



CAMOSUN COLLEGE
School of Arts & Science
Department

BIOL 103 Non-Majors Biology
Winter 2014

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

005A Jan.06.2014 - Apr.12.2014

Lecture M, W 01:00PM - 02:20PM, Fisher Bldg, Room 202

Laboratory M 08:30AM - 11:20AM, Fisher Bldg, Room 224

005B Jan.06.2014 - Apr.12.2014

Lecture M, W 01:00PM - 02:20PM, Fisher Bldg, Room 202

Laboratory W 08:30AM - 11:20AM, Fisher Bldg, Room 226

006A Jan.06.2014 - Apr.12.2014

Lecture Tu 11:30AM - 12:20PM, Fisher Bldg, Room 336 W, Th 11:30AM - 12:20PM, Fisher Bldg, Room 334

Laboratory Tu 08:30AM - 11:20AM, Fisher Bldg, Room 226

006B Jan.06.2014 - Apr.12.2014

Lecture Tu 11:30AM - 12:20PM, Fisher Bldg, Room 336 W, Th 11:30AM - 12:20PM, Fisher Bldg, Room 334

Laboratory Th 08:30AM - 11:20AM, Fisher Bldg, Room 226

2. Professor Information

Professor: William Hulbert, Ph.D.

Office hours: Monday 11:30 -1:00, other times by appointment request

Office location: F-340D

Phone: 250 370-3434

e-mail: hulbertw@camosun.bc.ca

3. Required Materials

(a) Textbook: Campbell Biology Concepts and Connections 7th ed. Pearson.

(b) BIOL 103 Laboratory Manual

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	DATES INCLUDING	LECTURE TOPICS	TEXT CH.	LAB #	LAB TOPICS
1	Jan 6-10	Course Introduction Exploring Life The Chemical Basis of Life	Ch1,p9-11 Ch2,p22-29		Safety Stuff Etc.
2	Jan 13-17	The Molecules of Cells Tour of the Cell	Ch3,p34-47 Ch4,p52-70	1	Lab Tools – Microscope, balance, & pipetts
3	Jan 20-24	The Working Cell	Ch5,p74-85	2	Eukaryotic and prokaryotic cells
4	Jan 27-31	The Working Cell	Ch5,p74-85	3	Organic molecules
5	Feb 3-7	MID-TERM I CH 1 TO 5 How Cells Harvest Chemical Energy	Ch6,p88-104	4	Diffusion and Osmosis
6	Feb 10-14 NO CLASS FEB 10,13,14	The Cellular Basis of Reproduction and Inheritance Lecture Only Feb 11,12	Ch8,p126-149		No Labs All Week NO CLASS FEB 10,13,14
7	Feb 17-21	Patterns of Inheritance	Ch9,p152-178	5	Enzymes & Review Lab Exam
8	Feb 24-28	Molecular Biology of the Gene	Ch10,p180-206	Labs 1-5	Lab Exam I
9	Mar 3-7	How Genes are Controlled	Ch11,p210-217	6/7	Cell Division & Human traits
10	Mar 10-14	MID-TERM II CH 6 to 11 Nutrition and Digestion	Ch21	8	Nutrition
11	Mar 17-21	Circulation	Ch23	9/10	Human Anatomy & Physiology
12	Mar 24-28	The Immune System	Ch24	9/10	Human Anatomy & Physiology & Review Lab Exam
13	Mar 31-Apr 4	Control of Body Temperature and Water Balance	Ch25,p508-514	Labs 6-10	Lab Exam II
14	Apr 7-11	Animals Regulate Their Internal Environment	Ch20,p425-426 Ch26,p524-531		No Labs All Week

NB. The week of Feb 10 is complex. Monday is a holiday and Thursday and Friday are reading break. Tuesday and Wednesday are lecture only.

5. Basis of Student Assessment

Assignments, lab reports & 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.

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%

A = 85 - 89%

A- = 80 - 84%

B+ = 77 - 79%

B = 73 - 76%

B- = 70 - 72%

C+ = 65 - 69%

C = 60 - 64%

D = 50 - 59%

F = 0 - 49%

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, expulsion **WILL** result.

No phones, pads or 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 on time. Lectures begin at the time designated. Missed exams or quizzes cannot be made up except in the case of documented illnesses or by arrangements with the Professor. Lab attendance is **mandatory**.

Do not book trips until the final exam schedule is posted on Cam link.

Labs:

A **1% final grade penalty** applies to **any** unexcused absence from lab. Frequent lates may count as an absence. You need to attend labs and lab exams during your assigned sections (A or B). Switching between sections on a permanent or temporary basis requires the 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 to gain the full experience and thus be well prepared for the lab exams.

Assignments:

Unless otherwise stated, all assignments are due at the **beginning** of the class on the last lecture day of the week. There is a **10%/day late penalty**. Assignments can be hand written (preferred), or type written (welcomed), however, all drawings **MUST** be done by hand, **NO CUT AND PASTE**.

Study Habits:

You will probably find Biology 103 not very difficult, but surprisingly labor-intensive; that is a good thing. Good 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 and effective. The goal here is learning and the assessment tools are quizzes, assignments, lab reports and exams. **GROUPS MAKE A DIFFERENCE. PLEASE EITHER FORM ONE OR JOIN ONE.** The statistics over a decade show that those individuals that work in groups score at least a full grade higher than those that do not. Y

Lecture material is provided in many forms. You have all material available electronically through D2L. On D2L, you will find all lecture ppts, individual assessment quizzes, as well as full lecture notes. The number of exposures to the material contributes to the creation of long term memory. This is why you will have at least 4 exposures in class. This course is data intensive by Nature and repetitive on purpose.

Due to time constraints, not all details can be covered in lecture, and you will 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, 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>