

 CAMOSUN COLLEGE	School of Arts & Science BIOLOGY DEPARTMENT BIOL 126 Physiological Basis of Life Fall 2009 (Sep-Dec)
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COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/biol.html>

✦ Please note: the College electronically stores this outline for five (5) years only.
It is **strongly recommended** you keep a copy of this outline with your academic records.
You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

(a)	Instructor:	Larry Anthony, PhD		
(b)	Office Hours:	Mon	1:30 PM – 2:20 PM	
		Tue	11:30 AM – 12:20 PM	
		Wed	1:30 PM – 2:20 PM	
		Thu	3:30 PM – 4:20 PM	
		Fri	11:30 AM – 12:20 PM	
(c)	Location:	F340A		
(d)	Phone:	250-370-3388	Alternative Phone:	
(e)	Email:	anthonyl@camosun.bc.ca		
(f)	Website:	http://online.camosun.ca/		

IMPORTANT NOTE: I understand that my scheduled times will not fit into everyone's class schedules.
This should not deter you from trying to visit me in my office! My schedule will be posted on my office door: I can be available at almost any time that I'm not already in class or lab. Simply arrange an appointment by phone or e-mail and I'll be very pleased to meet with you at a mutually convenient time.

2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

Upon completion of this course the student will be able to:

1. Classify and describe the unique structure and function of the four groups of macromolecules and discuss how these relate to their properties within living cells.
2. Differentiate among the various transport mechanisms available to mobilize molecules across cell membranes.
3. Name and outline the pathways utilized by cellular respiration and photosynthesis and explain the importance of these processes to living organisms.
4. Describe the basic steps of DNA replication and indicate its role in cell division and inheritance.
5. Demonstrate knowledge of the basic steps of protein synthesis, identifying the roles of DNA, mRNA, tRNA, amino acids and proteins in the processes of transcription and translation.
6. Identify and explain the principles and consequences of the cell cycle, including both mitosis and meiosis.
7. Examine the basic principles of Mendelian genetics and describe how these relate to other topics encompassed in this course.
8. Describe and explain the role of growth regulators in the control of plant growth, development and physiology.
9. Describe and explain the diversity of control mechanisms in animal systems, including the role of the endocrine and nervous systems.
10. Conduct experiment tests and use analytical techniques in the laboratory to demonstrate a few biological properties of macromolecules, cellular respiration, photosynthesis, DNA technology and plant and animal control systems.

3. Required Materials

(a) Text

Neil A. Campbell and Jane B. Reece. 2007. Biology 8th ed. Pearson Education, Inc.

(b) Other

Biology 126. Laboratory Manual. Camosun College.

4. Course Content and Schedule

(This section can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

Class Schedule:

Lectures:	Tue	4:30 PM – 5:20 PM
	Thu	4:30 PM – 5:20 PM
	Fri	12:30 PM – 1:20 PM

Lab Section A:	Tue	6:30 PM – 9:20 PM
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Lab Section B:	Fri	2:00 PM – 4:50 PM
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Course Content:

See Last Page

5. Basis of Student Assessment (Weighting)

(This section should be directly linked to the Intended Learning Outcomes.)

Lab Exam I	15%
Lab Exam II	15%
Midterm I	10%
Midterm II	15%
Final Lecture Exam	30%
Assignments/labs/quizzes	15%

Note: Lecture exams will be cumulative. Lab exams will be unit exams (i.e. not cumulative).

6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College for approval.)

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at camosun.ca for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. <i>(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)</i>
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

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, at Student Services, or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED

Plagiarism

Plagiarizing is appropriating the work of another or parts or passages of another's writing (including the ideas or language) and passing them off as the product of one's own mind or manual skill. **Plagiarism will not be tolerated.** All written material must be done individually. This includes lab data and graphs. Should two very similar reports be received, the mark will either be divided between the students or both students will forfeit their mark for that report. Plagiarism, including the copying of any part of assignments or lab reports is a serious offence and is considered to be an academic misconduct.

Cheating

A student caught cheating on an exam will forfeit all credit for that exam and perhaps for the course. Cheating is a serious offence and is considered to be an academic misconduct. Cheating includes, but is not limited to, using unauthorized materials in a quiz/exam and providing information to another person regarding exam content.

Missed Exams

All in class lecture and lab exams and the final lecture exam must be written at the scheduled time. Only in emergency circumstances (e.g. illness) may a student write an exam before or after the scheduled time. It is the student's responsibility to ensure that the instructor is notified if an exam must be missed. Such notification must occur **in advance**. The student will be required to provide **documented evidence** of the circumstance (i.e. medical certificate) in order to write a make-up exam.

Laboratory Attendance

Attendance at the entire laboratory session is mandatory and will be noted. Failure to attend the lab will result in forfeiting all credit for that lab, including any written assignments, i.e. you **may not** use another student's data to write a report for credit. The only exceptions will be in the case of emergency (e.g. illness), in which case the instructor must receive **advance notification** and **documented evidence** of the situation (e.g. medical certificate).

