



MEDICINE AT McMASTER

The School of Medicine, established in 1965 and renamed the Michael G. DeGroot School of Medicine in 2004, offers major programs in undergraduate, postgraduate and graduate medical education. The clinical programs use not only the teaching hospitals and ambulatory care and research facilities, but also the clinical teaching units at several of the major hospitals and community health-care centres.

The Undergraduate Medical Program for the MD degree was initiated in 1969, graduating its first students in May 1972. At present, 203 students are admitted to the program each year.

The three-year program in Medicine uses a problem-based approach to learning that should apply throughout the physician's career. The components have been organized in sequential blocks with early exposure to patients and case management. The academic program operates on an 11 months-a-year basis and students qualify for the MD degree at the end of the third academic year.



Problem Based Learning | Compass Curriculum | Innovative Programs | Multiple Campuses | mdprogram.mcmaster.ca



HEALTH SCIENCES



LEARNING AT McMASTER – PROBLEM BASED LEARNING (PBL)

To achieve the objectives of the Medical Program, students are introduced to patients within the first Foundation of the curriculum. In this way, students understand the relevance of what they are learning, maintain a high degree of motivation and begin to understand the importance of responsible professional attitudes. Students are presented with a series of tutorial problems, requiring for their explanation, the understanding of underlying biological, population and behavioural principles, the appropriate collection of data and the critical appraisal of evidence. The faculty function as learning resources or guides. Learning by a process of inquiry is stressed.

The central focus of the program is the tutorial. The class is divided into small groups, each with a tutor. In the tutorial session students develop a series of learning objectives from each health-care problem and negotiate how they will approach their learning tasks. They then acquire the knowledge and skills to meet the objectives of the Foundation in which they are working. They also learn to work as a team, helping and learning from peers. The study habits and sense of responsibility to self and others provides a basis for life long learning.

Some of the advantages of PBL are: early exposure to the clinical settings and patients; the motivation to learn is self-imposed; students can see the practical application of the knowledge they are acquiring during their studies; and the acquisition of various learning skills promotes lifelong learning.

The Michael G. DeGroot School of Medicine fosters a cooperative, supportive and respectful environment. The curriculum evolves continuously, responsive to the challenging needs of Ontario society, nurturing the development of the following competencies at the time of graduation:

Patient Care: Provide patient-centred care that is compassionate and effective for the treatment of health problems and the promotion of health;

Knowledge for Practice: Demonstrate knowledge of biomedical, clinical, epidemiological and socio-behavioural sciences, and apply this knowledge to patient care;

Practice-Based Learning and Improvement: Demonstrate the ability to investigate and evaluate one's care of patients, to appraise and assimilate research evidence, and to continuously improve patient care based on reflexivity and principles of life-long learning;

Interpersonal and Communication Skills:

Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals;

Professionalism: Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles consistent with expectations of society, the profession, and law in all professional settings, including clinical, academic, administrative, and personal activities relating to professional practice;

Systems-Based Practice: Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on resources in the system to provide optimal health care;

Collaboration: Demonstrate the ability to engage in inter- and intra-professional teams in a manner that optimizes safe, effective patient- and population-centred care;

Personal and Professional Development:

Demonstrate the qualities required to sustain lifelong personal and professional growth.

Mission: Together advancing health through learning and discovery.

THE COMPASS CURRICULUM

The COMPASS curriculum focuses on the mastery of fundamental concepts in medicine and aims to ensure that our graduates have a good working understanding of biological, psychological and social mechanisms and processes, as well as their impact on health and disease, based on principles of learning drawn from cognitive psychology. The COMPASS curriculum is structured to allow the integration of critically important fundamental concepts in medicine and affords an opportunity for students to have the time to practice applying these concepts to multiple different clinical problems.

The pre-clerkship is divided into five Foundations as well as a horizontal Professional Competencies curriculum which runs throughout the three years of the program.

Integral to our mission are our extensive research programs. McMaster has been Canada's top research-intensive university for the past 3 years, and the Faculty of Health Sciences is a major contributor to this success.

Medical Foundation 1 begins with a 3-week Introduction to Medicine, which introduces students to areas of personal and professional development required to study medicine as well as the pedagogies and assessments that are employed in the Program. This block is followed by two 4-week subunits, one focusing on core concepts related to respirology and the second focusing on cardiology.

Medical Foundation 2 focuses on the renal and hematologic systems' contribution to concepts of oxygenation and homeostasis. Immunologic and host defense aspects of hematology are addressed and students are introduced to some basic concepts in neoplasia.

Medical Foundation 3 focuses on concepts of nutrition, energy, homeostasis, and reproduction through study of the digestive, endocrine, and reproductive systems.

