

### Undergraduate Medical Education

### Course Descriptions

###  2021-2022

### Phase 1 - Year 1 Courses

**MEDS 5005:**  **Northern and Rural Health I ⧫**
Focusing on the knowledge, skills and attitudes required to be a culturally competent and socially accountable physician in a northern and rural community, students begin to develop place-based competence in several domains including communication, collaboration, health advocacy, leadership, and scholarship. They will learn about the practice of medicine in Northern Ontario, explore the delivery mechanisms of primary health care in Northern Ontario, which includes the importance of interprofessional care, and understand rural medicine as it relates to the health of northern, rural, Indigenous, and Francophone populations. In this course they reflect on their understanding of rural medicine in Northern Ontario; develop a personal and professional 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 community learning and a four-week Integrated Community Experience in an Indigenous community.

**MEDS 5025: Personal and Professional Aspects of Medical Practice I**
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.

**MEDS 5045: Social and Population Health I**
Students develop their knowledge and understanding of the principles of primary health care and the Canadian health care system. These are namely public health; cultural/social/economic aspects of health and illness; history of disease; health promotion and disease prevention for individuals, communities, and populations; occupational health and safety; environmental health and statistics, epidemiology, research methods and critical appraisal. Particular foci will include the determinants of health, health-related risk factors, interprofessional roles, the health of special populations, and the impact of health policy on health.

**MEDS 5065: Foundations of Medicine I**
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 are related to the gastrointestinal, cardiovascular, respiratory, nervous, muscular, skeletal, and endocrine systems.

**MEDS 5085: Introduction to Clinical Medicine I**
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.

**MEDS 5105: Medical Career I**

Focused on the knowledge, skills and attitudes required to take a balanced approach in developing a medical career and becoming life-long learners, students begin to develop their professional identity, learn about how to function in collaborative practice and learn about the concept of wellness. They will learn and develop skills in order to equip them in determining their future career and practice goals, make good career decisions and become socially accountable physicians. They will develop an appreciation for the importance of personal wellness, including financial wellness, and the concepts related to wellness in relationship with, and for their patients, colleagues and community within the culture and environment of their medical practice. Effective participation in this course will build the foundation necessary for making good decisions about practices that lead to wellness, including financial wellness, relevant aspects of professionalism, career planning opportunities, and the choice of special education experiences.

**Phase 1 - Year 2 Courses**

**MEDS 5205: Northern and Rural Health II ⧫**
This course facilitates ongoing place-based competency development required to be a culturally competent and socially accountable physician in northern and rural communities. Students will build upon their knowledge and skills in effective communication, collaboration, health advocacy, leadership, and scholarship to respond to the unique health priorities in northern, rural, Indigenous, and Francophone communities. The course will support students in applying the principles of northern and rural medicine in order to effectively advocate in a socially accountable manner for culturally safe, equitable care. A requirement of this course is mandatory participation in community learning and two four-week Integrated Community Experiences in rural or remote communities in Northern Ontario.

**MEDS 5225: Personal and Professional Aspects of Medical Practice II**
Acontinuation 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 themselvesas 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 II**
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; public health risks and reporting; screening; telemedicine; occupational health; and, palliative care. 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 II**
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 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: Introduction to Clinical Medicine II**

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 5325: Medical Career II**

Focused on the knowledge, skills and attitudes required to take a balanced approach in developing a medical career, students continue to develop relevant aspects of their professional identity, learn about how to function in collaborative practice and about the concept of wellness. They will learn about residency opportunities that align with their future career and practice goals, develop fundamental skills, knowledge, and attitudes to function as students in the clinical environment and prepare themselves for maintaining their well-being when facing new and challenging situations. At this stage of the Program, students will also prepare for their first electives experience. Effective participation in this course will build on the necessary skills, knowledge and attitude for making good decisions about future career options and the experiences necessary to prepare for their electives and focus on personal wellness and the well-being of the patients they will encounter.

**MEDS 5305: Phase 1, Year 2 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. A single four-week elective or two, two-week electives 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 III ⧫**
The course provides opportunities for students to apply their knowledge and skills acquired in Phase 1 (MEDS 5005 and 5205) to advance their place-based competencies in northern and rural medicine and to demonstrate their ability to deliver compassionate and culturally safe care. Through community service learning, scholarship activities, and active participation in health care, students will demonstrate competence in their ability to assess and respond to the changing needs of the community; lead and advocate for equitable health care services; collaborate effectively with healthcare teams and community service providers; and engage in scholarly activities that will advance topics relevant to the northern communities in which students live, learn, and work for the eight-month Comprehensive Community Clerkship. Students will gain a deeper understanding of the social, cultural, economic, and environment realities of practicing medicine in Northern Ontario.

