



### Phase 1 - Year 1 Courses

Focusing on the knowledge, skills and attitudes required to be a socially accountable and culturally safe physician in a northern and rural community, students begin to develop competence in several domains including communication, collaboration, health advocacy, leadership, reflection, and culture. They learn about the contexts for the practice of medicine in Northern Ontario, understand the importance of interprofessional care, and begin to understand the determinants of health as they relate to health of Northern, rural, Indigenous and Francophone populations. They reflect on their understanding of the practice of medicine in Northern Ontario; develop an awareness and responsiveness to the changing needs of communities; and learn about ways to advocate for the health care needs of populations in Northern Ontario. A requirement of this course is mandatory participation in a four-week Integrated Community Experience in an Indigenous community.

Focusing on the role of the physician as a communicator, scholar, advocate, and a professional students will affirm the centrality of the patient-physician relationship, the requirement of a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to a diverse population. Effective participation in the course will ensure the development of appropriate skills in critical appraisal of evidence, the appropriate use of information technology, and the development of strategies to support self-directed learning.

Students develop their knowledge and understanding of the principles of primary health care and the Canadian health care system; public health; cultural/social/economic aspects of health and illness; history of disease; health promotion and disease prevention for individuals, communities, and populations; workplace health and safety; and research methods and critical appraisal, epidemiology, and statistics. Particular foci will include the determinants of health, health-related risk factors, interprofessional roles, and the impact of health policy on health.

Scientific disciplines basic to the study and practice of medicine are covered. Included are objectives promoting the requirement that a physician must be knowledgeable and that graduates should be trained to a general professional level. Students will be expected to demonstrate a level of knowledge and skill with respect to the topics considered to be the foundations of medicine and be able to translate these into

associated competencies. Specific instruction and learning is related to the gastrointestinal, cardiovascular, respiratory, nervous, muscular, skeletal, and endocrine systems.

### **MEDS 5085: Clinical Skills in Health Care**

The focus will be on the taking of a patient's history and performing a physical examination of the body system being studied in each module. Using standardized patients, students will have the opportunity to develop skills in communicating with patients of varying cultural backgrounds and life cycle stages, and interacting with patients following a patient-centered model of care. Students will be expected to demonstrate effective clinical competencies, in diagnostic, therapeutic management at an appropriate level.

## **Phase 1 - Year 2 Courses**

### **MEDS 5205: Northern and Rural Health**

This course facilitates ongoing competency development required to become a socially accountable and culturally safe physician in northern and rural communities. Students will develop their knowledge and skills in effective communication, collaboration, health advocacy, leadership, and reflection in relation to health care delivery in Northern, rural, Indigenous and Francophone communities. The curriculum will support students in demonstrating an understanding of northern and rural medicine and develop skills that will enhance their ability to provide culturally safe and effective care in these communities. Students complete two four-week Integrated Community Experiences in rural or remote communities in Northern Ontario.

### **MEDS 5225: Personal and Professional Aspects of Medical Practice**

A continuation of the Year 1 course, students will be expected to continue to develop in their roles as communicator, scholar, advocate, and professional. The two Integrated Community Experiences (ICE) in rural and remote settings will create opportunities to support the development of appropriate professional attitudes and values related to health and wellness; illness and disease; and, the physician's role in the lives of individuals, families, and communities. Furthering their skills in self-reflection, students will continue to develop a sense of themselves as professionals, as life-long learners, as members of the health care team, and members of a community within the context of a host of health, wellness, and illness issues.

### **MEDS 5245: Social and Population Health**

The course will build on Year 1 concepts. In addition, students will develop their knowledge and understanding of mental health; substance abuse; literacy and health; palliative care; public health risks and reporting; screening; telemedicine; and, environmental health. Students will expand their working knowledge of epidemiology and statistics and use search tools to gather population-level data to profile communities and apply epidemiological data to understand the magnitude of various health conditions and health-related issues such as obesity, diabetes, intimate partner violence, HIV/AIDS, and cancer.

