



**University of Manitoba**

**Faculty of Medicine**

**Med I and II  
Pre-Clerkship**

**Curriculum Guide**

**Class of 2011  
August 2007**

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# 1. Professional Behaviour of Medical Students

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Medical students are considered to have joined the medical profession. As such, they must abide by the same code of behaviour expected of physicians. One code has been based on the Hippocratic oath which has existed for over two thousand years. The Hippocratic oath is taken by medical students at their inauguration to the faculty of medicine and is repeated at their graduation. During their undergraduate years the students learn and should practice professional behaviour - in their relationships with fellow students and faculty and with their patients. The development of respect, communication, responsibility and attitudes in the pre-clerkship years will be essential in the clinical years when the patient is the main focus of the student's work.

## ***THE HIPPOCRATIC OATH Geneva 1948***

*I will give respect and gratitude to my deserving teachers.*

*I will practice medicine with conscience and dignity. The health and life of my patients will be my first consideration.*

*I will hold in confidence all that my patient confides in me.*

*I will maintain the honour and noble traditions of the medical profession. My colleagues will be my brothers and sisters.*

*I will not permit consideration of race, religion, nationality, party politics, or social standing to intervene between my duty and my patient.*

*I will maintain the utmost respect of human life.*

*Even under threat I will not use my knowledge contrary to the laws of humanity. These promises I make freely and upon my honour.*

That a standard of professional behaviour is expected of students is clear from the University of Manitoba Undergraduate Calendar, Faculty of Medicine, Section 2.1 General Regulations. "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." In interpreting the standard for conduct for the profession the faculty and students should use the University of Manitoba Charter, Guidelines for Undergraduates, and Undergraduate Medical Education Learning Objectives.

## **The University Of Manitoba Charter**

It is a fundamental standard of the University of Manitoba community to provide all its members with the opportunity for inquiry and the freedom to discuss and express one's views openly and freely without fear of retaliation, or abuse of person or property. These attributes are the foundation of good citizenship. To this end, students, staff and faculty have an obligation to act in a fair and reasonable manner toward one another and the environment and physical property of the University.

By this charter, choosing to join the community at the University of Manitoba obligates each member:

*To practice personal and academic integrity;*

*To respect the dignity and individuality of all persons;*

*To respect the rights and property of others;*

*To take responsibility for one's own personal and academic commitments;*

*To contribute to our community for fair, cooperative and honest inquiry and learning;*

*To respect and strive to learn from differences in people ideas and opinions;*

*To refrain from and discourage behaviours which threaten the freedom and respect every individual deserves.*

## **Guidelines For Undergraduates - Faculty Of Medicine Conduct For The Profession**

The following guidelines are not complete and cannot cover all aspects of professional behaviour, but they are examples of what is expected of a student who has entered the profession of Medicine.

### **Professional Respect:**

1. the student considers and treats both genders equally.
2. the student listens and is attentive when working with other people.
3. the student uses appropriate facial and body expressions when working with other people.
4. the student is not superior arrogant, patronising or rude.
5. the student accepts that other people have different opinions and beliefs.
6. the student does not discriminate other people on the basis of sexual orientation.
7. the student is honest in the performance of work evaluations and duties.
8. the student apologizes for mistakes or failings.
9. the student maintains non-sexual behaviour with all patients and does not commit unwanted sexual advances with others.

### **Professional Communication:**

1. the student speaks and listens directly to patients staff and fellow students.
2. the student speaks lucidly and uses appropriate words which can be understood.
3. the student allows time for others to express their views and give their information fully.
4. the student provides full information when requested or volunteers it when it is felt to be helpful to others.
5. the student at a level appropriate to the students training and responsibility informs patients on their problems and recommended course of action. The student must involve the patient in the decisions. The student does not have the authority nor responsibility to obtain informed consent from patients.
6. the student resolves misunderstandings.
7. the student is aware of the other's facial and body expressions.
8. the student accepts and discusses emotional matters.
9. the student writes legibly and clearly so that written notes orders and evaluations can be understood.
10. the student confirms that the information has been understood by staff, fellow students and patients.
11. the student maintains full confidentiality on all that is learnt in confidence from fellow students staff and patients.

### **Professional Responsibility:**

1. the student is punctual and attends when expected.
2. the student completes assigned tasks and duties.
3. when the student cannot undertake tasks or duties, he/she will inform patients or appropriate authorities as soon as possible of the situation and will help find alternate arrangements.
4. the student works to help fellow students and staff.
5. the student realizes and seeks help when unable to perform a task or duty to the expected standard.
6. the student does not allow the use of alcohol or drugs to interfere with the performance of tasks or duties.

**Professional Attitudes:**

1. the student is prepared to admit her/his deficiencies in knowledge, understanding or skills.
2. the student is prepared to ask for help to overcome deficiencies.
3. the student is aware and uses his/her own strengths to general advantage.
4. the student is aware of her/his own discomfort in dealing with emotionally charged issues.
5. the student accepts fair and reliable criticism or adverse evaluations from staff, fellow students or patients.
6. the student acts with honesty and integrity in all academic activities.
7. the student keeps all evaluation material confidential and does not take unfair advantage over fellow students when being evaluated.

The guidelines for professional behaviour have been developed for the students in the undergraduate medical program. They will be used as guidelines for part of the evaluation of students. These guidelines can be used by students and faculty as standards by which conduct of the profession be judged. The inspiration for them are the code of behaviour developed at McMaster University by Dr. A. Bienenstock. These guidelines have been developed with help from the Manitoba College of Physicians and Surgeons, the University Ombudsman, the Students Appeals Advocate, the Committee of Undergraduate Medical Education, the Associate Dean, Student Affairs, Ms. Gail Schnabl and Dr. B. McIlwraith.

## 2. Professionalism Report

As a professional school, the Faculty of Medicine expects students to maintain a high degree of professionalism during interactions with patients, families, faculty, staff, other healthcare providers, and peers. Guidelines for professional behaviour in the Faculty of Medicine are described in the Code of Conduct from the College of Physicians and Surgeons of Manitoba, the Undergraduate Medical Education Performance Expectations and Learning Objectives, and the Codes of Conduct generated by each class.

A Professionalism Report, available on the Faculty of Medicine webpage or picked up at Brodie 260, can be completed when a student:

- Engages in a single particularly unprofessional act
- Consistently displays unprofessional attitudes or behaviours

This report can be filled out by other students, residents, faculty, staff and patients or their families.

Students who receive such a report will have an opportunity to respond as the issue is examined by a confidential committee consisting of the Associate Deans UGME and Student Affairs, and a senior medical student assigned by the MMSA. This committee will examine the validity and context of the report and will be vigilant for potential malice or bias.

When a Professionalism Report is received, the committee will discuss the issue with the person who raised the concern and with other persons as deemed appropriate. The involved student also will be asked to meet with the committee for an opportunity to address his or her perspective. The committee will then deliberate to determine if, on a clear and convincing standard, the facts as determined support an unprofessional act, attitude, or string of the same.

Unprofessional acts or attitudes will be managed as follows. ONE validated act of unprofessionalism will be kept in a separate confidential file in office of the Associate Dean, UGME and will not be included in the student's evaluation file or Medical Student Performance Record (Dean's Letter). TWO or MORE validated acts of unprofessionalism by the same student will be considered by the committee for inclusion in the student's evaluation file and Medical Student Performance Record (Dean's Letter).

Single particularly unprofessional acts or attitudes will be recorded in the student's evaluation file and will be eligible for inclusion in the student's Medical Student Performance Record (Dean's Letter). In the case of an egregiously serious breach of professionalism a student may be requested to withdraw or be dismissed from the Faculty of Medicine.

## **Student Progress through the Curriculum:**

A Progress Committee examines student performance to recommend which students should pass, fail, or graduate in the undergraduate curriculum. This committee also will monitor and support progress for students who meet criteria for Monitored Academic Status or Probation. The Progress Committee will determine requirements for assistance, testing, counseling, or remediation. The membership of the committee consists of the Director of Evaluation, Associate Deans of Education and Student Affairs, Chairs of the Committees of Evaluation, basic science and clinical faculty, and students appointed by the MMSA.

### **Monitored Academic Status:**

- Monitored Academic Status is an academic classification and is not meant to be punitive.
- Monitored Academic Status is not entered in the transcript or on the Medical Student Performance Record.
- Students who meet the following criteria will be placed on Monitored Academic Status:
  - Preclerkship:
    - A student who receives a negative Professionalism Report
    - Students who have missed one year or more of curricular time
    - Students whose scores fall below a level that is historically associated with future academic difficulty. These data are analyzed periodically and students will be made aware of the threshold
    - A score below the 10<sup>th</sup> percentile on an OSCE-style examination
  - Clerkship:
    - A student who receives a negative Professionalism Report
    - Students who have missed one year or more of curricular time
    - Students whose NBME scores fall below a level that is historically associated with future academic difficulty. These data are analyzed periodically and students will be made aware of the threshold
    - A Borderline pass (within 10% of the pass grade) on a rotation
- Students who are on Monitored Academic Status may be required to undergo counseling, learning or testing evaluation, or remediation, as determined by the Progress Committee.
- Monitored Academic Status will be changed to Probation if a student fails a remediation.

### **Probation:**

- Probation is an academic classification and is not meant to be punitive.
- Probationary status is not entered in the transcript or on the MSPR; however, failures and significant breaches of professionalism are indicated in these documents.
- Students who meet the following criteria will be placed on Probation:
  - Failure of a Block examination or clerkship rotation
  - Failure of second attempts at any given NBME examination
  - Unprofessional acts or attitudes significant enough for inclusion in the Medical Student Performance Record (Dean's Letter)

- Students who are on Probation will be required to undergo counseling, learning or testing evaluation, or remediation, as determined by the Progress Committee.
- Students on Probation who do not improve their academic or professional status to meet Faculty of Medicine standard may be dismissed from the Faculty of Medicine.
- Probation is not a necessary prelude to dismissal; particularly serious breaches of professionalism can lead to the dismissal of a student not already on Probation.
- Students will be taken off Probation when all Blocks or rotations have been passed but will remain on Monitored Academic Status throughout medical school.

### 3. Introductory Remarks from the Faculty

#### Associate Dean, Undergraduate

Welcome to the Faculty of Medicine! You have worked hard to gain admission and now you are about to embark on a fascinating journey of inquiry and discovery. Our medical curriculum reflects modern developments in medical education and is sensitive to the needs of students and the society we serve. It is designed to encourage students to take responsibility for their own learning, to identify their learning needs, to seek appropriate resources to achieve their goals and to evaluate their own progress in learning. In your first two years, you will acquire a large body of factual knowledge but will also start learning clinical reasoning, problem solving, ethics, medical humanities, and the fundamentals of communication and clinical skills. In your final two years, you will work directly with patients, acting as their physician. I guarantee that you will experience many exciting things.

You are entering the field of Medicine in an era of exploding scientific information, increasing complexity and constant evolution of medical care. In addition, the expectations for patient-centered, high quality and cost-effective care are on the rise. In such an environment, health care professionals need to constantly upgrade their knowledge and skills and to work collaboratively in order to achieve their goals. To adapt and succeed in the world of tomorrow students will need to develop skills that enable effective communication, life-long education and teamwork. Although the practice of medicine can be highly technical, it also can be exquisitely personal. Despite our technological advances, patients still experience their illnesses on physical, emotional, spiritual and social levels. They want their physicians to work with them on a one-to-one level, to treat them more with humanism than technology. To do this you will need to keep in touch with your own humanity and, as a progressive Faculty of Medicine, we hope to help you to become a holistic physician.

Finally, it is important that you develop a good understanding of the scope of knowledge, skills and attitudes expected of graduating students by the end of medical school. Just as the rewards and demands of medicine are unlike those of any other profession, medical school is not at all like undergraduate studies. This is a professional school and, as such, we expect professional behaviour and comportsment from you. These learning objectives are outlined in this curriculum manual and I encourage you to use them as a reference and a guide.

Finally, please remember that the faculty are here to help you. We want you to obtain all that you can from medical school, so please feel free to approach any of us to discuss any questions or concerns that you might have during your medical education.

Work hard, but don't forget to have fun as you learn!

*Bruce Martin*

## Associate Dean, Student Affairs

I wish to warmly welcome you to your studies in the Faculty of Medicine. In my role, I am here to assist you during your four years of medical school, which can often be exhausting, intense but tremendously edifying. I look forward to working with you and the Manitoba Medical Students' Association to create a healthy, stimulating environment in which you can develop as compassionate, inquisitive and effective physicians.

The Office of Student Affairs is responsible for academic advising, personal and career counseling and a survival tactics curriculum to assist you with managing many aspects of your life while in medical school. Those of you who have academic difficulty or actually fail an exam must see me or Dr. Martin, Associate Dean, Undergraduate Medicine, to receive academic advice.

Please bring me your concerns regarding your academic program, study skills, alternative pathways, leaves of absence or personal matters, and I'll do what I can to help. I can be contacted through the undergrad office, email to [fraserro@cc.umanitoba.ca](mailto:fraserro@cc.umanitoba.ca) or through Health Sciences paging (787-2071). I would welcome hearing from you any time you require assistance.

Medicine is a wonderful adventure - enjoy!

*Dr. Leigh Fraser-Roberts*

## Pre-Clerkship Coordinators

The booklets, titled Course of Study Books and Curriculum Guide, will guide you through the courses which have been developed for the study of Medicine in the First and Second Years of our four-year medical program, referred to as the Pre-Clerkship. An attempt has been made to schedule all significant activities that will take place during this academic year. Make sure to check the Bulletin Boards or the Pre-Clerkship Web-site **DAILY** for updated information.

