Temerty Medicine

Medical Genomics MHSc



Genomics – the ability to read and interpret information contained within our DNA – is a rapidly growing field, with implications reaching from the bench all the way to the bedside.

The fast-paced nature of this field is creating a widening knowledge gap between cuttingedge genomics research and current clinical practices, and this has created an emerging need for laboratory professionals and clinicians to generate, integrate, and interpret genetic and genomic data. The Master of Health Science (MHSc) in Medical Genomics is meeting this need head on, training the next generation of genomics experts who are helping to drive a new era of healthcare and patient management, and a vibrant academic healthcare system.

This is a 9.0 FCE* fast-paced, content-dense degree program consisting of a core set of lecture, discussion, and project-based courses across two years (five terms). Enrolling students in either a laboratory professional stream or a clinical stream, the program provides medical trainees, clinicians, research scientists, and laboratory professionals with the theory and practical knowledge necessary to incorporate genomics data into research, medical practice and business. In addition to lecture-based learning, students participate in a hands-on, stream-specific capstone practicum during the final academic term of the program. During the practicum, students engage in dynamic placements with a huge breadth of available project topics, including clinical genomics research, clinical diagnostics, bioinformatics, public health policy, commercial development, and communications, and working with groups in hospitals, academic institutions, industry, and government agencies, among many others.

* Full course equivalent. A typical 0.5 FCE is over one term (13 weeks), meeting 1-2 times per week. A typical 1.0 FCE is over two terms (26 weeks), meeting 1–2 times per week.



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By the numbers

20 average class size

35 different Capstone Practicum projects

91% employed immediately after graduation

Alumni profile Sierra Scodellaro, MHSc Graduated 2022

I am currently a Pharmacogenomics Data Analyst at SickKids Hospital, which is a role that links pharmacology and genomics. When I started, pharmacology and genome diagnostics were very isolated from each other; my work helps to bridge the gap between them. I am passionate about finding new ways to use whole genome sequencing data to optimize medication safety. I am excited to continue to my professional growth, perhaps with a more patient-facing role in the future, consulting with patients and their healthcare

providers on their pharmacogenomics profiles.

As a graduate student, I focused on creating opportunities to gain experience in pharmacogenomics, both in and out of the classroom. This initiative led to my Capstone Practicum project at SickKids, where I gained valuable experience working with a variety of medical and scientific experts, including pharmacists, clinicians, genetic counsellors and company stakeholders. I encourage you to reach out, make connections and pursue the ideas that fascinate you. Expand your horizons, see what different genomics fields are like, learn how the field is progressing and figure out how to enter it.

Application Deadlines

	ROUND 1	ROUND 2
Fall 2024 Admissions	Jan. 15, 2024	May 1, 2024



How to Apply: moleculargenetics.utoronto.ca/medicalgenomics Email: medicalgenomics@utoronto.ca