**MEDS 5265: Foundations of Medicine**

A continuation of the Year 1 course concepts and will include specific instruction and learning related to the immune and hematology systems; the urinary system; the integumentary system; the reproductive systems including an introduction to obstetrical care; pharmacology and toxicology; and, psychiatry. Students will be expected to demonstrate a level of knowledge and skill with respect to the topics considered to be the foundations of medicine. Students will also be expected to continue to develop skills in critical appraisal of evidence, the use of information technology, and strategies to support self-directed learning.

**MEDS 5285: Clinical Skills in Health Care**

The concepts and skills in communication, which were introduced in the first year of the program, are further developed, employing the model used in year 1. These are centered on the body system being studied in that module. Students will begin to develop skills in developing differential diagnoses and investigation and management plans. They will be introduced to disease processes that cross the single-system model. The completion of Year 2 Phase 1 marks the end of the pre-clinical stage of the undergraduate medical education program. At the completion of the first cycle students will be ready to enter the clinical phase of their undergraduate education.

**MEDS 5305: Elective**

A structured learning experience designed to allow students to address their professional medical interests in a field of medicine or another field related to Clinical, Medical or Human Sciences, approved by NOSM's Clinical Sciences Division, Medical Sciences Division, or Human Sciences Division as well as the Office of Undergraduate Medical Education. This elective is required as part of the core undergraduate curriculum. Multiple electives may be engaged in, totaling a minimum of four weeks and must be completed prior to the start of the Comprehensive Community Clerkship (CCC) in Year 3 (Phase 2).

**Phase 2 - Year 3 Courses****MEDS 5405: Northern and Rural Health**

This course provides opportunities for students to augment their knowledge, skills, and further develop attitudes towards becoming socially accountable and culturally safe physicians in northern and rural communities. The focus for this course is on demonstrating the applicability of concepts such as advocacy, interprofessionalism, and cultural safety to patient care and community-engaged medicine. Students will have the opportunity to explore concepts related to northern and rural health through research, critical reflection and active participation in health care and community service learning. Students learn to apply their understanding of the social, political, cultural, economic, and environmental realities of practicing medicine in Northern Ontario. They have opportunities to demonstrate their ability to identify and respond to the changing needs of the community; advocate for

health care services; and collaborate effectively with healthcare teams and community service providers. Students will research and reflect on topics relevant to the northern community in which they live, learn, and work for the eight-month Comprehensive Community Clerkship.

### **MEDS 5425: Personal and Professional Aspects of Medical Practice**

Building on Year 1 and Year 2, this course will focus on the many personal, social, professional, legal, and ethical considerations inherent to medical practice. Students will continue to develop in their roles as communicators, scholars, advocates, and professionals but will develop their roles as collaborators, advocates and health managers. The eight- month Comprehensive Community Clerkship (CCC) in rural and northern communities throughout Northern Ontario creates opportunities to support the development of professional attitudes and values related to health and wellness; illness and disease; and, the physician's role in the lives of individuals, families, and communities. In addition, the course gives students the opportunity to experience the application of ethical principles and concepts to issues that will arise throughout their clinical encounters. Students will complete reflective exercises and formal presentations to develop skills related to the critical appraisal of evidence, the appropriate use of information technology, and the development of strategies to support lifelong and self-directed learning via an exploration of the virtues of medicine.

### **MEDS 5445: Social and Population Health**

Students are provided the opportunity to apply the concepts introduced in Years 1 and 2. Course work will include collaborative practice and research on topics of relevance to the students' communities where they will be for the eight- month Comprehensive Community Clerkship (CCC). Research learning(s) may involve examinations of treatment approaches and health policies, chart reviews, and quality assurance. Key concepts of reflective engagement, ethics, community-based participatory research (CBPR), and research methods will be included in small group discussions. There will be a focus on identification of risk factors and (social) determinants of health with respect to individuals and populations, discussion of the impact of health policy on the determinants of health and review of important current Canadian health care issues. Students will be required to demonstrate knowledge and understanding of the unique health care needs of their respective communities, reflection as a method of professional growth, advocacy and community engagement in health care, public health policies, effective collaboration, organization of the health care system, health promotion and illness/disease prevention skills for individuals and communities.