The Pre-Clerkship curriculum is based upon the establishment of a solid foundation (Block 1 - Medicine I) followed by the creation of building blocks (Blocks 2-6 - Medicine I and II). The foundation and building blocks are laid and secured using active cognitive learning, clinical problem solving and bedside communication and clinical skills, all meshed with confidential-ethical, medico-legal and health care organizational aspects. Our intent is to create a structure that has no ceiling and provides you with the skills both to proceed to the next level and become independent problem solvers and critical thinkers, now, and into the future.

In Blocks 2-6, the mortar, in our analogy of creating a building, and the tools utilized to do so, will become increasingly more integrative and sophisticated. You will continue to build upon the foundation and walls initiated in Block 1 as you prepare for the rest of your professional life.

We, your Pre-Clerkship Coordinators, are confident that you will find Medicine both challenging and rewarding as you develop into a maturing physician. We look forward to working with many of you in support of your own individual education, and your class collectively, to make this as exciting and positive an experience as possible for you.

Our office addresses, e-mail addresses and phone numbers are listed in the Course of Study book. We welcome discussing any and all problems you may have. We shall do our best to assist you throughout the coming year, and shall attempt to resolve problems that may arise. Our doors and lines of communication are always open to you. Please feel free to contact us.

For any academic, personal or financial assistance, the staff in the Undergraduate Medical Education Office, 260 Brodie Centre, are capable of handling inquiries.

*Dr. Mark Torchia*  
*Med I Cognitive Coordinator*

*Dr. Sora Ludwig*  
*Med II Cognitive Coordinator*

*Dr. Don Smyth*  
*Med I Problem Solving Coordinator*

*Dr. Pierre Plourde*  
*Med II Problem Solving Coordinator*

*Dr. Bruce Martin*  
*Clinical Skills Coordinator*

*Dr. Merrill Pauls*  
*Medical Humanities Coordinator*

*Dr. Jenisa Naidoo*  
*Laboratory & Investigative*  
*Medicine Coordinator*

*Dr. Leigh Fraser-Roberts*  
*Survival Tactics Coordinator*

*Dr. Kim Wiebe*  
*Health Equity Coordinator*

## 4. Pre-Clerkship Web Page and Student E-mail Addresses

### Web Page:

The office of the Associate Dean, Undergraduate has developed a web page for the Pre-Clerkship Curriculum. Eventually it is hoped that all printed materials, including student notes, be accessible through it. The address is:

[www.umanitoba.ca/faculties/medicine/education/undergraduate/preclerkship](http://www.umanitoba.ca/faculties/medicine/education/undergraduate/preclerkship)

Currently, the following information can be viewed:

- Undergraduate Calendar of Events
- Weekly sheets, schedule and objectives - updated as changes are made
- Links to Student Notes and References on the Web
- Curriculum Guide
- Faculty Guide
- B.Sc. (Med) Program

### Student Email Addresses:

All students are **required to have a University of Manitoba (cc) email account** and to provide the Undergraduate Medical Education Office with the address and update with any changes.

All information on obtaining (Claimid), accessing, and managing your email account, as well as the University of Manitoba policies regarding email can be found on the Academic Computing and Networking web site. The address is:

[www.umanitoba.ca/campus/can/accounts](http://www.umanitoba.ca/campus/can/accounts)

It is YOUR responsibility to ensure that this account is active throughout the Undergraduate program. You should re-do a "Claimid" at the beginning of May and September of each academic year to keep your account active. Please note, past-due library books, outstanding parking fines and late fees will deactivate your account.

### Official Emails:

All official email from the Office of Undergraduate Medical Education to students will be sent through the University of Manitoba network, bearing the "@**umanitoba.ca**" sender address. You are therefore instructed to disregard any pseudo-official class or group emails sent from any other mail systems such as hotmail or yahoo. If in doubt, please check with our office.

In addition, you may receive departmental email from coordinators/program assistants bearing "@**hsc.mb.ca** or @**sbgh.mb.ca**" sender addresses.

## **5. Orientation Sessions for Medicine I**

Orientation sessions commence for the incoming students the third week of August. They are organized by second year students and are designed to familiarize first year students with the facilities of the Medical School, and activities that will be part of first year medicine. Some sessions might introduce students also to particular clinical settings. A separate Orientation Session schedule will be supplied.

### **Inaugural Exercises**

The Inaugural Exercises for the incoming students will be held the Wednesday morning of orientation week. They are preceded immediately by sittings for the class photograph of all first year students, in alphabetical order, in Communication Systems, S206, Medical Services Building.

### **B.Sc. (Med.) Oral Presentations/Joe Doupe Lecture**

On the Wednesday of orientation week, the second year B.Sc. (Med.) students commence with the Oral Presentations. The Oral Presentations are the final exercise in that program. The student research endeavours, on which they now report, began after these students successfully completed first year medicine. Approximately half of the first year medical students will enroll in the B.Sc. (Med.) program next spring. Therefore it is strongly recommended that Med I students attend a few of these presentations to gain insight into the program.

The annual Joe Doupe Lecture is part of the curriculum with scheduling information included in the Course of Study Book. Dr. Doupe “promoted scientific principles and research experiences as an integral part of the undergraduate medical curriculum. He fostered the B.Sc. (Med.) Program which encouraged students to make observations and challenge dogma.” The lecture will be followed by a reception and awards presentation to the B.Sc. (Med.) students in the Brodie Centre Atrium.



## 6. Undergraduate Curriculum Plan

Faculty of Medicine

University of Manitoba

	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Med I	<b>Block I: (11 weeks)</b> Structure, Function & Disease Mechanisms (SF) Population Health and Medicine (PH)		<b>Block II: (9 weeks)</b> Human Development (HD)			<b>Block III: (16 weeks)</b> Cardiovascular (CV) Ear Nose & Throat (ET) Respiratory (RS) Structure, Function & Disease Mechanisms (SF)				BSc(Med)	BSc(Med)	BSc(Med)
	<b>Clinical Skills (CS)</b>											
	<b>Problem Solving (PR)</b>											
	<b>Medical Humanities (MH)</b>											
	<b>Laboratory &amp; Investigative Medicine (LM)</b>											
	<b>Survival Tactics (ST)</b>											
	<b>Health Equity (EQ)</b>											
Med II	<b>Block IV: (13 weeks)</b> Endocrine and Metabolism (EM) Kidney (KD) Reproduction (RP)			<b>Block V: (14 weeks)</b> Musculoskeletal (MS) Ophthalmology (OP) Neurosciences (NE)			<b>Block VI: (9 weeks)</b> Blood and Lymph (BL) Gastrointestinal (GI) Dermatology (DM)			BSc(Med)	BSc(Med)	BSc(Med)
	<b>Clinical Skills (CS)</b>											
	<b>Problem Solving (PR)</b>											
	<b>Medical Humanities (MH)</b>											
	<b>Laboratory &amp; Investigative Medicine (LM)</b>											
	<b>Survival Tactics (ST)</b>											
	<b>Health Equity (EQ)</b>											
Med III	<b>Introduction to Clerkship (ITC) (5 wks)</b>	<b>Clerkship: Medicine/Surgery/Family and Community Medicine/Pediatrics/Psychiatry/Obstetrics and Gynecology/Selective/Elective/Emergency/Anesthesia/ENT/Ophthalmology/Community Health Sciences/Dermatology</b>										
Med IV	<b>Clerkship: Continuation of above plus ACLS and MCCQE Part I Review Courses</b>											



## 7. Undergraduate Curriculum

### Pre-Clerkship:

The Pre-Clerkship Curriculum builds upon your predecessors' experiences. Your opinions will help future classes of medical students experience a better curriculum.

Undergraduate Medical Education (Med. I through Med. IV) establishes a foundation upon which building blocks have been developed and integrated in a progressive fashion to prepare you ultimately for Residency training (Post-grad). The focus is on your development as active life-long self-directed learners who will fulfill the goals of the mission statement of the Faculty of Medicine Undergraduate Medical Education, which are.....

*"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 continue successfully their education, and subsequently to meet responsibilities to their patients and society."*

Medicine I and Medicine II, referred to as the **PRE-CLERKSHIP**, consists of one voluntary program: Survival Tactics and six mandatory programs. The long-standing mandatory programs are: Cognitive, Clinical Skills, Problem Solving, Medical Humanities and Laboratory & Investigative Medicine,. The newest program, Health Care for Disadvantaged Populations, is not currently a stand-alone program but is imbedded in the other programs. The Cognitive component is delivered by a variety of formats including assigned self-study periods (A), small group tutorials (T), traditional didactic lectures (L), small group activities in entire class format (T1), lab practicals (LP) or demonstrations (LD) and computer simulated labs. The Problem Solving program attempts to integrate and re-iterate important concepts presented during the Cognitive component but emphasizes a symptom-based 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 and palliative care and integrative medicine) and the Laboratory & Investigative Medicine program are integrated with the Cognitive program as much as possible. In addition, there will be periods of unstructured independent self-directed learning time (SD) - for the most part left blank in the weekly schedule of the Course of Study books.

## Cognitive Program

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

**Block 1 - Introduction to Medicine:** Takes 11 weeks to complete and has two courses:

- 1) **Population Health & Medicine (PH)** 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 course 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 will learn the concept of the physician as a member of a interdisciplinary health team both in the hospital and in the community.

### **Population Health & Medicine Course Goals**

The course will use lectures, assigned reading and tutorials, and, where applicable, will integrate with the problem solving, clinical skills, and health informatics sessions to assist the student to:

- Understand the concepts of health, illness, disease and death
- Learn how to measure health status, apply epidemiological methods and demonstrate critical appraisal skills
- Understand the three levels of prevention
- Discuss the concepts of the determinants of health and how they affect the health of populations
  - Learn the organization of the health care system, evaluation methods, the development and influences of health policy, and the roles of physicians as members of the health community

### **Population Health & Medicine Course Objectives**

At the completion of the course, the student should be able to:

- Define and contrast the concepts of health, illness, disease and death
- Define and describe the burden of illness/health status of a defined population including the concepts of incidence, prevalence, attack rates, case fatality rates and the principles of standardization
- Discuss the concept of natural history of disease with respect to possible public health and clinical interventions
- Describe the purposes and characteristics of study designs (RCT, cohort, case control, cross sectional), measurement, and sampling
- Evaluate clinical and epidemiological data by interpreting simple statistical tests
- Discuss different methods of association including relative risk, odds ratio, attributable risk and statistical associations
- Describe the principles of causation including the criteria for assessing causation
- Define and apply the concept of primary, secondary and tertiary prevention at both the individual (clinical) and population level
- Describe and apply the principles of screening and be able to evaluate the utility of a proposed screening intervention (sensitivity and specificity)

- Critically appraise the evidence that an intervention reduces the likelihood of the disease, interrupts or slows down the progress of the disease, or reduces disability through treatment.
- Discuss the concepts of determinants of health and how they affect the health of a population
- Recognize the major issues in the field of occupational and environmental health
- Recognize the basic health psychology principles of stress, pain, and adherence, and describe how these apply to the development or maintenance of illness or disability, patient coping, and treatment
- Demonstrate the ability to apply critical appraisal of the health sciences literature and evidence based medicine
- Distinguish health (wellness) promotion from disease and injury prevention
- Develop clinical questions at both the individual and population level that support the practice of evidence based medicine
- Identify and critically appraise the relevant health sciences literature to answer questions at both the individual(clinical) and population level
- Describe the structure and history of the Canadian health care system
- Demonstrate knowledge of cost –benefit/cost effectiveness as well as issues involved with resource allocation and health policy

## 2) **Structure, Function and Disease Mechanisms (SF)**

### **Structure, Function and Disease Mechanisms Overall Course Goals**

This course will assist the students in developing a common level of understanding of underlying principles of basic medical science, an integrative mechanism for application of the basic sciences into clinical science, and the necessary prerequisite knowledge for system based Blocks II-VI through the use of lectures, self-study, laboratories (gross and microscopic anatomy), and small group tutorials, to:

- Understand normal structure and function from the cellular level to the body as a whole
- Learn and contrast basic pathology and pathophysiological mechanisms from the cellular level to the body as a whole
- Highlight the medical and surgical modalities of management of diseases as they relate to microorganisms, immunology, inflammation, and neoplasia

### **Structure, Function and Disease Mechanisms Course Objectives:**

- Discuss the role of genetics in the function of the human organism and in disease
- Describe the fundamentals of the embryological development from fertilization to fetus
- Describe the general biochemical mechanisms of the human body specifically as they relate to metabolism, homeostasis, enzymes, hormones, and their clinical significance
- Demonstrate principles of the integration of health care professions in the management of the patient
- List the basic body tissues and describe their integration and interactions into the formation of organ systems
- Describe the fundamentals of pharmacology
- Discuss the immune system and its reactions
- Compare and contrast the criteria for identifying major pathogenic microorganisms as well as their effect on the development of disease and their treatment and control
- Contrast and compare acute and chronic inflammation
- Discuss the concept of cell injury including trauma
- Describe the basic concepts of etiology, diagnoses, and staging of cancer, clinical management of the cancer patient
- Define the common terminology of hematology and hemodynamic disorders

**Block 2 - Human Development (HD):** This nine week block will cover the stages of development from conception to geriatrics including embryology, child development, nutrition, adulthood, sexuality, palliative care and death. Community Health, Genetics, Pediatrics, Psychology and 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.

### **Human Development Course Goals**

- Introduce principles of physical, psychological, social and behavioral aspects of normal human development at the various life stages from conception to death within populations, families and as individuals
- Highlight specific roles which the physician brings to the patient-physician relationship which maintain optimum health at various stages in life:
  - i. pregnancy (prenatal)
  - ii. neonatal
  - iii. infancy
  - iv. childhood
  - v. adolescence
  - vi. adulthood
  - vii. old age
- Highlight the physical, psychological, social and behavioral challenges individuals face during the various development stages

These goals will be attained through the use of lectures, assigned reading, tutorials, community visits and, where applicable, will integrate with the problem solving and clinical skills courses.

