

Mathematics

► The University of Rochester's Department of Mathematics is intellectually rigorous, and it attracts large numbers of students who want to investigate this discipline. With a focus on research and pure math, students at both the undergraduate and graduate level explore five key areas: algebraic topology, algebra and number theory, analysis and partial differential equations, geometry, and probability.

A strong indicator of the interest in math generated at Rochester is that each May, about seven percent of the student body graduates with a math degree as compared with the national average of two percent. About half of these students double major, something the flexible curriculum at Rochester makes possible. Students go on to pursue careers in banking, finance, or teaching, while others enter professional schools in law, medicine, or business. Close to 15 percent of the majors attend graduate school to study such fields as math, physics, economics, and computer science. Graduate

"The strength of the department's basic offerings, the close interactions between faculty and students, the research opportunities, and the feeling of accomplishment from taking challenging coursework prompt many undergraduates to major in mathematics and attract a very strong pool of graduate students each year."

—Department of Mathematics Professor and Chair Allan Greenleaf

students enter careers in academia at some of the most prestigious universities in the country or in math-intensive industries.

Points of Pride

Research

The department's ratings in the 2010 National Research Council's assessment of graduate programs were very strong, especially in the areas of publication rates, citation numbers, and grant support.

Distinguished Faculty

In 2009, Doug Ravenel, the Daniel Burton Fayerweather Professor of Mathematics, and collaborators at Harvard and Virginia solved

a 45-year-old problem on the Arf-Kervaire invariant, a major milestone in the study of algebraic topology.

The continuing high level of grant support for the department, recently averaging \$500,000 per year, is an indicator of the high quality of research activity. The inaugural class of Fellows of the American Mathematical Society (FAMS) announced in November 2012 included five current or former members of the department. FAMS recognizes members who have made outstanding contributions to the creation, exposition, advancement, communication, and utilization of mathematics.



"The coursework is challenging and rewarding, and I have gotten so much out of the research experiences here. Every professor in the department is exceptional, too, and really looks out for your best interests."

Emmett Wyman '13
mathematics major



Accomplished Students

In 2008–2010, the department's undergraduates have scored in the top 15 out of about 500 participating schools in the William Lowell Putnam Competition. This is the leading undergraduate math competition in North America and regularly draws outstanding young scholars from top research universities.

How You Can Help

Gifts to the department help it sustain and grow its commitment to academic excellence. Consider the following giving opportunities:

Students

Supporting students is one of the highest priorities at Rochester. Create fellowships for first-year graduate students for summer research, which is an important step that gets them closer to passing preliminary exams required to pursue an advanced degree. Prizes are held in high regard, too, and remain on CVs for the span of one's professional career. They can be given to

Transformational Gift

The bequest of G. Milton Wing '44, '47 (MA) allows the department to bring in eminent speakers two times per semester. The **G. Milton Wing Lecture Series** focuses on general mathematics as applied to other fields. Topics have included applications of topology to sensor networks, crowd-sourced scientific discovery, computer graphics and animation, applications of harmonic analysis to data analysis, modeling sea ice and climate change, and computational neuroscience.

recognize achievement in a variety of areas, including preliminary exam scoring, graduate teaching, and thesis work. For undergraduates, support participation in prestigious competitions and enhance the educational experience.

Faculty

Endowed professorships help to attract and retain faculty of exceptional talent and are visible honors recognized across the University and by other top educational institutions. Investing in an endowed professorship ensures that world-class faculty educate and mentor our students. Through such support,

the department can grow, and new programs can flourish.

Programs

Even with grant support, additional private resources are critically important and provide the means to sustain the department's intellectual leadership in research. Provide pre-tenure and tenure-track faculty research grants and help them make continued contributions to the field. Travel grants allow students and faculty to attend conferences and work with others throughout the world, an important aspect of mathematical research.

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For more information on giving opportunities, please contact
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