Faculty of
Medicine

Undergraduate Medical Education Program

General Office

260 Brodie Centre, 260-727 McDermot Avenue, Winnipeg MB R3E 3P5
Telephone: (204) 789 3557
Fax: (204) 789 3929
E-mail: registrar_med@umanitoba.ca
Website: umanitoba.ca/medicine
Dean: Dean Sandham
Associate Dean (Undergraduate): Bruce Martin
Associate Dean (Medical Education): William Fleisher
Associate Dean (Professionalism): Samia Barakat
Assistant Dean (Student Affairs): Cornelia Van Ineveld
Assistant Deans (Admissions): Fred Aoki and Barbara Ann MacKalski
Director of Operations: Keith McConnell
Administrator, Admissions and Enrolment Services: Beth Jennings

Chapter Contents

MISSION STATEMENT

SECTION 1: Medical Education

SECTION 2: Admission to the Faculty of Medicine

2.1 Degree Offered
2.2 Course Requirements
2.3 Immunization Requirements
2.4 Certification in Cardio-Pulmonary Resuscitation
2.5 Technical Standards Requirement
2.5 Registration with the College of Physicians and Surgeons of Manitoba

SECTION 3: Academic Regulations

3.1 Requirements for the Degree of Doctor of Medicine (M.D.)
3.2 Requirements for Registration to Practise Medicine

SECTION 4: The Program for the M.D. Degree

4.1 Governance
4.2 General Statement
4.3 The Plan of the Curriculum

SECTION 5: Evaluation

5.1 Responsibility
5.2 Evaluation of Students in the Pre-Clerkship Program
5.3 Evaluation of the Students in the Clerkship Program
5.3.1 Introduction to Clerkship (ITC)
5.3.2 ITC Remediation
5.3.3 The Major Clinical Clerkships
5.3.4 The Comprehensive Clinical Examination (CCE)
5.3.5 The Multi-Specialty Clerkship Rotation
5.3.6 The Community Health Science Paper
5.3.7 The Elective Periods
5.3.8 Failure of a Student in the Clerkship Program
5.3.9 Terms for Failure of the Repeat Clerkship
5.4 Regulations for Students Taking Leave from the Clerkship Program
5.5 Reviews and Appeals of Failed Rotations and Examinations

SECTION 6: Academic Research in Medical Education

SECTION 7: Advanced Degrees in Medicine

7.1 Bachelor of Science in Medicine (B.Sc. (Med.))
7.2 MD/PhD Option

SECTION 8: Registration Information

SECTION 9: Course Descriptions

SECTION 10: Academic Staff

SECTION 1: Medical Education

Mission Statement

The Mission of the Faculty of Medicine is to develop and deliver high quality educational programs for undergraduate and postgraduate students of medicine and medical rehabilitation, for graduates and post-doctoral fellows in the basic medical sciences and for physicians in practice; conduct research and other scholarly inquiry in the basic and applied medical sciences; and, contribute to the improvement of health status in Manitoba and beyond by providing advice, disseminating information to health professionals and the public, and by cooperating in the planning for the development and delivery of health care services.

The Mission of the Undergraduate Medical Education Program is to provide an environment which will assist students to become competent, caring, ethical physicians with the ability to think critically. This experience will prepare students to choose wisely their area of training, to successfully continue their education, and subsequently to meet responsibilities to their patients and society.

Medical education in Manitoba is designed to provide students with the knowledge and experience they need to practise medicine in a profession where new developments in science and the public health policy create an ever-changing environment. In the first two years of the program the subject matter is divided into blocks which cover core concepts in health and medicine, human development and body systems. Clinical Skills, Problem Solving, Medical Humanities, Laboratory and Investigative Medicine, Health Equity, and Survival Tactics are integrated into the six blocks. The final two years, called the "clerkship" are spent in direct contact with patients and doctors in a clinical setting in which students gain experience with increasing responsibility for patient care and management.History of the Faculty

Medical education had its beginnings in 1883 when 13 physicians applied to the local legislature for a charter to form the Manitoba Medical College. The college was chartered as an affiliate of the University of Manitoba. The number of students registered for the first session was 15, and the number in attendance at each session from that date to the present has ranged from 15 to 400. The university came to the aid of the Medical School from time to time by furnishing full-time professors in chemistry, physiology, pathology, bacteriology, and zoology. With the session of 1918-1919 the Manitoba Medical College ceased to exist as a separate institution. It made a gift of all its property and equipment to the University of Manitoba "on condition that the university establish a Faculty of Medicine, and carry on the work of medical education in an efficient manner."

In 1921, a building for the accommodation of the departments of Physiology, Biochemistry, and Bacteriology was erected on the old Medical School property, and a further unit, now occupied by Pathology, was completed in February, 1922. In January, 1956, the new wing of the medical building was officially opened, which included new quarters for the Medical Library. In February, 1965, the Chown Building was opened providing

five-stories of administration offices and space for Pharmacology and Therapeutics and the Computer Department for Health Sciences. The Basic Medical Sciences Building, containing undergraduate teaching facilities, opened in 1973. It provides accommodation for anatomy, biochemistry, physiology, medical microbiology and immunology. The Brodie Centre officially opened in the spring of 1996; it provides a library, research and recreational facilities. In 2004, the Office of the Dean and the Education Offices relocated to new administrative facilities in the Brodie Centre. General teaching facilities are located in the medical buildings, and facilities for clinical instruction are provided in the teaching hospitals affiliated with the University of Manitoba and in related institutions. The varied settings in which medicine is practised in Winnipeg and in rural and northern Manitoba also provide students with the opportunity to study community medicine outside the major teaching institutions.

The Neil John Maclean Health Sciences Library

The Neil John Maclean Health Sciences Library provides access to a wide range of evidence-based medicine resources in print and electronic format. Online resources include core medical textbooks such as *Harrison's Principles of Internal Medicine*, online drug resources such as *Lexi-Comp*, and clinical resources such as *UptoDate*, *First Search*, and *MD-Consult*. The Library also provides online access to over 4,500 health sciences journals which can be linked to from important medical databases such as PubMed.

Students can access nearly all of the online resources from on-campus and from home by using their student ID number and password. The Library's wireless network permits students to access online resources with a laptop. Computers for student use are also available in the Library.

The online resources are supplemented by a full range of print resources which include variety of textbooks, handbooks, and dictionaries. Back issues of many of the key medical journals are available. Special collections in the library include the Aboriginal Health Collection, History of Medicine Collection, and the Ross Mitchell Rare Book Room.

To facilitate student access and use of evidence-based resources, librarians offer training as part of the Faculty of Medicine curriculum. Each semester librarians offer a variety of training sessions open to all students on key medical resources such as PubMed. Librarians are available at the Information Desk in the Library or by appointment to answer any questions or provide individualized training.

Graduate Studies

Graduate Studies information about graduate studies in medicine or related sciences, and information regarding opportunities for medical research may be obtained from: The Assistant Dean (Graduate Studies and Research), Faculty of Medicine, University of Manitoba, A108 Chown Building, 753 McDermot Avenue, Winnipeg, MB, R3E OW3.

More than 300 graduate students are doing research and pursuing Masters and Doctoral degree programs in the Faculty of Medicine. Their research training programs offer opportunities to conduct research at a number of sites including Bannatyne Campus, the National Virology Lab, St. Boniface Research Centre, and the Institute for Bio-Diagnostics. Graduate programs are available in the Departments of Biochemistry and Medical Genetics, Community Health Sciences, Immunology, Medical Microbiology, Pathology, and Physiology.

Physician Assistant Education Program

The Physician Assistant Education Program is the first graduate-level program for Physician's Assistant education in Canada. Upon completion of the comprehensive two year program, graduates receive a Master of Physician Assistant Studies degree. The program aims to educate outstanding Physician Assistant clinicians, to advance the academic field of the profession, and to foster leaders who will serve their communities and advance the physician assistant profession in Manitoba and Canada

Department of Medical Education

The mandate of the department of Medical Education is to work in a collaborative manner across all programs and schools within the Faculty of Medicine to provide expertise and services related to medical education issues including: curriculum development, faculty development, design of evaluation tools and assessment strategies and the provision of standardized patients. These services are provided by the department through the Office of Educational Development. The second purpose of the department of Medical Education is to engage in research and scholarly activity related to medical education issues and serve as an academic home for faculty with primary appointments within medical education.

Continuing Medical Education

This office is responsible for the Continuing Medical Education programs of the faculty, which are conducted in the Medical School, teaching hospitals, and in urban and rural medical centres. Information regarding programs may be obtained from: The Office of Continuing Medical Education, Faculty of Medicine, University of Manitoba, S203-753 McDermot Avenue, Winnipeg, MB R3E 0W3.

SECTION 2: Admission to the Faculty of Medicine

Please check the Applicant Information Bulletin available in June for current information.

2.1 Degree Offered

Doctor of Medicine (M.D.)

Minimum time to graduation: Four years in the Faculty of Medicine following an undergraduate degree (University 1, plus two or three years).

2.2 Requirements for Admission

The following is a summary of the admission requirements. Equivalent academic courses can be completed at recognized universities elsewhere. For complete admission requirements, as well as application deadline dates and forms, refer to the Applicant Information Bulletin, available at www.umanitoba.ca/medicine/admissions/index.html.

The Faculty of Medicine restricts enrolment to Canadian citizens and Permanent Residents.