### **Human Development Course Objectives**

At the completion of Block II, the student should be able to:

- Identify the importance of health as a component of life cycle development
- Describe life cycle development in the context of family and community
- Identify principles of community development which impact on the well being of individuals and families at various life stages
- Describe how the social determinants of health apply to the life cycle
- Emphasize applications of principles of community development to health promotion at various stages in the life cycle.
- Elicit a pediatric/adolescent medical history
- Perform a psychiatric assessment of a patient
- Describe the components of taking a genetic history
- Discuss preventive health and normal infant/child care
- Discuss normal developmental milestones of children and adolescents
- Describe specific developmental challenges that can occur in children
- Apply principles of medical genetics in clinical problem solving

- Describe normal child, adolescent and adult psychological development and challenges at different life stages
- Describe the etiology, clinical presentation, treatment and prognosis of psychiatric illnesses
- Describe the specific aspects of assessment and provision of health care to the elderly
- Discuss specific medical concerns in the elderly such as cognitive impairment and competency issues.

**System Blocks:** Medicine I ends with the first of four Systems blocks. Each System will present, in a clinically relevant context, normal anatomy and physiology, followed by pathophysiology of disease.

**Block 3** - involves **Cardiovascular (CV)**, **Respiratory (RS)** and **Ear, Nose & Throat (ET)**. There will also be a few additional SF classes.

### **Cardiovascular Course Goals**

The course will use lectures, assigned reading and tutorials, and where applicable will integrate with the problem solving and clinical skills courses to assist the student to:

- obtain an understanding of the normal function of the cardiovascular system
- contrast normal and abnormal function in common cardiovascular disorders
- highlight medical and surgical therapy based in relation to re-establishment of homeostasis and physiology
- learn basic cardiovascular knowledge and clinical skills that provide a foundation to their clinical years

### **Cardiovascular Course Objectives**

At the completion of Block III, the student should be able to:

- describe the normal anatomy and physiology of the cardiovascular system
- Incorporate the role of the most basic components of the cardiovascular system and its extension into the more clinical aspects of this organ system, as well as its interaction with the respiratory and autonomic nervous system
- describe the etiology, pathophysiology, clinical presentation, treatment and prognosis of a variety of cardiovascular diseases
- describe briefly the basis and rationale for common cardiovascular diagnostic tests:
  - electrocardiogram
  - chest x-ray
  - echocardiogram
  - cardiac catheterization and coronary angiogram
- contrast aspects of disease prevention and treatment in the individual patient as well as in the community
- Apply the basic principles and technique involving history taking and physical examination, and its relationship to basic patho-physiologic mechanisms
- obtain a complete clinical history and perform a cardiovascular physical examination on a patient presenting with typical cardiac symptoms (chest pain, shortness of breath or syncope)

## **Respiratory Course Goals**

The course will use lectures, assigned reading and tutorials, and where applicable, will integrate with the problem solving and clinical skills courses to assist the student to:

- Obtain an understanding of the normal function of the respiratory system
- Contrast normal and abnormal function in common respiratory disorders
- Highlight medical and surgical therapy based on re-establishment of normality
- Learn basic respiratory knowledge and clinical skills that provide a foundation to their clinical years

## **Respiratory Course Objectives**

At the completion of Block III, the students should be able to:

- Describe the normal anatomy and physiology of the respiratory system
- Apply principles of respiratory physiology in various pathophysiologic situations and common disease categories
- Describe the etiology, pathophysiology, clinical presentation, treatment and prognosis of a variety of respiratory diseases both in the pediatric and adult population
- Interpret aspects of common respiratory diagnostic tests such as chest x-ray, pulmonary function tests, progressive exercise testing and arterial blood gasses
- Contrast aspects of disease prevention and treatment in the individual patient as well as in the community
- Apply the basic principles and techniques involving history taking and physical examination, and its relationship to basic patho-physiologic mechanisms
- Elicit a complete clinical history and perform a respiratory physical examination on a patient presenting with typical respiratory symptoms (for example, shortness of breath or cough)

## **ENT Course Goals**

The course will use didactic lectures, tutorials as well as clinical patient experience

To allow the student to:

- obtain an understanding of the normal function of sensory organs in the head and neck. As well as normal physiology
- assess clinical presentation of common disorders in ENT in the pediatric and adult population.
- learn basic skills to examine the head and neck

## **ENT Course Objectives**

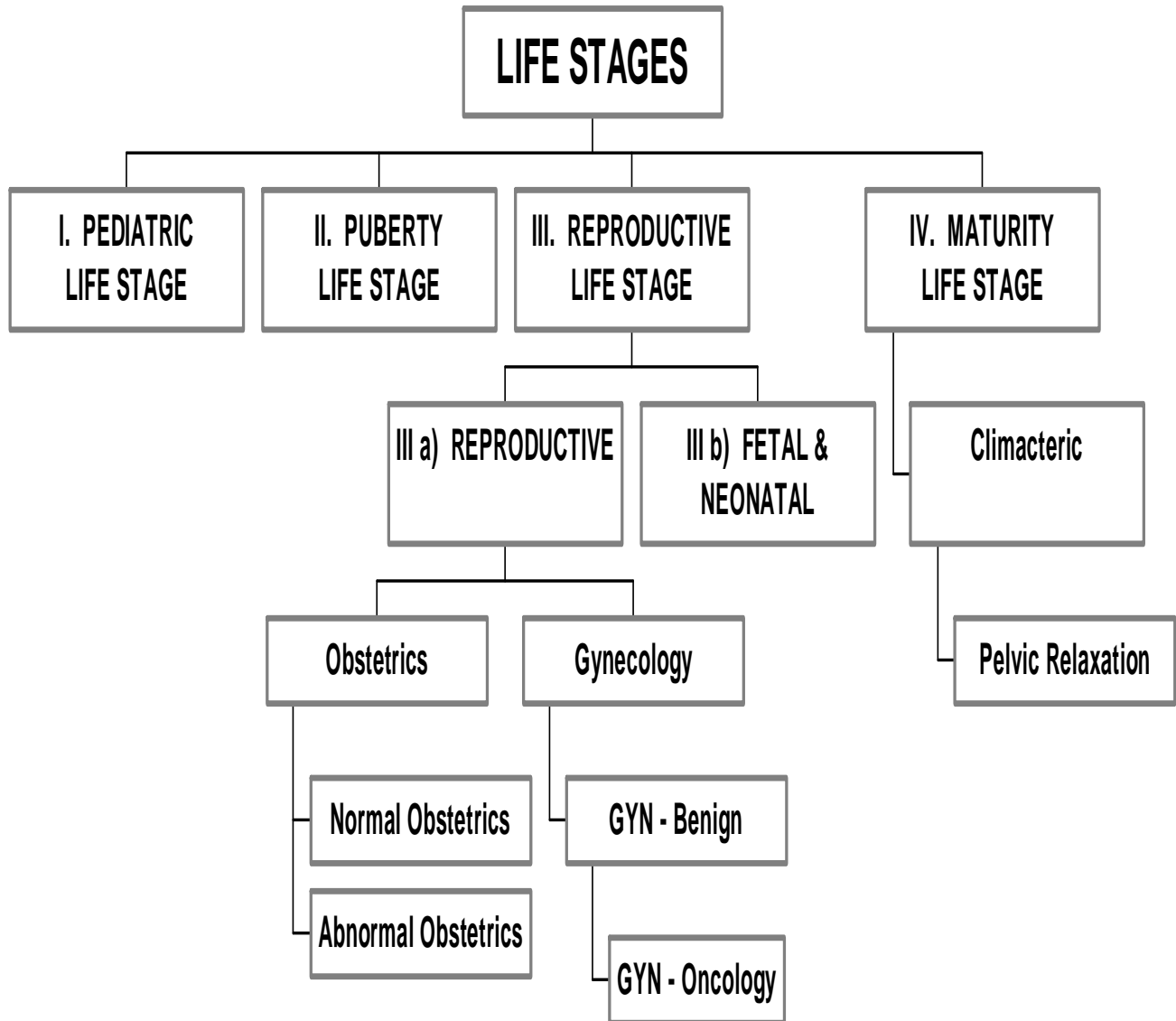
At the completion of the period the student should be able to:

- describe normal anatomy and physiology of the ear , nose and throat as well as a basic understanding of the vestibular system.
- Comment on the relationship of otolaryngology to other disciplines GI, thoracic and neurosurgery
- describe the etiology, pathophysiology, clinical presentation, treatment of basic ENT disorders such as tonsillar disease ,sinusitis, otitis media and hearing loss as well as others
- describe the rational use of testing: hearing tests , ct and MRI scanning as well
- as x-rays and sialograms to assist in the clinical diagnosis
- Elicit a history and perform a focused physical exam as this relates to the discipline

**Block 4** - Medicine II commences with the fourth block consisting of **Reproduction (RP)**, **Kidney (KD)** and **Endocrinology & Metabolism (EM)**.

**Reproduction Course Goals:**

The Reproduction Course will use a “life-stages” framework to guide the acquisition of knowledge and clinical and attitudinal skills in the area of reproductive health.



The student will integrate information from the basic and clinical science lectures, assigned readings and tutorials, problem - solving and clinical and communication skills courses to acquire a breadth of knowledge and skills in reproductive health care.

## **Reproduction Course Objectives:**

Upon completion of the reproduction course in Block 4 and at the level of the specific topic objectives, the student will be able to:

1. Apply basic science knowledge to assist in solving the clinical problems encountered in clinical rotations.
  - Describe the normal anatomy and physiology of the reproductive system
  - Describe the embryology and development of the reproduction system
  - Describe the histology of the reproduction system
  - Define basic genetics terms, mechanisms, manifestations and mechanisms for detection of abnormal
  - State the basic principles of pharmacology and their relationship to the use of drugs in pregnancy
  - Explain the physiology of pregnancy with regard to placental transfer; fetal oxygenation; maternal acid-base relations; fetal lung maturation; major system changes; labour and lactation
  - Classify changes from normal in the vulva; vagina; cervix; endometrium; uterus; fallopian tubes; ovary; breast and pregnancy abnormalities such as blighted ovum, hydatidiform mole, placenta previa, abruptio placenta and succenturiate lobe
  - Define the chemistry of reproductive hormones and their control of reproduction
  - Describe changes in the female reproductive cycle related to puberty, menstruation, contraception and menopause
  - Discuss the endocrinology of pregnancy as related to the physiologic effects of hormones on the corpus luteum and the zygote, the hormones produced by the placenta, the role of hormones in parturition and lactation
  - Identify pathogens commonly encountered in female genital tract and the prevention and treatment of infections caused by these agents
  - Describe immunologically related disorders of pregnancy such as Rh-isoimmunization
2. Integrate a patient centered technique with the medical model approach to the analysis of reproduction clinical problems.
3. Apply biomedical knowledge to assist in solving the clinical problems encountered in clinical rotations.
  1. Differentiate between normal physiologic changes in pregnancy and pathologic states
  2. Discuss care management in the prenatal, intrapartum and postpartum period
  3. Recall assessment of newborn well-being
  4. Discuss complications of pregnancy

5. Recognize/discuss common general gynecological problems related to congenital, inflammatory, or neoplastic lesion; urogynecological problems; perimenstrual disorders; abnormal uterine bleeding; endometriosis and adenomyosis; the climacteric; pediatric and adolescent gynecology and sexually transmitted diseases
6. Apply knowledge of gynecological endocrinology to differentiate normal from abnormal uterine bleeding; normal pubertal development from abnormalities;
7. Be sensitive to and develop a beginning comfort level with discussing issues of sexuality, fertility, infertility, abortion, fertility control and sexual assault
4. Practice and demonstrate a variety of clinical skills: interviewing for data collection in a sensitive manner, physical examination, problem formulation and beginning management planning.
  - Perform a complete gynecological and/or obstetrical history, physical examination and from the assessment formulate a problem list and management plan

### **Kidney Course Goals**

The Cognitive Kidney course consists of a series of modules which are predominantly self motivated and interactive consisting of either:

- a series of assigned studies followed by interactive tutorial sessions then culminated in a lecture intended to summarize requisite information to that point,
- tutorial sessions that demand advance student preparation , or to lesser extent isolated didactic lectures.

The cognitive information is integrated with the problem solving sessions to assist the student to:

- obtain the knowledge of normal anatomy, microanatomy and development of the urinary tract, and physiology of kidney and bladder function.
- Understand the role of the kidneys in body homeostasis
- Learn about the surgical conditions that pertain to the urinary tract, and the medical diseases that affect the renal parenchyma, and their respective management strategies.

### **Kidney Course Objectives**

At the completion of Block IV, the student should be able to:

- Describe the normal anatomy, microanatomy and development of the urinary tract.
- Describe normal renal physiology as it pertains to assessment of renal function and solute homeostasis.
- Solve various clinical problems that involve solute abnormalities based upon understanding of renal physiology and interpretation of urinary tests.
- Describe the etiology, pathophysiology, clinical presentation, treatment and prognosis of a variety of diseases of the urinary tract , either surgical ( urology) or medical ( nephrology).
- Differentiate potential urological from nephrological diseases based upon random and time urinary tests including but not limited to urinalysis, urinary indices, timed urine collection, and diagnostic imaging of the urinary tract urinary abnormalities.
- Differentiate urologic from nephrologic conditions pertaining to the urinary tract

## **Endocrine and Metabolism Course Goals:**

1. It is the goal of the Endocrine course to have students recognize and be able to describe how endocrine system functions in terms of hormone action and regulation and how this is expressed in health and disease in the context of different life stages.
2. The Endocrine course is organized into separate sections to reflect the life stages, namely childhood and adolescence, young adult and adult.

