Careers by Major - Mathematics/Statistics

This document serves as a starting point for your career research. Each Careers by Major page provides lots of ideas on various career areas, as well as how to gain related skills and experience. Useful resources and job samples are also provided. Visit us in the Career Centre to find out more about career areas that interest you.

Last updated: September 2017.

Sample Careers / Jobs

Below is a sample of the many types of careers and jobs pursued by graduates of this program.

Sample Career Titles

Note: This is not an exhaustive list. Detailed career profiles are available in the Career Centre. Some positions require further education and experience.

Account Manager*
Accountant*
Actuary*
Appraiser*
Architect*
Astronaut*
Astronomer*
Auditor*
Avionics Tech*
Bank Manager*
Bank Customer Service Rep.*
Benefits Administrator
Bill and Account Collector*
Budget Analyst
Building Inspector*
Building Superintendent*
Claims Adjuster
Computer Programmer*
Construction Tradesperson*
Criminologist*
Database Developer*
Economist*
Elementary School Teacher*
Energy Auditor*
Engineer*
Epidemiologist*
High School Teacher*
Home Inspector*
Insurance Claims Adjuster*
Insurance Underwriter*
Investment Advisor*
Investment Banker*
Land Surveyor*
Loan Officer*
Logistics Specialist*
Management Consultant*
Market Research Analyst*
Mathematician*
Mathematical Technician
Meteorologist*
Middle School Teacher*
Money Manager*
Numerical Analyst
Operations Research Analyst*
Personal Financial Planner*
Physicist*
Pilot*
Principal*
Professor*
Purchaser*
Real Estate Appraiser*
Research Analyst*
Scientist*
Special Education Teacher*
Statistician*
Systems Operation Analyst
Tax Preparer*
Trader*
Venture Capitalist*

* View these titles at Career Cruising, available on CLN (cln.utoronto.ca) under the Resources tab.

Sample Job Listings

Below is a sample of positions that have been promoted within the Career Centre. To access current postings, login to CLN at www.cln.utoronto.ca and click on Jobs.

- Software Developer, Department of Mathematical and Computational Sciences, UTM
- Scheduling and Examination Clerk, Office of the Registrar, UTM
- Research Coordinator, Robert Gillespie Academic Skills Centre, UTM
- Senior Statistical Review Officer, Government of Ontario
- Marketing Database Analyst, MONSEXgroup
- Data Mining Analyst, Waterfront International
- Technical Architecture Consultant, Accenture
- Junior Bioinformatician, Ontario Institute for Cancer Research
- Health Economist Statistician, Canadian Medical Protective Association
- Quantitative Analyst, Google
- Business Analytics and Optimization, IBM Canada Ltd.
- Database Administrator, E-Tech Computing
- Financial Consultant, World Financial Group
- Junior Geotechnical Engineer, GeoPro Consulting Limited

Sample Areas of Employment

- Computer, hardware, software, and telecommunications companies
- Government
- Aerospace companies
- Banks, investment firms, insurance companies, and retail chains
- Research and development firms
- Consulting firms
- Biotechnology firms
- Engineering and manufacturing firms
- Health, medical, and pharmaceutical industries
- Educational institutions
Program-Related Skills

Academic courses in this program provide opportunities to develop the following types of skills. Make a career counselling or an employment strategy appointment to discuss how you can demonstrate these skills to employers.

- **Critical thinking & interpersonal**: construct sound arguments and expose illogical ones; collaborate with others; and effectively communicate ideas and abstract concepts.
- **Problem solving**: approach problems from different angles to identify key issues; and apply mathematical/statistical theories and methods to solve problems.
- **Technical**: understand mathematical/statistical concepts and the rules of logic; and use a range of specialized software.
- **Investigative & organizational**: analyze large quantities of numerical data; find patterns and draw conclusions; and present mathematical arguments with accuracy.

Explore Careers & Build Networks

**Career Exploration 101**

Take our 15 minute online module available at utm.utoronto.ca/careers/career-planning/career-exploration and attend the Career Exploration Part 2 in-person workshop read about how you can gain access to UTM's three career exploration programs:

- Extern Job Shadowing
- In The Field
- Informational Interviews

**Alumni Profiles**

Check out our Alumni Profiles page with submissions from UTM grads to find out how their experiences have affected their career direction.

**Events**

Attending networking events, employer info sessions, and career fairs is a great way to meet professionals and learn more about careers, companies, and industries. Login to CLN and click on Events & Workshops to see what's coming up.

**Talk to Professors**

Connecting with your professors can be a great way to explore the different paths a major can lead you to, as well as learn about possible opportunities for research, volunteering, or becoming a TA. Drop by during their office hours or request an appointment.

