

## Community and the University

The University of Montana is in Missoula, a town in western Montana with a community of about 80,000 people. Set in a river valley in the Rocky Mountains at an elevation of 3,200 feet, Missoula enjoys a moderate climate and easy access to downhill and cross-country skiing, camping, backpacking, hiking, mountain biking, hang-gliding, paragliding, kayaking, canoeing, hunting and fishing.

Beautiful mountains surround the city and the clear Clark Fork River runs through the downtown and beside the University.

Missoulians are genuinely friendly and proud of their city's beauty. They love their city and welcome students. A smile and a "hello" are their way of saying, "Welcome to Missoula".



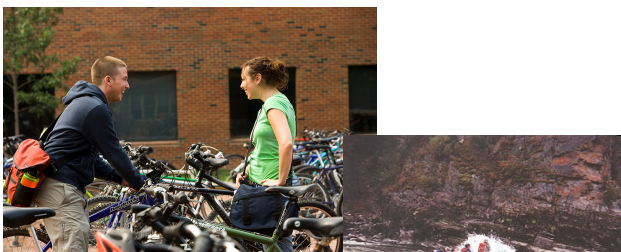
The scenic 200-acre main campus of the University is one of the prettiest and safest campuses in the country. It sits against the backdrop of Mount Sentinel, and is said to be the only college in the United States to have a mountain on its campus. Between classes, many students hike the zigzag trail up to the "M" on Mount Sentinel.

The University of Montana currently enrolls approximately 13,500 students. It has Colleges of Arts and Sciences and of Technology, and Schools of Fine Arts, Forestry, Pharmacy and Allied Health Sciences, Business Administration, Education, Law and Journalism.



## Department Activities

**Mathematics colloquia:** The colloquium series brings together outside speakers and the campus professional community in mathematics and other sciences. Graduate students are encouraged to attend and participate.



"Most scenic campus in America"  
*Rolling Stone Magazine*

**Research and teaching seminars:** Each semester graduate seminars are offered in each area, giving students and faculty the opportunity to speak, discuss, and do research on current professional topics in formal and informal settings. These are considered an integral part of a student's education.

**Grant supported research:** Our faculty and students are also involved in a number of grant supported research projects funded by the National Science Foundation (NSF), the Environmental Protection Agency, the Department of Energy, the USDA Forest Service, the NASA, the National Security Agency, and others.



## Department of Mathematical Sciences

Mathematics Building  
The University of Montana  
Missoula, MT 59812-0864  
phone: (406) 243-5312  
fax: (406) 243-2674

[www.hs.umt.edu/math](http://www.hs.umt.edu/math)

More information about the graduate program can be found electronically at <http://www.hs.umt.edu/math/graduate/>. The online application form is available from the Graduate School at <http://www.umt.edu/grad/>. Requests for paper applications can be made via e-mail [grad.school@umontana.edu](mailto:grad.school@umontana.edu) or by calling (406) 243-2572.

Questions, concerns, or comments can be e-mailed to Professor Cory Palmer, Associate Chair-Graduate Program at [cory.palmer@umontana.edu](mailto:cory.palmer@umontana.edu).



## Mathematical Sciences Graduate Programs

Algebra

Analysis

Applied Mathematics

Big Data Certification

Combinatorics and Optimization

Mathematics Education

Statistics



## Department of Mathematical Sciences

The Department of Mathematical Sciences, in the College of Arts and Sciences, has about 125 undergraduate students and 35 graduate students. Its graduate program is large enough for the highest aspirations and personal enough to appreciate students' individualities. It offers a great education in a beautiful setting of a friendly small-town atmosphere.

## Doctor of Philosophy (Ph.D.) Programs

Our regular (Option 1) Ph.D. program prepares research specialists in mathematics. In addition, a specialization in computer science is offered in collaboration with the Computer Science Department

The non-traditional (Option 2) Ph.D. program prepares college mathematics teachers and other 'general practitioners' of mathematics. It emphasizes greater breadth in course work and less specialization than in the regular program. An emphasis in math education is available under this option.

## Master of Arts (M.A.) Program

Our M.A. Program provides students with a broad background in mathematics and the opportunity to concentrate in an area of special interest. The MA program prepares students for careers as college teachers, in industry, as well as providing training for future PhD students. The program is designed to be completed in two years. Areas: algebra, analysis, applied mathematics, mathematics education, statistics, optimization and combinatorics.

## Master of Arts (M.A.) Secondary Teaching Option

Our teaching option aims to improve the proficiency and teaching techniques of secondary mathematics teachers. Courses for this program are offered during the academic year and in the summer. The program can be completed in 15 months (or 3 summers). The program of study requires courses chosen from algebra, analysis, applied mathematics, math education, optimization and statistics.