## **Endocrine and Metabolism Course Objectives:**

### **Life Stages:**

- **Introduction-** This section covers the introduction to hormone and hormone receptor physiology, including the various regulatory mechanisms. By the end of this section, students will understand:
  1. The principle components of the endocrine system including glands, target tissues and the concept of feedback loops.
  2. The structure, synthesis, storage, secretion, transport, distribution and degradation of hormones.
  3. The mechanisms of action of hormones including endocrine, paracrine and autocrine action, receptor-mediated signal transduction and receptor-mediated transcriptional regulation.
  4. The principles involved in the measurement of hormones and receptors.
  5. Describe the mechanisms regulating hormone secretion
- **Childhood and Adolescence Life Stage-** This section covers growth and pubertal development. It includes material that discusses healthy weights and body images. By the end of this section, students will be able to:
  1. Draw a growth curve and a growth velocity curve including all stages of life: a) fetus b) child c) adolescent d) adult
  2. List the hormones important for growth of the: a) fetus b) child c) adolescent
  3. List factors that may interfere with normal growth of the: a) fetus b) child c) adolescent
  4. Describe the timing of the adolescent growth spurt in relation to the other physical changes of puberty for: a) females b) males
  5. Describe the Tanner Stages of puberty in: a) females (breast and pubic hair) b) males (pubic hair)
  6. Describe the maturational changes that occur during puberty for: a) growth hormone b) GnRH and LH/FSH c) TRH and T4/T3 d) ACTH and cortisol
  7. List the hormones important for sexual differentiation of the female fetus. 2. List the source and the role of the following hormones in differentiation of the INTERNAL and EXTERNAL genitalia of the male fetus (make a chart) a) human chorionic gonadotropin (HCG) b) anti mullerian hormone (AMH) c) testosterone d) dihydrotestosterone (DHT) e) gonadotropins (LH/FSH)
  8. Outline an investigative approach to the newborn with ambiguous genitalia.
- **Young Adult Life Stage-** This section follows into adulthood and includes discussion of the hypothalamic and pituitary axis with an emphasis on general pituitary disease at this time, as more specific hormone disorders are covered in following sections. However, in this section, general male and female reproductive physiology and disorders are discussed as a logical continuation from the previous section on pubertal development. By the end of this section, students will be able to:
  1. Describe the functions of anterior pituitary hormones and their regulation by hypothalamic factors.

2. Describe the normal secretion profiles of the major anterior pituitary hormones.
3. Describe the evaluation of the endocrine functions of the hypothalamic-pituitary axis.
4. Describe the feedback regulation of anterior pituitary hormones.
5. Describe how to clinically evaluate abnormal pituitary function with particular reference to: - panhypopituitarism - GH excess - Prl excess - ADH deficiency and excess
6. Describe the baseline laboratory tests (basal testing) used to determine normal or abnormal pituitary function b) Describe the stimulatory or suppressive laboratory tests (dynamic testing) used to determine normal or abnormal pituitary function.
7. List the major clinical features to be assessed in the evaluation of male and female gonadal function
8. Describe the hormonal changes in the hypothalamus, pituitary and gonads during the normal cycle.
9. Describe the pituitary, ovary, endometrium relationships during menstrual cycle.
10. Describe the mechanism of ovulation and menstruation.
11. List the common endocrine tests used to evaluate male and female gonadal function
12. Define polycystic ovarian disease and describe its clinical presentation
13. Define hirsutism and differentiate between hirsutism and virulization

- **Adult Life Stage-** This section discusses diabetes and related lipid disorders as well as thyroid disorders. It includes an interactive session with people living with diabetes, both type 1 and 2. As well, this section is scheduled to coordinate with a clinical section that places the students in a variety of hospital and community diabetes education centres where they interact with both diabetes educators and their patients. By the end of this section, students will be able to:

- **Diabetes**

1. List the key regulatory hormones associated with energy metabolism
2. Describe the effects of insulin and glucagon on carbohydrate, lipid and protein metabolism
3. Define diabetes mellitus and list the diagnostic criteria for the diagnosis of diabetes
4. Discuss the physiologic basis for the signs and symptoms of type 1 diabetes
5. Have an understanding of the etiology of type 1 diabetes mellitus; and be able to discuss the role of genetics, autoimmunity and precipitating factors
6. List the goals of treatment, be familiar with the principals of treatment including insulin regimes, carbohydrate counting and home glucose monitoring
7. Identify the major pathophysiological defects involved in the development of type 2 diabetes
8. Describe the general approaches to management of type 2 diabetes
9. Describe and classify the oral agents by mechanism of action:
10. Identify the following for oral agents:
  - Dosage ranges
  - Precautions:
  - Relative and absolute contraindications
  - Adverse reactions
11. Review the classification of the various insulins available.
12. Describe the pathophysiology, clinical picture and treatment principles of diabetic ketoacidosis and hyperosmolar nonketotic coma.
13. Describe diabetic retinopathy as it related to proliferative, preproliferative and proliferative retinopathy.
14. Describe the natural history of diabetic nephropathy.
15. Classify the different types and presentations of diabetic neuropathy.
16. Outline the investigational and management approach to Gestational Diabetes

## **Lipids**

1. Identify the major lipoproteins, describe their structure and their roles in lipid transport and metabolism.
2. Describe the mechanism of uptake and metabolism of lipoproteins (ie: lipoprotein reception mechanisms, roles of relevant plasma enzymes).
3. Identify the major primary dyslipidemias and their etiology (where established) and clinical presentation

## **Thyroid**

1. Name the physiologic function and effects of the thyroid hormones. .
2. List and describe the physiological actions of thyroid hormones.
3. List and describe the factors controlling thyroid hormone secretion.
4. Describe the metabolism and half-life of thyroid hormones in health and disease.  
Describe the manifestations of hyperthyroidism.
5. Offer a differential diagnosis of conditions inducing the hyperthyroid state.
6. Outline the management options, natural history, and prognosis for hyperthyroidism.
7. Describe the major clinical tests used to assess thyroid function.
8. Describe the clinical manifestations of hypothyroidism.
9. Describe the management of hypothyroidism.
10. Describe the approach to investigation of a thyroid nodule

**Mature Adult Life Stage-** This section includes discussion on bone physiology and metabolic bone disease including osteoporosis. This section concludes with a discussion on adrenal disease. At the end of this section, students will be able to:

## **Bone and Calcium Metabolism**

1. Describe the structure and function of the "bone remodelling unit".
2. Describe the normal age-related changes in bone mass.
3. List the commonly used techniques for characterizing bone mass and structure.
4. Summarize normal intake, excretion and balance of calcium.
5. List the major steps regulating vitamin D synthesis, activation and inactivation.
6. Describe the role of parathyroid hormone and calcitonin in the regulation of serum calcium.
7. List and describe the factors controlling secretion of parathyroid hormone.
8. Define osteopenia, osteoporosis and osteomalacia.
9. Describe the manifestations and pathophysiology of osteoporosis
10. List the manifestations and common causes of osteomalacia.
11. Describe the clinical approach to investigation and treatment of hypoparathyroidism.
12. To list the physiologic sites of calcium and bone regulation that are therapeutic drug targets.
13. To explain the physiologic and strategic difference between antiresorptive and anabolic therapy.
14. To describe the mechanism of action and relative effectiveness of the following: calcium supplementation, hormone (estrogen) replacement therapy, selective estrogen receptor modulators (SERM), bisphosphonates, calcitonin, fluoride, and parathyroid hormone.
15. To describe the mode of administration, dosing considerations and side effects of these agents.

## **Adrenal**

1. Gain familiarity with the biosynthetic pathways of adrenal steroids.
2. Describe the hypothalamic-pituitary-adrenal axis.
3. Discuss the biologic actions and pharmaceutical actions of corticosteroids.
4. By knowing the biosynthetic pathways of steroid production, choose the diagnostic tests used for Cushing's syndrome and Addison's Disease.
5. List the adrenal causes of hypertension.
6. Explain the role of aldosterone.
7. Describe the investigations of adrenal gland hypertensive disorders.

**Review:** After this section, the student will be able to :

Apply gained knowledge to general endocrine clinical scenarios,

**Block 5** – This block consists of the following systems: **Neuroscience** (NE), **Musculoskeletal** (MS) and **Ophthalmology** (OP)

## **Neurology Course Goals**

In this course, students are expected to:

1. acquire enough knowledge of anatomy and physiology to localize patient's complaints to the level (part) of the nervous system that is involved
2. suggest possible pathogenesis using their knowledge as to how pathogenetic mechanisms present.
3. construct a differential diagnosis
4. select the most likely diagnosis and suggest investigation and management.

## **Neurology Course Objectives**

On completion of the Neurosciences Course, the student will:

- describe the normal anatomy and physiology of the neurology system
- incorporate the role of the most basic components of the nervous system and its extension into the more clinical aspects of this organ system
- describe the etiology, pathophysiology, clinical presentation, treatment and prognosis of a variety of neurological diseases
- describe briefly the basis and rationale for common neurological diagnostic tests:
  - electroencephalogram (EEG)
  - electromyography & nerve conduction tests (EMG & NCS)
  - brain and spinal cord CT & MRI
  - cerebral angiography
- contrast aspects of disease prevention and treatment in the individual patient as well as in the community
- apply the basic principles and technique involving history taking and physical examination, and its relationship to basic patho-physiologic mechanisms
- obtain a complete clinical history and perform a neurological physical examination on a patient presenting with typical neurological symptoms

### **Ophthalmology Course Goals**

1. Learn the basic anatomy and physiology of the eye.
2. Learn common diseases affecting the eye and their management.
3. Perform a basic eye examination
4. Diagnose and manage simple primary eye care problems.
5. Know when to refer cases to an ophthalmologist.

### **Ophthalmology Course Objectives**

At the completion of Block 5 the student should be able to:

- Describe the normal anatomy and physiology of the eye and orbit
- Describe the mechanisms underlying vision
- Describe the visual field defects encountered with lesions along the visual pathway.
- Describe the ocular characteristic features of common systemic diseases.
- Assess a child for amblyopia and strabismus and be able to explain to a parent the prompt need for amblyopia treatment.
- Elicit an appropriate clinical history and perform a focused ophthalmological physical exam on a patient presenting with common ophthalmic conditions

### **Musculoskeletal Course Goals**

In this course, students are expected to:

5. acquire enough knowledge of anatomy and physiology to localize patient's complaints to the level (part) of the musculoskeletal system that is involved
6. suggest possible pathogenesis using this knowledge.
7. construct a differential diagnosis
8. select the most likely diagnosis and suggest investigation and management.

### **Musculoskeletal Course Objectives**

On completion of the Musculoskeletal Course, the student will:

- describe the normal anatomy and physiology of the musculoskeletal system
- describe the role of the most basic components of the musculoskeletal system and its relation to the clinical aspects pertaining to this organ system
- describe the etiology, pathophysiology, clinical presentation, treatment and prognosis of a variety of musculoskeletal diseases
- describe briefly the basis and rationale for common musculoskeletal diagnostic tests:
- obtain a complete clinical history and perform a musculoskeletal physical examination on a patient presenting with typical musculoskeletal symptoms

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

### **Blood and Lymph Course Goals**

The course will use lectures, assigned reading and tutorials, and, where applicable, will integrate with the problem solving and clinical skills courses to assist the student to:

- obtain an understanding of the normal function of the blood and lymphatic system
- contrast normal and abnormal function in common hematologic disorders
- highlight medical and surgical therapy based in relation to re-establishment of homeostasis and physiology
- learn basic hematologic knowledge and clinical skills that provide a foundation to their clinical years

### **Blood and Lymph Course Objectives**

At the completion of Block III, the student should be able to:

- describe the normal histology and physiology of the hematopoietic and lymphatic systems
- State the role of the most basic components of the blood and its extension into the more clinical aspects of this organ system, as well as its interaction with the other organ systems
- describe the etiology, pathophysiology, clinical presentation, treatment and prognosis of a variety of common hematologic diseases including:
- describe briefly the basis and rationale for common hematological diagnostic tests:
  - complete blood count
  - blood smear
  - bone marrow aspirate and biopsy
  - coagulation investigations
- contrast aspects of disease prevention and treatment in the individual patient as well as in the community
- Apply the basic principles and technique involving history taking and physical examination, and its relationship to basic patho-physiologic mechanisms
- Elicit a complete clinical history and perform a physical examination on a patient presenting with typical hematologic symptoms (e.g. anemia, bleeding, lymphadenopathy)

### **Gastrointestinal Course Goals**

The course will use lectures, assigned reading and tutorials, and, where applicable, will integrate with the problem solving and clinical skills courses to assist the student to:

- Understand the normal anatomy and function of the gastrointestinal system
- contrast normal and abnormal function in common gastrointestinal disorders
- highlight medical and surgical therapy based in relation to re-establishment of homeostasis and physiology of the gastrointestinal tract
- learn basic gastrointestinal knowledge that provides a foundation for clinical medicine.

### **Gastrointestinal Course Objectives**

At the completion of Block VI, the student should be able to:

- Describe the normal embryology, anatomy, histology and function of the organs of the gastrointestinal system.
- describe the etiology, pathophysiology, clinical presentation, diagnosis, treatment and prognosis of a variety of gastrointestinal disorders.
- Describe an approach to the differential diagnosis, workup and management of common clinical problems.

- Classify a patient's nutritional status and describe indications and complications of non-enteral feeding.
- Describe normal GI anatomy on plain x-ray, upper GI barium studies, and abdominal CT Scan. Highlight the role of these imaging modalities as well as abdominal ultrasound and MRI in the investigation of GI disease.
- Describe the genetics, risk factors, screening methods, clinical presentation, management and prognosis of selected GI tumors.
- Describe the concept of functional gastrointestinal disorder and the impact of these disorders on health care utilization.

### **Dermatology Course Goals:**

The course uses lecturers, a Web CT course and tutorials where applicable to assist the student to:

- obtain an understanding of the clinical features of common skin diseases
- obtain a working knowledge of the therapy of common skin diseases

### **Dermatology Course Objectives:**

- the student will effectively take a dermatologic history and conduct a basic dermatologic examination
- the student will learn to diagnose common skin diseases.
- the student will describe an approach to the treatment of common skin diseases.

