

COURSES OF INSTRUCTION

****This page is currently under review****

Please contact meds@queensu.ca for the most up to date information

Medicine (MEDS)

MEDS 110 SF: Human Structure & Function 1 Units: 3.00

This course introduces the students to normal human structure at both the macroscopic (Gross Anatomy) and microscopic (Histology and Cell Biology) levels. Dissection of human cadavers and examination of microscopic slides are important components that afford the opportunity for students to discover anatomical structures and variations among individuals. Students also develop empathy for those who have donated their bodies for study and develop communication skills appropriate to working in a team setting. Aims of the Course To demonstrate knowledge of normal human structure at both the macroscopic and microscopic levels. To describe the major organ systems, their components and the relationships between them in the normal individual. To recognize common variations in structure and locations of organs within the body. To describe important anatomical landmarks on the body surface and relate them to anatomical structures that form the basis of a physical examination of a patient. To identify anatomical structures on standard radiological images. To understand the normal structure of cells, tissues and organs in order to appreciate the pathology and etiology of diseases.

Offering Faculty: Faculty of Health Sciences

MEDS 111 SF: Human Structure & Function 2 Units: 3.00

Comprehension of biological processes is essential to understanding how the human body functions. This course will provide foundational knowledge in the areas of biochemistry/metabolism, physiology and genetics, which will be built upon in subsequent terms of the M.D. program. Aims of the Course The Normal Human Function course will ensure that all students have the foundational knowledge of biochemistry, metabolism, nutrition, physiology and genetics necessary for the curriculum of subsequent terms of the M.D. program. The instructional design of the course will introduce students to independent learning, small group learning and team based learning. Students will gain an enhanced understanding of metabolic and physiological processes with an emphasis on how such comprehension can be applied to case based presentations for appropriate diagnosis and management. The aim of the genetics curriculum is to allow any physician to recognize the genetically at risk, to either initiate testing and management themselves, or to refer appropriately.

Offering Faculty: Faculty of Health Sciences

MEDS 112 PF: Critical Appraisal Research & Learning Units: 3.00

The course Critical Appraisal, Research and Learning (CARL) contains concepts to introduce students to lifelong learning in medical and professional education. CARL contains 6 themes: Medical information literacy (Searching and filtering reliable medical information) Diagnostic tests and their properties Research designs and methods Understanding the results of medical research Critical appraisal of medical literature Key learning strategies to foster effective educational and professional learning. All of these themes will be addressed again at higher levels of sophistication in terms 2-5 and again in the clerkship program. The critical enquiry project completed in Term 5 is an important piece of CARL, where students will demonstrate mastery of these foundational concepts by incorporating them into their own research project. Aims of the Course CARL is designed to assist medical students in the development of critical thinking and lifelong learning in 3 ways: by teaching them to ask the right clinical, research and independent learning questions by demonstrating strategies to search databases of published literature in order to identify reliable evidence which can answer their questions assess the quality of that evidence in terms of both validity and applicability to the clinical situation they face. Our aim is to graduate medical students who can ask themselves what they need to find out, find the correct information efficiently, and confidently assess the accuracy and applicability of that information.

Offering Faculty: Faculty of Health Sciences

MEDS 113 PF: Introduction to Physician Roles Units: 6.00

This full year course introduces students to Intrinsic Physician Roles and provides early clinical experiences via the First Patient, Observership and Community Week Programs while providing them with the tools to function appropriately in the clinical environment and maximize learning from the patients, professionals and situations that students will encounter.

Offering Faculty: Faculty of Health Sciences

MEDS 114 Clinical and Communication Skills 1 Units: 3.00

In this full year course, students will begin to learn the professional skills that are unique to being a clinician and a physician. The course provides the foundational skills in communication and physical examination. In this course, with the guidance of tutors, students will learn how to identify the core presenting problem of a patient, and gather the additional historical and physical examination data which will help to reach a diagnosis and management plan.

