

BIOCHEMISTRY 302 - 102 : GENERAL BIOCHEMISTRY

COURSE OUTLINE

September 2016

Calendar Description

BIOC 302 - General Biochemistry (3 credits): Metabolic reactions of lipids, steroids, amino acids and nucleotides; the biochemistry of replication, transcription and translation. Credit is given for only one of BIOC 300 or 302 or 303. [3-0-1]. Prerequisite: One of BIOL 201, BIOC 202, BIOC 203 and either (a) one of CHEM 204, CHEM 213 or (b) all of CHEM 205, CHEM 233 or (c) all of PHAR 220, CHEM 233.

Instructors:

Dr. Alice Mui

Jack Bell Research Centre

Room 241, 2660 Oak Street

E-mail: Use the "Connect" email system

Lectures: Sept. 29; Oct 4, 6, 11, 13, 18, 20, 25;

Office hours: Half and hour before and after class in IRC 2

Dr. Robert Maurus (Course Administration)

Room 5458 Life Sciences Centre (2350 Health Sciences Mall)

E-mail: maurus@mail.ubc.ca

Lectures: Sept. 8, 13, 15, 20, 22, 27; Nov 1, 3, 8, 10, 15, 17, 22, 24, 29; Dec 1;

Office hours: Tue & Thur 9:30-11:30 in LSI 5458

Lecture Schedule: Tuesdays and Thursdays in IRC 2, from 8:00 AM – 9:20 AM

Dr. Maurus – Lectures: Sept. 8, 13, 15, 20, 22, 27;

Topics: Fatty Acid Oxidation and Synthesis, Cholesterol Synthesis, Lipid Transport

Dr. Mui - Lectures: Sept. 29; Oct 4, 6, 11, 13, 18, 20, 25;

Topics: Nitrogen fixation, Amino Acid Anabolism, Amino Acid Catabolism, Urea cycle, Molecules derived from amino acids.

Midterm: Thursday Oct. 27 [50% for your final grade. This exam that covers all material up to and including Oct 22]

Dr. Maurus – Sept. 8, 13, 15, 20, 22, 27; Nov 1, 3, 8, 10, 15, 17, 22, 24, 29; Dec 1;

Topics: Nucleotide Metabolism; Genes, Chromosomes, Chromatin Structure, DNA Replication and Repair; PCR, RNA and Transcription, Protein synthesis

Final Exam: TBA [50% for your final grade. This exam that covers all material from Oct 29 to Dec 3]

Problem sets: Problem sets can be found at the Bioc302 Connect course page (www.connect.ubc.ca).

Textbook: Required: Lehninger: Principles of Biochemistry (Sixth edition), Worth Publishers, 2013.

Grading: The midterm will be worth 50% of the final grade and will cover the material on Fatty Acid Oxidation and Synthesis, Cholesterol Synthesis, Lipid Transport (Dr. Maurus) and Nitrogen fixation, Amino Acid Anabolism, Amino Acid Catabolism, Urea cycle, Molecules derived from amino acids (Dr. Mui).

The final exam will be worth 50% of the final grade and will cover material on Nucleotide Metabolism, Genes, Chromosomes, Chromatin Structure, DNA Replication and Repair, PCR, RNA and Transcription, and Protein synthesis (Dr. Maurus).

Tutorials: Tutorials will begin the second week of classes (week of Sept. 12).

Teaching Assistants:

Nisha Chander
Joslyn Quick
Stephanie Cheung

IMPORTANT NOTICE REGARDING EXAMINATIONS:

Both prescribed examinations – Midterm Exam and Final Exam - are mandatory. Students who miss a midterm or final examination will have zero recorded as their mark for that exam. Students who miss the **midterm** examination because of medical problems and want to be granted a deferred midterm exam will **have to** provide a **certificate of illness** to the course chair **within 7 days** of the exam date. The treating doctor (at Student Health Service or any private clinic) is the only one who can document your illness. Any documentation has to be faxed directly from the attending doctor to the Instructor (Attn Dr. Maurus) at 604-822-5227. Deferred examinations will be written on a date set by the instructor.

Students who miss the **final** examination need to report to the dean's office in their area of study. For Science students information can be found at: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1462>

Final examination period: Students should not book airline tickets until the definitive final exam schedule has been posted, as preliminary schedules are often changed. **Final examinations are December 8-22 (inclusive).**