All applicants must have completed a bachelor's degree, and prerequisites in Biochemistry and Humanities or Social Science. At the University of Manitoba these are Biochemistry 2360 and 2370. Applicants should be aware that there are course prerequisites for Biochemistry at University of Manitoba and should obtain this information from the Admissions website, www.umanitoba.ca/medicine/admissions/index.html.

We recommend students consider taking courses in the life sciences, particularly anatomy, microbiology, physiology and genetics.

Other requirements

• All applicants must write the Medical College Admission Test (MCAT). Since the MCAT will test the applicant's knowledge and problem solving skills in Biology, Physical Chemistry, Organic Chemistry and Physics applicants must consider taking these courses during their first two years of university studies.

• Applicants will be assessed in part on their Adjusted Grade Point Average (AGPA).

The Personal Assessment Score (PAS) is based on the information provided in writing and orally by the applicant which may include their referee reports and will include interview scores.

Transfer into the undergraduate program

The Faculty of Medicine will consider requests for transfer from students who are enrolled in LCME accredited medical schools in Canada and the United States. Student transfers are only considered in exceptional circumstances. Transfers can be considered only when there is a position open, by attrition, in the class into which the applicant requests transfer or to which evaluation shows the student to be qualified. A copy of the transfer policy can be obtained from www.umanitoba.ca/faculties/medicine/admissions/gen_questions.html#faqG19

2.3 Immunization Requirements

All students enrolled in the Faculty of Medicine should be immunized against the following diseases: diptheria/tetanus, polio, rubella, measles, mumps and hepatitis B. Evidence of chickenpox immunity by history, serology or vaccination will be required. Students who cannot be immunized because of allergies or for other reasons must provide a physician's certificate to verify these reasons. Students admitted to first year Medicine will be provided with an immunization package at the time of acceptance into the Faculty and will be required to provide their Immunization Record Form before being allowed to attend classes. Students may not be able to participate in clinical exposures until all immunization requirements are up-to-date. Students are responsible for updating their immunizations as needed.

2.4 Certification in Cardio-Pulmonary Resuscitation (CPR)

Students must have CPR designated as "Health Care Provider Level C" at the time of registration in year one. Students must have annual renewal of their CPR registration acceptable to the standards of the Heart and Stroke Foundation throughout the undergraduate medical education program. Evidence of current renewal must be provided on an annual basis; failure to comply may result in exclusion from the course of study until renewal is obtained.

2.5 Technical Standards Requirement

(Essential Skills and Abilities for Admission, Promotion and Graduation)

Please be advised that the Faculty of Medicine has adopted a Technical Standards Policy Document that describes the requisite skills and abilities that must be met in order to participate in the undergraduate medical education program. The policy may be obtained from www.umanitoba.ca/faculties/medicine/admissions/index.html.

2.6 Registration with the College of Physicians and Surgeons of Manitoba

All students must be registered with the College of Physicians and Surgeons of Manitoba throughout their academic program in accordance with the Manitoba Medical Act. As part of the documentation requirements for College registration, students will be required to provide a criminal record check (including a vulnerable sector search) satisfactory to the College.

2.7 Adult Criminal Records and Child Abuse Registry

An adult criminal records and child abuse registry self declaration will be required of all applicants at the time of application. An adult criminal records and child abuse check is required at the time of registration, and annually thereafter keeping in accordance with existing policies of other health, education and social service programs at the University of Manitoba.

SECTION 3: Academic Regulations

The provisions of the chapter, General Academic Regulations and Requirements, and the chapter, University Policies, apply to all students. Faculty of Medicine regulations and requirements change from time to time. Detailed information concerning the general regulations governing admissions, evaluation, academic progress and withdrawal for undergraduate medical students may be obtained from the Undergraduate Medical Education Office. These regulations include the following items:

Students will not be allowed to register unless they are in good academic and financial standing from the previous year.

No student may repeat more than one year, and no year may be repeated more than once except by special permission of the Faculty Executive Council or Progress Committee.

Students who withdraw from the Faculty of Medicine without prior written notice will be considered to have terminated their connection with the faculty and will not be eligible for re-admission.

Students who withdraw from the faculty having given due notice of their intention to withdraw are eligible for re-admission. If re-admission is approved they will be required to conform to the rules and regulations, fee schedules, sequence of courses, in effect at the time of such readmission.

Students may, after completion of the work of a full year, be granted a leave of absence for one year subject to certain conditions related to the purpose of the leave of absence and on subsequent registration will be required to conform to the rules and regulations, fee schedules, and sequence of courses in effect at the time of such registration.

Students who have been or expect to be prevented from attending any regular examination by reason of illness or other cause beyond their control should at once notify the Associate Dean Undergraduate Education (UGME) and must give satisfactory documentary evidence of the cause of absence.

The Faculty Executive Council reserves the right to require any student to withdraw from the program for which the student is enrolled when it believes the student to be unsuited, on general considerations of scholarship, or conduct for the profession, or the field within the profession, to which the program of studies normally leads. This right prevails notwithstanding any other provision in the faculty regulations.

Students are required to present the personal and professional appearance, attitudes and behaviours expected of members of the medical profession. The Faculty of Medicine has a process through which lapses in professionalism are reported, investigated, and, when necessary, will result in remedial or punitive actions up to and including dismissal. For additional information please refer to the Curriculum Guide.

The Faculty of Medicine has a Conscientious Objection Policy through which medical students may request exemption from specific medical procedures or services. Requests are evaluated and, if granted, do not absolve students from the following aspects of the procedure or service in question, including: cognitive knowledge (indications, contraindications, benefits and risks); full and nonselective disclosure to support Informed Consent by patients; patient non-abandonment; appropriate patient referral; and non-discrimination. A full list of criteria can be found on the Conscientious Objection application form. A Conscientious Objection cannot limit a student's educational experience such that his or her overall medical education will be compromised and all affected curricular time must be made up otherwise. For information, contact the Undergraduate Medical Education Office.

Students must complete the undergraduate program for the M.D. degree of the Faculty of Medicine within six years of entry to first-year Medicine, exclusive of those students undertaking additional academic pursuits which are acceptable to the Progress Committee. When a student fails to complete the program the committee will review the academic record of the student. If the student is in good academic standing at that time, the committee may grant one further year for the completion of the program. The reasons for the prolonged duration of the student's program are confidential but must be approved as valid by the Associate Dean UGME.

3.1 Requirements for the Degree of Doctor of Medicine (M.D.)

Every candidate for the degree of Doctor of Medicine must have satisfied the following requirements:

Subsequent to the successful completion of the required university studies, a student must have attended four full sessions of not less than nine months each in this or some other school of medicine approved by this university, the last two years of which must have been spent as a student of the University of Manitoba.

A student must have completed the required work, have fulfilled satisfactorily all special requirements, have received satisfactory grades throughout the entire medical program, and have discharged all indebtedness to the university.

Degrees: All degrees in Medicine will be conferred by the Senate of the university on the recommendation of the Faculty Executive Council at a regular meeting of the University Senate or at a meeting specially called for that purpose.

3.2 Requirements for Registration to Practise Medicine

A university degree in medicine does not in itself confer the right to practise the profession of medicine in Canada. That right is obtained from a provincial registering body in the particular province in which the graduate desires to practise, and follows the successful completion of the Medical Council of Canada's two qualifying examinations.

Federal Registration: The Medical Council of Canada

The Medical Council of Canada was established in 1912 by the Canada Medical Act. Its purpose is to grant a qualification to practise medicine acceptable for licence in every province of Canada. It is not a licensing body, but "anyone who secures the diploma of the Medical Council of Canada by examination is registered on the Canadian Medical Register. This registration entitles one to become licensed to practise medicine in any province in Canada upon payment of the necessary fee and on meeting other provincial requirements."

The Medical Council of Canada examinations are normally taken by undergraduate medical students of the University of Manitoba at the end of the fourth year. There is a fee for this examination. Examinations are held annually in Winnipeg in May and November, and registration for these ex-

aminations may be made with: The Registrar, Medical Council of Canada, 2283 St. Laurent Boulevard, Ottawa, ON K1G 5A2. The deadline for application is usually in December; candidates are advised to contact the Medical Council of Canada for current information (www.mcc.ca).

Provincial Registration

The College of Physicians and Surgeons of Manitoba is the regulation body for the physicians in Manitoba. All medical students must be registered with the College of Physicians and Surgeons of Manitoba throughout their academic program. For information on registration in Manitoba contact: The College of Physicians and Surgeons of Manitoba, 1000–1661 Portage Ave., Winnipeg, MB R3G 3T7; telephone: (204) 774 4344.

SECTION 4: The Program for the M.D. Degree

4.1 Governance

The program and its curriculum is the responsibility of the Faculty Executive Council (FEC). The policies, regulations, implementation and modifications of the educational program for the M.D. degree are determined by the FEC on the recommendation of the Faculty of Medicine Undergraduate Medical Curriculum Committee (UGMCC). The UGMCC consists of the faculty curriculum coordinators appointed by the Dean, two members elected by the Faculty Executive Council, the Associate Dean UGME, the Assistant Dean Student Affairs, the Director of Educational Development and six students. All members are voting members. The UGMCC is responsible for the curriculum, syllabus, teaching, and evaluation in the educational program leading to the M.D. degree.