Offering Faculty: Faculty of Health Sciences



MEDS 115 CF: Family Medicine Units: 3.00

This course teaches students to competently use an effective, foundational approach to common patient presentations. For each presentation, the student learns to gather the appropriate clinical information to propose a reasonable differential diagnosis. The course also provides experiential learning through After Hours Clinic Observerships

Offering Faculty: Faculty of Health Sciences

MEDS 117 SF: Health Determinants Units: 3.00

Health Determinants introduces foundational concepts of social determinants of health, advocacy, and culture and diversity including cases that cover important topics related to global health and special populations. (The material in this course is closely related to the AFMC Primer on Population Health Part 1-Theory). The content from many aspects of this course form 'building blocks' that will be addressed again at higher levels of sophistication in the clinical courses in terms 3 and 4 and in clerkship.

Offering Faculty: Faculty of Health Sciences

MEDS 120 SF: Mechanisms Of Disease Units: 3.00

Aims of the Course The Mechanisms of Disease course will ensure that all students have the foundational knowledge of pathology, immunology, medical microbiology, and infectious disease necessary for the curriculum of subsequent terms of the M.D. program. The instructional design of the course will introduce the student to independent learning, small group learning and team based learning. Students will gain an enhanced understanding of mechanistic processes with an emphasis on how such comprehension can be applied to case based presentations for appropriate diagnosis and management

Offering Faculty: Faculty of Health Sciences

MEDS 121 SF: Fundamentals of Therapeutics Units: 3.00

Comprehensive understanding of how chemicals, endogenous substances and drugs act on biological structures, functions and processes is essential in order for a physician to become skilled in managing/treating pathological changes in body structures and functions. This course is designed to provide the foundational knowledge of pharmacology, toxicology and therapeutics, which will then be built upon in subsequent terms of the M.D. program. Aims of the Course. The Fundamental Therapeutics course will ensure that all students have the foundational knowledge of pharmacology, toxicology and therapeutics necessary succeeding in subsequent terms of the M.D. program. The instructional design of the course will utilize independent learning, laboratory approaches, small group learning, presentations, and team based learning. Students will gain an enhanced understanding of the mechanisms of action of drugs, endogenous molecules and chemicals acting on the body to modify physiological and pathophysiological processes. The course will emphasize the application of this knowledge in case-based presentations designed to develop skills in appropriate diagnosis and management, in particular related to therapeutic approaches.

Offering Faculty: Faculty of Health Sciences

MEDS 122 CF: Pediatrics and Genetics Units: 3.00

The Genetics portion of this course introduces students to practical skills in Clinical Genetics. Identification of risk factors for genetic diagnoses, uses and limitations of genetic investigations, and developing strategies for effective knowledge translation of genetic principles are highlighted. Discussions about the impact of genetic diagnoses on the patient, family and society and the ethical considerations in genetic testing are explored.

The Pediatrics part of the course introduces the substantially different physiology and clinical presentations of a newborn, child and adolescent, as compared to an adult. The course addresses acute, chronic and preventative care topics in child health. . Nutrition is a key topic in this course.

Offering Faculty: Faculty of Health Sciences

MEDS 123 SF: Population Health Units: 3.00

Population Health builds on the foundation of Determinants of Health and Term 1 CARL to explore issues in epidemiology at the population health level, including health promotion, screening, immunizations, disease outbreaks, surveillance, environmental and occupational health, interventions, and knowledge translation. (The material is aligned with the AFMC Primer on Population Health Part 2: Methods and Part 3: Practice). The content from many aspects of this course form 'building blocks' that will be addressed again at higher levels of sophistication in the clinical courses in terms 3 and 4 and in clerkship.

Offering Faculty: Faculty of Health Sciences

MEDS 125 CF: Blood And Coagulation Units: 3.00

As one of the first Clinical Foundations courses in the curriculum, the Blood & Coagulation Course builds on the Scientific Foundations previously taught and focuses on the common clinical presentations of hematological problems. Topics include physiologic processes of hematopoiesis, lymphopoiesis, coagulation, how alterations of the processes can lead to hematologic disease, as well as approaches to common problems in clinical hematology.

