

NIPISSING

U N I V E R S I T Y

North Bay

www.nipissingu.ca

Mathematics



Program Description

Mathematics is an integral part of our everyday lives and is in the background of simple tasks like driving a car, playing video games, searching information using Google, or paying bills online, as well as much more complicated things like predicting the weather, space travel or medical imaging. As the foundation of many scientific disciplines, Mathematics is the study of numbers, patterns, space and change. If you are a problem-solver, logical thinker and enjoy working independently, consider our undergraduate degree in Mathematics. The four-year Honours degree has three different streams to choose from: Pure Mathematics; Applied Mathematics; or General Mathematics. You can also decide to do a Bachelor of Arts or a Bachelor of Science, which gives you the opportunity to shape your degree to suit your interests and strengths.

Our Teaching Approach

As a student of Mathematics, you will become skilled at completing independent work—an important quality for problem-solving and one many employers look for. You will also gain a strong foundation in academic theory with an emphasis on research. You will learn through lectures, and under the close supervision of a professor, will also spend a significant amount of time in your upper years completing your own practical research work. This is an amazing opportunity for undergraduate students and works in your favour if you want to further pursue graduate studies.

Our class sizes are small, which means that professors are approachable and available to provide additional assistance if required—in class and during office hours. The Math Drop-In Centre is another resource should you need help with a Math problem or want to hone your mentorship abilities with peers who are struggling.

There are opportunities to get involved outside the classroom, too. Participate in Math competitions like the Putnam Contest or in student-organized events like Pi Day. If you are interested in teaching, you may want to get involved in facilitating a Math Circles enrichment program for local elementary and high school students.

Program and Faculty

- Honours Specialization
- Specialization
- Major
- Minor

Bachelor of Arts (BA) in Mathematics

Consider a BA in Mathematics if, in addition to math, you are interested in the social sciences or humanities. You will choose from one of three streams: Pure Mathematics; Applied Mathematics; or General Mathematics. Each area provides you with a solid foundation in Mathematics, and the Honours program places a large emphasis on research. You may choose to combine your Mathematics degree with another major or minor degree of your choice.

Bachelor of Science (BSc) in Mathematics

Consider the BSc in Mathematics if you want to combine your interests in Math and Science. You will choose from one of three streams: Pure Mathematics; Applied Mathematics; or General Mathematics. And, you can tailor your degree to your interests by choosing elective courses like Biology; Chemistry; Physics; and Geology. Consider taking the BSc in Mathematics if you think you want to further pursue graduate studies.

In both the BA and BSc programs, your first year will consist of courses like





Calculus, Linear Algebra, and Discrete Mathematics. These courses will give you a solid foundation for your upper years. Our small class sizes encourage lots of interaction and give you opportunities to ask questions. Your first year classes will average about 60 students and your upper year classes are smaller at about 20 students. This gives you even more opportunity to engage in class material and enjoy the support of your professors and the sense of community with your peers.

The Mathematics faculty at Nipissing is nationally and internationally recognized for their research. Some areas of specialization include: Topology, Computational Geometry, Algorithmic Graph Theory, and Industrial Mathematics. For keen students, there are paid opportunities available to assist professors with research, which means you may have opportunity to contribute to cutting-edge work in the field. Some of our former students have published joint papers with a faculty member, which is a stellar accomplishment and a definite advantage if you are considering graduate studies.

Certificate in Game Design and Development

Love video games? The Certificate in Game Design and Development teaches you the skills you need to develop game-related computer applications and other similar types of software. You will learn skills in advanced programming, software engineering, design, and algorithm development. Courses will cover game design and development, 3D computer graphics, and artificial intelligence. This certificate will prepare you for a career in game development and related industries.

Bachelor of Education: The Schulich School of Education

If you want to earn a Bachelor of Education (BEd) degree, you can choose from the Concurrent route (available with all honours undergraduate programs except Nursing and Social Work), or the Consecutive Program (once you've completed your undergraduate degree).

