics education, numerical analysis, and statistics.

As one of the traditional academic disciplines, mathematics is an integral part of the liberal arts education and is the foundation for many areas of study. In filling many roles at UW-La Crosse, the Mathematics Department serves a diverse group of students; we nurture all liberal arts students, give students a solid foundation from which to study both the natural and social sciences, provide the tools needed by students in professional programs, and cultivate mathematics majors. We strive to prepare our majors and minors for careers in teaching, business, industry, government, and graduate study.

Department members regard mathematics as an interesting and lively subject, and an accessible major or minor for any student. Mathematics has both an aesthetic and a practical appeal; the enjoyment of problem solving, abstract thinking, and structural beauty draws many to mathematics, while the challenge and satisfaction of using mathematics to solve real-world problems provides an equally strong appeal. If you enjoy mathematics and want to learn more, we invite you to come study with us.

Undergraduate Programs

The Mathematics Department offers courses for mathematics majors through the College of Science and Health and the School of Education. Various mathematics majors require 36 to 39 credits. Class sizes are small; calculus classes are typically 30 to 35 students and upper level classes are typically 10 to 20 students.

Majors:

- Mathematics (traditional)
- Mathematics Education
- Mathematics with Applied Emphasis
- Mathematics with Statistics Emphasis
- Mathematics with Actuarial Science Concentration
- Mathematics/Engineering Dual Degree

Minors:

- Mathematics (traditional)
 - Mathematics Education
 - Mathematics Elementary/Middle Education
 - Statistics
- Certificate Program in Middle School Mathematics*

Department Features

Course offerings include the areas of calculus, differential equations, logic, geometry, linear and abstract algebra, real and complex analysis, numerical methods, graph theory, number theory, probability, statistics, operations research and various applied mathematics areas.

Many of mathematics majors and minors also major or minor in chemistry, computer science, physics and business. The department also has an adviser who works closely with elementary education students who wish to minor in mathematics; a mathematics minor is a strong complement to an elementary education major.

In addition to formal course work, students can actively pursue their interests in mathematics and statistics through the student run Mathematics and Statistics Club, by working for the Mathematics Department as a tutor in the Murphy Learning Center or as a Peer Teaching Assistant in statistical consulting, working for a faculty member as a research assistant on a research project, working on an undergraduate research project under the guidance of a faculty member, or

through internships and part-time jobs with local business and engineering firms, public utilities, and medical and governmental research institutions.

Career Opportunities

Demand has been strong, and promises to be so in the future, for the mathematically trained person. Graduates have found numerous job opportunities that utilize their knowledge and competencies.

Sample of Job Titles of Graduates:

- Manager of Manufacturing Process Engineering, Corning, Inc.
- Actuary, General Casualty Company in Sun Prairie, WI
- Plant Manager, Sunshine Biscuits
- Professor of Statistics, Oberlin College
- Director of the Mathematics and Statistics Learning Center, The Ohio State University
- Statistician, State of Wyoming
- Loan Officer, State Bank of Wonewoc
- Actuary, Blue Cross-Blue Shield of Florida
- Mathematics Teacher, Wisconsin Dells High School

- Senior Statistician, Pharmacia & Upjohn
- Marketing Specialist, IBM in Rochester, MN
- Mathematics Teacher, Platteville High School
- Associate Professor of Mathematics, Wabash College
- Software Developer, Mayo Clinic
- Programmer, IBM at North Carolina-Research Triangle Park
- Marketing Database Analyst, Sportsman's Guide, Inc.
- Mathematics and Physics Teacher, Sheboygan High School
- Data Analyst, Department of Health Science Research, Mayo Clinic
- Mathematics Teacher, Central High School, La Crosse
- Mathematics Graduate Student, Purdue University
- Property-Casualty Actuary, Hartford Insurance Company
- Mathematics Teacher, Peace Corps Volunteer in Western Kenya
- Graduate Student, Institute of Optics at the University of Rochester
- Supplier Quality/Component Engineer, Guidant Corp., St. Paul, MN

Occupational Outlook

The 2005-2006 Employment Survey of UW-La Crosse graduates showed 100 percent of the math graduates were employed in a position related to their major.

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