4.2 General Statement

The program is a continuum over the four years but is divided into the Pre-Clerkship, Years 1 and 2, and the Clerkship, Years 3 and 4, for administrative purposes. The mission and performance expectations of the program are published. They are given to faculty and students and are the guide for the curriculum. The curriculum is based on the view that it is neither necessary nor desirable for the faculty to present all the knowledge, skills and behaviours that are expected of a student by graduation. Instead the students are provided with the core material which lies in the mainstream of medical science. Students are expected to acquire further knowledge and skills for themselves through study, discussion and scholarly development. They are encouraged to take the initiative to approach instructors and colleagues with regard to learning. The program values the search for knowledge, the evaluation of its worth and its application to the analysis and solution of problems as opposed to the simple memorization of information. Students are expected to develop skills to acquire new knowledge and to realize that these skills will be used throughout their professional lives irrespective of their field of medicine. The curriculum encourages an interdisciplinary and integrated approach to medicine. Teaching sessions promote participation and active learning by students. Instructors, whatever their own discipline, ensure that their teaching is relevant to the overall development of students to become undifferentiated graduates of medicine with the potential to enter any postgraduate position for which they have the ability and aptitude. The Faculty of Medicine does not support students' limitation of their studies to only fields and disciplines of personal interest. Nonetheless, students are encouraged to pursue areas of interest and to develop their own education through electives. Our students learn to use information, skills and behaviour from multiple sources of teaching to prevent and solve the problems that face their patients and society. Our students learn that physicians are part of an interdisciplinary team and health care system that provide adequate, accessible, continuous and comprehensive health care. In order to modify and enhance the educational program, the opinions of students and their evaluation of the program and its teachers are formally sought and respected by faculty. This information is used by the UGMCC to improve the program.

4.3 The Plan of the Curriculum

The curriculum is in the process of renewal. The curricular renewal will embrace enhanced programs in a varity of realms including: professionalism; interprofessional education and collaborative practice; quality health care and system innovation; and health equity.

Professionalism

The Professionalism program is an important component of the Undergraduate Medical Education curriculum. The goal of the program is to incorporate the attributes of professionaism into medical learners and emphasize how learners are expected to discuss why certain professionalism charateristics and attributes are necessary for the practice of medicine and for their identity as physicians.

A professionalism charter is being developed to function as a framework for defining and demonstrating medical professionalism.

Pre-Clerkship Program:

Year 1 (Blocks 1-3), and Year 2 (Blocks 4-6)

The Pre-Clerkship program is designed by the course directors and program coordinators in conjunction with department/discipline advisors/representatives and by committees governed by the faculty Pre-Clerkship Curriculum Committee. The curriculum consists of six mandatory programs: Cognitive, Clinical Skills, Problem Solving, Medical Humanities and Laboratory and Investigative Medicine, Health Equity, and one voluntary program: Stress Management. The Problem Solving program attempts to integrate and re-iterate important concepts presented during the Cognitive component, emphasizing a clinical presentation approach to your medical education. The Clinical Skills program (which includes communication, history taking and physical examination skills), the Medical Humanities program (which includes human values, medical ethics, medical history, law, and palliative care and integrative medicine), the Laboratory and Investigative Medicine program, and Health Equity are integrated with the Cognitive program as much as possible.

The objectives of the curriculum are based on the mission and performance expectations of the undergraduate program as outlined in the Curriculum Guide. The evaluation of student academic progress is based on the student's achievement of the written objectives as provided in the student notes, course of study books, and on the Pre-Clerkship web page. The curriculum is composed of six instructional blocks that address the core concepts of health and medicine, human growth and development and four blocks based on organ-systems. The two-year Pre-Clerkship curriculum brings together teachers from the basic science and clinical departments, from other health related faculties/disciplines as well as the public. All sciences basic to medicine, including anatomy and molecular science, biochemistry, human genetics, immunology, microbiology, physiology contribute to the curriculum as do the clinically applied basic sciences of pathology, pharmacology and community health sciences. Clinical departments including anesthesia, clinical health psychology, family medicine, internal medicine, obstetrics, gynecology, ophthalmology, otolaryngology, pediatrics, psychiatry, surgery are also involved.

The Pre-Clerkship is divided into six blocks, three per year.

Block 1 – Introduction to Medicine: Has two sections:

Population Health and Medicine - introduces the main elements to the understanding of any disease or health problem including definitions of life, health, disease and death; burden of illness or size of the problem; causes or risk factors; the natural history and outcomes; prevention and control; all based on the principles of emphasizing the concept of evidence-based medicine. This section will provide the core concepts of statistical methods in the health sciences, research methods, critical appraisal of the medical literature, and the framework for the determinants of health, an understanding of the role of stress in health and disease, the conceptual basis for making a diagnosis, including treatment, occupational and environmental health and health policy. Students learn the concept of the physician as a member of a multidisciplinary health team both in the hospital and in the community.

Structure and Function and Disease Mechanisms –introduces Anatomy, Physiology, Molecular Biology and Medical Genetics and has an overall goal to provide background knowledge in preparation for the subsequent intensive study of the human body in health and disease in later blocks. The art of medicine can be called an "applied science", and so it emphasizes the application of these basic sciences to the human organism. A selection of examples to illustrate "foundational concepts" or principles of human biology are covered. Students are given directed readings and references for study of some topics in depth, according to individual needs.

The core concepts of disease processes are illustrated through lectures and tutorials. Building on the previous sections, basic science principles and clinical applications are presented. Contributions are made by the disciplines of Pathology, Pharmacology, Oncology, Hematology, Infectious Diseases and Immunology to present core concepts of disease at both a cellular and patient level. Study of normal anatomy will continue. Students will be encouraged to use clinical examples of disease to appreciate and

understand the underlying cellular processes. This material is introductory and the topics will be further expanded and revisited in greater depth in the system subject blocks.

Block 2 - Human Development : This nine week block will cover the stages of development from conception to geriatrics including embryology, child development, nutrition, adulthood, sexuality, and death. Community Health, Genetics, Pediatrics, Psychology, Psychiatry, and Geriatrics will be highlighted. In this block students will be introduced to the principles of physical, psychological, social and behavioural aspects of normal human development at the various life stages from conception to death within populations, families and as individuals. As well they will learn about the physical, psychological, social and behavioural challenges individuals face during the various development stages. Students will learn to appreciate health as a component of life cycle development and to identify principles of community development which impact on the well-being of individuals and families at various life stages.

System Blocks: Each of the following Blocks will cover, in a clinically relevant context, normal anatomy and physiology, followed by pathophysiology of disease.

Block 3 - Involves Cardiovascular, Respiratory, Ear, Nose & Throat. There will also be a few additional stucture and function classes.

Block 4 - Medicine II commences with the fourth block consisting of Reproduction, Kidney and Endocrinology & Metabolism.

Block 5 – This block consists of the following systems: Neuroscience, Musculoskeletal and Ophthalmology.

Block 6 – The Pre-Clerkship curriculum ends with the following systems: Gastrointestinal/Liver, Blood & Lymph and Dermatology.

Methods of Teaching

The Cognitive component is delivered by a variety of formats including assigned self-study periods, small group tutorials, traditional didactic lectures, small group activities in entire class format, lab practicals or demonstrations and computer simulated labs. Regular time is scheduled each week to provide students with the opportunity for self-directed and independent learning. Group study is encouraged. Problem solving is emphasised in all small group tutorials as well as in the identified problem solving sessions.

Attendance

There is an expectation that all student learners in the Undergraduate Medical Education Program attend sessions that divide the whole class into smaller groups. Specific small group sessions will be tracked, recorded, reported and contribute to the evaluation of the student learner's professionalism. This policy can be viewed at http://umanitoba.ca/faculties/medicine/education/undergraduate/preclerkship/index.html.

The procedures outlined in this policy do not preclude course directors, session leaders and instructors from tracking student learner attendance in their sessions and discussing any concerns related to attendance with the learners. The information gathered from such tracking will not be recorded and reported as a professionalism component of the Medical Education Program.

Clerkship Program: Years 3 And 4

The Clerkship component of the undergraduate program is designed to give medical students didactic instruction, supervised responsibility for patient care and frequent feedback and evaluation. The program is governed by the Clerkship Committee, consisting of a Chair appointed by the Dean, the clerkship directors of the clinical departments, the Director of Educational Development and student representatives. The Clerkship Program consists of the Introduction to Clerkship program, core clerkship rotations, a multiple specialty rotation, and electives. It lasts 20 months. Core clerkships last a minimum of six weeks, multiple specialty clerkships are comprised of shorter individual rotations and electives are offered in units of two weeks or longer.

Introduction to Clerkship (ITC) (5 weeks): The Clerkship Program begins with the ITC that is a preparation for clerkship. It consists of observed clinical encounters with patients in the major disciplines, predominantly arranged to take place in the hospitals. Courses in clinically based laboratory medicine, clinical pharmacology and therapeutics, community health sciences, immunization/infection control, and radiology are given.

Clerkship Phase I:

Core Clerkship Rotations (48 weeks): The primary responsibility of the clerks in the program is the care of patients under the supervision of postgraduate students and faculty. Rotation through all major clinical disciplines is provided and these are supplemented by "elective" periods. Six-week periods are spent in family/community medicine, internal medicine, selectives in medicine and surgery, obstetrics/ gynecology, pediatrics, psychiatry, surgery, multiple specialty rotation of anesthesia, emergency medicine, ophthalmology, otolaryngology and a community health sciences project. Settings for the clerkship experience are varied, including wards and outpatient facilities of the hospitals, doctors' offices, rural and community-based hospitals. Formal teaching and evaluation of the knowledge, skills, attitudes and behaviours pertinent to the discipline are provided during the clerkships.

