MATHEMATICS M.S., Ph.D.

Purdue's graduate Mathematics program has an international reputation as an outstanding center for research, scholarship and mathematical education. Together with visiting researchers, its 63 professors are actively involved in current developments in many major areas of mathematics, including differential and algebraic geometry, topology, commutative algebra, differential equations, complex and harmonic analysis, number theory, representation theory, mathematical biology, computational finance and applied mathematics.

GCOMM@MATH.PURDUE.EDU
WWW.MATH.PURDUE.EDU/ACADEMIC/GRAD

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UNIVERSITY

DEPARTMENT OF MATHEMATICS

26th
Mathematics Doctoral program ranks overall nationally.
(U.S. News & World Report, 2018)

Research Areas

- Algebraic geometry
- Analysis
- Applied and computational mathematics
- Automorphic Forms
- Commutative algebra
- Computational finance
- Geometry
- Mathematical biology
- Mathematical physics
- Number Theory
- Operator algebras
- Stochastics
- Topology

Active Student Groups

Association of Women in Mathematics (AWM)
Women in Science (WISP)
SIAM Student Chapter
American Mathematics Society (AMS)

Funding

All Ph.D. students receive some form of financial support as a TA, RA. or fellow which includes a tuition waiver and salary.

CONTACT

Graduate Coordinator
Mathematics Department
Purdue University

150 N. University Street
West Lafayette, IN 47907
Phone: 765-494-1961
gcomm@math.purdue.edu

Graduate Program

The Department of Mathematics offers programs leading to the degrees of Master of Science and Doctor of Philosophy. Please use the links below to navigate the Graduate Program's online resources.

Math Department Graduate Program Profile (PDF)

Message from the Department Head

Purdue's graduate mathematics program is one of the largest in the country — and one of the best. Recent changes in the graduate program were aimed at improving opportunities for our students to develop in areas that suit their goals. We invite prospective students to visit to meet faculty and current students and to see firsthand what Purdue has to offer.

Apply to the Department of Mathematics

Almost all of our graduate students have financial assistance in the form of Teaching Assistantships or Fellowships, awarded on a competitive basis. Purdue University is an Equal Opportunity and Affirmative Action employer. *Women and minority students are especially encouraged to apply*.

Applications are only accepted for students starting in the fall semester.
No students are admitted for the spring semester.

Program Information

General Information
- Graduate Program Overview
- Graduate Student Handbook
- Faculty Directory and Research Interests
- Mathematics Department Home
- Purdue University Graduate School
- Recent Ph.D. Dissertations
- Frequently Asked Questions (FAQ)

Funding Opportunities
- Fellowships
- Graduate School Fellowship webpage
- Teaching Assistantships
- Student Travel Funds

Information for Students
- Introduction to Departmental Accounts
- Qual Exams & Archive

Interdisciplinary Degree Programs
- Computational Science & Engineering Program
- Computational Life Sciences

Graduate Courses
- Course Schedules
- Course Descriptions

Mailing Address:
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Graduate Program Overview

The Department of Mathematics offers programs leading to the degrees of Master of Science and Doctor of Philosophy. There are several programs leading to the Master of Science degree, some of which prepare the student to seek nonacademic employment, others prepare the students to continue to the Ph.D. degree. The interdisciplinary Computational Science and Engineering program gives students the opportunity to study mathematics and computing in a multi-disciplinary environment. The master's degree program requires 30 hours of coursework. The other programs include the Computational Finance Program which requires 34 hours of coursework. There are no required oral or written examinations, and a thesis is not required. A student with a half-time teaching assistantship normally takes two years to complete the master's degree program.

Among the requirements for the Ph.D. are a minimum of 42 hours of graduate work, reading knowledge in one foreign language, passing written qualifying examinations and an oral specialty examination, writing a thesis, and passing a final oral examination based on the thesis. A student with a half-time teaching assistantship would require a minimum of four years to complete the Ph.D. program, and most students spend five or six years in the program.

Funding

Fellowships

For a list of specific fellowships see our [fellowship page](#).