### **MEDS 5465: Foundations of Medicine**

Building on the Year 1 and Year 2 courses, students will gain a more in depth comprehension of how to apply the key concepts learned in the years prior to their clinical practice. Students will continue to receive specific instruction related to the structure and function of the organ systems of the body in the context of the core clinical disciplines including clinical correlates for selected concepts. This course will discuss and assess the knowledge and skills considered the foundations of medicine utilizing

integrated small group discussions conducted in the communities where students will be learning and living for the eight-month Comprehensive Community Clerkship (CCC).

#### **MEDS 5485: Clinical Skills in Health Care**

The eight month Comprehensive Community Clerkship (CCC) placement is the first exposure of the students to the clinical environment, learning under the guidance of community preceptors. Emphasis is on family practice and the primary care environment, especially in Northern Ontario and rural communities. During the eight month CCC students will also have opportunities to work with specialists and other allied health professionals. Students work on developing differential diagnoses, clinical decision-making skills, and further investigation and therapeutic management of common clinical problems, while continuing to understand the patient's illness experience within the particular health care setting of their assigned community. Students will have the opportunity to practice and become competent in performing a minimal set of clinical procedures established by the Phase Two committee. Teaching will include didactic teaching sessions, virtual academic rounds (case based group presentations), direct instruction and observation in a variety of outpatient and inpatient settings.

### **Phase 3 - Year 4 Courses**

#### **MEDS 5605: Northern and Rural Health**

Building on the competencies students have developed, the focus of this course is the application of knowledge of health care service delivery in northern and rural communities, within and beyond Ontario. Students apply their knowledge of northern and rural health, culture, social realities, and economic circumstances by providing appropriate patient care. Students demonstrate reflexive engagement with their own practice-based experiences through narrative medicine, and through evaluation and analysis of topics pertinent to health care delivery in the North. Through their ongoing commitment to addressing the health care needs of the populations served in Northern Ontario, students are ready to become socially accountable and culturally safe physicians.

#### **MEDS 5625: Personal and Professional Aspects of Medical Practice**

Students continue to refine their understanding of professional issues and will strive to become competent as medical experts who are able to balance their roles as communicators, scholars, professionals, collaborators, advocates, and health leaders. Topics focus on the historical development of medical specialties, the legal framework for the practice of medicine in Ontario and Canada, ethical issues related to medical errors and patient safety, physician advocacy, and laws and requirements around medical records and practicing medicine in a hospital.

#### **MEDS 5645: Social and Population Health**

Students continue to learn about the social and cultural perspectives on individual and population health, community and public health, occupational health and the social determinants of health. Development of critical appraisal skills and evidence-based

medicine at the patient and population levels is emphasized. The application of various epidemiological study designs and statistics are discussed.

#### **MEDS 5665: Foundations of Medicine**

Acquiring knowledge about, and application of, the basic medical sciences in the context of patient care will continue to be an essential part of student instruction in all settings. Students will be expected to recall, understand, and apply knowledge of the basic sciences learned from Years 1 to 3. Review of anatomy, physiology, biochemistry, microbiology, genetics, and immunology will be encouraged and assessed. Pathology, pathophysiology, pharmacology, and therapeutics will be the subjects heavily emphasized and assessed.

#### **MEDS 5685: Clinical Skills in Health Care**

An in-depth experiential learning and exploration of the medical specialties and sub-specialties, and research of the human sciences through a series of core medical and elective rotations. Successful completion of Clinical Skills in Health Care is accomplished by obtaining a mark of PASS throughout all rotations.

#### **MEDS 5710: Internal Medicine**

The four-week internal medicine clerkship incorporates the objectives of general internal medicine as well as some of the sub-specialties of internal medicine. The content of the internal medicine clerkship builds upon the diagnosis, treatment, and management of patients in the in-patient and out-patient setting.

