



Statistical Sciences
UNIVERSITY OF TORONTO

STATISTICS

GRADUATE PROGRAMS

MSC • MFI • PHD



Graduate Programs in Statistics

Master of Science (MSc) in Statistics

Rigorous training in statistical theory, methodology, and applications. Students may choose a thesis-based or project-based pathway, preparing for academic research or professional careers.

Master of Financial Insurance (MFI)

An interdisciplinary program blending actuarial science, statistics, and finance. Students gain advanced knowledge of risk modelling, financial instruments, and insurance analytics, with strong connections to industry partners.

Doctor of Philosophy (PhD) in Statistics

The PhD program provides advanced training in statistical theory, methodology, and applications across a wide range of fields. Students pursue original research under the supervision of internationally recognized faculty, gaining expertise that contributes to both fundamental knowledge and interdisciplinary collaboration. Graduates emerge as leaders prepared for careers in academia, industry, and government.



KC Tsiolis
PhD Student

“Being a PhD student at DoSS has been a life-changing experience. The welcoming community of students, postdocs, faculty, and staff, along with seminars and social events, has helped me grow both academically and personally. With strong mentorship and exposure to leading researchers, I’ve developed the skills and confidence to pursue original research and lasting collaborations.”



The explosion of interest in data science has triggered an accelerated expansion of the department's interdisciplinary research and a rapid growth of our community – from faculty to undergraduate and graduate students.

Department rankings:*

#1

In Canada

#5

In the world

University rankings:*

#1

In Canada

#12

In North America



Reputation for excellence

At the Department of Statistical Sciences, our faculty, researchers and students exude a relentless dedication to excellence. Our global standings for academic and research performance are consistently ranked among the top statistics programs in the world by EduRank, Shanghai Rankings, and QS World University Rankings.

Faculty within the department developed many important innovations in statistical science. These include advances in foundational theory and methods, algorithms for statistical computation, machine learning, mathematical finance, statistical applications in science and humanities and the development of cutting-edge teaching methods and curricula in statistics. The importance of these innovations is reflected in the number of significant research and teaching awards bestowed on the department's faculty, including the prestigious Committee of Presidents of Statistical Societies (COPSS) Award.

*EduRank 2024

The Future (in data sciences) Looks Bright!

12K

Worldwide Alumni

The need for statisticians and data scientists continues to grow by leaps and bounds.

Today, statistical methods find a variety of important applications in society and are used in many sectors, including business, government, academia, public health, technology and other science fields.