## **Problem-Solving Program (PR)**

Problem solving (PR) sessions are a dynamic part of the Pre-Clerkship curriculum. They are designed to allow students to practice “problem-based learning” skills as a team within a realistic medical context, as a prelude to life-long learning. PR sessions emphasize the role of self-directed learning in the life-long process of education, and help students evaluate their own progress through regular feedback. A secondary benefit of PR sessions allows students to integrate material from lectures and tutorials with developing clinical skills. PR sessions are based on clinical case scenarios and accompanying objectives to direct student learning before, during, and/or after each session. Tutors from both the clinical and basic sciences observe students as they identify and solve clinical problems, evaluate student participation, provide feedback and assist students in reaching the learning objectives.

In Med I, students are introduced to the PR program. Initially, students learn how to work and interact in a team format to solve problems. The main purpose of these sessions is to reinforce and integrate information concurrently being covered in the curriculum. Generally, the format of these sessions involves students being divided into twelve groups of seven to eight, being provided with case scenarios, a list of specific objectives for the session, and a list of some of the available resources. The individual groups identify the specific tasks and decide how best to organize as a group to approach the objectives. Clinical updates are used to apply further issues, questions, objectives, and to practice problem solving on the basis of the initial case and learning materials. The sessions not only involve round table discussion but may also include role playing, interviewing skills, presentation skills and group presentations.

**Overall Med I Problem Solving objectives include:**

1. To develop a systematic approach (including evidence-based medicine) to solving real-life medical problems.
2. To acquire a knowledge base that can be recalled and applied.
3. To develop effective self-directed learning skills.
4. To develop attitudes and skills for teamwork.
5. To approach a problem with initiative, diligence and drive to acquire knowledge and skills for resolution.
6. To develop habits of self-reflection and self-evaluation.

The PR process in Med II takes the format of a case presented over two sessions one week apart. The first session focuses on problem formulation while the second synthesizes and consolidates acquired information. Med II PR sessions do not provide information ahead of scheduled class time, simulating reality with students problem solving together as the problems unfold. Students are expected to bring reference texts and/or review articles and/or information technology to each PR session. Additional information pertinent to the case obtained by students during independent study time between sessions should also be brought to the second session.

Students are expected to approach the cases systematically on the basis of the overall objectives (see below) in addition to case-specific objectives. Case-specific objectives will be revealed to students only after they have completed the case, and should serve as a checklist and encourage students that they are on the right track.

In Med II PR, students are expected to participate actively in specific roles traditionally performed by the facilitator/tutor, including formulating appropriate questions, addressing case objectives, recording discussions, compiling information, time keeping, critically appraising information, and leading the discussion. Faculty facilitators are therefore encouraged to focus on observing and evaluating group interaction and individual contributions, with MINIMAL direct input in problem solving activity.

**Overall Med II Problem Solving objectives include:**

1. To clarify unknown terminology/concepts and develop a strategy for problem identification and information retrieval.
2. To identify and prioritize major problems in the clinical case.
3. To discuss and evaluate information with regard to history, bio-psycho-social issues, physical findings, laboratory investigations, ethics, burden of illness, physiology and pharmacology issues, differential diagnosis, and human development.
4. To generate hypotheses of causation and mechanisms of pathogenesis.
5. To develop a treatment and management plan for all problems including, when relevant, information to be shared with patients and the process for doing so.

## Laboratory and Investigative Medicine Program (LM)

Occurring as an independent curriculum component throughout the Pre-Clerkship and ITC, the Laboratory & Investigative Medicine Program offers students the opportunity to utilize diagnostic laboratory services cost-effectively in the care of paper patients. The disciplines of Diagnostic Microbiology, Hematology, Clinical Biochemistry, Pathology, Clinical Genetics and Transfusion Services contribute to this program.

**Goal of Laboratory & Investigative Medicine:** The student is expected to use diagnostic services in cost-effective, comprehensive and integrative ways that are most beneficial to the patient and to society.

**Overriding Principle:** Order laboratory investigations only if they will impact management decisions for the individual patient as well as for the community at large.

### Program Objectives:

1. List the disciplines of Laboratory & Investigative Medicine and describe their primary functions.
2. Recognize the importance of the consultative process between clinicians and laboratorians in patient care.
3. Write the common tests that physicians may request in order to obtain expedient and appropriate assessment of patient problems.
4. Estimate the time it should take diagnostic laboratories to complete processing and report results on certain common tests.
5. Using statistical determinants, such as sensitivity, specificity, positive predictive value, etc., state ways in which certain common laboratory tests can reach maximal statistical significance and validity.
6. Describe and demonstrate the use of “sharps” for injection and sample collection adhering to published principles of Precautions for the Prevention of Transmission of Blood-borne Pathogens.
7. Critique every laboratory result in the context of a patient’s medical condition, in consultation with normal/reference result ranges, and demonstrate comfort in this criticism.
8. In the LM-Mini-Hospital individual problem-solving sessions, recall and use information that has been provided during the Pre-Clerkship courses to cost-effectively investigate and manage diverse patient problems.

## Clinical Skills Program (CS)

Clinical Skills encompasses two areas that are important for the education of physicians: Interviewing/Communication Skills and Physical Examination. As much as possible, the Clinical Skills component of the curriculum has been scheduled to reflect what is being taught in the cognitive component.

This course is presented in Med I and II and is designed to assist students to develop skills in patient interviewing including information sharing (process and content), and physical examination (knowledge and techniques). Clinical Skills will also assist students to become competent, caring,

ethical physicians with the ability to think critically, and to be accountable to their patients and society.

Throughout the course, emphasis is placed on the patient-centred approach while bearing in mind medical ethics, cross-cultural sensitivity, and an awareness of patient diversity.

It should be noted that, because of the experiential nature of most of the Clinical Skills Program, **timely attendance at all sessions is required, but, if unable to attend, then students must notify the department secretary as much in advance of the sessions as possible.**

### **What You Need To Know About... "How Communication Skills Learning is Structured in This Curriculum"**

#### **What Communication Skills are Taught?**

The clinical skills of communicating effectively with patients, families and other health care professionals which are acquired in the first year of medical school will assist students over a lifetime of medical practice. Communication Learning involves: (1) acquiring relevant *Knowledge*, (2) supporting appropriate *Attitudes* and (3) developing practical *Skills*.

Communication (oral and written) includes: communicating with patients and families, communicating with other members of the health care team, including medical recording, and communicating with the public and the media. Sometimes teaching sessions focus mainly on communication with other elements less prominent; at other times communication is reinforced in a session directed to learning other knowledge, attitudes and skills. However, the goal of the curriculum is to integrate the teaching of communication skills with the rest of what students are learning.

#### **What Formats are Used for Learning?**

Relevant *Knowledge* can be acquired primarily through assigned (and self-directed) readings, lectures, demonstrations and group discussions. Appropriate *Attitudes* can also be reinforced through readings and discussions. In addition, opportunities to listen to patients' experiences with illness and health care and the experience of being a patient through role-plays assist with enhancing attitudes appropriate to caring for patients. Practical *Skills* can be developed through demonstrations, participation in role-plays, and interviews with standardized and actual patients. Feedback from patients, peers and teachers assists in the refinement of skills. Opportunities for video-taping and self-assessment encourage further development.

Opportunities for *Self-Directed Learning* include further readings, viewing additional demonstration interviews (e.g. CD ROM in library), taking advantage of the Early Exposure Program, working through prepared case simulations (available on request) and seeking feedback from interview observers.

#### **Learning Effective Communication Skills: A Progressive and On-Going Process**

*Early in 1st year*, students learn generic skills of data-gathering, rapport-building and information sharing. Later more specialized skills are introduced to support what is taught in the Cognitive stream. Development of these skills prepare students for patient encounters in the Systems Blocks, when effective communication skills are reinforced. *In 2nd year*, communication skills are revisited and students are encouraged to develop further skills of self-assessment. The Comprehensive Patient Assessment Program provides another opportunity to integrate effective

communication skills with other clinical skills. Students are urged to seek feedback from preceptors about communication skills as well as other aspects of these encounters. In ***Introduction to the Clerkship*** there are opportunities to learn teamwork skills and for observation and feedback. In ***Clerkship***, students are encouraged to ask for feedback from preceptors about their communication skills as well as other clinical skills. ***The Learning Objectives of the Undergraduate Program*** outline specific communication skills that are expected of graduates of our medical school. An ***Award for Excellence in Communication Skills*** is available for a graduating student. Enhancing and maintaining effective communication skills continues into practice as any practitioner will be quick to advise the beginner! Patients are often the most effective teachers, if we take advantage of opportunities to listen to them.

### **Equipment:**

**Students MUST have the following equipment by the BEGINNING of Block II:**

1. stethoscope
2. diagnostic kit including an ophthalmoscope and an otoscope
3. reflex hammer
4. small eye chart
5. tuning fork (size 128 Hz and 512 Hz)
6. tape measure
7. portable sphygmomanometer (blood pressure machine)
8. 15 cm stiff ruler
9. 10 gram Semmes-Weinstein monofilament

**(These items are available through the Medical College Bookstore)**

By early November of Med I students will begin seeing patients. At this time they will also need:

10. clinical jacket
11. name tags (U of M and HSC)

### **Dress Code:**

**Students MUST be aware of the importance of appropriate attire when with patients.**

1. Clothes must be clean and in good repair.
2. Hair should be clean and well groomed.
3. Hands must be clean with nails trimmed.
4. Clinical jackets must be worn and be white and clean.
5. Name tags must be worn and be visible at all times.
6. Use of perfume, after shave, etc. should be minimalized.

Students must also bring their clinical equipment to the patient sessions.

The Med II Clinical Skills Program is a continuation of the Med I program. Every attempt is made to revisit, reinforce and integrate Med I knowledge and skills during the Med II curriculum. The major emphasis in Med II Clinical Skills is on extending your interviewing/communication skills and the detection and interpretation of abnormal physical findings. Hopefully in Med I you will come to recognize the value of observation and feedback in assisting you in developing your clinical skills. We emphasize the importance of this activity to faculty. You should be active in encouraging faculty to observe your work and give you feedback on it. You are also encouraged to use the "tools of the trade". These include the recommended readings and equipment.

The objectives for each discipline state the knowledge and skills students will have acquired upon completion of the course. We deliberately HAVE NOT listed the level of competence for each student because this is very difficult to state in realistic terms.

In history taking we expect that students would AT LEAST ask questions concerning the following aspects of any presenting complaint: location, quality/nature, chronology, intensity/limitation of function, frequency, setting, associated phenomena and aggravating and alleviating factors.

In physical examination we expect that students will be able to detect abnormalities where they exist in most situations and to determine the correct method of examination in ALL.

It is also expected that students will demonstrate information-sharing skills by reflecting their findings back to patients in selected situations.

### **Medical Humanities Program (MH)**

Through the Medical Humanities Program, it is hoped that a balance of science and humanism will help to create physicians with an enhanced understanding of the holistic nature of good medicine, public and social issues in health care, and the need for cooperation with patients, families, allied health professionals and alternative care providers. The teaching sessions for the Medical Humanities Program span the two preclinical years and are comprised of the following modules:

- Clinical Ethics
- History of Medicine
- Human Values
- Law
- Integrative Medicine
- Palliative Care

#### **Goals:**

This Program utilizes lectures, audiovisual presentations, small-group discussions, role-plays, and student-presentations to emphasize humanistic issues in medicine. Through this, students are encouraged to:

- Integrate holistic concepts of wellness and illness into the medical model.
- Understand how their own values and how these might influence the care they deliver to patients.
- Function as professionals with a cognizance of the fiduciary relationship of medicine, ethics, and the law.
- Reflect on their views of patients, medicine and their ongoing development as physicians, persons, members of both families and communities.

#### **Objectives:**

The program is divided into six separate modules. Learning objectives specific to each module in the Medical Humanities Program are provided to students.

#### **The Clinical Ethics Module Goals:**

To meet the educational objectives for ethics as determined by the Medical Council of Canada, their CLEO objectives have been applied to the subsections of the Clinical Ethics module.

- More generally, at the completion of this module, students should understand:

- How individual values influence all decisions including those for healthcare.
- That conflict in personal and community values often lead to ethical conflict
- How to describe values conflicts in a medical situation and be able to initiate a basic approach to their solution.
- The ethical constructs that underlie:
  - The Patient-Physician Relationship
  - Medical Decision-Making for oneself and others
  - Decisions at the End-of-Life
  - Medical Research
  - Justice, Lifestyles and Resource Allocation
  - The role of medical students in the healthcare team
- Students are expected to submit a research paper on an ethics topic of choice and write a short-answer examination at the end of the Block.

### **The History of Medicine Module Goals:**

- At the completion of this module, students should understand:
  - The principles that determine the scientific basis of the medical knowledge.
  - The development of the methods used in clinical skills for diagnosis
  - The attitudes that govern the behaviour of the profession.
  - The introduction of effective evidence based therapy.
- Students are expected to submit a paper on a historical topic. They also are graded on the quality of their research for the paper.

### **The Human Values Module Goals:**

- The broad objective Human Values module has been designed to expose students to psychosocial aspects of health and illness, personal values, and humanistic elements of being a healthcare provider. Because these sessions are meant to encourage reflection, they are meant to be experiential rather than evaluatable. As such, the general objective is for students to reflect on the issues that arise through presentations and discussions on:
  - Art and medicine
  - Social advocacy and action by medical students
  - Professionalism
  - Literature and medicine
  - Physicians and personal illness
  - Spirituality
  - Body image inside and out of medicine
  - Relationships with the pharmaceutical industry
  - Medical Error
  - The transition into the Clerkship
- Through the professionalism sessions students are expected to devise a Code of Professionalism for their own class.

