Biochemistry 102 (Biochemistry and Human Health)
Course Outline: Spring 2014

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Office hours will be announced by each lecturer in class. **Note that due to the large enrolment, we will adopt a policy of not answering questions regarding lecture material by email unless the answer involves a simple "yes" or "no"; instead, please make an office appointment or consult the instructor after class.**

Course materials

Unfortunately, there are no suitable textbooks available for a course of this nature. Appropriate web-based reference material will be posted on the Moodle course website instead. PowerPoint class presentations will also be posted; note that the posted materials do not represent complete lecture notes. **You are therefore expected to attend lectures and to take notes to supplement the posted material. If you miss a lecture, it will normally be your responsibility to obtain notes from someone else.**

An i>clicker is required for this course. The second generation i>clicker model is available through the Bookstore. Note, however, that the first generation model is acceptable for use in this course, and these may still be available for sale in used bookstores. Alternatively, you may borrow an i>clicker from someone for use in this class as long as the owner is not enrolled in BIOC 102.

Note that all materials used in this course have been copyrighted and are the properties of the instructors. They are therefore not to be circulated or posted elsewhere without the written permission of the instructors.

General information

BIOC 102 covers contemporary issues in biomedical research and human health that are relevant to *everyone* – not just scientists. Our main goals in this course are to provide information about these issues and to encourage you to think critically when considering them. We examine key concepts in health from the perspective of diseases, what we understand about their root causes, and the prospects of curing or preventing them. Human health is a global issue. While much of what we discuss will be in the context of what we experience in industrialized societies, an important message in this course is that the experience in developing nations may be quite different. There are no university level science prerequisites for this course. However, some basic background in science will be advantageous, e.g., Biology 11 or, preferably, 12. **This course is normally not open to students who have completed, or are currently registered in, a third-year BIOC, MICR, BCMB or BIOL course. However, note that you *will* receive credit for BIOC 102 as an elective if you take upper level science courses in subsequent years.**

Lecture Topics

The scientific method and the clinical trial process
Basic cell biology; genomes, genes, and proteins

The human genome; basis for human individuality and hereditary disease; model organisms for understanding human health
Molecular or genomic medicine: its promises and controversies
The immune system; humoral and cell-mediated immune responses; allergy; transplantation immunology; autoimmunity
Cancer: cell biology, causes, consequences, treatment, and prevention
Key molecular technologies and applications (e.g., polymerase chain reaction, DNA fingerprinting, biobanks, genetic testing, DNA microarrays, and gene therapy)
Infectious diseases
Genetically modified organisms
Cloning whole animals
Stem cell technology
Molecular biology of human aging

Accessibility Statement:

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the Resource Centre for Students with a Disability (RCSD) as soon as possible. The RCSD staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations http://rcsd.uvic.ca/. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Assessment of Student Performance

(1) **Techniques to be used in assessment of student performance**:

- Grading of multiple choice and short answer exam questions (formats will be announced prior to exams)
- Class participation (see below)

(2) **Evaluation and weighting**:

Midterm examination 1 (30 minutes) - **Wednesday, January 29th**	18%
Midterm examination 2 (50 minutes) - **Wednesday, February 19th**	25%
Class participation	7%
Comprehensive final examination (3 hours):	50%

The class participation component will be based on responses to clicker questions in class. See the class participation file posted in the Course Information folder of the BIOC 102 Moodle website for procedures and policy. **Note that there will be no make-up clicker sessions.**

Revised UVic Grading Scheme (effective May 1, 2012)

Grades	Grade Point Value	Percentage	Description
A+ A A-	9 8 7	90 – 100 85 – 89 80 – 84	**Exceptional**, **outstanding** and **excellent** performance. Normally achieved by a minority of students. These grades indicate a student who is self-initiating, exceeds expectation and has an insightful grasp of the subject matter.

B+ B B-	6 5 4	77 – 79 73 – 76 70 – 72	**Very good**, **good** and **solid** performance. Normally achieved by the largest number of students. These grades indicate a good grasp of the subject matter or excellent grasp in one area balanced with satisfactory grasp in the other area.
C+ C	3 2	65 – 69 60 – 64	**Satisfactory**, or **minimally satisfactory**. These grades indicate a satisfactory performance and knowledge of the subject matter.
D	1	50 – 59	**Marginal** Performance. A student receiving this grade demonstrated a superficial grasp of the subject matter.
F	0	0-49	**Unsatisfactory** performance. Wrote final examination and completed course requirements; no supplemental.
N	0	0-49	Did not write examination or complete course requirements by the end of term or session; no supplemental. Failure to complete one or more components of student evaluation will result in a grade of "N" regardless of the cumulative percentage on other elements of the course. An N is a failing grade, and it factors into a student's GPA as O. The maximum percentage that can accompany an N on a student's transcript is 49

DEPARTMENT INFORMATION AND POLICIES

1. The Department of Biochemistry and Microbiology upholds and enforces the University's policies on academic integrity. These policies are described in the current University Calendar. All students are advised to read this section.

2. Cell phones, computers, and other electronic devices must be turned off at all times unless being used for a purpose relevant to the class. Students having a cell phone, tablet, or computer on their person during an exam will be assumed to have it for the purpose of cheating.

3. Any recordings of lectures may only be performed with written permission of the instructor, and are for personal use only. The instructor retains copyright to such recordings and all lecture materials provided for the class (electronic and otherwise); these materials must not be shared or reposted on the Internet.

4. Students are expected to be present for the midterm and final exams. Instructors may grant deferrals for midterm examinations for illness, accident, or family affliction, and students must provide appropriate documentation 48 hours after the midterm exam. The Department of Biochemistry and Microbiology considers it a breach of academic integrity for a student taking a deferred examination to discuss the exam with classmates. Similarly, students who reveal the contents of an examination to students taking a deferred examination are considered to be in violation of the University of Victoria policy on academic integrity (see current University

Calendar). Deferral of a final exam must be requested with an Academic Concession form and submitted directly to Undergraduate Records. Deferred final exams for fall term courses will be arranged by the instructor. Deferred final exams for spring term courses will be arranged through Undergraduate Records and must be written before the end of the summer term as stipulated in the University Calendar.

5. Scan sheets for multiple choice exams (bubble sheets) will not be made available for review. Therefore, in addition to filling in answers on the scan sheet, students should also circle their answers in ink on their exam.

6. Professors may refuse to review/remark exams not written in ink. In addition, requests for review/remark of a midterm exam must be made within one week of the exam being returned. Students are expected to promptly pick up midterm exams after marking has been completed, either in class or from the instructor.

7. Examination papers that have pages removed, or are mutilated will not be marked.