Offering Faculty: Faculty of Health Sciences

MEDS 126 CF: Principles of Geriatrics, Oncology & Palliative Care Units: 3.00

This course gives students foundational approaches to three patient populations: geriatric patients, oncology patients, and patients receiving palliative care. During the course, students learn how these patient populations overlap, and learn about appropriate approaches to common presentations. In all three disciplines, students learn that physicians are not dealing with a single organ system, but rather with the patient as a whole. The focus is on approaches to clinical presentations, a skill that can be applied to other clinical presentations later in the curriculum.

Offering Faculty: Faculty of Health Sciences

MEDS 127 CF: Musculoskeletal Units: 3.00

Disorders of the Musculoskeletal (MSK) system are common and encountered in a variety of practice settings including primary care, specialist practice (rheumatology, physical medicine and rehabilitation, orthopaedic surgery, pediatrics, radiology, pathology) and in the Emergency Room. Musculoskeletal problems often require collaboration among a variety of different health care professions - physicians, nurses, physiotherapists, occupational therapists, social workers, and cast technologist. This course builds on concepts learned in the first semester in the Normal Human Structure, Normal Human Function and Family Medicine Courses while introducing students to a variety of clinical patient presentations that involve the musculoskeletal system.

Offering Faculty: Faculty of Health Sciences

MEDS 130 Medical Observership Units: 0.00

This course provides opportunities to learn physician roles in the clinical setting and promote career selection.

Offering Faculty: Faculty of Health Sciences

MEDS 199 Medical Ed Supplementary Studies Units: 3.00

This course is prescribed to first year students who require an individualized course of study to address learning needs.

Offering Faculty: Faculty of Health Sciences

MEDS 230 CF: Circulation & Respiration Units: 3.00

The Cardiovascular-Respiratory course introduces students to common clinical problems in cardiovascular and respiratory medicine. Cardiac and respiratory disorders often present with similar symptoms and frequently co-exist in the same patient. This course emphasizes the highly integrated physiology and pathophysiology underlying common clinical presentations. It provides opportunities for students to develop skills in clinical assessment and reasoning, and approaches to managing common conditions.

Offering Faculty: Faculty of Health Sciences

MEDS 231 CF: Endocrine & Renal Units: 3.00

This course is taught in two units and introduces students to common clinical problems of the endocrine and renal systems. Topics include the normal function of renal and endocrine systems as well as pathophysiology of common disorders. Students practice clinical reasoning as well as recognition and analysis of signs and symptoms of disease affecting these systems. Initial management of common and critical problems as well as patient education and support, and critical appraisal skills are also included.

Offering Faculty: Faculty of Health Sciences

MEDS 232 PF: Critical Enquiry Units: 3.00

This full year course guides students through the fundamental steps in the creation of a research proposal, through monthly small group learning and a series of progressive structured lectures and assignments. Students are assigned to topic focused research groups and work with a tutor and complete an online research ethics module. The course culminates in the submission of a full research proposal. Students who successfully complete this course have demonstrated competence in the development and creation of a research proposal falling within one of the four pillars of the Canadian Institutes of Health Research: biomedical, clinical, health systems and services and population and public health.

Offering Faculty: Faculty of Health Sciences

MEDS 233 PF: Integration of Physician Roles Units: 6.00

This full year course builds on the knowledge, skills and attitudes from Introduction to Physician Roles in year 1. Advanced concepts in the areas of professionalism, collaboration and leadership are presented. A series of complex patient presentations requires teams of students to analyze clinical information, draw from a number of Clinical Foundations Courses concepts, and consider non-medical expert competencies in order to arrive at both a diagnosis and appropriate interventions.

Offering Faculty: Faculty of Health Sciences



MEDS 234 Clinical and Communication Skills 2A Units: 3.00

In this course, students begin to learn the professional skills that are unique to being a clinician and a physician. The course develops the foundational skills in communication and physical examination that are essential for a successful career. The course focuses on the development of clinical reasoning and the introduction of more advanced interviewing and communication skills.

Offering Faculty: Faculty of Health Sciences

MEDS 236 Advanced Applied Anatomy Units: 3.00

In this primarily experiential-learning, elective course, students will engage in advanced prosection training with Anatomists and engage in near-peer teaching with the Year 1 HSF students to enrich their previous studies in anatomy through more in-depth training and exploration of specific topics. Admission is by approval of the Course Director.