**The Law Module Goals:**

- To meet the educational objectives for law as determined by the Medical Council of Canada, their CLEO objectives have been applied to specific sections of the Law module.
- Specifically at the completion of this module, students should understand:
  - The basic organization of Canada's legal system.
  - Legal rights and obligations of physicians to patients, society and the profession.
  - The legal underpinnings of:
    - Medical Decision-Making
    - Confidentiality
    - Medical records
    - Negligence
    - Relationships with provincial regulatory bodies and hospitals
- Students will be expected to pass a multiple-choice examination which includes this information at the end of the Block.

**The Integrative Medicine (INT) Module Goals:**

- At the completion of this module, students should understand:
  - How prevalent the use of INT is becoming in Canada
  - A basic model to conceptualize and categorize INT modalities
  - The theoretical elements of the most prevalent INT practices:
    - Naturopathy, Homeopathy, Chiropractic, and Acupuncture
  - The scientific and research bases for INT as well as allopathic/Western medicine
  - That there may be interactions between some INT approaches and allopathic/Western treatments
  - That the prudent practitioner will sensitively address the use of INT with patients
  - How to recognize qualified INT practitioners
- Students will be expected to pass a multiple-choice examination which includes this information at the end of the Block.

**The Palliative Care Module Goals:**

- At the completion of this module, students should understand:
  - Some of the medical, spiritual and psychosocial issues associated with death.
  - That Palliative Care is an active and aggressive medical approach designed to bring holistic comfort at the end-of-life.
- Basic management strategies to address:
  - Pain control in palliative care
  - Management of anxiety, depression and delirium
  - Management of gastrointestinal and respiratory symptoms
  - Bereavement
  - Discussion of Bad News
- Students will be expected to pass a multiple-choice examination which includes this information at the end of the Block.

## Allan Klass Memorial Program for Health Equity (EQ)

The Alan Klass Program for Health Equity (EQ) is a newly designated component within the medical curriculum. Health equity is defined as equal opportunity for all population groups to be healthy. This program will assist students to develop the capacity to ensure access to health care is the same for all who turn to them as physicians and the quality of services offered is the best available. Certain groups experience poorer health outcomes as a result of race, gender, socioeconomic status, geographic location or sexual orientation. By understanding root causes of health disparities, strategies may be identified to improve the health status of the groups identified.

Examples of population groups who frequently experience health inequities in access and disparities in quality of care include: Aboriginal communities, urban and remote; refugees and immigrants who find themselves marginalized; the poor; those with physical disabilities and those with mental disabilities in the form of developmental handicap or mental illness; Gay, Lesbian, Bisexual and Trans-gendered groups; persons suffering from dependencies (alcohol, tobacco, illicit and licit drugs, gambling); lone and frail elders; women; peoples of third world countries; groups of particular cultural, racial, ethnic and religious backgrounds, among others.

### Goals

Medical graduates will be knowledgeable about social, cultural, economic and environmental factors that influence health. They will be culturally competent in their communication skills with patients and their families who come from a wide range of ethnic, racial, religious, economic, and political backgrounds. Appreciative of the required information and necessary behaviors to successfully access resources in various health care systems, they will provide effective advice and direction to those in need of health services. They will understand what comprises quality of health care and ensure the best available is offered to their individual patients and client groups.

**Objectives:** The student will be able to:

- identify population groups vulnerable to health inequities
- identify health problems that are more prevalent among the identified groups
- describe socioeconomic factors that contribute to health disparities towards these identified groups
- describe existing barriers to accessing health care that exist within the identified groups
- describe historical and present day societal biases that may exist towards these groups
- list the determinants of health that affect these groups
- identify the unique cultural strengths within each identified group and discuss how such strengths may be incorporated into treatment strategies
- apply particular cultural competencies appropriate to communicate effectively with the various groups
- in clinical settings, assess each patient according to their racial, linguistic, education and socio-economic characteristics
- in clinical settings, recognize particular barriers each patient may face in implementing a recommended treatment plan
- formulate health care policy changes that avoid bias and discrimination towards particular groups
- describe an appropriate health delivery program to best serve the well-being of particular groups

## **Clerkship:**

The last two years, Medicine III and IV, referred to as **CLERKSHIP**, consist of a five-week transition period, called Introduction to Clerkship (ITC) that is followed by the 77 week Clinical Clerkship program for a total of 82 weeks. The Cognitive material, Problem-Solving and Critical Thinking Skills, Medical Humanities, Laboratory & Investigative Medicine and Clinical Skills learned in Pre-Clerkship will be applied to active patient care settings in order to prepare students for residency and clinical practice.

### **Introduction to Clerkship (ITC)**

This 5 week program is a preparation for clerkship. It consists of clinical encounters with patients in the major disciplines, predominantly in the hospitals. Courses in clinically based laboratory medicine, clinical pharmacology and therapeutics, radiology and community health sciences are given.

### **Clerkship Rotations – Phase I**

Rotation through all major clinical disciplines is provided over a 48 week period and these are supplemented by elective periods of the students' choice. Periods are spent in family/community medicine, internal medicine, obstetrics/gynecology, pediatrics, psychiatry, surgery, medicine and surgery selective, and in a multiple clerkship rotation of anesthesia, emergency, ophthalmology, otolaryngology and a community health sciences project. The setting for this experience includes wards and outpatient facilities of the hospitals or doctors' offices. The primary responsibility of the clerks in each of the eight, 6 week rotations is the care of patients under the supervision of postgraduate students and faculty. Formal teaching of the pertinent knowledge, skills, attitudes and behaviour to the discipline is provided during the clerkships.

### **Electives/Selectives – Phase II**

A total of 12 elective weeks are provided during the clerkship in which the student can pursue education in one or more disciplines in the specialty/field of their own choice. The elective must be approved in advance by the faculty elective coordinator. Following the 12 week elective period students will participate in the 4 week national interview period with the CaRMS (Canada Residency Matching Service) and time permitting complete an additional elective. This will then lead into a 9 week period of selectives, where students choose from pre-arranged tracks of specialties that will be offered by the departments involved.

### **Refresher Course**

The program ends with a 4 week course of half-day refresher lectures and time for self-study in preparation for the Medical Council of Canada Qualifying Examination – Part 1.

### **ACLS**

The Advanced Cardiac Life Support Course is a mandatory component of the Clerkship that is scheduled over a four day period within the 4 week refresher course period of your graduating year. It is organized by the Department of Emergency Medicine and is designed to provide you with advanced knowledge and experience on how to handle a cardiac arrest. Most medical students find the course invaluable regardless of what specialty you enter. Cost: \$62.54 (subject to change)

## **8. Policy for Waiting for Instructors**

Students must wait **10 minutes** for their instructors to arrive. In the meantime, one of the student reps should try to contact the faculty member who is listed in the Course of Study book for advice. If this is not possible, let the staff in the Education Office know so that they can try to find the instructor.

## **9. Policy for Length of Teaching Sessions**

Class participation and student interaction should be promoted by planning for and allowing sufficient time for questions, whether during or at the end of each session.

Lecturers are further encouraged to complete their lecture at 10 minutes before the hour, allowing for a break before the next session begins.

## 10. Attendance Policy

Attendance is mandatory at all teaching sessions that divide the whole class into smaller groups e.g. tutorials of whatever size, problem solving, clinical/ communication skills, laboratories, demonstrations. Attendance may be mandatory at certain lectures. **Failure to attend any session in which patients, members of the public or standardised patients are used is particularly serious.**

Students are expected to come to the tutorial having reviewed the material in advance. Preparedness and active, meaningful student participation are essential to optimize the benefits of the session. Passive attendance is not acceptable.

Recognizing that periodic absence is unavoidable, the following protocol has been developed:

1. When you must miss a small group session, complete the short form that is kept in a folder on the counter of 260 Brodie Centre and return it to the receptionist. If you can't fill the form in advance, make sure you do it as soon as possible after the absence has occurred.
2. If you will be away for several days, you need to make an appointment to meet with either the Associate Dean, Undergraduate or the Associate Dean, Student Affairs to explain the reason for the absence or to get permission for it.
3. For Clinical Skills sessions that involve patients or standardized patients, **IN ADVANCE OF THE SESSION**, telephone the appropriate department program assistant (listed below) to let her know you will not be present. (This may mean phoning at 6:00 a.m. when you wake up ill and leaving a message on their answering machine.) Give the department as much notice as possible so that they can cancel the patient, standardized patient or instructor if necessary.

<b>CV</b> Cardiovascular (Kathy Van der Vis):	258-1000	<b>KD</b> Kidney (Colette Olson):	787-3585
<b>CH</b> Community Health (Lynne Wicheknko):	789-3714	<b>MS</b> Musculoskeletal (Mona McKay)	787-8059
<b>FM</b> Clinical Interviewing/Male CTAs		<b>NE</b> Neuroscience (Dolores Sylvestre):	
	787-1103		
(Debi Prysizney):	789-3390	<b>OP</b> Ophthalmology (Arlene Lyrette):	788-8600
<b>FM</b> Skills Labs/ Family Med office visits		<b>PS</b> Psychiatry (Karen Simpson):	787-7098
(Nancy Eidsvig):	789-3314	<b>RP</b> Reproduction (Barb Saunders):	787-2832
<b>PD</b> Pediatrics (Dawna Ventura):	787-1730	<b>RS</b> Respiratory (Sylvia Chidlow):	787-3936
<b>GI</b> Gastrointestinal (Suzanne Doyle):	789-3888	<b>SG</b> Surgery (Yvonne Groshak):	787-3154
<b>GE</b> Geriatrics (Aleta Foreman):	237-2410		

Med II CPA:

<b>EM</b> Endocrine CPA (Suzanne Doyle):	789-3888
<b>FI</b> Focused Interviews (Jackie Welbourne)	480-1308
<b>IN</b> Internal Medicine CPA (TBA):	235-3435
<b>OB</b> Obstetrics CPA (Barb Saunders):	787-2832
<b>PD</b> Pediatrics CPA (Linda Rempel)	787-1714/ 787-PAGE #3418
<b>PS</b> – Psychiatry CPA (Karen Simpson):	787-7098
<b>SG</b> Surgery CPA (Yvonne Groshak):	787-3154

4. Attendance will also be taken by instructors of small group sessions. Students **MUST** stay in the group to which they are assigned. Students changing groups will be marked as **ABSENT**.







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## 12. Evaluation of Students

### Examination Schedule

	Cognitive Part I Written	Cognitive Part II Practical	Problem Solving	Clinical Skills
Block 1	•		•	
Block 2	•		•	
Block 3	•	•	•	•
Block 4	•	•	•	
Block 5	•	•	•	
Block 6	•	•	•	•

### Regulations regarding Evaluation

Dr. Francis Amara  
Dr. Barry Cohen  
Dr. Karen Klym

Med I COE  
Director of Evaluation/Med II COE  
Med I & II Clinical Skills

There will be three components of evaluation:

#### A. Cognitive Skills

- a. **Part I: written evaluation (worth 50% of the total evaluation except in Blocks 1 and 2 where it will be worth 75%).**

This will consist of an evaluation with multiple choice questions (single best choice, matching types) or short answers.

- Block 1, Structure, Function and Disease Mechanisms (SF) will be evaluated using two exams composed of multiple choice and/or short answer questions. The timing for the first exam is based on the natural division of the course between normal and abnormal physiology. The first exam will represent 40% of the final mark for SF, which in turn represents 75% of the final cognitive mark for Block 1. Up to 15% of the questions contained in the second SF exam will represent material from the first half of the SF course.
- Some questions may be used only for validation and will not be counted for marks.
- During the academic year the students may have to do assignments that will count for marks.
- The number of questions asked will depend on the importance and complexity of the knowledge domain being tested. As there are more hours of teaching than the number of questions that can be asked, it is inevitable that some areas may not be tested.

- There may be written assignments, e.g. in History of Medicine, Medical Ethics, Community Medicine. The weight given to them will be made known to students. Marks obtained in these will be counted towards cognitive skills evaluation.

**b. Part II: practical evaluation (worth 25% of the exam in each block: this test will not be given in Blocks 1 & 2)**

This evaluation will consist of timed stations that will display anatomical specimens, anatomical pictures, histology, histopathology, hematology slides and/or pictures, radiographs, EKG tracings and biochemical or hematological laboratory data. The content will vary with the block. The topics tested will be from the entire curriculum learnt in the block. The objective of the test will be **to simulate clinical practise**, to test **visual recognition** as well as the **ability to use the visual information for diagnosis and other clinical purposes**.

**B. Problem Solving Skills (worth 25% of the evaluation).**

Med I: will consist of:

- a. Group assignment
- b. End of block written examinations

The actual weight given to each component will vary with the block and the students will be informed about the weighting for Med I Problem Solving evaluation early in the block.

Med II: will consist of end of block written examinations..

It has to be emphasized that the evaluation process will consider the ability of the student to integrate knowledge from different systems and domains.

**C. Clinical Skills (independent evaluation worth 100%)**

- a. There will be an Objective Structured Clinical Exam (OSCE) at the end of both first (formative) and second year (summative).
- b. Pass marks for the OSCE evaluations will be announced before the examination.
- c. Clinical skills evaluation will have to be passed independently of cognitive, practical and problem solving examinations.

**Pass/Fail Criteria**

1. The evaluation will be criterion referenced, i.e. the pass mark will not depend upon the performance of the class in the examination under consideration.
2. Pass mark will be 60% of the combined marks for cognitive, practical and problem solving skills.
3. The process to establish the pass mark for the OSCE evaluation will be declared before the evaluations.
4. Students failing to attend mandatory sessions may be reported to the Associate Dean, undergraduate education. Each student will receive a warning from the Dean's office. If this warning is ignored then the student's attendance record will be considered by the COE pre-clerkship and the student may be failed for unsatisfactory attendance. A suitable remedial period may be provided during the summer vacation. If the student does not perform satisfactorily in the remedial period the year will be failed.
5. 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 for undergraduate education or for student affairs as soon as possible. Either of the

Associate Deans will decide if the reason is sufficient to postpone or cancel evaluation. This may be applied retroactively. The Associate Dean for undergraduate education 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 Counseling 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.