Beginning graduate students who intend to work toward the Ph.D. degree will be considered for fellowships. Some of these fellowships include the Andrews, Ross, Lynn, Knox, Purdue Doctoral, and Puskas Fellowships. These fellowships provide a stipend of $21,000-$23,000 or more for twelve months with all tuition remitted. An additional stipend is provided to cover insurance costs. These fellowships have tenures ranging from 1 to 2 years, after which the student will be supported with a departmental teaching assistantship or research assistantship up to a total of seven years provided satisfactory academic progress towards the Ph.D. is made.

Research fellowships are available for advanced students for both the summer and the academic year.

Purdue University is a tenable school under the provisions set forth by the Fannie and John Hertz Foundation. Hertz Fellowships cover tuition and all fees plus a $25,000 annual stipend. Students apply directly for this fellowship. For more information see http://www.hertzfndn.org

For more information contact the Graduate Office or [Graduate School](#) or the [Graduate School Fellowships webpage](#).

Teaching Assistantships

Students who do not receive fellowships will be given graduate teaching assistantships with stipends ranging from $14,670 to $16,020 per academic year with a minimum of $16,020 for most successful applicants who can be assigned to classroom teaching. Half-time assistants usually teach four hours per

week. Fees are remitted to several hundred dollars a semester and reduced insurance costs. Teaching assistant training and mentoring is provided by the Assistant to the Head.

Facilities

The Mathematics Library, located in the Mathematical Sciences Building, features an outstanding collection of research journals and reference material in pure and applied mathematics. The department maintains a network of Sun Workstations, several high performance scientific computing and graphics workstations, and equipment for high-quality graphics output. Supported software includes TeX, LaTeX, Macaulay, MACSYMA, Maple, Mathematica, and MATLAB. University facilities for research computing include an Intel Paragon parallel supercomputer. Student offices contain workstations and the Mike Keedy Computer Laboratory contains workstations, personal computers, terminals, and laser printers for graduate student use.

Applications

Electronic Application for Graduate Studies

The Graduate School application fee is $60 (U.S. dollars) for domestic applicants and $75 (U.S. dollars) for international applicants. The deadline for applications is December 20th.

Applicants should arrange to take the GRE General Test and the GRE Math Subject Test (Institution Code: 1631, Department Code 0703) enough in advance so that scores are received by the department before January 15.

Non-native English speakers need to obtain a minimum score of 570 on the paper-based TOEFL exam or 230 on the computer-based exam. The following minimum scores are required for the iBT: Reading 19, Listening 14, Speaking 18, Writing 18 and an overall score of at least 77. An official score report not more than two years old must be submitted (Institution Code 1631, Department Code 72).

Purdue does not discriminate against qualified handicapped persons in any of its programs or activities. Purdue is an Equal Opportunity/Equal Access University

Contact

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Handbook

The Department of Mathematics maintains an updated, online version of its [Graduate Student Handbook.](#) Consult this guide for detailed information about the program and its requirements.

Qualifying Exams

The Department of Mathematics maintains an [archive of Past Qualifying Exams.](#)

Related Information

- o **[Purdue University Graduate School](#)**
  The official online site of Purdue University's Graduate Programs.
- o **[Faculty Research Interests](#)**
  A list of faculty research interests and contact information.
- o **[Computational Finance Program](#)**

- **[The Computational Science and Engineering Program](#)**
- **[Graduate TAship Application](#)**
  Information about the Department of Mathematics TAships for Purdue students outside the Math Dept.
- **[Graduate School Employment Manual](#)**
  Purdue University maintains an online version of their Employment Manual.

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Department of Mathematics

Graduate Program

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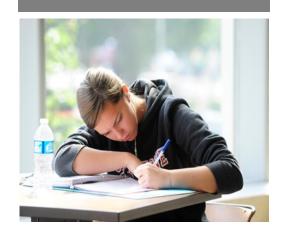
The department has about 63 full-time faculty and about 170 Ph.D. students, and conducts research in a broad range of areas within pure and applied mathematics.

CURRICULUM

The Department of Mathematics offers a comprehensive educational program in pure mathematics, applied and computational mathematics, computational finance and promotes both fundamental research and scientific/engineering applications.

For detailed descriptions of research areas visit our department's research area webpage:
www.math.purdue.edu/research

FUNDING

FUNDING
The Mathematics Department guarantees funding for all admitted Ph.D. students.

Funding opportunities include fellowships, teaching and research assistantships.

Apply Online:
https://gradapply.purdue.edu

Deadline to Apply:
January 4th