

# CAMOSUN COLLEGE School of Arts & Science Department

# BIOL 103 Non-Majors Biology Winter 2015 COURSE OUTLINE

## 1. Course Information

Course Description

Fundamentals of Biology in the context of contemporary issues. Topics include basic principles of biochemistry and cell biology, genetics and nutrition, animal structure and function.

Prerequisites: English 12 or assessment. Math 10 recommended.

(Students who have recently completed grade 12 Biology will notice an overlap of course content.)

Time and Location

Lecture: 01A/B/C Tuesday and Thursday Y-310 2:30-3:50.

Lab: Section A: Wednesday 9:30-12:20 in F-226

**Section B:** Thursday 9:30-12:20 in F-226

Section C: Friday 9:30-12:20 in F-226

# 2. Instructor Information

Instructor: Charles Molnar

Office hours: TBA

Office location: F-340B

Phone: 370-3449 e-mail: molnar@camosun.bc.ca PLEASE USE ONLY THIS EMAIL (NOT D2L)

## 3. Required Materials

- (a) Textbook: Campbell, 2013. Essential Biology with Physiology. 4<sup>th</sup> or 5<sup>th</sup> edition. Pearson.
  (YOU MAY USE A USED VERSION OF THIS TEXT)
- (b) BIOL 103 Laboratory Manual (A NEW MANUAL IS REQUIRED)

# 4. 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. 5	Course Introduction Scientific Method Biochemistry Basics Water & pH	1 & 2		Introduction, Safety;
1	Jan. 12	Organic Macromolecules Cell Membranes & Transport	2 &3	1+2	Metric Measurements Microscopes and cells
2	Jan. 19	Cell Biology Energetics	4	3	Organic Macromolecules
2	Jan. 26	Enzymes Photosynthesis Cellular Respiration	5	4	Diffusion & Osmosis
3	Feb.2	MID-TERM I Cell Division: Mitosis	6	5	Enzyme Lab
3	Feb. 9	Family Day/Reading Break Meiosis	8		No Lab
4	Feb. 16	Mendelian Genetics Sex-linked traits	9		Lab Exam 1
4	Feb. 23	Inheritance Patterns Human Genetics	10-13 parts	7+8 6	Genetics Lab Mitosis Lab
5	Mar. 2	Replication Protein Synthesis: Transcription/Translation Mutations	21	7+8	Genetics labs
5	Mar.9	MID-TERM II Circulation	22	9	Nutrition
6	Mar. 16	Circulation cont. Gas Exchange/Respiration	23	10	Human Anatomy
6	Mar. 23	Nutrition Digestion	24	10	Human Anatomy and Review
7	Mar. 30	Homeostasis Excretion	25		No Lab
7	April 6	Catch-up & Review			LAB EXAM 2

Family Day: No classes on Feb. 9 Reading break: No classes Feb. 12 and 13. Last day to Withdraw without academic penalty is March 9.

Exam Period: April 13-21 **Do not book flights Exam schedule is out in February.** 

## 5. Basis of Student Assessment

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

Midterms I and II, as well as the lab exams, will **be unit** exams. The final lecture exam will be **cumulative**.

## 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/Student conduct agreement 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, including 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.

#### 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 103 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 point form. 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