### **Evaluation Following Failure**

1. There will be supplementary evaluation at the end of the year.
2. Students will be granted supplemental privileges only if they fail in no more than 2 blocks. The supplemental evaluations will be done in June and/or July, depending on the number of failures (June for one failure and July for the second failure. The exact date and time will be notified.
3. Students who secure less than 50% marks, in any organ system within a block or in the practical exam or in Problem Solving, will be advised about available remedial methods, including additional readings, practice tests etc. The actual method and resources chosen will be the student's responsibility
4. Students who fail the first year supplementary evaluation and wish to continue in Medicine will need to reapply for admission to the Medical College by June 1<sup>st</sup>. If they pass the supplementary evaluation then they will move on to the 2<sup>nd</sup> year..
5. Students in second year who fail a block in the supplementary evaluation will have to repeat the year.

### **Self-evaluation and Post-evaluation Feedback**

1. During the academic year, the students will be provided with instructional tests, some of which can be self-administered. These tests will be formative, and as such, will not count for marks.
2. Following an end of block evaluation students will be given their scores in each section and subsection of the examination.
3. The mean score of the class, standard deviation and the frequency distribution of the scores will also be provided.
4. The students will have an opportunity to see a list of questions for which they gave incorrect answers and also the correct answer for each of these.
5. For each question the students will usually get to see a discussion listing the reasons for the right or wrong answer. The students are encouraged to document any disagreement with the correct answer indicated by the examiner.

Students' exam results (Pass/Fail) will be included in their Dean's Letter which is prepared at the end of the clerkship.

### **Progress Committee**

A Progress Committee is in place which will review and monitor students performance on an ongoing basis and ratify exam scores as well as coordinate remediation and other help for students as required.

## 13. Program Evaluation

The undergraduate medical education program conducts an ongoing curriculum review to ensure a high quality program for our students. As part of that process, we encourage active student participation. During your course of studies you may be asked to complete surveys, assessments and/or participate in focus group interviews or other evaluation activities. As an academic institution we may publish or disseminate group data collected during this process. We take appropriate steps to ensure student confidentiality is protected. No individual information will be used without a student's informed consent. We also hold regular student-led **Curriculum Evaluation Seminars (CES)** at the end of each block. They provide a forum for students to voice their opinion on the medical curriculum. The medical curriculum is in perpetual evolution and the faculty rely on the student input via the CES to improve the program. It is therefore important that all students participate.

Two volunteer CES Reps are requested to be formally responsible for providing constructive feedback per program. These Student CES Representatives (CES Reps) should take their role seriously and provide feedback that is accurate and as representative of the class opinion as possible. The remaining students will be assigned to a given program and are asked to assist the CES Reps in monitoring/evaluating their program. The CES Reps will have the opportunity to meet with the faculty to discuss the program and will be required to submit a written report following their CES. The CES Reps are responsible for:

- *monitoring the program*
- *collecting suggestions/opinions from their colleagues*
- *communicating with the faculty*
- *chairing their respective CES*
- *writing the final report*
- *encouraging all the students in their respective groups to participate*

The job may sound daunting but in fact will not require too much work and is an excellent experience. Remember that the purpose of the CES is to provide feedback on **all** aspects of the program including both positive and negative feedback. For example, let us know if a particular lecturer was exceptional or dreadful or if a set of notes was particularly useful. Criticisms, if presented constructively, will be listened to attentively and will be invaluable to the faculty.

A brief description of the CES process follows:

The process begins with hour-long **students-only** CES discussions co-chaired by the volunteer student CES reps. The students then meet with the respective **Course Director/Program Coordinator** and share their class' concerns/praise (no more than one hour, again co-chaired by the CES reps. Immediately following this student-Course Director/Program Coordinator meeting, there is an "Overview Group" meeting which is co-chaired by the class President and Academic Reps. The Overview CES meeting involves not only the student CES reps and Course Directors/Program Coordinators, but also involves Directors of Education, Neil John Maclean Health Sciences Library and Bannatyne Campus Information Technology, the Health Sciences Bookstore Manager, Associate Deans, the Dean of Medicine and the Pre-Clerkship Program Administrator. Brief verbal reports may be given by the CES reps to the Overview Group and should focus on issues of global applicability to the curriculum or medical school. Exams, library hours, cost of books, space for studying, facility faults, etc. are fodder for dialogue and discussion at the Overview Group meeting.

## 14. Undergraduate Medical Education Learning Objectives

### Preamble

In 1987, the Faculty developed Undergraduate Medical Education Performance Expectations which were based upon the Edinburgh Declaration, the Barer-Stoddart report, various reports of the EFPO (Educating Future Physicians for Ontario) project and the Toronto Consensus Statement on Doctor/Patient Communication, as well as the Canadian Medical Association Code of Ethics. In 2003, this document was revisited to reflect more current thought in medical education. In particular, the Learning Objectives address the broader concept of learning goals as well as objectives to assist students to meet these goals. Moreover, the Learning Objectives were rewritten to be congruent with the CanMeds competencies of the Royal College of Physicians and Surgeons of Canada and the Four Principles of the College of Family Physicians of Canada. The Learning Objectives also are meant to reflect the Mission Statement for Undergraduate Medical Education.

These reports and statements have served to emphasize the areas that are important for the education of physicians: areas of communication, collaboration, and ethics and accountability, as well as the range of settings in which learning should occur. In addition, patient and societal expectations of physicians have changed and will continue to change and therefore must be accompanied by change in expectations of student performance.

These Learning Objectives will assist:

- a) Students in understanding the behaviors and the scope of knowledge, skills, values and attitudes expected of them by the end of medical school;
- b) Faculty in the development of goals and objectives, in prioritizing and organizing their teaching efforts, and in the development of appropriate systems of student evaluation.

These expectations identify six primary, albeit overlapping, areas of responsibility:

1. Clinical Care
2. Scientist and Scholar
3. Communication
4. Ethics and Accountability
5. Professional and Personal
6. Social Accountability and Responsibility

These Learning Objectives should serve students as a guide and framework in their efforts to master the four-year program.

By implication, faculty have an obligation to ensure as much as possible that the actual program in terms of objectives, material taught, teaching and learning settings and the format and content of evaluation is supportive of students as they strive to fulfill these expectations.

### MISSION STATEMENT

To provide a supportive environment which will assist our students to become confident, caring, ethical physicians with the ability to think critically and apply their knowledge and skills in the best interest of their patients. The educational experiences we provide will prepare students to enter their choice of training, to continue successfully in their lifelong education, and subsequently to meet their responsibilities to patients and society.

## UNDERGRADUATE MEDICAL EDUCATION LEARNING OBJECTIVES (JUNE, 2003)

The objectives of the undergraduate medical education program cover six major areas:

### 1. Clinical Care

#### Learning Goal

The student will utilize a patient/family centered approach and best evidence, to formulate diagnoses and differential diagnoses; develop, organize and implement prevention, investigation and management plans, and offer appropriate follow-up.

#### Program Objectives: The student will be able to:

- Apply the basic science principles that underlie the practice of evidence-based medicine.
- Elicit a complete, accurate, and focused history.
- Complete a thorough, accurate and focused physical examination.
- Formulate a differential diagnosis
- Order and use appropriate investigations.
- Make a diagnosis based on evidence
- Recognize the indications for basic medical procedures and perform them appropriately.
- Care for patients in a range of settings, in a cost effective and efficient manner and maintain foremost the interests of individual patients.
- Recognize the biological, psychosocial, economic, and spiritual influences on patients' well being.
- Incorporate health promotion and disease prevention strategies with their patients.

### 2. Scientist and Scholar

#### Learning Goal

The student will utilize sound scientific and/or scholarly principles in all aspects of their professional lives including; interactions with patients and peers, educational endeavors and research activities.

#### Program Objectives: The student will be able to:

- Engage in ongoing self-assessment and structure their continuing medical education to address their specific needs.
- Apply principles of the scientific method within evidence-based medicine.
- Take responsibility for their educational experiences.
- Acquire basic skills that can be applied to teaching encounters such as presentation skills, giving feedback, patient education as well as design and dissemination of research knowledge.

### **3. Communication**

#### **Learning Goal**

Students will utilize the knowledge, skills and attitudes associated with a patient centered approach so that they can communicate effectively and sensitively with patients, families and other health care providers.

#### **Program Objectives: The student will be able to:**

- Explore and consider the influence of the patient's ideas, beliefs and expectations along with factors such as age, ethnicity, culture and socioeconomic background during interactions with patients.
- Utilize effective communication skills during data gathering and information sharing including attentive listening, open-ended inquiry, empathy and clarification to ensure understanding.
- Clearly discuss with the patient their diagnosis and options, and sensitively negotiate appropriate treatment plans that are in the best interest of the patient and society.
- Develop efficient techniques for accurate and timely record keeping and other forms of written and verbal communication.
- Assess their own communication skills to develop self-awareness and improve their relationships with others.
- Possess skills in health promotion and counseling for life style changes.

### **4. Ethics and Accountability**

#### **Learning Goal**

Students will comprehend the core concepts of clinical ethics and law and will apply both to their practice as physicians.

#### **Program Objectives: The student will be able to:**

- Describe the basic concepts of clinical ethics and be able to apply them to actual cases and situations.
- Understand the need to make health care resources available to patients in a manner which is fair and equitable, without bias, discrimination or undue influence.
- Demonstrate an understanding of basic legal concepts as they apply to the practice of medicine.
- Employ professional accountability to initiate, maintain and terminate patient-physician relationships.
- Demonstrate respect for the patient's individual rights of autonomy, privacy, and confidentiality.

## **5. Professional and Personal**

### **Learning Goal**

Students will utilize the knowledge, skills and attitudes that will allow them to make professional decisions in all aspects of their medical activities.

### **Program Objectives: The student will be able to:**

- Recognize and follow the codes of professionalism adopted by the Faculty of Medicine as well as those developed by their peers and supported by the Faculty.
- Engage in critical self-evaluation, self-directed learning and have the humility to seek assistance whenever necessary.
- Maintain perspective and balance in their professional and personal lives.

## **6. Social Accountability and Responsibility**

### **Learning Goal**

The students will recognize the need for physicians to function as advocates within the health care system, to manage resources judiciously and to acknowledge their social accountability.

### **Program Objectives: The student will be able to:**

- Recognize society's role in their education and acknowledge that this is a privilege accompanied by responsibility and accountability to that society.
- Demonstrate knowledge of the determinants of health at local, national and global levels.
- Describe the structure of the Canadian health care system and demonstrate the knowledge, skills and attitudes to work within it for the betterment of patients and community.
- Manage health care errors in a responsible, sensitive and legally appropriate manner.
- Recognize the role physicians play within the public and environmental health system.

## 15. B. Sc. (Med) Program

**Purpose:** The B.Sc. (Med.) program in the Faculty of Medicine gives medical students an opportunity to engage in original research, either basic or clinical, under the supervision of a member of the Faculty. The specific aim is to develop within the student skills at experimental design, hypothesis testing, and critical evaluation of data and effective communication of results.

**Student participation and remuneration:** The program runs during the summer recess between Years I and II and Years II and III. The percentage of first year students enrolling in the program has ranged from 40-60%. Generally all of the students who enter the program complete the B.Sc. (Med.) degree, which is awarded upon receipt of the M.D. degree. Most projects are conducted at the Bannatyne Campus of the University of Manitoba, although some projects may be based in or include field work in rural or northern Manitoba. Students (usually 1 or 2 per year) may choose to conduct their projects at other Universities. Students from other universities may enroll but are not necessarily eligible for a stipend from the University of Manitoba. All students receive stipendiary support, presently \$4,500.

Students must be in good academic standing in the regular MD program in order to enroll and continue in the B.Sc. (Med.) program. A tuition fee is assessed by the University for each year that a student is registered in the program; the fee was \$336.60 (subject to change).

Under exceptional circumstances, students may be allowed to enter the program after Year I. Permission to do so is granted very rarely and only after special consideration of merits of the individual case.

**Funding:** The program is almost entirely externally funded. The various granting bodies that have been supporting the program are listed below:

Children's Hospital Foundation of Manitoba  
Cosmopolitan Foundation  
Health Sciences Centre Foundation  
Heart and Stroke Foundation of Manitoba  
Leukemia Research Fund of Canada  
Manitoba Medical College Foundation  
Manitoba Medical Service Foundation  
Canadian Institutes of Health Research  
Pharmaceutical Manufacturers Association of Canada Winnipeg Foundation  
St. Boniface General Hospital Research Foundation  
Thorlakson Foundation  
Dean of Medicine University Bursaries

These funds are used to provide only stipendiary support for the student. All research costs are born by the supervisor from either research grants or departmental funds.

**Governance:** A Faculty Coordinator and one part-time administrative assistant administer the program. Three committees whose membership is drawn from the faculty are involved in the operation of the program. These are:

The B.Sc.(Med.) committee: This committee, chaired by the B.Sc. (Med.) coordinator, has approximately 15 members drawn from the various departments of the Faculty. Its task is to evaluate the research proposals.

The MMSF awards committee: This committee, chaired by the B.Sc. (Med.) coordinator, has 5 members. Its task is to select recipients for the following memorial awards:

- |   |               |
|---|---------------|
| 1) Morris Neaman Award:                 | 2@1000.00each |
| 2) Dr. Norman and Margaret Corne Award: | 1 @ \$1000.00 |
| 3) Mr. Justice James E. Wilson Award:   | 1 @ \$1000.00 |

These awards are made after completion of the first summer's work. Criteria on which they are based include: a written report from the student that containing not only data collected from that summer's work but also the future course of the project. A supporting letter from the supervisor is also required.