Medical Foundation 4 focuses on concepts of locomotion and of neurosensory and behavioural responses to the environment. Students explore the musculoskeletal system, the neurological system, and psychiatric medicine.

The final unit in the Pre-Clerkship is the **Integration Foundation**. This Foundation focuses on review of key concepts from the four Medical Foundations in the context of complex, multi-system diseases, chronic illness, immunology, host defense, and neoplasia, maternal and child health risks, and aging-related health care. The Integration Foundation allows students to consolidate medical concepts and skills, clinical skills, and professional competencies, readying them for the transition to Clerkship.

The Clerkship program consists of rotations in medicine, surgery, family medicine, anesthesia, psychiatry, pediatrics, obstetrics and gynecology, emergency medicine and electives. Teaching is carried out in clinical practices and in all the teaching hospitals in the Hamilton, Waterloo and Niagara Regions. Students are expected to travel outside of their home campus area for clerkship rotations and are responsible for transportation and associated costs in order to complete rotation requirements.

THE ADMISSIONS PROCESS

The official admissions policy and deadlines for the Michael G. DeGroot School of Medicine are published in the Ontario Medical School Information Booklet found at www.ouac.on.ca/omsas. Application to the medical school is completed online at ouac.on.ca/omsas. The application cycle opens annually in early July for entry the following fall. The intention of the Michael G. DeGroot School of Medicine is to prepare students to become physicians who have the capacity and flexibility to select any area in the broad field of medicine. The applicant is selected with this goal in mind. Faculty, medical students and members of the community are normally involved in the review of applications.

There are four absolute academic requirements for eligibility to apply to the program:

- By May of the year of entry, applicants must have completed a minimum of three years of undergraduate degree level work (30 half year courses or 15 full year courses or a combination).
- By the application deadline applicants must have achieved an overall OMSAS converted average of 3.00 on the 4.00 point scale. McMaster calculates the GPA using a cumulative average of the grades from all courses taken at the undergraduate level (and completed by the application deadline of Oct 1), with the exception of foreign exchange credits. We treat all years equally. There is no weighting applied and you cannot eliminate any grades from the calculation. Grades can be from summer, online or supplemental courses as long as the courses were completed at university in Canada or the US and the grades are issued on an undergraduate transcript. We do not include grades from college, grad studies or continuing education in the GPA calculation.
- By the application deadline, all applicants to the MD Program are required to write the Medical College Admission Test (MCAT). McMaster will use only the Critical Analysis and Reasoning (CARS) score from the MCAT in the selection process. A minimum score of 123 on the CARS section is required. The most recent MCAT score is used for those who attempt the MCAT more than once.
- All applicants are required to complete a computer-based test, called Casper, as part of the selection process. Casper, the Computer-based Assessment for Sampling Personal Characteristics is a web-based assessment of interpersonal skills and decision-making, to be completed at a computer. Further information is available at <https://takealtus.com/casper/>

THE SELECTION PROCESS

The Undergraduate Medical Program uses two formulae to rank applicants – the first provides a rank order list for invitation to interview, and the second provides a rank order list for advancement to Collation (full file review). The overall weightings reflect our commitment to consider the cognitive and professional qualities of applicants equally.

In selecting applicants for interview, geographical consideration is applied as follows: 90% of interview positions will be given to those who qualify as Ontario residents. The remaining 10% will be given to all others. To qualify for Ontario resident status, an applicant must be a Canadian citizen or Permanent Resident of Canada at the application deadline, and must have resided in the Province of Ontario for at least three years since age 14 by the possible date of entry to the program.

To view the current formulae, please visit our website at: mdprogram.mcmaster.ca.

In the Faculty of Health Sciences at McMaster University, we are advancing human and societal health and well-being as we train health care teams including physicians, nurses, physiotherapists, occupational therapists, physician assistants, midwives and researchers to work together to provide the best patient care.

MD/PHD COMBINED PROGRAM

The Faculty of Health Sciences introduced the MD/PhD Program with its first students admitted in August 2007. The aim of the Program is to train clinician-scientists who will pursue research as a major priority.

Applicants must be acceptable to both the McMaster MD Program and to the PhD Program in Medical Sciences, Biochemistry and Biomedical Sciences, Health Research Methodology, Neurosciences, Biomedical Engineering, Chemical Biology or Health Policy. Applicants will apply to the MD Program through the Ontario Medical School Application Service (OMSAS) by October 1st and submit a separate PhD application to the School of Graduate Studies by November 1st.

