

The Department of Mathematics is one of the largest departments in the Faculty of Science. Faculty members include distinguished professors, instructors, adjunct professors and senior scholars. We have an enrollment of over 8000 undergraduate students.

The department offers Master's and Doctoral programs at the graduate level, which cover many areas of mathematics including a new Master's degree organized jointly by the Departments of Computer Science, Mathematics and Statistics which is for company-sponsored employees wishing to undertake graduate work with a large practicum component of benefit to the company.

### Program Description

Candidates for the Ph.D. are normally accepted upon successful completion of a Master's degree in mathematics, although direct entry is possible for students with an exceptionally strong undergraduate background. The Ph.D. program requirements include comprehensive examinations, course work and the completion and defense of a thesis. A minimum of two years is required to complete this degree though normally it takes three to four years to complete.

The Master's degree in Mathematics is based on course work, and thesis, or course work and a practicum. A minimum of one year is required to complete this degree, though sixteen months is not unusual.

Our graduates find work in industry or in academia. Our web pages have links to job sites across North America.

### Research Interests

Our department has people working in the areas of algebra, analysis, approximation theory, computational mechanics, computer graphics, differential equations, discrete mathematics, finite-element methods, foundations, geometry, matrix computations, mathematical biology, numerical analysis and topology. More information about specific individuals and their current graduate students can be found on the department web pages.



The department operates several seminars in addition to graduate courses. Faculty, graduate students and visitors from all over the world participate in such research seminars. Regular seminars are held in discrete mathematics, functional analysis, rings and modules, mathematical biology, computational and applied mathematics, and universal algebra and lattice theory. There is also a weekly graduate student seminar in which graduate students give talks on topics of their choice.

### Research Facilities

The department provides each graduate student with an office and access to computers, laser printers, mail, a photocopier, a fax machine, mathematical journals, a reading room and a lounge.

Our computer room has Macintosh and Pentium personal computers running various operating systems - Mac O/S, and Windows NT. Software programs include Maple, Mathematica, MathCad, MatLab, Scientific Workplace, Watcom C/C++, word processing/spreadsheet programs, web access and network access to UNIX servers.

### Affiliations with Organizations

We are affiliated with the American Mathematical Society, the Canadian Mathematical Society, the Mathematical Association of America, the Fields Institute, the Society for Industrial & Applied Mathematics and the Canadian Applied & Industrial Math Society.

The department currently operates the TeX office of the CMS which publishes the two principal journals of the Society: The Journal of the CMS and the Canadian Bulletin.

### Admissions Information

Admission requirements to the graduate programs of this department are the same as those required by the Faculty of Graduate Studies.

### Funding Opportunities

Eligible Canadian citizens and landed immigrants should apply to the Natural Sciences and Engineering Research Council (NSERC) for scholarship funding to support their graduate studies. UMGF and National award winners may be eligible for top up funding.

The University of Manitoba offers scholarships to worthy students on a competitive basis, without regard to citizenship status. Information on these awards can be found on the Faculty of Graduate Studies web pages. In addition, the Department of Mathematics offers fellowships to students on a competitive basis. The department awards include an expectation that the student work. The Department will fund a student up to 2 years for the Master's program; up to 4 years for the Ph.D. program.

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