

# NIPISSING

U N I V E R S I T Y

North Bay

[www.nipissingu.ca](http://www.nipissingu.ca)

Computer Science



## Program Description

Most of us live robust digital lives. Computers are everywhere today: in our phones, in our cars, sometimes even in our refrigerators! So if you're looking for a comprehensive field of study that will open up countless career opportunities, look no further—Computer Science may be just right for you.

You will receive a first-rate education along with access to cutting-edge computer labs and technology. In addition to a strong foundation in theory, our program teaches you to apply ideas in real-world scenarios and through in-depth project-based assignments. You may even have opportunities to solve real industry problems.

This program produces competitive graduates. Our students have been hired in industries throughout North America including IT companies, government, education, and defence services. In addition, our students are readily accepted into university graduate-level programs and often are sought out and secure employment before graduating from these programs.

## Our Teaching Approach

Computer Science is about solving problems. To do that, you need to learn the theory, and then how to apply it. We provide you with the theoretical and academic foundation that you need to begin solving real-world problems. The program is designed so that your knowledge expands as you progress through the courses within your degree.

You will learn how to complete work and projects independently—a skill that employers love – and you will also have plenty of support along the way! Our small classes and tutorials guarantee that you will have access to your professors and teaching assistants when you need help, and sometimes outside of office hours. In upper years, you will take practicum and research courses that will allow you to begin applying your knowledge.

Often, keen undergraduate students earn the opportunity to complete graduate-level research through upper-year projects, or through paid research assistantships and working with professors. These opportunities are typically reserved for graduate students at other universities. You

will also be encouraged to present and share your work at the annual Undergraduate Research Conference.

Our technological facilities are up-to-the-minute, including computer labs and robotics labs. We also provide access to SHARCNET, a consortium of universities who share a network of high performance computers that enables research.

## Program and Faculty

### Bachelor of Science

- Honours Specialization
- Specialization
- Major

### Bachelor of Arts

- Honours Specialization
- Specialization
- Major
- Minor

First year consists of core courses that will introduce you to the study of Computer Science and give you a strong foundation to build on. These courses include things like Programming, Digital Systems, Calculus, Machine Structures, and more.

In upper years, you will start to specialize. You will begin to take on project-based assignments in which you will solve practical problems for industry—applying your core knowledge to find solutions for real-world problems—and you may also begin larger research projects.

Our excellent Computer Science faculty is active in research and maintains strong ties to local industry. They are recognized nationally and internationally for their work, and they are committed to providing cutting-edge knowledge and opportunities to their students. You may also become involved in research through paid summer research assistantships with faculty.







## 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.

## Certificate in Digital Humanities

If you are interested in studying the digital world and new media, check out the Digital Humanities Certificate, which we deliver in conjunction with the English department. This certificate meets the growing need for training in the digital world among the humanities field, and offers you a specialization in new media studies. Earning this certificate will open up a whole new world of career options and graduate school opportunities.

## 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.

## Why Computer Science at Nipissing?

There is a strong research culture within the Computer Science program, and professors continue to earn funding from agencies like the Natural Sciences and Engineering Research Council of Canada (NSERC) to conduct research. Student learning and engagement are always enhanced within this type of active environment. The General Computer Science lab; Robotics lab; and the Collaborative Systems lab also help to facilitate students' research and provide opportunities for students to pursue individual studies based on their interests. The program provides solid preparation for those who want to further their studies in graduate-level programs and for those who want to embark on an immediate career.



### Student-Faculty Interaction

<b>NIPISSING</b> .....	<b>A</b>	McMaster .....	B+
Queen's .....	A	Waterloo .....	B+
Ryerson .....	A-	Brock .....	B+
Western .....	A-	Laurier .....	B+
Guelph .....	A-	Lakehead .....	B+
Trent .....	A-	Laurentian .....	B+
Carleton .....	B+		



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 also benefit from small class sizes where you will have 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. So 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?

A Computer Science degree is valuable. While many graduates pursue careers in programming, there are many other options available to you as well.

A range of careers is possible with a Computer Science degree: software engineer, artificial intelligence specialist, systems developer, web designer, and data processing director, to name only a few! You may decide to pursue graduate studies or go on to professional schools like law or teaching.

## Find Out Why You Belong at Nipissing

Sign up for Open House, a tour, or more information:  
[ibelongatnipissingu.ca](http://ibelongatnipissingu.ca)

For more information on the Computer Science program please visit:  
[www.nipissingu.ca/compsci](http://www.nipissingu.ca/compsci)



ONE STUDENT AT A TIME

Student Recruitment Office, 100 College Drive, Box 5002, North Bay, ON P1B 8L7  
tel: (705) 474-3450 ext. 4200 • toll free (within Ontario): (800) 655-5154 • tty: (877) 688-5507  
[nuinfo@nipissingu.ca](mailto:nuinfo@nipissingu.ca) • [www.nipissingu.ca](http://www.nipissingu.ca) • [www.facebook.com/NipissingU](https://www.facebook.com/NipissingU) • [@NipissingU](https://twitter.com/NipissingU) @NURecruitment

If you would like to request this publication in an alternative format please contact the Student Recruitment Office at (705) 474-3450 ext. 4200