Clerkship Phase II:

Electives and CaRMS National Interview Period: There are two major elective periods during clerkship. The first period occurs at the end of the core clinical rotations; the second occurs after the CaRMS National Interview Period. The second period of electives is generally restricted to electives in the Province of Manitoba. Throughout the elective periods, students must pursue education in a minimum of three different disciplines with a minimum duration of two weeks each. Electives may be pursued in a setting of the the student's own choice, but must be approved by the faculty elective coordinator.

ACLS and the MCCQE Part I Refresher Series: The clerkship program ends with students participating in a mandatory ACLS course and a short program of half day lectures and time for self study in preparation for the licensing examination of the Medical Council of Canada Qualifying Examination Part I.

SECTION 5: Student Evaluation and Academic Progress

5.1 Responsibility

The policies and procedures for the evaluation of the students in the program for the M.D. degree are the responsibility of the Faculty Executive Council (FEC).

The Progress Committee recommends to FEC the academic standards by which the progress of students are judged and ensures that examiners have followed the policies and procedures set by FEC. The Progress Committee, following the recommendations of the Committees of Evaluation, also:

• Determines which students may proceed to the next stage of the program or to graduation.

• Determines which students should write supplemental examinations, or be required to take remedial study, or be required to repeat all or part of the academic year before promotion to the next stage of the program or graduation.

• Place students on Monitored Academic Status or Probation.

• Ensures that the Committees of Evaluation have followed the policies and regulations of evaluation that have been approved by the FEC.

The Committees of Evaluation (COE): The COE's, Pre-Clerkship (years 1 and 2) and Clerkship (years 3 and 4) conduct the evaluation of the students. The knowledge, clinical and communication skills, attitudes and behaviour of the students are evaluated by examination, assessment of performance and completion of assignments.

The responsibilities of the COE's include:

• Planning and administration of the evaluation of all aspects of student examinations and performance.

• Planning and administration of all supplemental examinations.

• Planning and administration of all other measures of academic performance.

• Planning and administration of remedial training for students with unsatisfactory academic performance.

• The reporting of the results of examinations, supplemental examinations, other academic performance evaluation and remedial training to the Progress Committee.

Procedure for students with non-academic problems that interfere with evaluation

Students who cannot take an examination, attend mandatory sessions, perform satisfactorily or complete assignments because of non-academic problems must inform either the Associate Dean UGME or Assistant Dean Student Affairs as soon as possible. Either of these individuals will decide if the reason is sufficient to postpone or cancel evaluation. This may be applied retroactively. The Associate Dean UGME will then determine how the evaluation will be completed. In the case of illness a confirming certificate from the student's regular physician or a specialist in the field of the illness is expected. In other situations confirmation that problems are affecting the student should be provided from a recognized authority e.g. the University Counselling Services. In all cases the nature of the problem is confidential between the student and the physician or adviser involved. The physician or adviser must confirm in writing that the problem has affected student's performance and evaluation. The student will usually be expected to submit a further confirmation that the problem will not affect performance or evaluations when the student resumes the program.

5.2 Evaluation in the Pre-Clerkship Program

The Committee of Evaluation Pre-Clerkship will be responsible for evaluation of students during the first two years of the program. The COE Pre-Clerkship will be headed by two co-chairs, responsible for first and second year respectively and appointed by the Dean. The members of the COE include the Pre-Clerkship faculty curriculum coordinators, the Associate Dean UGME and representatives of the individual blocks of the program, the Clinical Skills programs and the Medical Humanities program. Additional members may be added at the discretion of the FEC. The COE Pre-Clerkship is responsible for developing the evaluation process, determining the pass mark of the examinations and ensuring that the examinations of each block are comparable, reliable, valid and fair.

Examinations

The COE will inform the students of the pre-determined pass mark for all examinations at the beginning of their block. The student, however, will be given the overall as well as the actual marks obtained in the different sections of the examination. Students' results will be reported to them as a pass or fail; neither grades nor honours will be given. Grades and relative performance will be recorded in students' evaluation files and each student can view his or her evaluation file in the undergraduate office.

The Faculty of Medicine uses a Pass/Fail system where grades are not reported external to the Faculty of Medicine. Transcripts and Medical Student Performance Reports will indicate only whether a student has passed or failed a year or block. However, within the Faculty of Medicine, student grades will be used to help identify students at academic risk and to help select students for distinctions such as awards and specialized programs.

Knowledge: There are written comprehensive examinations based on the objectives at the end of each block i.e. three in first year and three in second year. Except for the first block, all the blocks may include up to 10 per cent of questions from material in the previous block. For each block there is an examination committee that consists of the COE chair, course directors and pertinent departmental representatives for the respective block. The examination committees are responsible to ensure that the taught objectives are tested and the evaluation is fair. Each examination of knowledge may use various methods of evaluation: multiple choice questions, short answer essays, demonstrations etc. There may also be take-home assignments in each course that contribute to the final mark.

Clinical Skills: The student's performance in the Clinical Skills program will be assessed by observation of performance and by examination. There is a Clinical Skills evaluation committee, responsible to the COE Pre-Clerkship, that determines the standards of performance expected of students and develops examinations. There will usually be an examination of Clinical Skills at the end of each year. The format of the examination will normally be an "objective structured clinical examination," (OSCE). The Clinical Skills evaluation committee is responsible to the COE Pre-Clerkship for the planning and administration of the examination. The committee will recommend the pass mark, once the stations have been chosen, for approval to the COE Pre-Clerkship. The format of the examination and the system used to determine the pass mark will be told to the students. The Clinical Skills evaluation committee will inform the COE Pre-Clerkship about those students who fail the clinical skills program. If a preceptor determines that a student's performance is unsatisfactory then the student must be informed and reported to the Clinical Skills evaluation committee. The committee will provide supplemental education to help the student reach the satisfactory standard. The COE Pre-Clerkship will confirm that the student has failed due to poor performance or by examination and will determine the period of remedial work to help the student meet the standard of the program.

Professionalism: Behaviour and attitudes befitting medical professionals is expected of our students in all phases of the curriculum. The Faculty of Medicine looks forward to learning of students who display exceptional professionalism through letters sent to the Associate Dean, UGME. The Faculty of Medicine uses a Professionalism Report by which single egregious or recurrent lapses in student professionalism can be brought to the school's attention. A summary statement will be included on an individual's Medical Student Performance Record if two or more validated reports have been received. The Faculty of Medicine maintains the option to dismiss students on the basis of unprofessionalism, regardless of performance in the curriculum.

Failures of the Evaluation in Pre-Clerkship Years 1 and 2

Pass marks: May be revised from time to time but will be declared before the initial and supplementary examinations.

Examinations: Students failing in up to two examinations can write supplementary examinations. Students who fail any supplementary examination in first- or second-year will fail that year.

Students who are granted supplemental privileges are expected to undertake remedial study at a time determined by the Faculty during the summer period. Following the remediation, they will sit a supplemental examination comparable but different to that failed. Students who fail the Clinical Skills program will be granted supplemental privileges and receive a remedial period during the summer vacation that will take into account the areas of weakness revealed by their performance and the examination. The performance of students during the remedial period will be evaluated by a preceptor and will normally include an oral and/or written examination and/or repeated OSCE. Students who fail to reach the standard expected after remediation will fail the year.

Students in Year 1 and Year 2 who are successful following remediation will be promoted.

Year 1 students who fail the year must apply for re-admission to medical school before June 1. Students being considered for re-admission will usually be interviewed by the Admissions Committee to determine how they might better approach medical school so that they might succeed on a second attempt. The Admissions Committee will advise the Assistant Dean Admissions who will recommend to the Progress Committee whether the student should be re-admitted.

Students who fail Year 2 will automatically repeat it and are not subject to review by the Admissions Committee.

Remediation of failures: The student will be required to meet with the Director of Remediation to develop a remedial plan. The exact nature of the remediation may vary with the student and will be designed to meet individual learning needs as defined by the student. The student will also be required to meet with the Assistant Dean Student Affairs who may also direct the student to other faculty members or services for students.

5.3 Evaluation of Students in the Clerkship Program

During the clerkship years students will be evaluated on their competence and this will include assessment of their cognitive knowledge and understanding, clinical skills, problem solving and judgement, technical skills, interpersonal attributes and general professional responsibility. Evaluation will be the responsibility of the Committee of Evaluation, Clerkship (COE Clerkship).

The committee will consist of:

• *Voting Members:* The chair; one representative, usually the clerkship director, or delegate, from each department, and the coordinator of ITC Laboratory and Investigative Medicine, the coordinators of ITC, clerkship, electives and comprehensive clinical examination. In the absence of the elected representative the department may send a substitute.

• *Non-Voting Members:* Ex-officio the Associate Dean UGME; the Assistant Dean Student Affairs, and four undergraduate student representatives.