The B.Sc. (Med.) awards committee: This committee, chaired by the B.Sc. (Med.) coordinator, consists of three individuals. Its task is to select winners for the following awards:

- |   |                       |
|---|-----------------------|
| 1) Children's Hospital Research Foundation  | \$ 500                |
| 2) Nicholson Prize  | \$ 50                 |
| 3) Merck Sharp & Dohme Scholarship  | \$ 1000/ Merck Manual |
| 4) Frosst Scholarship   | \$ 1000/ Medal        |
| 5) Dr. Lyonel Israels Memorial Award  | \$1000                |
| 6) Dr. Jack C. Wilt Memorial Award  | \$1000                |
| 7) Dr. F. W. DuVal Memorial Award   | \$1000                |
| 8) A. Allyn Rossen Award  | \$750                 |
| 9) Oxford University Neuroscience Book Prize  | Book                  |
| 10) Phillip Yaffe Memorial Prize  | \$ 1050               |
| 11) Leonard Kruger Centennial Award   | \$ 225                |
| 12) Polly & George Sheps Prize  | \$ 450                |
| 13) The Fillmore Riley Ade & Company Award for Excellence in Experimental Research                          | \$ 200                |
| 14) The Fillmore Riley Ade & Company Award for Excellence in Research in Biochemistry and Molecular Biology | \$ 200                |
| 15) National Student Research Forum   | All Expenses Paid     |
| 16) Midwest Student Research Forum  | All Expenses Paid     |

The selection process is based on the quality of the final written report as well as the oral presentation at the end of the program.

Members of this committee also serve as examiners and may recommend revisions to the thesis.

**Selection and evaluation of research projects:** In early October, a faculty-wide mailing solicits research projects from prospective supervisors. Those who wish to submit a proposal for consideration are required to provide a title as well as a 250-word abstract outlining the project. These are compiled and circulated to the students. Students will then select projects from the list, contact the supervisor, and prepare a formal application in the form of a mini grant application.

The research proposal includes the rationale for the project, the hypothesis to be tested, a brief review of the relevant literature, the experimental approach, and methods of data analysis. A clear statement of the actual work to be undertaken by the student is required. Some information regarding the research background of the supervisor is also requested. It is expected that the student will have primary responsibility for the preparation of the application.

The B.Sc. (Med.) committee then reviews applications. An application is assigned to two committee members who make recommendations. The project is either approved or approved pending modification as recommended by the committee. In the review process, emphasis is given not only to the scientific merit of the proposed research but also to its feasibility for a student in the time available. Proposals that are unsuccessful in the first round are re-reviewed after appropriate modification. Very rarely projects are not approved. In this instance, the student is encouraged either to submit a new proposal or to seek another supervisor.

The appropriate University ethics committee must approve all projects. It is the responsibility of the supervisor to apply for ethics approval. Failure to obtain approval in a timely fashion may delay the start of the project and payment of the student's stipend.

Time Line for the course of the Program

*Year I*

**Early October:** Solicitation of project titles from the faculty

**Early October:** B.Sc. (Med.) coordinator meets with first year class to outline the program.

**Mid-November:** Project titles are circulated to the students.

**Mid-January:** Deadline for submission of the completed application.

**Early March:** Committee meets to review the applications.

**Late May - late August (13 weeks with two weeks of paid vacation):** First summer of work.

Seminars in statistics, clinical research methodologies, scientific writing and research ethics have been provided during the first summer. Attendance is mandatory.

At the conclusion of the first summer's work, the supervisor must provide a written assessment of the student's performance. Students must remain in good standing in the regular MD program to continue in the program the following summer.

From their first summer's work, students are invited to apply for the scholarships provided by the MMSF. The MMSF prize committee meets to review the applications in early January. Representatives of the MMSF present the awards in late January.

## *Year II*

**Late May - late August (13 weeks with two weeks of paid vacation):** Second summer of work.

**Early August:** Deadline for submission of the final written report.

**Last week in August:** Oral presentation/examination.

**Evaluation of the students' performance:** The written report is prepared in the form of a scientific paper. Two examiners, one from the department in which the project was conducted and one external, are selected by the supervisor. Copies are also provided to members of the awards committee. The oral presentations are made in a symposium that takes place in the last week of August and runs over two full days. Each lasts 25 minutes and consists of a 15-minute summary followed by 10 minutes of questions from the examiners, members of the awards committee and the audience at large.

Performance in the program is graded on a pass/fail basis. If a student fails to achieve a passing grade based on the written and oral presentations, he/she is provided with an opportunity to make revisions and re-submit the thesis and/or re-do the oral examination. A student who fails to make the necessary revisions receives a failing grade. In the event of a failure, the student may request a review of the evaluation by the Committee on Academic Standing and if this fails to resolve the disagreement, by the Faculty Appeals Committee.

A student, who, for reasons of illness or circumstances beyond his/her control, cannot complete the program within the normal time frame, is offered the opportunity to make the oral presentation at the B.Sc. (Med.) symposium the following summer. It is also possible for a student to be examined in a seminar arranged at the convenience of the student and examiners during the regular academic year. In the latter instance, the student is not eligible to compete for the various awards offered at the conclusion of the program. As a result, very few students who require this extra time select this option.

Students who withdraw from the program without prior approval from the program coordinator receive an *incomplete* grade on their academic transcripts.

Report prepared by:

John G. Gartner, MD.  
Professor, Departments of Pathology and Immunology  
Chairperson and Coordinator, B.Sc. (Med.) program  
Faculty of Medicine  
University of Manitoba

Contact the following individuals for further information:

Dr. John Gartner, Committee Chair and Program Coordinator, Tel: 789 – 3382, Email: [gartner@ms.umanitoba.ca](mailto:gartner@ms.umanitoba.ca)

Cheryl Mills, Administrative Assistant, Tel: 789 – 3558, Email: [millsca@ms.umanitoba.ca](mailto:millsca@ms.umanitoba.ca).

## 16. Basic CPR Training

All medical students are required to receive certification in BASIC CPR (Cardiopulmonary Resuscitation – Level C) **prior** to the start of Med II. These courses are offered in the Joe Doupe Fitness Centre in the basement of the Brodie Centre. Students will be provided with information during orientation week listing the dates and cost of the course.

Once training has been completed, students must present their card to the Undergraduate Medical Education Office as proof of certification. Students who have not done so will not be able to register for Med II.

## 17. Immunizations

All first-year medical students will receive detailed information on immunization requirements. Students must complete their required immunizations and tuberculosis screening by the end of first year. Students who have not done so may not be able to have contact with patients in Med II.

Concerns or questions regarding the immunization and tuberculosis screening program, including requests for your records, can be referred to:

Dr. William Libich  
Immunization Coordinator  
[wlibich@wrha.mb.ca](mailto:wlibich@wrha.mb.ca)

Rachel Jeschke  
Immunization Status Assistant  
[jeschker@cc.umanitoba.ca](mailto:jeschker@cc.umanitoba.ca)

Rm 260 Brodie, 727 McDermot Ave  
Winnipeg, MB R3E 3P5  
Ph: 789-3820  
Fax: 789-3929

## 18. Early Exposure Program

The Early Exposure Program was originally organized by the Manitoba Medical Students' Association (MMSA) and the Office of Student Affairs to help students access preceptors who are interested in sharing their clinical experiences in an office or hospital setting in order to assist students in making career choices in fourth year. There are binders inside the door of 260 Brodie, the Undergraduate Medical Education Office, which list physicians who have indicated a willingness to accept students for this experience. The experiences should be organized during time where no formal curriculum has been scheduled. If students have an interest that is not listed, they should contact Dr. Leigh Fraser-Roberts at [fraserro@cc.umanitoba.ca](mailto:fraserro@cc.umanitoba.ca) and she will try to find a suitable physician. There may be some areas off limits to students until they obtain their hospital I.D. badges in late September.

## **19. Conscientious Objection Policy**

The Faculty of Medicine recognizes that for reasons of commonly-held ethical and religious beliefs, some students may wish not to involve themselves with certain medical procedures or services. Out of respect for such beliefs, the Faculty of Medicine will consider conscientious objection by students so long as a series of criteria to ensure that the current standard of care is met for all patients. The specific criteria and form to request a conscientious objection can be seen on the Faculty of Medicine webpage or picked up at Brodie 260.

Request forms for consideration of a conscientious objection must be submitted to the Associate Dean, UGME in as far advance of the contested service as possible. On this form, the student must explain the nature and rationale for their conscientious objection. Acceptable rationales will reflect religious or ethical views commonly known to the general community. A student seeking a conscientious objection must explain how they intend to meet the current standards of medical care for patients, including full disclosure and discussion of all treatment options. Students will be required to discuss their request with the Associate Dean, UGME or Student Affairs, who will confer and come to a decision. If approved by the Associate Deans, one copy of the conscientious objection will go into the student's file and another will be given to the student to discuss with appropriate clinical supervisors.

As necessary, the Faculty of Medicine will provide reasonable clinical or educational accommodation to support the student's medical studies in light of a conscientious objection.

## 20. Neil John Maclean Health Sciences Library

www.umanitoba.ca/libraries/health

(204) 7890-3464

njm\_ref@umanitoba.ca

The Neil John Maclean Health Sciences Library is here to support you throughout your medical school years. There are 7 other libraries affiliated with NJMHSL: Carolyn Sifton-Helen Fuld Library at St. Boniface Hospital; Victoria General Hospital; Bill Larson Library at Grace General Hospital; Seven Oaks General Hospital; Concordia Hospital; Misericordia Health Centre; and J.W. Crane Memorial Library at Deer Lodge Centre. You will be able to access the same electronic resources and library staff support from any of these libraries.

### Getting Started:

In order to obtain remote access (access from home) to the University of Manitoba Libraries resources, you must activate your library account by changing your default password (birth date YYMMDD) to a new 6-10 character password. For help with this, see [http://umanitoba.ca/libraries/help/help\\_my\\_library.html](http://umanitoba.ca/libraries/help/help_my_library.html).

There are two additional accounts to activate: the CC/ UMnetID account which sets up an UM email address and enables wireless access available on campus; and the INS account useful for logging into computers on campus and provides 20 MB of personal network space. To claim either of these accounts, see <https://pasweb.cc.umanitoba.ca/webapp/gu/claimid>. To access your university email account, see <http://webmail.cc.umanitoba.ca>.

For more information on any of these accounts, including what they are and how get set up, see <http://www.umanitoba.ca/libraries/units/health/help/connected.html>.

### Print and Electronic Reserves:

**Electronic (E-Res)** – Many lecture notes are made available here, usually before the lecture. You can access this from home or from anywhere! Go to <http://reserves.lib.umanitoba.ca/>. For assistance on E-Res, see our handout.

**Print** – Many frequently used materials, required materials or lecture notes can be found on reserve, which are available at the Circulation Desk. You must request the item by call number. A reserve binder at Circulation lists the materials on reserve by instructor by course number. You can also search our catalogue BISON for reserve materials. Reserve materials may be borrowed for 2 hours during the day, overnight after 8:00 pm, or 2 hours before the Library closes on Friday and Saturday. We also have the lists of all recommended and required texts and as well as copies (1 on print reserve; 1 in the general stacks) of these textbooks.

### Resources:

Before you go rushing out to buy textbooks, have a look at print and electronic book collection first! Links to the core texts for medical students can found in the Medical Student Toolkit off our homepage: <http://www.umanitoba.ca/libraries/health/>. Many of these texts are in resources including MD Consult, Stat!Ref, Harrison's Online, ebrary and Myibrary. We also have 2750+ **E-journals** available which can be accessed via PubMed or our other databases. For a complete list of journal titles, see either the library catalogue (BISON) or E-Journals link on our homepage.

## Technology Abounds

**Have a laptop?** We are wired for you! To use our wired carrels, you must first register your laptop with IST Bannatyne (Medical Services Bldg S-206) and you will be provided with a special network card. Data cables are available for loan at the Circulation Desk. **Need a laptop?** We have 3 laptops available for you to borrow. Laptops may be borrowed for 3 hours during the day and used only on the Bannatyne campus. See the Circulation Desk.

Palms, we have **palms for loan!** We have 4 Tungsten T3 Palm<sup>®</sup>s loaded with different handheld resources (Dorland's or Stedman's Medical Dictionary, Lexi-Drugs with 5-Minute Clinical Consult, Harrison's Manual of Medicine, Washington Manual, PEPID student package). Also, we have these resources available separately on memory cards for those who have handhelds and want to check out these products. See the Circulation Desk.

To support handhelds, we also have a **beaming station** so you can "beam down" PDF handouts and other materials to your palm.

**Wireless** is available in the library and extends into the sitting area just outside of the library. All of the **study carrels are wired** for internet and printer access so if you have a laptop (and it is registered with IST Bannatyne) you can just "plug in"!

## Other Useful Things:

Having a **group study** session and need a space? You can reserve the Kerr or Iverach Room. Book your times at the Circulation Desk.

For all your **photocopying** and **printing** needs, we have got it covered! There is a photocopy area located on each floor. Coin and card machines are available in both areas. The cost is 10¢/page. At our printing station have both a black and white printer and a colour printer. The cost is 10¢/page for black and white; \$1/page for colour.

## The Library, Your Education & Lifelong Learning

Throughout your medical school life, the librarians at NJMHSL are there not only to help you through assignments but also to give you the skills you will need later on in your clinical career. In addition to the evidence-based research skills sessions in your curriculum there are general sessions offered on different topics you are invited to sign up for – see the Events section of our homepage or the Information Centre for more information.

## Need Help? Just Ask!

See a librarian at the Information Centre, call us (789-3464), or email us (njm\_ref@umanitoba.ca) if you have questions on using library resources, locating information, or if you need to get an item from another library. Call the Circulation Desk (789-3342) to obtain reserve materials, to loan out items, or if you have questions regarding borrowing privileges or fines.