



School of Arts & Science  
BIOLOGY DEPARTMENT  
BIOL 103  
Non-Majors General Biology  
Fall 2012

## COURSE OUTLINE

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

Ω 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:	Dr. Anna Colangeli		
(b)	Office Hours:	As posted on Office door		
(c)	Location:	Ewing 270		
(d)	Phone:	250-370-3459	Alternative Phone:	
(e)	Email:	colangel@camosun.bc.ca		
(f)	Website:	www.online.camosun.ca		

### 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. Describe the concept of homeostasis.
2. Explain how basic physicochemical changes can impact cell function.
3. Work in a culture of scientific endeavor and use critical thinking skills.
4. Identify the critical roles played by water in the maintenance of life on earth.
5. Explain the structures and roles of biological macromolecules, particularly carbohydrates, proteins and lipids.
6. Describe the complexity and diversity of cellular ultrastructure and the functions of significant cellular organelles, in particular chloroplasts, mitochondria, ribosomes, Golgi apparatus, cilia and flagellae.
7. Describe basic metabolism and energy producing pathways within the cell.
8. Explain the concept of the gene in the contexts of both Mendelian inheritance as well as the biochemical expression of genetic information.
9. Relate the structure of nucleic acids to the storage and replication of genetic information.
10. Explain the mechanisms used to regulate and translate genetic information into the assembly of functional proteins.
11. Describe the interactions between the environment and long-term changes in genetic information, particularly in consideration to neoplasia.
12. Describe the anatomy of the human digestive, cardiovascular and excretory systems and explain how the physiology of these organ systems is related to organization at the molecular and cellular level.
13. Describe the structure and explain the functions of the human immune system. Apply this knowledge to immune dysfunction, particularly allergies and AIDS.

### 3. Required Materials

- (a) Textbook: Audesirk, 2010. **Biology with Physiology**. Life on Earth, 9th edition. Pearson.
- (b) **BIOL 103 Laboratory Manual**

#### 4. Course Content and Schedule

<b>Lecture:</b> 006A/B Mon/Wed/Fri. 12:30 – 1:20 pm
<b>Location:</b> Monday = Wilna Thomas 102; Wednesday = Fisher 322; Friday = Fisher 202
<b>Lab: Section A:</b> Tuesday 3:30-6:20 in Fisher 226
<b>Section B:</b> Wednesday 3:30-6:20 in Fisher 226

The following tentative schedule is subject to change if deemed necessary by the instructor.

Note: mid-terms are scheduled for the **LAST** lecture of the week, unless specified otherwise.

WK	DATE (week of)	TOPIC (D) / CASE STUDY (C)	Text CH.	Lab #	LAB TOPICS (Lab #)
1	Sept. 4-7	Course Introduction Scientific Method Characteristics of Life	1		Introduction; Safety
2	Sept. 10-14	Atoms, Molecules and Life Biological Molecules	2 3	1,2	Microscopes/ Measurements & Cells
3	Sept. 17-21	Cell Membrane Structure and Function	5	3	Organic Macromolecules
4	Sept. 24-28	Energy Flow in the Life of a Cell	6	4	Diffusion/ Osmosis
5	Oct. 1-5	Harvesting Energy: Glycolysis and Cellular Respiration  MID-TERM I (FRIDAY)	8	5	Enzymes
6	Oct. 9-12	Cellular Reproduction Mitosis, Meiosis, Cancer	9		NO LAB
7	Oct. 15-19	Patterns of Inheritance Mendelian Genetics Sex-linked traits	10		LAB EXAM 1
8	Oct. 22-26	DNA Replication	11	6	Cell Division
9	Oct. 29- Nov. 2	Protein synthesis  MID-TERM II (FRIDAY)	12	7 8	Genetics (CATLAB and/or Finger Print lab)
10	Nov. 5-9	Circulation	32	9	Nutrition
11	Nov. 13-16	Respiration	33		NO LAB
12	Nov. 19-23	Nutrition and Digestion	34	10	Human Organ Systems
13	Nov. 26-30	Urinary system	35		LAB Exam 2
14	Dec. 3-7	Defense Against Disease	36		NO LAB

Thanksgiving Oct. 8 College closed  
Remembrance day Nov. 12: College closed  
Nov. 6 Last day to Withdraw

Exam Period: Dec. 10-15, 17-18 **Do not book flights!**  
Exam schedule out in October. Wait!!!!

## 5. Basis of Student Assessment (Weighting)

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

(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](http://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. (For these courses a final grade will be assigned to either the 3 <sup>rd</sup> course attempt or at the point of course completion.)
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](http://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