Method of Evaluation (General)

The policy and procedures applicable for evaluation are: Examination Regulations Policy: 1305 of the University of Manitoba; Faculty of Medicine Security of Records policy approved, 1982; Policy on Disclosure and Se-

curity of Student Academic Records approved University of Manitoba Board, May, 1989. Examinations and evaluations will use various methods to assess students. These will include mid-point (MITERs) and final evaluation reports (FITERs); written examinations (externally or internally prepared in essay, multiple-choice or other formats); projects; clinical examinations with "traditional" cases, case scenarios, simulated or standardized patients using "traditional" long cases, short station Objective Structured Clinical Examinations (OSCE) or longer Comprehensive Clinical Examination (CCE) formats. Students' performance for evaluation purposes during examinations may be recorded by writing, orally, by computer, by audio or by video taping. Whatever form is used, the data generated is subject to the examination regulations of the University of Manitoba and the Faculty of Medicine. Material necessary to generate the mark such as papers, computer records, tapes will be destroyed once the student has passed that evaluation (such material can be of help to a student needing remediation before the pass).

The Committee of Evaluation Clerkship will monitor examinations and evaluations of students to ensure that they are credible, appropriate, precise, valid and reliable. To achieve this quality assurance the Committee of Evaluation Clerkship may use direct observation or indirect observation by audio and video monitoring. Quality assurance material is subject to the aforementioned regulations of the university and the faculty. Material, such as audio/video tapes which could identify the individual student will not be released to anyone, other than the Dean and Committee of Evaluation Clerkship, without the written consent of the student.

5.3.1 The Introduction to Clerkship (ITC)

The goal of Introduction to Clerkship (ITC) is to prepare the student for clerkship rotations. Students will be assessed for attendance and performance in learning groups. The purpose of student evaluations in ITC is to ensure that students are ready to begin their clerkship rotations.

Readiness for clerkship must be demonstrated in many areas including: basic medical knowledge and its application; clinical skills in evaluating patients; analysis of clinical data; problem identification and diagnosis; planning of investigation; planning of management and therapy; relationships to patients and staff. These attributes will be evaluated in a variety of ways throughout ITC.

Method of Evaluation

Students failing to attend mandatory sessions may be reported to the Associate Dean UGME, who will inform the COE Clerkship. Each student will receive a warning from the Associate Dean's office. If this warning is ignored the student's attendance record and performance will be considered by the COE Clerkship and the student may be failed for the sessions missed. A suitable remedial period may be provided. If the student does not perform satisfactorily in the remedial period the ITC will be failed.

Each department, clinical or laboratory, will determine the criteria for determining the competence of the student during the ITC experience in that department. These standards should be based on the expected requirements for satisfactory preparation for the clerkship of the department. Each preceptor, with significant involvement in clinical or laboratory teaching, will provide a pass/fail decision on each student taught to the ITC supervisor of the department together with a written evaluation of the performance when needed. The preceptor will advise each student during the course if the performance is likely to lead to a failing assessment. Students must be given due opportunity to improve their performance to the expected standard. The departmental supervisor, with the undergraduate committee of the department, will review the evaluations and preceptor pass/fail assessments to determine if the student has achieved an overall pass/fail for the ITC period in that department. The student must be informed of a recommendation for failure within seven working days of the end of the session. The pass/fail decision will be given by the departmental representative to the COE Clerkship. In the case of a failing evaluation the reasons for failure must be documented and submitted to the COE Clerkship.

5.3.2 ITC Remediation

Failure for inadequate attendance

The coordinator of the block of sessions missed may, with approval of the clerkship coordinator, provide the student with a remedial course, of comparable educational experience in that subject and the student will have to attend and perform satisfactorily to pass the ITC.

Failure for poor clinical performance

The COE Clerkship will review the deficiencies of the student and will provide the student with a remedial period prior to the beginning of the Clerkship. The remediation will be designed to improve the clinical deficiencies of the student to meet the standard for a pass and will be assessed by the preceptors.

Failure of the ITC remedial

Failure of the remedial period for non-attendance or poor clinical performance will be recorded as a failure of a major clerkship. But, since a repeat of the ITC would need to be postponed until the core rotations are completed, the student may proceed to the regular clerkship rotations. However, if such a student fails a core/major rotation in addition to the ITC, then the Clerkship Program must be restarted at the next ITC period.

5.3.3 The Major Clinical Clerkships

Method of Evaluation

The evaluation of the students during the clinical clerkship rotations may be assessed by review of clinical performance, written examinations, projects as in community health sciences and a comprehensive clinical examination.

Clinical Performance

The goals and expectations of the Clerkship Program are consistent with the Undergraduate Medical Education Learning Goals and Objectives.

Students must complete a self-evaluation Midterm In-Training Evaluation Report (MITER) midway through the rotation. The self-evaluation MITER should be discussed by the student and his/her preceptor(s). The clerkship director, or delegate, will collect preceptor assessments throughout the rotation. If a student's performance is likely to lead to a failure, the clerkship director must advise the student of an impending failure by the midway point of the rotation. In such cases, these students must be given help to improve their performance to the expected standard. The clerkship director, or delegate, will use all evaluations to make a final decision on the student's performance at the end of the rotation in that department. A Final In-Training Evaluation Report (FITER) of each student's achievement of these goals will be completed for each rotation.

A failing student must be informed of the failure by the clerkship director, or delegate, preferably before the end of the rotation but not later than seven working days after the end. All results will be submitted to the undergraduate committee of the department, who, for a failure, will review all the evaluations and preceptors' pass/fail assessments and determine the overall, pass/fail standing for the student during the rotation in question.

The pass/fail recommendation, with the FITER and any supporting evidence for that decision, will be submitted by the departmental representative to the COE Clerkship. The pass/fail decision will be reviewed and affirmed if there is a majority vote of the members of COE Clerkship present at the first meeting of the COE Clerkship after the end of the clerkship. In the case of a tie, the chair of COE Clerkship will have the deciding vote, otherwise he or she will not vote.

Major Clerkship Clinical Performance Remediation

The COE Clerkship will provide the student who has failed a clinical rotation an appropriate remedial period with the department in which the rotation was failed. The rotation will be an equivalent educational experience to the clerkship failed, and its goal will be to assist the student to reach the expected standard of clinical competence. A similar process of evaluation will be used, and this may be supplemented by a clinical oral examination if the departmental undergraduate committee deems it necessary. The remedial will be taken during an elective period.

Clerkship Departmental Examinations

Students will take the National Board of Medical Examiners (NBME) subject examinations at the end of the following clerkship periods: obstetrics/ gynecology, pediatrics, psychiatry, and surgery,. For internal medicine the NBME examination will take place after the internal medicine selective rotation. For surgery the NBME examination will take place following the major surgery rotation. The passing standard for National Board Exams will be the 11th percentile of the entire reference group. Students failing a National Board examination will resit this exam *at the next opportunity as determined by the Associate Dean (UGME) or designate*.

Remediation for NBME Examination Failures

Students failing the National Board exam twice in the same subject will receive a remedial period of training from the department of that subject. The Associate Dean UGME in conjunction with the clerkship director, or delegate, will design the remediation with the purpose of the student achieving at least the 11th percentile in the examination; further clinical experience may be needed to meet that purpose. Such a remedial period will be a max-

imum of four weeks and will be taken in an elective period and followed by a third attempt at the National Board examination.

5.3.4 The Comprehensive Clinical Examination (CCE)

The goal of the comprehensive clinical examination (CCE) is to objectively evaluate students' clinical competence in generic skills of data collection, interpersonal relationships, along with the content of the case for diagnosis, investigation, and management of common clinical problems. This examination frequently uses standardized patients to test these clinical skills. The CCE committee is a sub-committee of the COE Clerkship and is chaired by the CCE coordinator. The CCE is marked to a standard predetermined by the CCE committee and the results of the examination are submitted to the COE Clerkship.

Remediation for Failure in the CCE

The COE Clerkship will devise an appropriate remedial period which will take into account the areas of weakness demonstrated by the CCE and will be taken during elective time. This remediation will be evaluated by a clinical assessment and may include an oral and/or written exam.

5.3.5 The Multiple Specialty Rotation in Clerkship (MSR)

Method of Evaluation

The evaluation of students during the MSR clerkship rotation includes assessments of attendance, performance and could include faculty prepared examinations. Students will be expected to attend all clinical, small group, and laboratory sessions. If more than 10% of a block of sessions is missed, without an excused absence, then the student may fail that block of sessions. Clinical performance will be judged, where applicable, as in the major clerkships. The clerkship director, or delegate, will obtain the information from the staff of the department as determined necessary to evaluate the student by the undergraduate committee of the department. The clerkship director, or delegate, must advise each student by the midway point in the rotation if his or her performance is likely to lead to a failing assessment. Failing students must be given due opportunity to improve their performance to the expected standard. The clerkship director, or delegate, will use all evaluations to make a final decision on the student's performance at the end of all rotations in that department. While a constituent part of the MSR clerkship may be failed, failure may be outweighed by good evaluations in other constituent parts. A failing student must be informed of the failure by the preceptor, clerkship director, or delegate preferably before the end of the rotation but not later than seven working days after the end. All results will be submitted to the undergraduate committee of the department, who, in the case of a failure will review all the evaluations and preceptors' pass/fail assessments to determine the overall, pass/fail standing for the student in that department.

The Community Health Science Project

Each student will complete a paper and presentation in community health sciences during the Multiple Specialty Rotation. The paper will be evaluated by the supervisor to a standard set by the department with approval of the community health science undergraduate clerkship director. If the paper is unsatisfactory then the preceptor will meet with the student to determine an appropriate time for improvement before a failure is recorded. In the case of a failure, the clerkship director, or delegate, will submit the failure to the COE Clerkship and advise upon the remediation needed for the student to produce a satisfactory paper.

