Lectures.
Lectures will be held in BSB 147

- Monday 1230 – 1320
- Tuesday 1330 – 1420
- Thursday 1230-1320

Duration.
January 3 - April 5, 2011.

Mid-Term Break - February 21 - 25, 2010

This course will deal with: a) the physiological and pathological chemistry of different organ systems and b) biochemical tests used in the diagnosis and monitoring of disease.

Session 1: - Dr. J. Macri.
18 Lectures, beginning Monday January 3rd.

The following topics will be covered:

- Concept of reference values, sensitivity, specificity and predictive value of laboratory tests.
- Distribution of body fluids in normal and abnormal states.
- Role of kidney in fluid and electrolyte balance.
- Laboratory tests for assessing kidney function.
- Acid-base balance.
- Overview of liver biochemistry and pathology
- Biochemical evaluation of liver function

Session 2: - Dr. S. Hill
16 Lectures, beginning Tuesday February 23.

This session will deal with

- Endocrinology. - purpose of the endocrine system; endocrine glands and endocrine cells; their location in the human body; what they produce; maintenance of homeostasis; clinical manifestations of endocrine disorders (hyper- and hypo-function); use of laboratory tests to diagnose endocrine disorders. We will deal with endocrinology of the pancreas, thyroid, parathyroid, adrenal and pituitary glands.
• Diabetes as an example of an endocrine and metabolic disease. We will briefly review carbohydrate and energy metabolism, and then examine the pathobiology and metabolic derangements of the disease. We will discuss the role of the laboratory in screening, diagnosis, treatment, monitoring and prognosis of the disease.
• Lipid and cardiovascular metabolism and disease – overview of lipoprotein metabolism, development of coronary artery disease, myocardial infarction, biochemical evaluation of cardiac risk and injury. We will try to integrate diabetes and cardiovascular disease.

Session 3 - Special Topics and Case Presentations
We will use the last 2 or 3 lectures for some special topics, case presentations and review.

Evaluation

There will be 2 in-class term tests - January 31st and March 7th. We will reserve extra rooms to allow students to spread out while writing. Room assignments will be posted. Format of the tests will be multiple choice. Each test will count for 25% of the total mark.

A final examination (registrar scheduled) will address the content of the entire course and will count for 50% of the total mark. This will be a multiple choice test.

The course weighting cannot be changed.

No make-up tests will be offered. If you miss a test you must petition the Associate Dean's Office for an exemption. If you receive an exemption from the Associate Dean's Office, they will send an "Approved" note to the course instructor requesting accommodation for the student. In this case, the marks will be distributed as follows: remaining test 35%, final exam 65%. A 'Discretionary' note means that the student did not have a valid reason to miss the work or could not provide the supporting documentation, and therefore, it is left to the instructor's discretion whether to accommodate the student. Following Departmental policy, “Discretionary” notes from the Associate Dean's office will not be accommodated. If you miss a test and do not have the proper documentation, you will receive a ZERO for that test. Once you have written a test or exam, the mark will stand.

The instructor and University reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

Course Email Box
We will maintain a course mailbox where announcements and lecture outlines can be posted and questions will be answered. If you email us a question, we will copy the answer to the mailbox so all can read it.

Course Text

Clinical Chemistry 6th Ed’n, 2008
Marshall WJ
Publisher - Mosby

The 5th edition is available on the used book market.
The lectures will loosely follow the text. Please remember that other references will be provided as well and that the lectures may not follow the text exactly.

**Course Notes**
Lecture outlines will be available from the Biochemistry 3H03 site shortly before or immediately after each lecture. These lecture outlines are intended as an aid to help us in our lectures and you in your studying. They are **NOT** intended to provide complete coverage of the material.

**Academic Integrity**
You are expected to exhibit academic honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in ethical principles of honesty and academic integrity.

Academic dishonesty is knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. The behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade F assigned for academic dishonesty”), and/or suspension or expulsion from the University.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Dishonesty Policy, located at [www.mcmaster.ca/academicintegrity](http://www.mcmaster.ca/academicintegrity)