The Schulich School of Education is one of the best education programs in Ontario. It will prepare you to teach in both traditional and non-traditional environments, and you will gain communication and collaborative skills that can be used in any career.

Our teacher candidates are immersed in an active professional learning environment with support and resources available through our Professional Learning Centre.

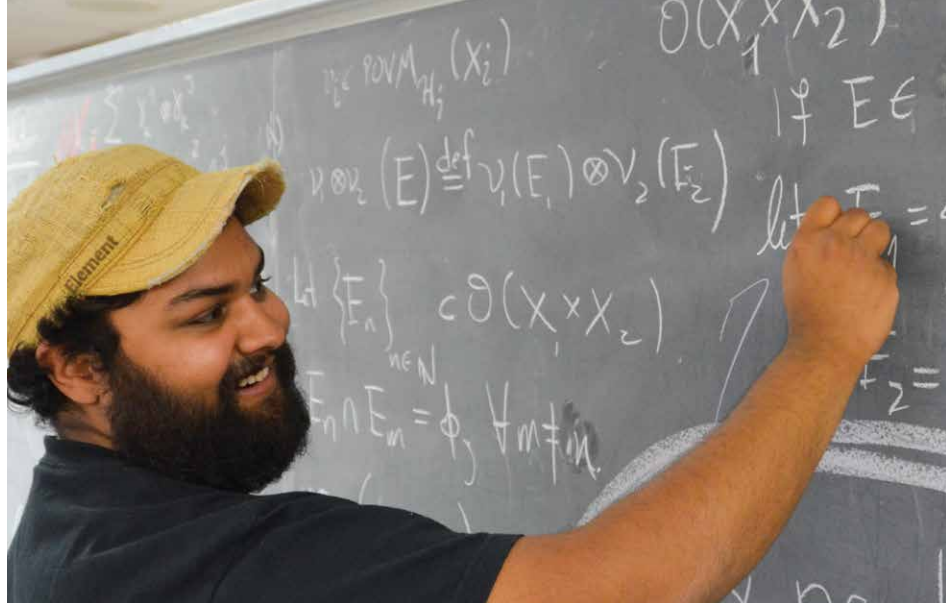
Each term a calendar of opportunities is made available, and you will be invited to participate in a series of real-world professional experiences that help you to hone skills, strategies and activities that integrate digital technology resources, enhance school community involvement, develop a personal résumé, portfolio and interview techniques, and much more.

All professional learning opportunities are designed to support and supplement course content by broadening teaching/learning skills and by building your confidence and readiness for the teaching profession.

Master of Science in Mathematics

If you are looking to further your education and have already completed a Bachelor of Science in Mathematics, consider our Master of Science Mathematics program. It is offered as a one or two year full-time program, or on a part-time basis.

Our program trains students for future work in research, industry, business, or government, and provides a strong background in foundational areas of mathematics. Our faculty members are experts in topology, analysis, combinatorics and graph theory, industrial and applied mathematics, with research in scheduling, computational problems, numerical mathematics, and optimization. Many faculty work on inter- and multi-disciplinary research with disciplines like geography, the physical and health sciences, business, and management. Graduate students therefore also have an opportunity to perform research on the interface of mathematics with other disciplines.



Why Nipissing?

You will feel right at home the minute you step onto campus. Becoming a part of our community is just one of the many perks of attending Nipissing. You will benefit from small class sizes where every student has a name and a voice. Should you need help, you will have access to our supportive professors, even outside of classroom hours.

Nipissing is focused on student success and you will have access to a full range of student services that will help you succeed academically, financially, and personally. In addition, we have some of the best residences in Canada, with a guaranteed private room for all first-year students coming directly from high school. We encourage you to come and see for yourself why you belong at Nipissing.



Where Can I Go From Here?

Because mathematics is so prevalent in everyday life, your options for careers are vast and you may consider moving into a position as a data analyst, financial advisor, statistician, mathematician, research associate, market research analyst, economist, or computer engineer.

For more information on the Mathematics program please visit: www.nipissingu.ca/math



ONE STUDENT AT A TIME

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