BIOC102
Biochemistry and Human Health
CRN 20257
Winter 2017

Class time/location: Tues., Wed., Fri., 8:30 – 9:20am, ECS 123
Instructor: Dr. Chelsea Vickers
Office hours: Tuesday and Friday 9.30-10.30 am
Room: Petch 183
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Textbook:

Since the course material is compiled from a large number of sources, including current stories in the news, there is no course textbook. Much of the source material (papers) will be provided on-line in the CourseSpaces site, and will serve as an additional resource. You will need your UVic NetLink ID and password to access this information.

Lecture Notes:

Notes will generally be made available on the CourseSpaces site prior to lectures. Notes are arranged by topic, and a single topic may span multiple lectures. ***Lecture notes are not complete***, and students will be responsible for all materials covered in the lectures.

BIOC102 course learning objectives:

This course will introduce students to the basic components and processes underlying human life. We will discuss how diseases arise when these processes are disturbed, and how drugs work to combat disease. Additionally, students will be introduced to scientific method, experimental design and critical examination of scientific results. By the end of the course, students will have sufficient knowledge to understand and analyze health science publications from the mainstream media.

iClickers:

IClickers will be used during lectures and students are expected to have a registered iClicker with them at every lecture. iClickers are an electronic polling system that uses clickers, or "remotes". Students submit responses to multiple-choice questions, and a base station captures the responses. Students can acquire iClickers from the UVic Bookstore. iClickers can be activated and updated through the student services section in My page.

More information can be found at this link:

https://www.uvic.ca/systems/services/learningteaching/iclicker/index.php

Important dates and evaluation:

EVALUATION	Date
Starting January 3	
20 % test 1	***in class*** Tuesday, January 30
5 % group project 1	***in class*** dates TBA in class
20 % test 2	***in class,*** Friday, March 9th
5 % group project 2	***in class*** dates TBA in class
50 % final exam	TBC by registers office

Grading:

A+	90 -100	**B+**	77 - 79	**C+**	65 - 69	**F**	< 50
A	85 - 89	**B**	73 - 76	**C**	60 - 64	**N ****	< 50
A-	80 - 84	**B-**	70 - 72	**D**	50 - 59		

** N grades

Students who have completed the following elements will be considered to have completed the course and will be assigned a final grade:

- ***Both tests, the final exams and at least one group project must be completed to complete this course***

Failure to complete one or more of these elements 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 0. The maximum percentage that can accompany an N on a student's transcript is 49.

Topics:

	topic	comments
		Starting Jan. 03
1	***Introduction***	What is biochemistry?
2	***Biomolecules***	Introduction to the major building blocks of cells - ***Guest Lecturer Dr. Monica Palcic.***
3	***Scientific Method***	How scientists approach a problem, and some of the common mistakes made in scientific research.
4	***Metabolism 101***	How humans break down molecules to get energy and build new molecules. Introduction to diseases associated with metabolism.
5	***Microbiology and Pathogenesis***	Introduction to bacteria. We will learn about both beneficial and harmful bacteria. Introduction to how bacteria causes disease. ***Guest Lecturer Dr. Jo Hobbs.***
6	***Cell Biology***	Basic introduction into what cells are and how they function together in a human. ***Guest lecturer Dr. Marty Boulanger.***
7	***Gene signalling and Epigenetics***	Basic introduction into the genetic code and how our environment plays an instrumental role in gene expression and regulation.
8	***Biomolecular technology and engineering***	Introduction to the technologies used in mapping the three dimensional structures of biomolecules and how these are applied in biochemistry and human health.
9	***Drug Discovery and Development***	What are the processes that scientists undergo to discover and develop drugs and what are some innovative examples of this.
10	***Diagnostics and Vaccines***	Novel strategies to detect and prevent disease. ***Guest lecturer Dr. Paul Romaniuk.***
11	***Topics of Discussion***	Presented by the class. Topics and dates for group project topics to be announced.

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. Course materials, such as notes, problem sheets, quizzes, examinations, example sheets, or review sheets, may not be redistributed without the explicit written permission of the instructor.

5. 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.

6. Multiple choice scan sheets for machine scoring (bubble sheets) are considered the authentic exam answer paper and will be retained by the department for 1 year.

7. Professors may refuse to review/remark exams not written in indelible 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.

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

9. The instructor reserves the right to use plagiarism detection software or other platforms to assess the integrity of student work."

Centre for Accessible Learning

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, approach the Centre for Accessible Learning (CAL) as soon as possible in order to assess your specific needs.
https://www.uvic.ca/services/cal/index.php

Course Experience Survey (CES)

I value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to your CES dashboard. You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device. I will remind you nearer the time but please be thinking about this important activity