*** HOLIDAYS OR SCHEDULED FLIGHTS ARE NOT CONSIDERED TO BE EMERGENCIES ***

Student Responsibilities

1. Students are expected to hand in any required reports on time. Late assignments will receive a penalty of 10% per day.
2. Attendance is important to ensure success. If unable to attend a session, the student is responsible for arranging with a classmate to obtain information such as notes, handouts and announcements.
3. Examinations must be written as scheduled. Exceptions may be made for emergencies at the discretion of the instructor (see above). The student must notify the instructor in advance of the examination.
4. Any evaluation of work for in-class/lab assignments, reports and/or participation will not be given if a student is not present for any reason.
5. Students are expected to work independently on reports unless instructed that the evaluation is based on group effort and evaluation.
6. Students must know and follow all Safety Rules and Procedures. Students must sign the Safety Contract before participating in any laboratory activity. Failure to follow the Safety Rules and Procedures will result in penalties at the discretion of the instructor.
7. Students must turn off cell phones and pagers during lectures and laboratory sessions.
8. All laboratories start punctually. Information necessary for performing the laboratory correctly and safely is given at the beginning of the lab.
9. **All students must wear a lab coat during laboratory sessions.** Failure to bring a lab coat to the lab may result in being unable to work in the lab and loss of credit for the lab.

Biology 126 - Fall 2009 - Course Schedule (Note: Scheduled dates are subject to change)

Wk	Day	Mon	Lecture Topic	Ch	Lab	Lab Activity
1	Tue	8-Sep-09	Introduction to Biology 126-002A	-		NO LAB
1	Thu	10-Sep-09	Characteristics of Life	1-6		
1	Fri	11-Sep-09	Characteristics of Life	1-6		NO LAB
2	Tue	15-Sep-09	Characteristics of Life	1-6		Tools for Scientific Discovery
2	Thu	17-Sep-09	Characteristics of Life	1-6		
2	Fri	18-Sep-09	Characteristics of Life	1-6		Tools for Scientific Discovery
3	Tue	22-Sep-09	Metabolism - Introductory	8		Enzyme Activity
3	Thu	24-Sep-09	Metabolism - Introductory	8		
3	Fri	25-Sep-09	Metabolism - Introductory	8		Enzyme Activity
4	Tue	29-Sep-09	Cellular Respiration	9		Respiration
4	Thu	1-Oct-09	Cellular Respiration	9		
4	Fri	2-Oct-09	Cellular Respiration	9		Respiration
5	Tue	6-Oct-09	Cellular Respiration	9		Photosynthesis
5	Thu	8-Oct-09	Cellular Respiration	9		
5	Fri	9-Oct-09	Cellular Respiration	9		Photosynthesis
6	Tue	13-Oct-09	MIDTERM LECTURE EXAM 1			NO LAB
6	Thu	15-Oct-09	Photosynthesis	10		
6	Fri	16-Oct-09	Photosynthesis	10		NO LAB
7	Tue	20-Oct-09	Photosynthesis	10		Movement of Molecules
7	Thu	22-Oct-09	Photosynthesis	10		
7	Fri	23-Oct-09	Photosynthesis	10		Movement of Molecules
8	Tue	27-Oct-09	The Cell Membrane	7		LAB EXAM 1A
8	Thu	29-Oct-09	The Cell Membrane	7		
8	Fri	30-Oct-09	The Cell Membrane	7		LAB EXAM 1B
9	Tue	3-Nov-09	Intracellular Communication	11		Mitosis & Meiosis
9	Thu	5-Nov-09	Intracellular Communication	11		
9	Fri	6-Nov-09	Intracellular Communication	11		
10	Tue	10-Nov-09	Mitosis, Meiosis and Cell Cycle	12-13		Fruit Fly Eye Pigments (Part 1)
10	Thu	12-Nov-09	Mitosis, Meiosis and Cell Cycle	12-13		
10	Fri	13-Nov-09	Mitosis, Meiosis and Cell Cycle	12-13		
11	Tue	17-Nov-09	MIDTERM LECTURE EXAM 2			Fruit Fly Eye Pigments (Part 2)
11	Thu	19-Nov-09	Mitosis, Meiosis and Cell Cycle	12-13		
11	Fri	20-Nov-09	Inheritance	14-15		
12	Tue	24-Nov-09	Inheritance	14-15		DNA Lab (Part 1)
12	Thu	26-Nov-09	Inheritance	14-15		
12	Fri	27-Nov-09	Inheritance	14-15		
13	Tue	1-Dec-09	DNA Replication	16		DNA Lab (Part 2)
13	Thu	3-Dec-09	DNA Replication	16		
13	Fri	4-Dec-09	DNA Replication	16		
14	Tue	8-Dec-09	Gene Expression	17-18		LAB EXAM 2A
14	Thu	10-Dec-09	Gene Expression	17-18		
14	Fri	11-Dec-09	Gene Expression	17-18		LAB EXAM 2B
	Mon	11-Dec-09	FINAL EXAM PERIOD BEGINS			