Prerequisites: Successful completion of MEDS 110 and 111 (Human Structure and Function 1 & 2) and MEDS 114A&B (Clinical and Communication Skills 1).

Offering Faculty: Faculty of Health Sciences

MEDS 238 Procedural Skills Units: 6.00

Procedural skills are areas of clinical care that require physical and practical skills of the clinician in order to accomplish a specific and well-characterized technical task, or medical procedure. This course reinforces important procedural skills from earlier Clinical and Communication skills and introduces new skills.

Offering Faculty: Faculty of Health Sciences

MEDS 240 CF: Genitourinary & Reproduction Units: 3.00

In this course the students are introduced to the obstetrical patient, including normal and abnormal pregnancy and the care of mother and infant. Students gain an understanding of the normal function of the female reproductive and genitourinary system and of the pathophysiology of common disorders, and recognition, investigation and initial management of common disorders of these systems.

Offering Faculty: Faculty of Health Sciences

MEDS 241 CF: Gastroenterology & Surgery Units: 3.00

In this course, students are introduced to disorders of the digestive system. This course reviews normal gastrointestinal anatomy and physiology and pathophysiology of digestive disorders. Students are introduced to the common presentations of gastrointestinal diseases and develop a clinical approach to the recognition, investigation and initial management of these disorders from both medical and surgical perspectives.

Offering Faculty: Faculty of Health Sciences

MEDS 242 Clinical Foundations: Skin and Special Senses Units: 3.00

This course has three units: Ophthalmology, Otolaryngology and Dermatology. The Ophthalmology unit introduces students to common clinical problems in ophthalmology including the leading causes of vision loss: cataracts, glaucoma and age related macular degeneration. The Otolaryngology unit introduces students to common clinical problems of the head and neck in children and adults. Building on the foundations introduced in the Family Medicine course, students are exposed to more complex cases to develop a broader understanding of the presentation and management of these common conditions. The Dermatology Unit introduces students to common clinical problems of the skin in children and adults. The unit begins with an examination of the structure and function of the skin and moves to clinical presentations of common and uncommon skin disorders.

Offering Faculty: Faculty of Health Sciences

MEDS 245 Clinical Foundations: Neurosciences Units: 3.00

This course begins with a review of normal neurophysiology and neuroanatomy, and progresses to pathophysiological correlates of neurological presentations. The course provides foundational knowledge in the disciplines of Neurology, Neurosurgery, and Neuropathology. Students learn to apply the neurological approach to illness by determining the level of dysfunction of the neuro-axis, constructing a differential diagnosis of most probable causes, testing the diagnosis and ultimately treating the illness.

Offering Faculty: Faculty of Health Sciences

MEDS 246 Clinical Foundations: Psychiatry Units: 3.00

This course builds upon foundational knowledge taught in the previous year. Students learn to develop an appropriate differential diagnosis for common psychiatric presentations, to determine a provisional diagnosis consistent with history, mental status examination and tests, and to describe biopsychosocial treatment options including first line treatments of common psychiatric illnesses.

Offering Faculty: Faculty of Health Sciences

MEDS 250 Medical Observership Units: 0.00

This course provides opportunities to learn physician roles in the clinical setting and promote career selection.

Offering Faculty: Faculty of Health Sciences

MEDS 299 Medical Education Supplementary Studies Units: 3.00

This course is prescribed to second year students who require an individualized course of study to address learning needs.

Offering Faculty: Faculty of Health Sciences

MEDS 351 Transition to Clerkship Units: 6.00

This course prepares students for their new roles and responsibilities as they progress into the first component of clinical clerkship. Through a classroom unit and participation in two clinical rotations, students develop and demonstrate the skills necessary for their initial participation in the assessment and care of patients as part of a health care team. Learning activities include simulation, procedural skills training, lectures, seminars, small group, case-based, and independent learning, in addition to experiential learning during clinical clerkship rotations in the clinical setting. Students begin to apply the practical aspects of common clinical encounters including communication, procedural, and critical appraisal skills, and to identify opportunities for patient advocacy, personal care and wellness, collaboration, patient safety, and ethical and legal concepts.