Remediation for an MSR Clerkship Failure:

The COE Clerkship will provide the student who has failed a clinical component of the MSR with a remedial period in the department in which the rotation was failed. This period is flexible but can be up to the same length as the failed rotation. Such a remedial rotation will be an equivalent educational experience to that failed and its goal will be for the student to reach the expected standard of clinical performance. A similar process of evaluation will be used and may be supplemented by a clinical oral and/ or written examination if the department deems it necessary. The remedial will be taken in an elective period.

5.3.6 The Elective Periods

Method of Evaluation

Electives are evaluated in a similar manner to other clerkship rotations and students are required to obtain a completed elective evaluation form for every elective pursued. These evaluations will be reviewed by the electives coordinator and unsatisfactory assessments will be submitted to the COE Clerkship. If an elective experience is failed, all of the student's elective evaluations will be considered to determine a composite pass/fail for the elective period.

Remediation for an Electives Failure

The COE Clerkship will devise a remedial period of up to four weeks which will take into account the areas of weakness revealed by the student's elective evaluation. This will be taken in the next available free time for the student. The remedial period will be evaluated by clinical assessment and can include an oral exam if the COE Clerkship deems it necessary.

5.3.7 Failure of a Student in the Clerkship Program

The Clerkship Program is a continuum held over Year 3 and Year 4. A failure of the Clerkship Program is considered to be a failure of one year, see Section 3 Academic Regulations, above.

Failure of the Clerkship

The student will be determined to have failed the Clerkship Program if:

1. Failure of Clinical Assessments

The student has received failing evaluations in one or more of the following:

- a) Two major clerkships in different disciplines (Internal Medicine including selective, Surgery including selective, Pediatrics, Obstetrics/ Gynecology, Psychiatry, and Family Medicine)

OR

- b) One major clerkship and:
  - i) its remedial, or
  - ii) an ITC remedial, or
  - iii) an MSR remedial, or
  - iv) an elective remedial

OR

- c) Remedials in two of the following:
  - i) Anesthesia
  - ii) Emergency Medicine
  - iii) Otolaryngology
  - iv) Ophthalmology
  - v) Elective
  - vi) ITC

2. Failure of Examinations

The student has failures in one or more of the following::

- A National Board examination three times, or
- Three National Board examinations twice, or
- The CCE after remediation, or
- The community health science paper, including its remediation.

3. If the remediation period recommended for a student, for whatever cause, requires more than eight weeks, then the student will be deemed to have failed the Clerkship Program**.**

5.3.8 Terms for the Repeat Clerkship

A student who fails the Clerkship Program, be it because of failure of clinical assessments, failure of examinations, or failure of remediation (as above), immediately ceases in the program, and will be required to repeat the Clerkship Program. The Repeat Clerkship will consist of the following, at a minimum: Six week rotations in each of Core Internal Medicine, Core Surgery, Pediatrics, Family Medicine, Psychiatry, and Obstetrics/Gynecology, plus 12 – 16 weeks electives. Students in the Repeat Clerkship will also be required to complete the ACLS course (0.5 weeks), and the LMCC refresher course (4.5 weeks). They will also be granted 3 weeks for CaRMs interviews and two weeks for vacation. Furthermore, if the failure occurred prior to the completion of the Medicine Selective, Surgery Selective, Multiple Specialty Rotation (MSR), or Community Health Sciences Project, then these will be required components of the Repeat Clerkship as well. The student must satisfactorily meet all clinical assessments, examinations, the CCE, as well as remedial rotations (as appropriate), regardless of whether they had been passed previously. The Repeat Clerkship will be submitted to the Progress Committee for review and final approval.

5.3.9 Terms for Failure of the Repeat Clerkship

The terms for failure of the Repeat Clerkship are the same as listed above in 5.3.7 "Failure of a Student in the Clerkship Program." A student who has failed the Repeat Clerkship will be required to withdraw from the Faculty of Medicine program.

5.4 Regulations for Students Taking Leave from the Clerkship Program

Students may, for health or personal reasons, withdraw from clinical rotations or take temporary leave. For planned leave, prior permission must

be obtained from the Associate Dean UGME or Assistant Dean Student Affairs and the Clerkship Coordinator. For leaves due to sudden or unexpected circumstances, Office of the Associate Dean UGME, the Clerkship Coordinator and the clerkship director or delegate of the rotation must be informed. Written documentation of the reason for leave will be required by the Office of the Associate Dean UGME. The information is confidential to the Associate Dean UGME and Assistant Dean Student Affairs.

If, at the time of taking leave, less than one half of that part of the rotation has been completed, the student will have to start the rotation again from the beginning of the rotation at a later date convenient to the schedule.

If, at the time of taking leave, more than one half of that part of the rotation has been completed and if the student's performance to that date has been considered satisfactory, the student will only have to complete the missed time at a later date convenient to the schedule. The final evaluation will be made from the assessments in both parts of the rotation.

Brief periods of leave of up to one day may be taken upon notification and approval by the clerkship director and/or delegate. Leaves of absence may be requested for personal, academic, or compassionate reasons, or to accommodate interviews for postgraduate positions. Permission must be obtained in advance, in accordance with the *Leave of Absence from a Clerkship Rotation Guidelines and Procedures* that is available at the www.umanitoba.ca/medicine website or in hard copy from the Undergraduate Medical Education Office.The normal clerkship is completed in 80 weeks, not counting CaRMS interview time and holiday time. When, because of leaves of absence, a student will take more than 80 weeks, including elective periods, to complete the Clerkship Program then the COE Clerkship will review the student's record (clinical assessments and examinations) during the Clerkship Program to ensure that the time lost has not compromised the overall achievement of the student. Moreover the COE Clerkship must decide if the extended nature of the student's course has resulted in a standard of evaluation for the student that is different from the other students of the year who have had less time. If the COE Clerkship determines that this student has not reached the standard expected of a student completing the regular Clerkship Program, and even if all rotations have been completed, then the COE Clerkship may require a further period of clinical training for students. This will not count as a failure, but as a remedial period to help the student to attain the standard expected in a student completing the Clerkship Program. During this remedial period all regular methods of evaluation, clinical assessments and examinations, will apply although, at the recommendation of the COE Clerkship, certain examinations may be omitted. If this remedial period is failed then the student will be deemed to have failed the Clerkship Program.

Students who miss a statutory holiday because they are on-call that day are entitled to a day off in lieu. This day must be taken in the same rotation. When there is a difference between statutory holidays between the hospitals and the University, Clerkship students are expected to follow the hospital schedule.

5.5 Reviews and Appeals of Failed Rotations and Examinations

A student who disagrees with any evaluation, or recommended remediation, from departmental rotations or by examination, whether externally or internally produced, may ask for it to be reviewed and re-evaluated. The student should consider obtaining the advice of the Student Advocate (telephone (204) 474-9251). Students are required to sign their FITERs but can include a notation about disagreement with the findings.

The request for review should be addressed to the Assistant Dean Student Affairs, who direct the request to the appropriate authorities. The request can be made verbally to the authority but is better in writing; the request should be supported by reasons for the disagreement. Student representatives or the Assistant Dean Student Affairs can put forward the student's request at the undergraduate departmental committees and COE. If the recommendation for failure is upheld by the appropriate committee of evaluation, the same request and its supporting arguments can be submitted to the Progress Committee and presented by either the student representatives, the Assistant Dean Student Affairs, or the Student Advocate. If the Progress Committee upholds the failure, then the student may appeal the result within 28 working days of receipt of the failure by submitting a written appeal to the Progress Committee.

On the receipt of such an appeal the Progress Committee will refer the appeal to the Faculty Executive Council Committee on Student Academic Appeals. The Student Academic Appeals Committee will hear the appeal within 28 days of an appeal being filed. The student will be informed of the decision within 10 working days of the conclusion of the appeal. If necessary, the student may then appeal to the Senate Committee on Student Appeals. It is strongly recommended that the student obtain the advice of the Student Advocate. If a failing evaluation is overturned on appeal then the original pass/fail evaluation must be stricken from the student's record and the new evaluation inserted – examination marks and the comments of clinical assessments will be kept, except where they were found to be invalid during the appeal, in which case a correct comment or mark is inserted.

SECTION 6: Academic Research in Medical Education

Part of the educational responsibility of the Faculty of Medicine is to perform research on innovations and effectiveness in medical education. Whenever students are the research subjects, all such research must have approval from the Faculty of Medicine Research Ethics Board. Where students are studied individually their participation will be voluntary. Research findings will not identify individuals.

SECTION 7: Advanced Degrees in Medicine

7.1 Bachelor of Science in Medicine (B.Sc. (Med.))

The Bachelor of Science in Medicine program is offered during the summer months following first and second year of the undergraduate program in Medicine. The B.Sc. (Med) program is designed to provide the undergraduate medical student with the opportunity to gain firsthand experience in medical research. A large variety of basic science and clinical research projects are available for the student to choose from each year.

