

# Mathematics

University of Wisconsin-River Falls  
[www.uwrf.edu](http://www.uwrf.edu)

**A**t UW-River Falls, mathematics is viewed as both the foundation for the sciences and a significant field of knowledge in its own right. Our mathematics instruction is dedicated to nurturing and developing students' creative mathematical talents as problem-solvers.

## Goals and Objectives

- to provide students with quality instruction that allows them to experience mathematics in such a way that they become flexible, analytical thinkers;
- to provide a climate in which mathematical literacy, the free exchange of mathematical ideas and active engagement in learning mathematics flourish.

**Program and/or Curriculum** UW-River Falls offers two degree programs for mathematics students. The liberal arts major is designed as a comprehensive program in mathematics for students who want to pursue professional careers in mathematics upon graduation from UW-River Falls or after further graduate study. The secondary education major was created to provide preparation for students seeking careers as high school or middle school mathematics teachers. This program includes the professional training necessary for effective teaching.

**Faculty** The faculty members of the mathematics department have diverse backgrounds and research interests which include: combinatorics, differential equations, mathematics education, mathematical engineering, numerical analysis, probability, and statistics. Our department provides a wide range of opportunities for students to work closely with professors on research and advanced mathematical study.

**Study Opportunities and Organizations** Field trips to mathematics conferences are scheduled several times each year. Students can attend to exchange research results with students and professors from other universities through discussion and formal presentations. Energy research affords students with a unique opportunity to work as assistants in applying mathematics to practical problems. Senior seminar projects provide students with valuable experiences in problem solving, research, writing reports, and making presentations. Advanced statistical study helps prepare students for work in actuarial science and related fields. Independent study can be arranged to explore mathematical topics beyond those in the standard curriculum. Campus mathematics organizations include the Math Club which organizes field trips, picnics, and informal study sessions; MAA—Mathematical Association of America which provides information on mathematical science careers, inexpensive access to undergraduate mathematics journals, and social interaction with other mathematics students; and NCTM—National Council of Teachers of Mathematics which offers opportunities to attend conferences in mathematics teaching and provides access to inexpensive professional journals.

**Career Opportunities** The employment outlook for mathematics majors is excellent. In 2001, the Bureau of Labor Statistics reported that the fastest growing jobs are mathematics-related. Jobs are available for mathematicians in a wide variety of industries and government agencies. Companies involving computers, insurance, aerospace, control systems, and distribution networks hire mathematicians yearly.

The careers that math majors typically follow are high quality. Recently, five of the top ten jobs rated by the Jobs Rated Almanac on characteristics such as job security, income, and satisfaction levels, were math-related.

National and international demands for workers with better mathematics preparation are resulting in increased mathematics requirements for students and improved mathematics programs at the precollege level. These are challenging, exciting, and rewarding times for mathematics teachers, and many new teachers are needed throughout the United States.



# MATHEMATICS LIBERAL ARTS

Department of Mathematics  
207 North Hall  
(715) 425-3326



## Bachelor of Science Degree. Academic Advising Plan.

### Semester 1 (Fall)

MATH 166	Calculus I	4
General Education CW		3
General Education CS		3
General Education S		3
General Education SB		3
Total semester credits		16

### Semester 2 (Spring)

MATH 167	Calculus II	4
MATH 205	Mathematical Programming	3
General Education CA		3
General Education HF		3
General Education HW		1
Total semester credits		14

### Semester 3 (Fall)

MATH 236	Discrete Mathematics	4
MATH 266	Calculus III	3
General Education HF		3
General Education SL		3
Course in minor		3
Total semester credits		16

### Semester 4 (Spring)

MATH 256	Linear Algebra	3
General Education SB		3
General Education EC		3
Global Perspectives Course		3
Course in minor		3
Total semester credits		15

### Semester 5 (Fall)

Mathematics 300 level elective	3	
Mathematics elective	3	
General Education MD	3	
General Education HW	.5	
Course in minor	3	
Course in minor	3	
Total semester credits		15.5

### Semester 6 (Spring)

Mathematics elective	3	
Mathematics elective	3	
Course in minor	3	
College liberal arts	3	
American Cultural Diversity D	3	
General education HW	.5	
Total semester credits		15.5

### Semester 7 (Fall)

MATH 485	Seminar in Mathematics	1
College liberal arts course	3	
Mathematics elective	3	
Course in minor	3	
Course in minor	3	
Total semester credits		13

### Semester 8 (Spring)

Mathematics elective	3	
Course in minor	3	
College liberal arts course	3	
College liberal arts course	3	
Any elective	3	
Total semester credits		15

### Summary of Degree Requirements

General Education	39 cr.
Major Requirements	37 cr.
Minor Program	24 cr.
Credits to Degree	120 cr.