BIOCHEMISTRY 3H03.

BRIEF COURSE OUTLINE 2016.

Instructors:
Coordinator/Instructor : Dr. S. Hill, 521-2100, Ext. 76595 hillstev@hhsc.ca
Rm 2N30 HSC

Instructor Dr. J. Macri, 527-4322, Ext. 46046 macri@hhsc.ca
Rm 1-89 Hamilton General Hospital

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 BSB 147
Monday, Wednesday, Thursday 1030am – 1120am

Duration.
January 6 - April 7, 2016.

Mid-Term Break - February 15 - 19, 2016

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. S. Hill
12 Lectures, beginning Wednesday January 6th.

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.

Session 2: - Dr. J. Macri
12 Lectures, beginning Thursday February 4th.

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 pituitary, adrenal and thyroid glands.

Session 3 – Dr. S. Hill
6 Lectures beginning Monday March 14th.
This session will deal with
• Diabetes as an example of an endocrine and metabolic disorder. 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.

Session 4 - Dr. J. Macri
6 Lectures beginning Monday March 28
• Calcium metabolism and hormonal regulation
• Lipid and cardiovascular metabolism and disease – overview of lipoprotein metabolism, development of coronary artery disease, myocardial infarction, biochemical evaluation of cardiac risk and injury.

Evaluation
There will be 4 on-line quizzes – Wednesday January 20, Wednesday February 24, Wednesday March 16, and Wednesday March 30. Each quiz will count for 2.5% of the final mark.

There will be 2 in-class term tests - Wednesday February 3rd and Thursday March 10th. Tests will be held in different rooms from the lecture hall 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 20% 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.

Accommodations

No make-up tests will be offered. If you miss a test you must petition the Associate Dean’s Office for an exemption. The MSAF form must be submitted within 3 days of the missed test. 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 30%, final exam 60%. 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 quiz, test or exam, the mark will stand.

Please note: some students ask for test exemptions because of interviews for admission to professional or graduate schools. If you are out of town for your interview on the day of the test, this is appropriate. It is not, appropriate, however, to request exemption because you are busy preparing for interviews, projects or other tests.

Changes to the course

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 7th Ed’n, 2012
Marshall WJ
Publisher - Mosby

The 6th edition is available on the used book market. This is an acceptable text.

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 to 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