Offering Faculty: Faculty of Health Sciences

MEDS 361 Foundations of Clerkship Units: 6.00

This course provides students with the opportunity to build a solid core of clerkship experiences, self-assessment, and goal-setting for learning. Students complete their first set of elective experiences to explore areas of interest in greater depth. The course also includes participation in three clinical rotations, and a Wellness and Leadership program. Students develop strategies for self-care, resilience, and wellness throughout this course, and enhance their clinical, communication, and critical appraisal skills. Identification of patient safety opportunities, specifically handover, as well as practice in collaboration, patient advocacy, and application of ethical and legal concepts are all part of developing a professional identity in this course.

Offering Faculty: Faculty of Health Sciences

MEDS 399 Medical Education Supplementary Studies Units: 3.00

This course is prescribed to third year students who require an individualized course of study to address learning needs.

Offering Faculty: Faculty of Health Sciences

MEDS 440 Medicine Specialty Units: 6.00

The clinical clerk is expected to function as an integral member of a multi-disciplinary team, and become active in the assessment and management of patients in a variety of settings, including in-patient care, consultations, emergency room assessments and out-patient clinics depending on the rotation. The clinical clerk is also expected to participate in an on-call roster and on patient management rounds as appropriate.

Offering Faculty: Faculty of Health Sciences

MEDS 441 Medicine Units: 6.00

This internal Medicine Clerkship component consists of three rotations: Internal Medicine Unit: A general internal medicine inpatient clinical teaching unit; Selective: A specialty service with an exposure to ambulatory medicine; Elective: Another specialty service. During this course students are encouraged to learn in depth about each patient and take responsibility for their care.

Offering Faculty: Faculty of Health Sciences

MEDS 442 Surgery Units: 6.00

This clerkship rotation provides opportunities for learning in the following divisions of the Surgical Department: Cardiac Surgery; General Surgery; Neurosurgery; Orthopaedic Surgery; Plastic Surgery; Thoracic Surgery; and Vascular Surgery

Offering Faculty: Faculty of Health Sciences

MEDS 443 Obstetrics & Gynaecology Units: 6.00

The Obstetrics and Gynecology Clerkship course consolidates knowledge gained in the pre-clerkship phase related to normal and abnormal obstetrics as well as common and important gynecological conditions. Students participate in a team caring for patients with relevant concerns and conditions.

Offering Faculty: Faculty of Health Sciences

MEDS 444 Paediatrics Units: 6.00

This clerkship rotation provides students with exposure to pediatric patients in both inpatient and ambulatory settings. Students learn approaches to the common presentations found in infants children and adolescents, take a pediatric history, examine newborns, infants, children and adolescents and develop a management plan for common pediatric illnesses and conditions.

Offering Faculty: Faculty of Health Sciences

MEDS 445 Psychiatry Units: 6.00

This course gives students an opportunity to assess patients with psychiatric presentations, participate in both ambulatory and inpatient care of psychiatric patients, and identify the multidisciplinary nature of psychiatric practice.

Offering Faculty: Faculty of Health Sciences

MEDS 446 Family Medicine Units: 6.00

This clerkship course allows students to engage with patients on the following Four Principles: The Family Physician is a Skilled Clinician; Family Medicine is Community-Based; The Family Physician is a Resource to a Defined Practice Population; The Doctor-Patient relationship is Central to the Role of the Family Physician.

Offering Faculty: Faculty of Health Sciences

**MEDS 447 Clerkship: Subspecialty Units: 6.00**

This course provides opportunities for learning in subspecialty surgery and subspecialty medicine. The surgery component is formed by a 2-week rotation on one of the following services with students participating in outpatient, inpatient, surgical and ambulatory experiences: Plastic surgery: principally ambulatory exposure to skin lesions and tumors, facial injuries, burns, hand injuries Otolaryngology: principally ambulatory exposure to ear, nose and throat lesions, tumors, inflammatory lesions Vascular surgery: aortic, iliac and femoral vessel stenosis, distal ischemic lesions, prevention methods Neurosurgery: spinal stenosis, brain and spinal cord tumors and lesions, spinal cord and head injuries The medicine component is formed by 2 two-week rotations. Each rotation is on one of the following services: Allergy/Endocrinology, Cardiology Wards, Dermatology, Gastroenterology, Geriatrics, Hematology, Infectious Diseases, Nephrology, Neurology, Oncology Clinics, Palliative Care, Physical Medicine and Rehabilitation, Respiriology, Rheumatology.