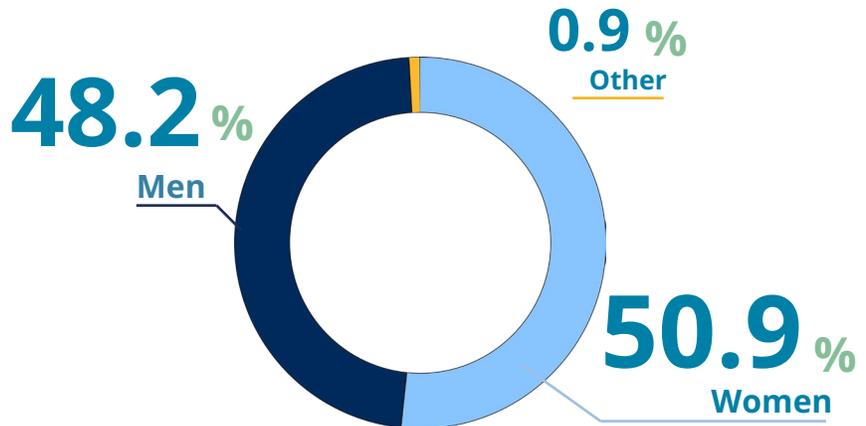
47

Countries

35 %

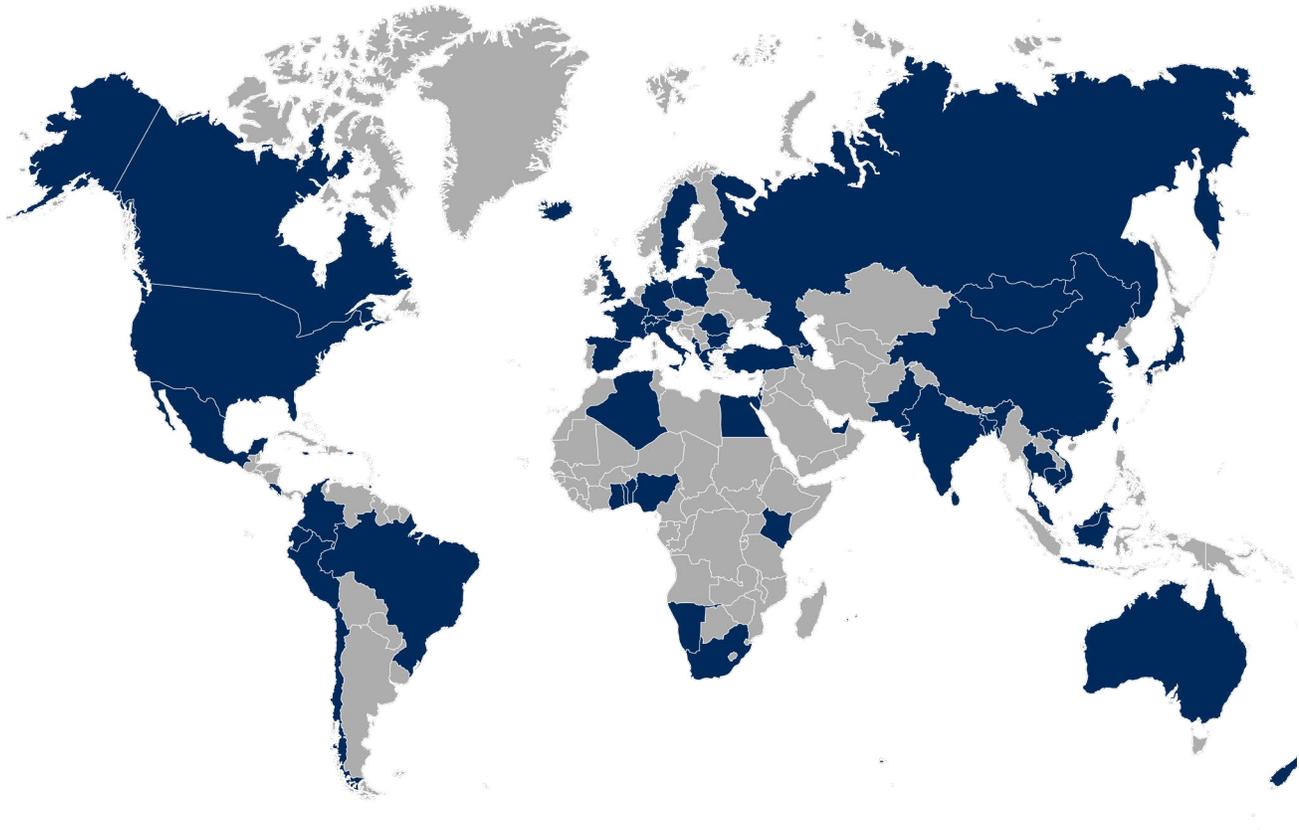
Increase in Employment

Employment opportunities for statisticians and data scientists are expected to increase by 35% between 2022 and 2032.*



