



VIGOROUS PREPARATION IN ADVANCED MATHEMATICS

In the Department of Mathematics, we offer a variety of graduate experiences to suit your educational needs. In addition to offering traditional master's and doctoral degrees, we participate in multiple integrated undergraduate-graduate degree programs, and our students are free to pursue a concurrent major and/or minor.

Our program was ranked eighth in the country in the most recent National Research Council study, and our department has many highly rated research groups and centers. Our department is very active in bringing visitors to campus for seminars and colloquia, which we open to our graduate students.

Whether your career goals lie in academia, research, or industry, our graduate programs can be tailored to your interests, and we strongly encourage interdisciplinary collaboration.

For students interested in academia and teaching, our graduate programs offer excellent preparation. All of our new teaching assistants attend a semester-long training program before they begin teaching undergraduates, and classes are carefully selected for each teaching assistant.

RESEARCH FOCUS AREAS

Penn State mathematics faculty have wide-ranging research expertise, including in these areas:

- Algebra and group theory and algebraic geometry
- Computational and applied mathematics
- Deformation of solids, material science, and fluid mechanics
- Dynamical systems and ergodic theory
- Geometry and topology
- Mathematical biology
- Mathematical logic and foundations
- Number theory and combinatorics
- Numerical analysis
- Operator algebras, noncommutative geometry, and mathematical physics
- Partial differential equations
- Probability theory and stochastic processes
- Social science, economics, and optimization

CENTERS AND LABORATORIES

- Anatole Katok Center for Dynamical Systems and Geometry
- Center for Computational Mathematics and Applications
- Center for Interdisciplinary Mathematics
- Center for Mathematical Biology
- Center for Mathematics of Living and Mimetic Matter
- Center for Undergraduate Research in Mathematics
- William G. Pritchard Fluid Mechanics Laboratory

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FELLOWSHIP AND ASSISTANTSHIP OPPORTUNITIES

Our department makes extremely competitive and individually tailored offers to accepted graduate students. While no financial assistance is offered to master's degree students, graduate students in the doctoral program are eligible for University, college, and governmental fellowships, departmental teaching and research assistantships, and other forms of financial aid. The Eberly College of Science's assistantships and fellowships include a stipend, tuition waiver, and subsidized health, dental, and vision insurance.

Doctoral students are guaranteed financial support during the first summer for teaching, grading, or research. Teaching assistantships are offered for up to six years. A reduced teaching load is available to doctoral students who pass qualifying exams ahead of schedule. In addition, our department awards several Pritchard Dissertation Fellowships to students nominated by their adviser in their final year of study. This fellowship exempts the recipients from teaching during the fall semester.

A DIVERSE COMMUNITY OF SCHOLARS

The diverse representation of a population of scientifically trained leaders and innovators is one of the ways we are addressing the challenge of enhancing the global community of scholars. Through our faculty, staff, and students, the Eberly College of Science remains committed to the goal of excellence through diversity.