The program is open to undergraduate students in the Faculty of Medicine and, if approved by the B.Sc. Medicine Committee, to selected undergraduate students from other Canadian and international medical schools. The work for this degree may be carried out in any department of the Faculty of Medicine. This program may not be taken concurrently with any part of the medical curriculum nor by a student carrying any failures or more than one block of required remediation in his/her medical program To enrol in the B.Sc. (Med) program the student must find a supervisor in any field within the Faculty of Medicine. The supervisor must be a member of the Faculty of Medicine. Together, the student and supervisor submit a written project proposal for scrutiny to the B.Sc. (Med) Committee. If the project proposal is accepted by the committee, students are accepted into theB.Sc. Medicine Program and can then be registered with the university for the B.Sc. Medicine summer sessions.

An examining committee of two faculty members excluding the B. sc. (Med) program director, one from outside the department in which the research work is carried out, will be established for each student.

Students will be required to produce research and present their findings acceptably in both a written report and at a research forum at the conclusion of their second summer. Students will be evaluated by their Supervisor after the first summer and by their examining committee following the completion of the requirements for the B.Sc. (Med) degree. Students will be required to withdraw from the program if they make unsatisfactory progress, including after the first summer of research.

The B.Sc. (Med) degree will be conferred at the same time as the M.D. degree unless the student, having satisfactorily completed the requirements for the B.Sc. (Med) degree, discontinues the study of medicine in this faculty. In this case, the B.Sc. (Med) degree will not be conferred.

7.2 MD/PhD Option

Purpose

The combined-degree MD/PhD Option in the Faculty of Medicine is designed to produce academic clinician scientists who are interested in a career that combines both research and clinical medicine.

Duration

The minimum program of study is the total required by the Faculty of Medicine for the MD program (4 years) plus the minimum requirements of the Faculty of Graduate Studies (3 years from honours undergraduate degree).

Students having obtained advanced/graduate training prior to admission may be granted advanced standing. Students will be considered to be full-time graduate students through the entire period.

Eligibility

Students enrolled in or admitted to Medicine are eligible to apply.

Application process

Students wishing to apply should contact the Director of the Option. Acceptance will minimally require: 1) identification of a supervisor (within a department in the Faculty of Medicine which has an approved PhD program) who has adequate resources for the proposed program of study and whose department recommends acceptance, 2) interview with the Faculty MD/PhD Selection Committee and their recommendation for acceptance, 3) identification of a source of adequate financial support for the student and 4) acceptance by the Faculty of Graduate Studies.

Program fees

The total tuition fees payable are the sum of the fees required for the MD and PhD programs of study. Continuing fees (Graduate Studies) are also applicable.

Administration

The Associate Deans for Research and UGME and Assistant Dean Admissions are advisory to the Option Director (Program Director, Advanced Degrees in Medicine). They will ensure 1) adequate resources for all aspects of the delivery of the program, 2) liaison with the Department, the Faculty of Medicine (including flexibility re: leaves for research) and Faculty of Graduate Studies, 3) review of advisory committee composition/function and of student progress and satisfaction and 4) the provision of program elements considered important to the success of the Option. Faculty members holding dual MD/PhDs will be requested to provide input as resource persons to the program.

Coursework

The minimum course requirements of the Faculty of Graduate Studies will be applicable in addition to the normal curriculum of medical studies.

Research/Thesis requirements

The quality and quantity of research supporting the thesis shall be consistent with that required for other doctoral candidates in the field.

Additional program elements:
Seminar Series and Research Progress Evaluations

Each student will be required to regularly attend a designated research seminar series organized by the sponsoring research discipline of the student. In addition, mandatory attendance will be required of all MD/PhD students and their supervisory faculty advisors to participate in a quarterly, program-wide, MD/PhD Student Research Forum which will include MD/ PhD graduates. These regular research days will provide time for students to present their work to a critical audience (research proposals, work-in-progress, critical reviews in major areas of recent scientific advances, etc.), and will also serve to promote networking within the program. Each student will be required to present a research update at least once a year, and satisfactory performance at this yearly assessment is required for continuation of program support.

Conferment of the Dual Degrees of MD/PhD

The MD and PhD degrees will usually be conferred simultaneously during convocation upon satisfactory completion of the entire option.

SECTION 8: Registration Information

Initial Access Times

Students in the Faculty of Medicine Undergraduate Medical Education Program will be given access time to the registration system (Aurora Student) in July and August. For instructions on how to register online, please refer to the chapter, "Registration Information: Aurora Student". Registration must be complete prior to August 24, 2010.

Please note that you are registering in the same course for both the **Fall** AND **Winter** sessions. Contact Admissions and Enrolment Services at (204) 789-3569 should you encounter difficulties in registering.

Prior to Registration

New Students: All incoming students must complete application to the College of Physicians and Surgeons of Manitoba, certify for BLS for Healthcare Providers (HCP) and submit the following documentation prior to registration: immunization records, Adult Criminal Records Check (with vulnerable sector search), Child Abuse Registry Self-Check, Essentail Skills and Abilities (Technical Standards) for Admission, Promotion and Graduation in the MD Program, and Accommodation for Undergraduate Medical Students with Disabilities. If you are unable to submit these documents by the first day of classes please contact Admissions and Enrolment Services.

Returning Students: All returning students must have active BLS for Healthcare Providers (HCP) certification on file in the Faculty of Medicine office prior to registration. Returning students must be registered with the College of Physicians and Surgeona of Manitoba and must provide current docuemtation on Adult Criminal Record Check (with vulnerable sector search) and Child Abuse Registry Self-Check.

Web registration exceptions

Students who have a failing grade/s registered against them and/or have other outstanding academic matters (i.e. deferred or supplemental examinations, modified program, etc.) in regards to the previous academic session will not be allowed to register using the web registration system. Students who fall into this category should contact the office for further information.

Bachelor Science in Medicine and Summer Early Exposure Programs

Students approved to participate in summer enrichment programs will be registered by the Faculty.

Courses for the Undergraduate Medical Education program are:

Program & Year	Faculty/ School Codes		Course Information		
		Terms	Dept. Number & Course Number	Lecture Section	Lab Section
Medicine I	05	Fall 2009 and Winter 2010	UGME 1000	L01	Not Applicable
Medicine II	05	Fall 2009 and Winter 2010	UGME 2000	L01	Not Applicable
Medicine III	05	Fall 2009 Winter and Summer 2010	UGME 3000	L01	Not Applicable
Medicine IV	05	Fall 2009 and Winter 2010	UGME 4000	L01	Not Applicable
			UGME 4990	L01	Not Applicable

Section 9: Course Descriptions

Biochemistry and Medical Genetics

BGEN 3020 Introduction to Human Genetics Cr.Hrs.6 (Formerly 137.302) Principles necessary to understand and study genetically influenced malformations, diseases and variation in individuals and in populations. Two terms. Lectures, tutorials and assignments. Not to be held with the former 080.301 or 125.301.

BGEN 4010 Project Course in Human Genetics Cr.Hrs.6 (Formerly 137.401) A research project chosen in consultation with and supervised by a faculty member. A written report is required. The course is available primarily to final year Honours students in the Honours Genetics program. Selection of project and supervision to be arranged prior to September 30 and submitted in writing to department head. Deadline for submission of first draft to supervisor by March 1. Deadline for submission of final draft to supervisor and course coordinator is March 31.

Human Anatomy and Cell Science

ANAT 1030 Human Anatomy Cr.Hrs.3 (Formerly 080.103) To present the essentials of the organization and structure of the human body. Surface, functional and applied anatomy will be taken into consideration. For Pharmacy students only.

Pharmacology

PHAC 2100 Pharmacology Cr.Hrs.6 (Formerly 089.210) General principles of pharmacology including consideration of the pharmacodynamics of important drugs and control and modification of drug action.

PHAC 4020 Pharmacology Basics Cr.Hrs.6 General mechanism of action of the important groups of drugs and factors which control and modify their effects. Overview of the use and side effects of drugs. Not to be held with the former 089.210.

PHAC 4300 Drugs in Human Disease I Cr.Hrs.3 Foundation physiological principles underlying human disease integrated with drug disposition and effects of important drug groups on disorders of the authonomic and central nervous systems, and the cardiovascular system. May not be held with PHAC 4020. Prerequisites: ZOOL 2530 (or 22.253) and ZOOL 2450 (or 22.245).

PHAC 4040 Drugs in Human Disease II Cr.Hrs.3 Foundation physiological principles underlying human disease integrated with drug disposition and effects of important drug groups on endocrine and organ system disorders, allergy and inflammation, infection, and cancer. The course also offers an introduction to basic clinical pharmacology as well as several current specialized topis in pharmacology. May not be held with PHAC 4020. Prerequisites: ZOOL 2530 (or 22.253) and ZOOL 2450 (or 22.245).

Physiology

PHGY 1030 Fundamentals of Medical Physiology Cr.Hrs.6 (Formerly 090.103) The function of the systems and major organs of the human body as they relate to clinical disorders. For Pharmacy students only.

Postgraduate Medical Education

(Postgraduate Medical Education (PGME) is not an undergraduate program)

General Office

260 Brodie Centre, 260-727 McDermot Avenue, Winnipeg MB R3E 3P5
Telephone: (204) 789 3453
Fax: (204) 789 3929
E-mail: krygerl@cc.umanitoba.ca
Website: umanitoba.ca/medicine
Dean: Dean Sandham
Associate Dean (Postgraduate Medical Education): Ira Ripstein
Administrator, Postgraduate Medical Education: Laura Kryger

Postgraduate medical education (PGME) at the University of Manitoba is comprised of a variety of training programs. Programs are usually organized to be in one of three categories:

• Programs accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

• Programs accredited by the College of Family Physicians of Canada (CFPC).

