



# Career Options after Mathematics

[www.utsc.utoronto.ca/cms](http://www.utsc.utoronto.ca/cms)  
Co-op, Specialist, Major

## What is Mathematics?

Mathematics has provided the foundations for many of the greatest discoveries and innovations of the last century. Its origins date back to ancient times when algebra and geometry were used for commercial purposes, measuring crops/fields, and valuing money.

Today, Mathematics provides both the theoretical frameworks and applied tools to address problems in commerce, technology and science.

## Skills of Mathematics Grads

- Developing computational methods and applying mathematical theories and techniques to solve practical problems in business, engineering, the sciences, or other fields.
- Developing mathematical or statistical models of phenomena to use for analysis or for computational simulation.
- Assembling sets of assumptions and exploring the consequences of each set.
- Addressing relationships of quantities, magnitudes, and forms through the use of numbers and symbols.
- Performing computations and applying methods of numerical analysis to data.
- Developing new principles and new relationships between existing mathematical principles to advance mathematical science.
- Designing, analyzing, and deciphering encryption systems to transmit military, political, financial, or law-enforcement-related information in code.

*Key Source: onetonline.org*

## What makes Mathematics at UTSC unique?

With depth and rigor, mathematics provide a foundation for further study in any area of academic inquiry, and a myriad of career paths.

## Entry-Level Jobs for Bachelor Grads

Common employment destinations include:

- Quantitative Analyst in Corporations
- Business Intelligence Specialist in Telecommunications
- Business Analyst in Financial Services
- Logistics Analyst in Manufacturing
- Supply Chain Analyst in Wholesale Services
- Application Developer in Technology Consulting
- Technical Analyst in Software Development
- Data Warehouse Consultant in Data Management
- Actuarial Analyst in Compensation Consulting

## Graduate & Professional Studies

Popular further education opportunities include:

- Mathematics (Pure) – Master of Science or Arts
- Applied Mathematics – Master of Science or Arts
- Actuarial Science – Master
- Combinatorics (Cryptography) – Master
- Biostatistics – Master of Science
- Management and Accounting – Master
- Management and Operations – Master
- Business Administration – Master

### Did you know?

UTSC graduates from Mathematics are working in education, research, and information technology.

Attend our LinkedIn workshop to learn about the *Find Alumni* tool for networking!

### Mathematics Grads from UTSC have gone on to:

- Aon Hewitt (Lead Systems Analyst)
- CIBC (Test Analyst)
- Intelx Technologies (Application Developer)
- CSA Group (Certification Engineer)



## Examples of Fields that 'Fit' the Skills of Mathematics Grads

- Software Development
- High Tech Manufacturing
- Financial Services & Accounting
- Insurance
- Consulting Firms (Actuarial, Information Technology)
- Hospitals & Medical Research Organizations
- Universities
- Government (Federal, Provincial, Regional, Municipal)

## Your 4-Year Career Exploration Action Plan

### 1 Do Your Research

The databases below provide you with details about job prospects, nature of work, educational requirements, working conditions, pay and related career paths:

**Career Cruising:** Log into [cln.utoronto.ca](http://cln.utoronto.ca), click on Resources, and click on Career Cruising to be logged in automatically

**O\*Net:** [online.onetcenter.org](http://online.onetcenter.org) (U.S. site)

Attend our workshop **Discover Your Skills and Career Options**, meet with a Career Counsellor, and use our resources to get to know your skills, values, personality and interests:

[www.utsc.utoronto.ca/aacc/get-know-yourself](http://www.utsc.utoronto.ca/aacc/get-know-yourself)

Use the advice on our tip sheets for gathering information:

[www.utsc.utoronto.ca/aacc/tipsheets](http://www.utsc.utoronto.ca/aacc/tipsheets)

- Information Interviews
- Working On-Campus
- Internships
- Volunteering

### 3 Build Your Network

Explore **Professional Associations** and get involved: volunteer for their events and conferences, and get to know people in your industry of interest. These are your future mentors, supervisors and colleagues!

Association of Mathematical and Computer Science Students – <http://amacss.org>

Canadian Mathematical Society – [www.cms.math.ca](http://www.cms.math.ca)

Canadian Applied & Industrial Mathematics Society – [www.caims.ca](http://www.caims.ca)

Centre for Applied Cryptographic Research – <http://cacr.uwaterloo.ca>

Statistical Society of Canada – [www.ssc.ca](http://www.ssc.ca)

Statistics Canada – [www.statcan.gc.ca](http://www.statcan.gc.ca)

Computing Research Association – [www.cra.org](http://www.cra.org)

Canadian Institute of Actuaries – [www.cia-ica.ca](http://www.cia-ica.ca)

Canadian Operations Research Society – [www.cors.ca](http://www.cors.ca)

### 2 Explore Career Options & Get Experience

Gain exposure to your options in the world of work and make connections while you're a student via campus events and programs listed on [cln.utoronto.ca](http://cln.utoronto.ca) and [ccr.utoronto.ca](http://ccr.utoronto.ca):

- [Extern Job Shadowing](#)
- [In the Field](#)
- [Explore It!](#) (course-based)
- [Partners in Leadership](#) (4<sup>th</sup> year students)
- [iLead, uLead, weLead](#) (Dep't of Student Life)
- Employer Information Sessions
- Career & Volunteer Fairs
- [Departmental Student Association](#) Events

Apply for [Work Study](#) jobs in CLN in Fall and Spring! You might also find work via [www.scsu.ca/jobs](http://www.scsu.ca/jobs).

Find networking opportunities, internship programs and entry-level jobs via websites like [www.talentegg.ca](http://www.talentegg.ca) and [www.charityvillage.ca](http://www.charityvillage.ca).

As an upper year student (14+ credits), attend UTSC's [Get Hired Conference](#) and participate in [Jobs for Grads](#).

As a graduate, explore internships and other trainee programs like [www.careeredge.ca](http://www.careeredge.ca)

Please note: This document is a starting point for your further research into career options in this field of study. For more information on this program and course requirements, please visit the departmental website at the top of the first page.