## Faculty

### Algebra

**Kelly McKinnie**, *Assistant Professor*  
Ph.D., University of Texas at Austin  
Finite dimensional division algebras, Brauer group

**Nikolaus Vonessen**, *Professor*  
Ph.D., Massachusetts Institute of Technology  
noncommutative ring & invariant theory

### Analysis

**Elizabeth Gillaspay** (joining UM in Fall 2017)

**Jennifer Halfpap**, *Associate Professor*  
Ph.D., University of Wisconsin  
complex and harmonic analysis

**Greg St. George**, *Assoc. Chair & Associate Professor*  
Ph.D., University of Montana  
functional analysis

**Karel Stroethoff**, *Professor*  
Ph.D., Michigan State University  
complex & functional analysis, operator theory

### Applied Mathematics

**John Bardsley**, *Associate Professor*  
Ph.D., Montana State University  
computational mathematics & statistics, inverse prob.

**Leonid Kalachev**, *Chair & Professor*  
Ph.D., Moscow State University  
applied mathematics, asymptotic methods,  
mathematical biology

**Javier Pérez Álvaro** (joining UM in Fall 2017)

**Emily Stone**, *Associate Chair & Professor*  
Ph.D., Cornell University  
applied mathematics, dynamical systems

### Combinatorics & Optimization

**Mark Kayll**, *Professor*  
Ph.D., Rutgers University  
discrete mathematics

**Jenny McNulty**, *Professor*  
Ph.D., University of North Carolina  
combinatorics, matroid theory

**Cory Palmer**, *Assistant Professor*  
Ph.D., Central European University  
graph theory and combinatorics



### Mathematics Education

**Fred Peck**, *Assistant Professor*  
Ph.D. University of Colorado  
mathematics education

**Matt Roscoe**, *Assistant Professor*  
Ed.D., University of Montana  
mathematics education

**Bharath Sriraman**, *Professor*  
Ph.D., Northern Illinois University  
cognitive science; talent development; history &  
philosophy of mathematics & science; mathematics  
education, indo-Iranian languages & culture

**Ke Wu**, *Associate Professor*  
Ph.D., University of Minnesota  
mathematics education

### Statistics

**Jon Graham**, *Professor*  
Ph.D., North Carolina State University  
spatial statistics, applied statistics

**David Patterson**, *Professor*  
Ph.D., University of Iowa  
applied statistics

**Katia Smirnova**, *Assistant Professor*  
Ph.D., The University of Texas  
high dimensional data analysis, nonparametric statistics,  
signal processing and functional data modeling

**Brian Steele**, *Associate Professor*  
Ph.D., University of Montana  
statistical learning

### Topology

**Eric Chesebro**, *Assistant Professor*  
Ph.D., University of Texas at Austin  
geometric topology

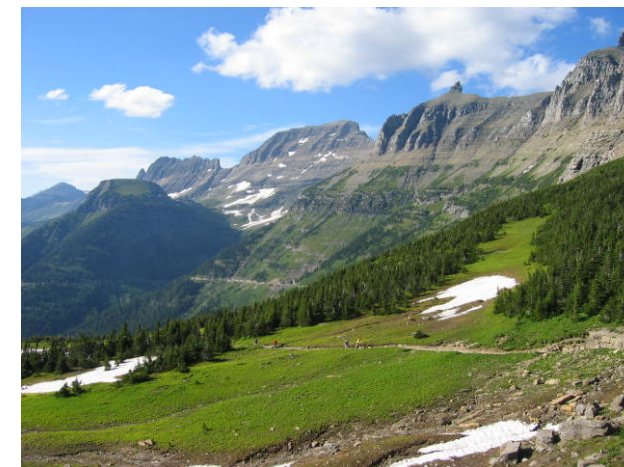
## Assistantships and Awards

Financial support is available for graduate students in a variety of forms: Teaching Assistantships, Research Assistantships, and Instructorships. In addition to a stipend, assistantships and associateships receive a waiver of tuition.

Beginning TA's typically hold recitation sections for large courses, while more advanced TA's often teach a self contained entry-level course. To be considered for an assistantship, an application should be submitted before Feb 1.

Research Assistantships are often available through external funding and the Department of Mathematical Sciences consulting CORE. Well-qualified applicants in applied specializations should contact faculty in applied math and statistics directly.

Summer support is often available in the form of summer teaching or a competitively awarded research scholarship. The department annually gives 1-2 teaching excellence awards and nominates students for various university scholarships and awards.



Glacier National Park