Where Our Alumni Work

● Alumni currently employed in country as of 2024



Programs At A Glance

	MSc (Statistics)	MFI	PhD (Statistics)
Length	3 sessions full-time (12 months) 6 sessions part-time	3 sessions full-time (12 months)	4–5 years full-time (continuous)
Structure	Coursework (4.0 FCEs total)	Coursework + internship/applied capstone project	Coursework + exams + dissertation
Entry Routes	Mid-B average in senior year or final year courses. Applicants welcomed from quantitative fields (math, CS, economics, engineering, physics, etc.).	Appropriate master's with B+ average, or direct entry from bachelor's with A– average in statistics. Applicants welcomed from quantitative fields.	Four-year undergraduate degree with strong quantitative background (e.g. actuarial science, statistics, math, finance, economics).
Funding	Self-funded; MSc students may apply for TA/RA roles.	Professional, course-based program; self-funded with some scholarship opportunities.	Fully funded for eligible full-time students (tuition + fees + support above Faculty of Arts & Science minimums).
Research Supervision	Not applicable (course-based)	Not applicable (course-based)	Supervisor assigned
Career Focus	<ul style="list-style-type: none"> • Data analyst • Consultant • Prep for PhD 	<ul style="list-style-type: none"> • Financial risk management • Actuarial practice • Insurance & pensions • Quantitative finance 	<ul style="list-style-type: none"> • Academic research • Data science R&D • Quantitative finance



Sabrina Ameyaw,
MFI Alumni

“The MFI program has been a transformative experience, combining rigorous academics with practical insights. The supportive faculty and staff, along with networking opportunities, enriched both my studies and career outlook. I would highly recommend this program for anyone seeking personal and professional growth.”

Why Graduate Studies in Statistics?

Top-ranked department: consistently among the ten best statistics units in North America.
Breadth + depth: probability, machine learning, actuarial science, astro & bio statistics, finance.
Research network: tie-ins with Vector, DSI, Rotman, SickKids & Ontario Climate Consortium.
Supportive cohort: dedicated grad lounge, weekly seminars, peer mentorship.

Study and Research Snapshot

Course Highlights

- Bayesian Inference
- Machine Learning
- Survival Analysis
- Computational Methods in Finance
- Spatial Statistics • High-dimensional Data

Lab & Project Spaces

- Vector Institute (ML)
- CANSSI Ontario collaboration hub
- UHN Biostats Core
- Statstro at Dunlap Institute

Career and Alumni Network

Employment for statisticians and data scientists is projected to grow 35% (2022-32) – U.S. BLS.

Our graduates work at:

- Academia – UC Berkeley, Columbia, ETH Zurich
- Industry R&D – Google DeepMind, Layer 6, Bosch AI
- Finance & consulting – Morgan Stanley, TD Quant, Deloitte Risk
- Government & health – Statistics Canada, Public Health Agency, SickKids

Life in Toronto and U of T

A diverse city with **9 000+ restaurants** and **~400 km of multi use trails**, ranked the safest large city in North America (Economist 2023). U of T offers discounted transit, Grad House & Knox residence, and 1 000+ clubs—from Data Science Society to Ultimate Frisbee.

Statistics Graduate Student Union (SGSU)

Represents MSc and PhD students in the Department of Statistical Sciences, organizing events and advocating for their interests, including co-hosting the annual Statistics Student Research Day since 2010.



Before You Apply

Check program requirements through the School of Graduate Studies (SGS). Confirm supervisor availability for PhD applications.

How to Apply

1. Begin your application online via the SGS portal.
2. Prepare required documents: transcripts, references, CV, statement of purpose (tests if applicable).
3. Submit by posted deadlines.

Funding & Support

Graduate students benefit from competitive funding packages, scholarships, and access to external awards (NSERC, OGS, Mitacs).

Program Fees & Funding

Graduate tuition and fees are set by the University of Toronto's School of Graduate Studies and vary by program and student status (domestic or international). Please consult the SGS Fee Schedule for the most up-to-date information.

- MSc & PhD students may receive funding packages, teaching assistantships, and eligibility for competitive scholarships.
- MFI students are in a professional, course-based program and are typically self-funded, though some scholarships may be available.

SGS - Statistics



SGS - MFI



SGS - Program Fees



Bushra Haque, MSc Student

"I thoroughly enjoyed my experience in the MSc Statistics program at U of T. The program balanced theoretical depth with applied projects, which aligned perfectly with my career goals. By connecting with faculty and peers, I gained research opportunities, friendships, and experiences that made my time here deeply rewarding."

#UofTstatsci



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The science of us.



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