



Career Options after

Physical & Mathematical Sciences

the study of materials' movement and influence

www.utsc.utoronto.ca/physsci

Specialist, Major

What is Physical and Mathematical Sciences?

One of the Physical Sciences, Mathematical physics is concerned with the internal, logical consistency of physical theories. It explores relations between abstract concepts, proves certain results contingent upon certain hypotheses, and establishes an interlinked set of tools that can be used to study anything that happens to match the relations and hypotheses on hand. Simple mathematical models allow us to understand various physical systems.

Skills of Physical & Mathematical Sciences Grads

- Apply physical principles to problems and formulate solutions
- Integrating theoretical approaches
- Mathematical and computational modelling
- Team-based research and ability to work in multi-disciplinary groups
- Apply and process new information quickly
- Design and execute experiments
- Write technical reports and project proposals relevant to given audience
- Communicate complex information and data through presentations and discussions
- Demonstrate ethical scientific behaviour
- Utilize qualitative and quantitative analysis and problem solving
- Assess the reliability of data and the significance of results

What makes this program unique?

You will model, simulate and understand a wide range of physical and natural phenomena via coursework and research. Faculty at UTSC are world leaders in the development and application of novel numerical techniques, with access to local and national supercomputers which run large-scale planetary simulations.

Entry-Level Jobs for Bachelor Grads

Common employment destinations include:

- Apprentice in Electrical Delivery Systems
- Technologist in Sensor Development
- Junior Policy and Data Analyst in Government
- Quality Assurance Analyst in Healthcare Technology and Pharmaceuticals
- Junior Associate in Information Technology Service Providers
- Tester / Developer in Software Solutions
- Product Tester in Industrial and Electronics Manufacturing
- System Specialist in Data Management Services

The Career Directory: www.canadastop100.com/tcd

Graduate & Professional Studies

Popular further education opportunities include:

- Computer Science – Master
- Physics or Chemistry – Master of Science
- Software Development – Post-Graduate Certificate or Diploma
- Engineering – Bachelor or Master
- Nuclear Medicine or Radiation Therapy – Degree or Diploma

Use LinkedIn!

UTSC Physical Sciences graduates are working in Education, Operations, and Research.

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

Physical Sciences Grads from UTSC have gone on to:

- CGI (Senior Consultant)
- Private High School (Teacher)



Examples of Fields that 'Fit' the Skills of Physical & Mathematical Sciences Grads

- Healthcare Technology
- Private/Public Research and Development
- Education
- Financial Risk Management
- Energy Production
- Manufacturing
- Software and Computer Systems
- Government (Municipal, Regional, Provincial, Federal)

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, click on Resources, and click on Career Cruising to be logged in automatically

O*Net: 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

Use the advice on our tip sheets for gathering info: 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!

Environmental & Physical Sciences Student Association - www.myepsa.ca

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

Canadian Association of Physicists - www.cap.ca

Canadian Mathematical Society - www.cms.math.ca

Canadian Applied & Industrial Mathematics Society – www.caims.ca

Canadian Information Processing Society - www.cips.ca

Association for Financial Professionals - www.afponline.org

Canadian Association of Medical Radiation Technologists - www.camrt.ca

Other associations and websites for finding networking opportunities and experience include:

PhysLink - www.physlink.com

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 and ccr.utoronto.ca:

- [Extern Job Shadowing](#)
- [In the Field](#)
- [Explore It!](#) (course-based)
- [Partners in Leadership](#) (4th 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 on CLN in the Fall and Spring! You might also find work via www.scsu.ca/jobs.

Find networking opportunities, internship programs and entry-level jobs via websites like www.talentegg.ca and 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