BIOCHEMISTRY 3H03.

BRIEF COURSE OUTLINE 2008.

Instructors:
Coordinator: Dr. S. Hill, 527-4322, Ext. 46045 hillstev@hhsc.ca
Dr. J. Macri, 527-4322, Ext. 46046 macri@hhsc.ca

Questions concerning course material or evaluation of term tests should be taken up with the appropriate instructor.

Questions concerning the administration of the course in general, exemptions from tests and examinations must be taken up with the course coordinator.

Lectures.
Lectures will be held in HSC 1A1
Tuesday, Thursday, Friday 8:30 – 9:20

Duration.
January 8 - April 8, 2008.

Mid-Term Break - February 19 -22, 2008.

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. The course has been divided into three sessions, with a test at the end each of the first two sessions.

Session 1: - Dr. J. Macri.
16 Lectures, beginning Tuesday January 8th. In-class test Tuesday February 12th.
3 Lectures March 11, 13, 14. Questions from these lectures will appear on the second test.

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 Friday February 8th. In-class test Tuesday April 1st.
This test will include a few questions from Dr. Macri’s second section.

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.

- 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**

In the final lecture periods of sessions 1 and 2, students there will be an in-class test consisting of multiple choice and/or short essay questions. Each test will relate only to the lecture content of the session. Each test will count for 25% of the final 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 (and have an exemption from the Department of Biochemistry) the marks will be distributed as follows: remaining test 35%, final exam 65%. 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.

**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.
It can be found under Courses/Biochem Programme on the Learnlink.

**Course Text**

*Clinical Chemistry 5th Ed'n, 2004*
Marshall WJ
Publisher - Mosby

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 learnlink mailbox 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.