

CAMOSUN COLLEGE School of Arts & Science Department

BIOL 230 Cell Biology Winter 2011

COURSE OUTLINE

1. Course Information

Course Description

An introduction to the study of structure and function of eukaryotic cells. Topics include: macromolecules, membrane structure and transport, the nucleus and gene expression, the endomembrane system and vesicular transport, secretion, endocytosis, the cytoskeleton, the cell cycle and regulation, signal transduction pathways, extra cellular matrices and cell junctions.

Time and Location

Lecture: 01A/B/C Monday, Tuesday Thursday 11:30-12:20 Room 310 Young

Lab: Section A: Friday 9:30-12:20 in Fisher 222

Section B: Tuesday 6:30-9:20 in Fisher 222

Section C: Thursday 6:30-9:20 in Fisher 222

2. Instructor Information

Instructor: William Hulbert, Ph.D.

Office hours: Mon, Tues, Thr 10:30-11:30, other times by appointment request

Office location: F-340D

Phone: 250 370-3434

e-mail: hulbertw@camosun.bc.ca

D2L: http://online.camosun.ca

3. Required Materials

(a) Textbook: Becker et al., The World of the Cell 7e

Course Content and Schedule

The following tentative schedule is subject to change if deemed necessary by the instructor. Note: mid-terms are scheduled for the first lecture of the week, unless specified otherwise.

WK	DATE (week of)	LECTURE TOPICS	TEXT CH.	LAB #	LAB TOPICS
1	Jan. 10	Macromolecules	3		Introduction, Safety
2	Jan.17	Macromolecules			Microscopes &
			3	1	Measurements
3	Jan 24	Membrane Structure & function	7	2	Equine PBL Isolation
4	Jan. 31	ECM: Cell Adhesion, Cell Junctions	17	3a	Animal Cell Culture
5	Feb. 7	MID-TERM I ECM: Cell Adhesion, Cell Junctions	17	3b	Animal Cell Culture
6	Feb. 14	DNA and the nucleus	18		Lab Exam #1
7	Feb. 21 BREAK	DNA Replication THURSDAY-FRIDAY Feb. 24,25 COLLEGE CONNECTIONS DAY	19		NO LABS
8	Feb. 28	Transcription & RNA		4a	
	100.20	Processing	21	Ψu	Phagocytosis (pt1)
9	Mar. 7	Translation & Protein Sorting	22	4b/5	Phagocytosis (pt2)/ insulin signal transduction
10	Mar. 14	MID-TERM II			
		Signal Transduction	14	6а	G-protein signal transduction (Yeast) (pt1)
11	Mar. 21	Regulation of Gene Expression	23	6b	G-protein signal transduction (Yeast) (pt2)
12	Mar. 28	Cell Cycle Regulation			Membrane Protein
			19	7	Isolation
13	Apr.4	Cell Cycle, Apoptosis etc Intracellular Compartments	14/12	8	Membrane protein SDS- PAGE
14	April 11	Intracellular Compartments	12		LAB EXAM II

Feb. 25 College Connections Day: April 22+25 are Holidays

March 14 Last day to Withdraw Exam Period April 18-21, 26-29 **Do not book flights!** Exam schedule out in Feb. Wait!!!!

5. Basis of Student Assessment

Assignments/quizzes Lab Reports	15% 15%
Exams: Midterm I Midterm II Lab Exam I Lab Exam II	15% 15% 5% 10%
Final Exam	25%

Midterms I and II, as well as the lab exams, will be unit exams. The final lecture exam will be cumulative. Please bring a pen *and* pencil to all exams.

6. Grading System

The following percentage conversion to letter grade will be used:

A+ = 90 - 100%	B = 73 - 76%	D = 50 - 59%
A = 85 - 89%	B- = 70 - 72%	F = 0 - 49%
A- = 80 - 84%	C+ = 65 - 69%	
B+ = 77 - 79%	C = 60 - 64%	

ADDITIONAL INFORMATION

General:

Be sure that you are familiar with the General Department Policies, which are stated in the lab manual. A student conduct code will also be observed.

ACADEMIC CONDUCT POLICY

There is an Academic Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.

www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html

Please note: Plagiarism will not be tolerated in any form, and may result in "0".

No programmable devices are allowed in exams.

Each student is required to sign a Laboratory Safety Contract and give it to the instructor prior to commencing laboratory work in the course.

Attendance:

You are expected to attend all classes, and be on time. It is your responsibility to acquire *all* information given during a class missed, incl. notes, hand-outs, assignments, changed exam dates etc.

Missed exams or quizzes cannot be made up except in case of documented illness (doctor's note required). Lab attendance is *mandatory*.

Do not book trips until the exam schedule is known.

Labs:

A 1% *final grade* penalty applies to any unexcused absence from lab. Frequent lates may count as an absence. Should you miss roll call at the beginning of lab, please identify yourself to the instructor as "late" or you may remain marked "absent." You need to attend labs and lab exams during your assigned section (A or B). Switching between sections on a permanent or temporary basis requires instructor's permission. Lab assignments can only be handed in for labs actually attended.

It is *absolutely* necessary to read and mentally work through each exercise before coming to lab. Otherwise you may not be able to finish on time, annoy your lab partner, or flunk a pre-lab pop quiz. Please also come prepared with a pencil and a few sheets of unlined and graph paper, in case drawings are required.

Assignments:

Unless otherwise stated, all assignments are due at the **beginning** of the lab/class of the due date. There is a **10%/day late penalty**. The format is expected to be professional, i.e. a neat, legible, clean copy. "Rough" drafts risk rejection and a subsequent late penalty. If the assignment is more than one page, **separate pages** *must be stapled* before you come to class.

Study Habits:

You will probably find Biology 100 not very difficult, but surprisingly labor-intensive. Good (and regular!!) study habits are required to do well in this course. You should plan on a *minimum* of 6 hours outside of scheduled class time for the completion of assignments and for general studying. Joining a study group can help this make more fun.

Lecture notes will be provided in power point form on D2L. These should be used as a study guide, not as your sole source of information! You will need to write down additional key words for examples and explanations given during lecture. It is also recommended practice to transcribe these notes into a study-friendly format after each lecture, incorporating additional information from your textbook. Study these notes before the next class to prepare yourself for new material, which will often build on previously covered material.

Due to time constraints, not all details can be covered in lecture, and you may be held responsible for textbook material not specifically discussed in class. Please keep up with your readings, and take advantage of office hours if you need extra clarification and help, or simply would like to discuss a topic a little further.

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Registrar's Office or the College web site at http://www.camosun.bc.ca