



CAMOSUN COLLEGE
School of Arts & Science
Department

BIOL 103 Non-Majors Biology
Winter 2012

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: 05A/B Mon 1:00 – 2:20 in Young 201

Wed 1:00 – 2:20 in Young 201

Lab: Section A: Monday 8:30 - 11:20 in Fisher 224

Section B: Wednesday 8:30-11:20 in Fisher 226

Lecture: 06A/B Tuesday, Wednesday, Thursday 11:30 – 12:20

Tuesday & Thursday in Young 310

Wednesday in Fisher 200

Lab: Section A: Tuesday 8:30 - 11:20 in Fisher 226

Section B: Friday 9:30 - 12:20 in Fisher 244

2. Instructor Information

Instructor: Bill Hulbert, Ph.D.

Office hours: 11:00 - 12:20 on Monday
12:30 - 1:20 on Tuesday
10:30 – 11:30 on Thursday

Office location: Fisher-340D

Phone: 250-370-3434
e-mail: hulbertw@camosun.bc.ca

3. Required Materials

(a) Textbook: Audesirk, 2008. **Biology with Physiology**. 9th edition. Pearson.

(b) **BIOL 103 Laboratory Manual**

4. Course Content and Schedule

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Grading Systems

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. 9-13 | Course Introduction Scientific Method Biochemistry Basics Water & pH | 1 & 2 | | Introduction, Safety; |
| 2 | Jan. 16-20 | Organic Macromolecules Cell Membranes & Transport | 3 & 4 | 1+2 | Microscopes & Measurements Eukaryotic and Prokaryotic cells |
| 3 | Jan. 23-27 | Cell Biology Energetics | 5 & 6 | 3 | Organic Macromolecules |
| 4 | Jan.30- Feb. 3 | Enzymes Photosynthesis Cellular Respiration | 7 & 8 | 4 | Diffusion & Osmosis |
| 5 | Feb. 6-10 | MID-TERM I Cell Division: Mitosis | --- 9 | 5 | Enzymes |
| 6 | Feb. 13- 17 | Cancer Meiosis | 10 | | <u>No Lab Reading Break on Thursday and Friday</u> |
| 7 | Feb. 20- 24 | Mendelian Genetics Sex-linked Traits | 10 | | LAB EXAM I |
| 8 | Feb. 27- Mar. 2 | Inheritance Patterns Human Genetics | 11/12 | 6 | Cell Division |
| 9 | Mar. 5-9 | Replication Protein Synthesis: Transcription/Translation Mutations | 12/13 | 7 | Genetics etc. |
| 10 | Mar. 12- 16 | MID-TERM II Nutrition Digestion | --- 33 | 8 | Nutrition |
| 11 | Mar. 19- 23 | Circulation cont. Gas Exchange/Respiration | 32 | 9 | Human Organ Systems: Models |
| 12 | Mar 26-30 | Circulation | 31 | 910 | LAB EXAM 2 |
| 13 | Apr. 2-6 | Homeostasis Excretion | 34 | No Lab | No Lab |
| 14 | Apr. 9-13 | Catch-up & Review | | No Lab | No Lab |

College closed Thursday and Friday week of Feb 13-17, Good Friday week of April 2-6 and Easter Monday, week of April 9-13

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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.
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.

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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 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 power 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

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Calendar, Registrar's Office or the College web site at
<http://www.camosun.bc.ca>

| | Bill Hulbert Room 340 D Fisher | | | | |
|------|--------------------------------|----------|----------|----------|----------|
| TIME | Mon | Tue | Wed | Thu | Fri |
| 830 | Biol 103 | Biol 103 | Biol 103 | | |
| 900 | 005A | 006A | 005B | | |
| 930 | | | | | Biol 103 |
| 1000 | BH | BH | BH | | 006B |
| 1030 | | | | Office | |
| 1100 | | | | Hours | BH |
| 1130 | Office | Biol 103 | Biol 103 | Biol 103 | |
| 1200 | Hours | 006AB | 006AB | 006AB | |
| 1230 | | Office | | | |
| 100 | Biol 103 | Hours | Biol 103 | | |
| 130 | 005AB | | 005AB | | |
| 200 | | | | | |
| 230 | | | | | |
| 300 | | | | | |
| 330 | | | | | |
| 400 | | | | | |
| 430 | | | | | |
| 500 | | | | | |
| 530 | | | | | |
| 600 | | | | | |
| 630 | | | | | |
| 700 | | | | | |
| 730 | | | | | |
| 800 | | | | | |
| 830 | | | | | |
| 900 | | | | | |
| 930 | | | | | |