**MEDS 5425:** **Personal and Professional Aspects of Medical Practice III**
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 leaders. 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 III**
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 intervention and health policies, and will include key concepts of research ethics, community-based participatory research (CBPR), and research methods. There will be a focus on identification of risk factors and (social) determinants of health with respect to individuals and populations, the impact of health policy on the determinants of health, and 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, and health promotion and illness/disease prevention skills for individuals and communities.

**MEDS 5465: Foundations of Medicine III**
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 Medicine and Therapeutics I**

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 2 committee. Teaching will include didactic teaching sessions, small group learning activities (case-based group presentations), direct instruction and observation in a variety of outpatient and inpatient settings.

**MEDS 5505: Medical Career III**

Focused on the knowledge, skills and attitudes required to take a balanced approach in developing a medical career, students build on relevant aspects of their professional identity, including knowledge about the professional associations related to their future career, experience how they function in collaborative practice and learn about how their wellness is impacted by learning in the clinical environment. The focus will lean more heavily towards developing fundamental skills, knowledge, and attitudes to function as students in the clinical environment and develop the skills and attitudes necessary for maintaining their well-being when facing new and challenging situations. Effective participation in this course will enhance the skills, knowledge, and attitudes for making good decisions about future career options, maintaining personal wellness, and contributing to the wellbeing of the patients and communities they will encounter.

**Phase 3 - Year 4 Courses**

**MEDS 5605: Northern and Rural Health IV ⧫**

Building on the competencies students have developed in Phase 2 (MEDS 5405), 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 IV**

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 IV**

Students continue to learn about the social and cultural perspectives of individual and population health, community and public health, occupational health and the social determinants of health. Students will apply their knowledge of health promotion and disease prevention, and of the health care and public health systems in Canada. The 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 IV**

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 Medicine and Therapeutics II**

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 Medicine and Therapeutics II is accomplished by obtaining a mark of PASS throughout all rotations.

**MEDS 5705: Medical Career IV**

In this final year of the Program, students will apply their knowledge, skills and attitudes by making balanced decisions about their residency applications, how they will function in collaborative practice, and maintain their wellness in the clinical environment. Relevant aspects of their professional identity and commitment to being socially accountable will take shape throughout their experiences in different clinical environments and they will utilize the skills and attitudes they developed for maintaining a state of wellbeing. Effective participation in this course will enable students to apply their skills, knowledge and attitudes in making good career option decisions as they apply to CaRMS, maintain personal wellness, including debt management, and contribute to the wellbeing of the patients and communities they encounter.

**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 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 outpatient and inpatient 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.

**MEDS 5725: Phase 3 (Year 4) Elective**

Students are required to complete a minimum of fourteen 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.

⧫ Concepts for MEDS 5005, 5205, 5405, and 5605:

Concept 1: The setting for Practice in a Northern and Rural Setting

Concept 2: The Delivery of Primary Health Care in Northern Ontario

Concept 3: Access to Diagnostic, Treatment, Specialist Expertise and Supportive Social Services

Concept 4: Priority populations

Concept 5: The Inter-professional and Interdisciplinary Health Team in Northern Ontario

Concept 6: The Role of technology in the delivery of health care

Concept 7: Culture and Care in Northern Ontario

Concept 8: Indigenous Peoples Health

Concept 9: The Health of Francophones

Concept 10: Health in Northern Ontario

Concept 11: Health Research in Northern Ontario

**Phase 3 - Year 5 Courses**

**MEDS 5905: Clinical Skills Enrichment I**

An in-depth experiential exploration of the medical specialties and sub-specialties, and research of the human sciences, through a series of electives. 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. Successful completion of Clinical Skills Enrichment is accomplished by obtaining a mark of PASS in all electives.

**MEDS 5925: Personal and Professional Aspects of Medical Practice V**

Building on previous years, this course will focus on the professional, legal, and ethical considerations inherent to medical practice. Students continue to refine their understanding and demonstration of medical professionalism as they are striving to become even more competent as medical experts who are able to balance their roles as professionals, communicators, scholars, collaborators, advocates, and health leaders.

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| **Version**  | **Date** | **Authors/Comments/Amendments/Approvals** |
|  | 2020 09 09 | Approved by UMECC (Couse numbers for new courses TBD) |
|  | 2020 09 24 | Added Course Numbers to new courses (per NOSM Student Records and Electives Officer), added consecutive year value to end of each course name, removed prerequisites for Year 5 courses |
|  | 2020 10 01 | Approved by UMECC |
|  | 2020 10 08 | Approved by Academic Council |
|  | 2020 10 26 | Approved by Lakehead University Senate |
|  | 2020 11 17 | Approved by Laurentian University Senate |