**Student Organizations**

Join a student club or an academic society at UTM to meet like-minded people, explore your interests, and gain valuable skills. To view a list of current clubs and societies, visit the Centre for Student Engagement online. Some organizations you may consider are:

- Mathematical and Computational Sciences Society
- Undergraduate Economics Council
- Undergraduate Finance Association

**LinkedIn**

Create a LinkedIn profile to connect with professionals in the fields, explore the career paths of UTM alumni, research employers, apply for specific positions, and more. Need help? Come into the Career Centre to book a LinkedIn profile critique.

**Professional Associations**

There are many benefits of becoming a member of association(s), such as developing a network of contacts, learning about industry trends, accessing industry-related job postings, and stating your affiliation on your resume. Some associations related to this major are:

- Canadian Mathematical Society (CMS)
- Statistical Society of Canada (SSC)
- Canadian Applied and Industrial Mathematics Society (CAIMS)
Get Experience

Get some experience and exposure to the industry while being a student. This will increase your chances of finding a job after graduation, while helping you decide what area might be most suitable for you.

Crack the Hidden Job Market

Networking is an essential element of job search today, as most jobs are not advertised. While you should still apply for positions you find online, building relationships with professionals is a proven way to access the "hidden job market" with some of the most desirable opportunities.

Attend the "Learn to Network" workshop to discover proven techniques to effectively introduce yourself and make contacts.

On-Campus

Experience 101 Handout

Check out the Experience 101 handout on www.utm.utoronto.ca/careers/on-campus-opportunities to view a list of some of the ways you can get valuable experience on campus.

Work Study Positions

The work study program provides eligible students with an opportunity to work on campus during the academic year and gain experience. Many departments use this program to hire UTM students during the Fall/Winter and Summer terms.

Research Opportunity Program (ROP)

UTM's Research Opportunity Program (ROP) allows undergraduate students to gain valuable research experience and earn a course credit by participating in a faculty member's research project. Courses are held during Summer and Fall/Winter terms.

Part Time and Volunteer Positions

- Attend the annual Get Experience Fair
- Check out our binder with detailed information on volunteer opportunities; available in the Career Centre
- Learn about the Co-Curricular Record (CCR), which can help you find opportunities beyond the classroom and have your skills and experiences captured on an official document; go to www.ccr.utoronto.ca to find out how you can get involved

Off-Campus

Internships, Summer, Part Time and Volunteer Positions

- Check out our binders with detailed information on internships and volunteer opportunities; available in the Career Centre
- Login to Career Learning Network (CLN) and click on Jobs to access current postings advertised to UofT students
- Attend the annual Get Hired: Summer and Full-Time Jobs Fair
- Consider taking an academic internship course through your department
- Check out Government of Ontario - Job Programs for Youth Summer Employment Programs' web page
- Review our Internships, Summer Employment Programs, and Summer Job Search tip sheets at utm.utoronto.ca/careers/tip-sheets

Full Time

- Login to CLN and click on Jobs to access current postings advertised to graduating students and recent UofT grads.
  Note: You must attend the "Now That I'm Graduating, What's Next?" workshop to gain access to these postings.
- Attend the annual Get Hired: Summer and Full-Time Jobs Fair
- Check out our list of industry-specific job boards on www.utm.utoronto.ca/careers/jobs/jobs-resources-links

Student Organizations

Join a student club or an academic society at UTM to meet like-minded people, explore your interests, and gain valuable skills.
To view a list of current clubs and societies, visit the Centre for Student Engagement at www.utm.utoronto.ca/student-life/student-organizations.
Useful Resources & Next Steps

Appointments
- Attend a one-on-one appointment with a career counsellor or an employment strategist to discuss what career options might work for you and determine a job search plan. Contact the Career Centre for more information.
- Meet with an academic or departmental advisor, who can guide you in achieving academic success. Contact the Office of the Registrar or your department for more information.

Additional Web Resources
- Prospects – Career Options in Mathematics
- Career Development Organization – Careers in Maths booklet
- CareerProfiles – Statistician Career Profile
- Fields Institute for Research in Mathematical Sciences
- Canada's Top 100 Employers for Young People

Career Centre Library Resources
The Career Centre resource library contains information about a wide range of occupations in all industries, resume and cover letter resources, effective work search methods, graduate/professional school preparation guides, and more. Located in DV 3094.

Career Planning by Year
Look for our Career Planning by Year web page on www.utoronto.ca/careers/career-planning for ideas of important career related activities for each year.

Questions?
Visit the UTM Career Centre located in DV 3094, call 905-828-5451, or visit www.utm.utoronto.ca/careers.