• Other training and fellowship programs approved by the Faculty of Medicine.

Programs in the first two categories are most likely to be recognized towards obtaining a license to practice medicine. The RCPSC and CFPC provide accreditation for the training program content and evaluative processes. After the successful completion of their training, candidates are eligible to challenge the appropriate national specialty exams for their particular programs. The complete listing of these programs follows in this section under the heading Description of Programs. The specific and detailed national requirements for individual programs may be obtained from the Postgraduate Medical Education Office.

The University of Manitoba is accredited every six years by the RCPSC and the CFPC to administer the training programs, and supports all training programs in a variety of ways.

Several hospitals and healthcare facilities in Winnipeg and rural areas outside of Winnipeg are used as training sites. The main teaching sites include: Health Sciences Centre, St. Boniface General Hospital, Seven Oaks General Hospital, Dauphin General Hospital, and Brandon General Hospital.

General Regulations

Once accepted into a training program the student (now usually referred to as a "resident") must pay a registration fee to the University of Manitoba. Each resident must register every subsequent year of his or her training program in person at the PGME office.

The resident must also register with the College of Physicians and Surgeons of Manitoba so that his or her name is entered onto the Clinical Assistant Register Part 1.

The resident must obtain malpractice insurance, usually from the Canadian Medical Protective Association or its equivalent.

Residents enrolled in postgraduate residency programs are expected to conform to such new requirements as may be adopted from year to year.

Residents must apply directly to either the Royal College of Physicians and Surgeons or the College of Family Physicians of Canada for evaluation of training and for permission to sit the college examinations. Being a resident in a program does not automatically enrol the resident for such examination or certification.

Eligibility

Graduates of Canadian medical schools are eligible for consideration of PGME training, and are required to challenge the Medical Council of Canada Qualifying Examination, Part I prior to commencing their residencies.

Generally, Canadian citizens or landed immigrants are eligible for provincial funding for residency training under the contract established with the Professional Association of Residents and Interns of Manitoba (PARIM).

International medical graduates (IMGs) are eligible to apply for admission after they have challenged the Medical Council of Canada Evaluating Examination. IMGs must be Canadian or permanent residents to be eligible to apply for postgraduate medical training. IMGs may apply for possible residency positions through the CaRMS match (see below).

Visa-trainees represent a special training category for entrance to postgraduate medical training. The visa-trainee applicant must pass the Medical Council of Canada Evaluating Examination and be sponsored by an agency which has entered into a contract with the University of Manitoba for such training.

All residents must receive remuneration from an institution recognized by the Government of Manitoba while registered in a training program in PGME.

Criteria for Selection

Selection for admission to the various training programs will be made primarily on the basis of scholastic, personal and professional attributes as determined by academic records, personal interviews, letters of reference and in-training evaluation reports. The selection process is determined by each particular training program through a set selection process. Admission to the postgraduate training year one (PGY1) for most programs is conducted through the CaRMS PGY1 match outlined below.

University Registration

All postgraduate trainees and fellows (not registered with the Faculty of Graduate Studies for M.Sc. or Ph.D. degrees) must be registered as postgraduate trainees in the Faculty of Medicine. The normal registration period is June 15 to July 1 each year, and is done by the Faculty PGME Office.

Program Administration

The departments which provide PGME training programs in the Faculty of Medicine are: Anesthesia, Community Health Sciences, Family Medicine, Biochemistry and Human Genetics, Emergency Medicine, Internal Medicine, Medical Microbiology, Obstetrics, Gynecology and Reproductive Sciences, Otolaryngology, Pathology, Pediatrics and Child Health, Psychiatry, Radiology and Surgery. Some departments offer more than one program, and may also offer training in sub-specialty areas.

Each program has a Program Director and a Resident Program Committee to administer the training program. There are also program coordinators at each training site. The Program Director of each program reports both to the Department Head and the Associate Dean of PGME.

Beyond the program level, administrative matters pertaining to postgraduate residency training programs are the responsibility of the Associate Dean for PGME and the Faculty PGME Executive Committee and its subcommittees. These committees are responsible for reviewing programs, allocation of residency positions, hearing resident appeals, and other duties as outlined in the terms of reference for each committee. The committees make recommendations to both the Dean of the faculty and the Faculty Executive Committee.

Description of Programs

Postgraduate medical education will generally follow one of two pathways leading to licensure eligibility as described below.

College of Family Physicians of Canada Accredited Programs

The training program for family physicians offers a two-year basic program in outpatient, in-hospital and community settings. This program is composed of several streams (urban, rural, aboriginal, bilingual and DND) and the program leads to eligibility for certification with the College of Family Physicians of Canada (CFPC).

A small number of positions are also available from time to time for enhanced training within the Family Medicine Training Program for a third year of training in Emergency Medicine, Anesthesia and Palliative Care. Some of these enhanced positions may be associated with a return of service requirement. A six month training program in the Care of the Elderly is also available from time to time.

Royal College of Physicians and Surgeons of Canada Accredited Programs

The Faculty of Medicine offers a wide range of specialty and sub-specialty programs leading to eligibility for certification with the Royal College of Physicians and Surgeons of Canada. Programs vary in length from 2-7 years of medical training.

Primary Specialties:

Anatomical Pathology	Anesthesia
Cardiac Surgery	Community Medicine
Diagnostic Radiology	Emergency Medicine
Internal Medicine	General Surgery
Neurology (Adult)	Medical Genetics
Nuclear Medicine	Neurosurgery
Orthopedic Surgery	Obstetrics and Gynecology
Pediatrics	Otolaryngology
Plastic Surgery	Physical Medicine and Rehabilitation
Radiation Oncology	Psychiatry
Medical Microbiology	Urology

Subspecialty Programs*
(available only with completion in a primary specialty):

Cardiology (Adult)	Clinical Immunology and Allergy (Child & Adult)
Critical Care Medicine	Endocrinology and Metabolism (Adult)
Gastroenterology	Geriatric Medicine
Gynecologic Oncology	Hematology (Child & Adult)
Infectious Diseases (Child & Adult)	Maternal and Fetal Medicine
Medical Oncology	Neonatal-Perinatal Medicine
Nephrology (Child & Adult)	Respiratory Medicine (Child & Adult)
Rheumatology (Adult)	Thoracic Surgery
Vascular Surgery	Emergency Medicine (Child)
Palliative Medicine	Developmental Pediatrics

NOTE: These programs require different primary specialty credits, and may not be offered every year at the University of Manitoba.

Application Procedures:

All applicants for the PGY1 year of programs accredited by the RCPSC and CFPC must apply through the Canadian Residency Matching Service (CaRMS). All graduates of Canadian medical schools and international medical schools who are Canadian citizens or permanent residents and who have had no prior postgraduate medical training in Canada or the United States are eligible for the CaRMS match.

Applications for positions beyond the entry PGY1 year should be made at the PGME Office, 260 Brodie Centre or to Program Director for the specific program. Availability of positions will vary from year to year and are not guaranteed for any program. No resident can be accepted unless a funded position is available.

The Canadian Resident Matching Service (CaRMS)

This matching service is an autonomous, national organization of the Association of Canadian Medical Colleges. It provides an orderly method for students to select where to pursue postgraduate medical education and for program directors to rank the applicants they wish to enroll. A second matching process (the second iteration) by CaRMS is subsequently available (after the 1st CaRMS match) to medical students not matched in the first iteration, and other medical graduates who have already received some prior postgraduate training. All information about registration and matching processes is available on the CaRMS website: www.CaRMS.ca. There are listings of all programs on their website.

Evaluation of Residents in Postgraduate Medical Education Programs

Evaluation at all levels is based primarily on clinical performance in the patient care setting. The Program Director and the Resident Program Committee in each program are responsible for the implementation of the evaluation process in their own program. At the end of each clinical rotation or at other appropriate stages of the program, each trainee is evaluated by an in-training evaluation report appropriate to that program and training level. The evaluator(s) discusses the evaluation with the trainee and the report is forwarded to the program director. The written evaluation report should be signed by the resident to indicate that he or she has seen the report. This ongoing evaluation process may be supplemented by written examinations, oral examinations, supervised history and physical examination and by direct observation of clinical and technical skills.

When a resident receives an unsatisfactory evaluation or examination result, the program director will review the evaluation with the resident. Unsatisfactory evaluations will also be discussed in a confidential manner at the Resident Program Committee meeting. The committee will make recommendations regarding remedial training. If a subsequent remedial period is also evaluated as being unsatisfactory, the program director will contact the Associate Dean for Postgraduate Medical Education and the Probation Protocol and Procedure will be instituted. A failed probation period may result in a resident being discharged from his or her training program.

The Faculty Executive Council reserves the right to require any student to withdraw from the program of enrolment when it believes the student to be unsuited, on general considerations of scholarship, professional fitness or professional conduct for post-graduate medical education. However, the Faculty of Medicine does not have a professional unsuitability by-law. The right to require a student to withdraw on the basis of professional unsuitability may arise through the professional unsuitability by-law of the College of Physicians and Surgeons. This right prevails notwithstanding any other provision in the faculty regulations.

Appeals

A postgraduate trainee who wishes to appeal the results of any aspect of the evaluation procedure must follow the written guidelines established by the PGME Committee and the Faculty of Medicine. These guidelines may be obtained from the PGME Office.