Further information on the MD/PhD Program is provided on the Health Sciences Graduate Programs website at fhs.mcmaster.ca/grad or by contacting the admissions coordinator at (905) 525-9140 ext. 22983

INDIGENOUS APPLICANTS

With an understanding that Indigenous learners can face specific barriers or challenges when pursuing higher education, schools and programs within McMaster's Faculty of Health Sciences have facilitated admissions streams for applicants with Indigenous North American (First Nations, Inuit or Métis) ancestry. Applicants who wish to be considered under the Facilitated Indigenous Application Process (FIAP) must complete a supplementary self-identification application. Additional information can be found at ishs.mcmaster.ca.

BLACK EQUITY STREAM (BEST)

Black students are historically under-represented in our medical program. Many barriers exist as part of the long journey in applying to medical school for Black applicants that serves to create an inequity in the admission process. As such, with our current mandate focusing on equity and diversity in medicine, we are introducing a Black-Equity Stream known as BEST. Additional information can be found at: [https://mdprogram.mcmaster.ca/md-program-admissions/who-should-apply/black-applicants-black-equity-stream-\(best\)](https://mdprogram.mcmaster.ca/md-program-admissions/who-should-apply/black-applicants-black-equity-stream-(best))

STUDENTS WITH DISABILITIES

Unknown, undiagnosed and/or unaccommodated disabilities may result in grades which disadvantage applicants unfairly. Applicants with an unaccommodated disability may request additional consideration of grades (GPA) in the undergraduate MD program admission process. Students with disabilities are encouraged to apply to the Michael G. DeGroot School of Medicine as long as they are able to meet the requirements of the medical degree as outlined in the [Essential Skills and Abilities Required for Entry to a Medical Degree Program](#). All applicants are encouraged to review this document prior to applying.

Further information around a request for consideration of grades due to an undiagnosed or unaccommodated disability can be found at www.ouac.on.ca/omsas

CAMPUSES

The curriculum at all three campuses is identical and takes full advantage of videoconferencing technology to ensure parallel experiences at each of our campuses.

McMaster's Hamilton campus, which is restricted to pedestrian traffic, is adjacent to the Royal Botanical Gardens at the western end of Lake Ontario. The campus is minutes from downtown Hamilton and the activities that a major city has to offer. Clinical placements are conducted in local hospitals and outpatient clinics as well as community physician's offices in the surrounding areas including Guelph, Oakville, Burlington, Brantford, Dundas, Ancaster, Stoney Creek, Newmarket and Mississauga.

The Niagara Regional Campus was planned for students who wish to learn and experience medicine with the benefit of a regional campus setting. The academic portion of the program is delivered at the Cairns Family Health and Bioscience Research Complex at Brock University in St. Catharines, Ontario. Practical hospital experience occurs at the seven sites in the Niagara region and is taught by exceptional local physicians. Clinical placements are provided in out-patient clinics, private offices in various specialties, the Public Health Unit, the Niagara Health System sites, Hotel Dieu Shaver Health and Rehabilitation Centre, and West Lincoln Memorial Hospital in Grimsby.

The Waterloo Regional Campus is located in the University of Waterloo Health Sciences Campus in the heart of the Innovation District in downtown Kitchener, Ontario. The building is also home to the Centre for Family Medicine and the University of Waterloo's School of Optometry teaching clinic. Students at the Waterloo Regional Campus have the unique experience of living and learning in one of the fastest growing regions in the country. The Waterloo Regional Campus is situated in Canada's leading technology ecosystem and students are exposed to cutting edge advances in medical technology.



Hamilton Campus

Michael G. DeGroot School of Medicine
Faculty of Health Sciences,
McMaster University,
Michael G. DeGroot Centre for
Learning and Discovery, Rm 3101
1280 Main Street West
Hamilton, ON Canada L8S 4K1

☎ 905-525-9140 ext. 22235
🌐 mdprogram.mcmaster.ca

Niagara Regional Campus

Michael G. DeGroot School of Medicine
Faculty of Health Sciences,
McMaster University, Niagara Regional Campus
Cairns Family Health & Bioscience
Research Complex, Brock University
1812 Sir Isaac Brock Way
St. Catharines, ON Canada L2S 3A1

☎ 905-378-5717
🌐 mdprogram.mcmaster.ca/campus/niagara-regional-campus

Waterloo Regional Campus

Michael G. DeGroot School of Medicine
Faculty of Health Sciences,
McMaster University,
Waterloo Regional Campus
10 Victoria Street
Kitchener, ON Canada N2G 1C5

☎ 519-885-5426 ext. 21104
🌐 mdprogram.mcmaster.ca/campus/waterloo-regional-campus

Application to the McMaster MD Program is done through **Ontario Medical School Application Service (OMSAS)**

Ontario Medical School Application Service (OMSAS): 170 Research Lane, Guelph, ON N1G 5E2 ☎ 519-823-1940 🌐 ouac.on.ca/omsas/