During this rotation, the clinical clerk is expected to function as an integral member of a multi-disciplinary team and become active in the assessment and management of patients in a variety of settings, including in-patient care, consultations, emergency room assessments and out-patient clinics depending on the rotation. The clinical clerk is also expected to participate in an on-call roster and on patient management rounds as appropriate.

Offering Faculty: Faculty of Health Sciences

MEDS 448 Clerkship: Anaesthesiology & Emergency Medicine Units: 6.00

The overall purpose of the course is to introduce the student to anaesthesia and emergency medicine/trauma care.

In Anaesthesia the students will have a dedicated and continuous two-week Anesthesia experience. The student will be able to progress through the breadth of areas of practice for anesthesia. Students will participate in pre-operative clinics, operating room and post-operative care and a teaching curriculum.

The clerkship rotation in Emergency Medicine is 4 weeks long. During this rotation, clerks are expected to work in the Emergency Department at Kingston General Hospital and the Urgent Care Centre at the Hotel Dieu Hospital. Clerks will also have the opportunity to participate in a number of interprofessional learning shifts which include shifts with ER nursing, triage, social work, ECG technologists and phlebotomists.

Offering Faculty: Faculty of Health Sciences

MEDS 453 Perioperative Units: 6.00

The Periop/Acute Care block is a composite rotation based upon a collaboration between the Departments of Anesthesiology, Emergency Medicine and Surgery. Students spend between 5 and 6 weeks working with Faculty and housestaff in the three Departments. The overall aim is to gain a better appreciation of acute illness presentations and the experience of the surgical patient from emergency assessment, pre-operative work-up, the operative experience (from the point of view of both the anesthesiologist and the surgeon) and post-operative care and follow-up.

Offering Faculty: Faculty of Health Sciences

MEDS 471 Clerkship Consolidation Units: 6.00

This course provides students with an opportunity to consolidate and synthesize their clerkship experiences and achieve the goals of their learning plans, drawing on their experiences of previous clerkship rotations and activities. Students refine their clinical, diagnostic, communication and critical appraisal skills through two further clinical rotations, and further electives experiences. The course focuses on complex conditions and challenges and responsibilities in communication and patient management. Students will also participate in a classroom unit where they will reinforce learning about advanced concepts, multi-system and challenging cases, patient safety analysis, the realities and challenges of practice and evidence-based solutions, and reflect on personal experiences of medical training.

Offering Faculty: Faculty of Health Sciences

MEDS 482 Transition to Residency Units: 6.00

This course completes the undergraduate Medical School curriculum. It includes the final clinical rotation, a last set of electives opportunities, and a classroom unit. Final MCC clinical presentations are studied; students develop strategies to lead a team, provide effective handover, use pre-hospital care, and work with the coroner and police. Students become familiar with the professional responsibilities of residency, know their relationship to governing and licensing organizations, prepare appropriate documentation to begin residency, and anticipate expectations of the first-year resident. They reflect on their opportunities for advocacy and collaboration, and review core concepts organized according to each discipline in preparation for the MCCQE Part 1 and residency.

Offering Faculty: Faculty of Health Sciences

MEDS 499 Medical Education Supplementary Studies Units: 3.00

This course is prescribed to fourth year students who require an individualized course of study to address learning needs.

Offering Faculty: Faculty of Health Sciences



MEDS 500 Medical Education Extended Clerkship

Program Units: 9.00

This course is offered to 4th year students, at the discretion of the program, who request additional customized clinical training and assessment to enhance their breadth of experience and career development.

Offering Faculty: Faculty of Health Sciences