#### **MEDS 5711: Surgery**

The four-week surgical clerkship is intended to provide the clerk with an understanding of the broad principles of surgery and the basics of many of the individual surgical specialties as a foundation for post graduate training. Learning is focused through objectives and patient encounters in the out-patient and in-patient environment.

#### **MEDS 5713: Women's Health**

The four-week women's health rotation provides students with the opportunity to acquire knowledge and skills necessary for the diagnosis, treatment, and management of the gynecological patient. Students will participate in the admission, management, and follow through of obstetrical cases with a focus on in-patient care.

#### **MEDS 5714: Children's Health**

The four-week children's health rotation is an experience in which students will have an in-depth experience in acquiring the knowledge and skills necessary for the comprehensive evaluation of pediatric patients from the neonate to the adolescent. Students will have a focused experience in which they will be learning about common and important pediatric principles as well as common and emergent problems in the hospital, ambulatory, and community settings.

**MEDS 5715: Mental Health**

This four-week mental health rotation is designed to provide students with the opportunity to learn and acquire skills necessary to take a proper psychiatric case history, to examine psychiatric patients, and to develop management and treatment plans. Students will expand the knowledge they have acquired from experiences in Years 1 to 3 to better understand the roles of a variety of therapies in the treatment and management of out-patients and in-patients and will better understand how mental health issues and psychiatric problems are managed over time.

**MEDS 5716: Emergency Medicine**

The four-week emergency medicine rotation provides an in depth experience for students in the context and milieu of large city hospital-based emergency departments. During this period students will expand their knowledge of triage in the emergency setting, sharpen their history and physical exam skills, develop appropriate differential diagnoses and management plans for the emergent patient and assist and/or perform procedures required for extreme emergent situations.

**Phase 3 (Year 4) ELECTIVES****Course Description**

Students are required to complete a minimum of twelve weeks of electives in Phase 3. Elective experiences are structured educational opportunities that allow medical students to explore the specialties and sub-specialties of medicine as well as explore their career options. Electives must be a minimum of two weeks in duration although one-week electives may be approved under special circumstances.

These electives must be in a minimum of three of the Canadian Resident Matching Service (CaRMS) categories (listed below).

**Canadian Resident Matching Service (CaRMS) categories:**

- Obstetrics and Gynecology
- Family Medicine (Palliative Care, Sports Medicine)
- Psychiatry
- Pediatrics (Pediatrics, Pediatric Neurology)
- Imaging (Diagnostic Radiology, Nuclear Medicine)
- Ophthalmology
- Otolaryngology - Head and Neck Surgery
- Anesthesiology
- Public Health & Preventive Medicine
- Emergency Medicine
- Medical Genetics
- Internal Medicine (Internal Medicine, Dermatology, Neurology, Physical Medicine and Rehabilitation, Critical Care)
- Laboratory Specialties (Anatomical Pathology, General Pathology, Hematological Pathology, Laboratory Medicine, Medical Biochemistry, Medical Microbiology, Neuropathology)

- Radiation Oncology
- Surgery (General Surgery, Cardiac Surgery, Neurosurgery, Orthopedic Surgery, Plastic Surgery, Urology, Pediatric Orthopedic Surgery, Vascular Surgery)

MEDS 5750 - Elective/Medical/Specialty  
 MEDS 5751 - Elective/Surgical/Specialty  
 MEDS 5752 - Elective/Women's Health /Specialty  
 MEDS 5753 - Elective/Children's Health/Specialty  
 MEDS 5754 - Elective/Internal Medicine/Specialty  
 MEDS 5755 - Elective/Mental Health Medicine/Specialty  
 MEDS 5756 - Elective/Family Medicine/Specialty  
 MEDS 5757 - Elective/Research  
 MEDS 5758 - Elective/Human Sciences  
 MEDS 5759 - Elective/Laboratory Medicine/Pathology/Specialty  
 MEDS 5770 - Elective/Diagnostic Imaging/Nuclear Medicine/Specialty  
 MEDS 5771 - Elective/Emergency Medicine  
 MEDS 5772 - Elective/Community Medicine  
 MEDS 5773 - Elective/Anesthesia

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