



CAMOSUN COLLEGE
School of Arts & Science
Department of Biology

BIOL-103-002A/B
Non-Majors General Biology
Winter 2018

COURSE OUTLINE

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

Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

(a) Instructor	W Donald MacRae
(b) Office hours	Tues (10:30-11:30), Wed (3:30-5:30), Thurs (12:30-1:30), Fri (1:00-2:00)
(c) Location	F346A
(d) Phone	250-370-3437 Alternative: _____
(e) E-mail	dmacrae@camosun.bc.ca
(f) Website	D2L

2. Intended Learning Outcomes

(If any changes are made to this part, then the Approved Course Description must also be changed and sent through the approval process.)

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

Biology 103 Coursepack (Sections 002 and 003) Winter 2018

- contains book and lab manual
- available from Camosun College Bookstore, Lansdowne campus

Internet access is required to access the course D2L website for course management and to complete assignments

4. Course Content and Schedule

Lectures: Tuesday (11:30 AM - 12:50 PM) Fisher 200

Friday (11:30 AM - 12:50 PM) Y211

Lab: Section A: Thursday, 1:30 – 4:20 PM, Fisher Rm. 226

Section B: Thursday, 9:30 AM – 12:20 PM, Fisher Rm. 226

Week	Week	Chapter	Lab Activity
1	Jan 8-12	01 Introduction	Intro / Safety / Meet and Greet
2	Jan 15-19	01 Introduction 02 Cells	1 Measurements and Equipment
3	Jan 22-26	02 Cells 03 Molecules	2 Microscopes and Cells
4	Jan 29-Feb 2	03 Molecules 04 Tissues	3 Organic Macromolecules
5	Feb 5-9	05 Movement of molecules and chemical change	4 Diffusion and Osmosis
6	Feb 12-16	Feb 12 Family Day-College Closed Feb 13-16 Reading Break	No Lab
7	Feb 19-23	06 Cell Growth and Division 07 Genetics	5 Enzymes
8	Feb 26-Mar 2	07 Genetics Exam 1	Lab Exam 1
9	Mar 5-9	08 Movement: neuromuscular actions	6 Electrocardiography
10	Mar 12-16	09 Diet, Digestion and Metabolism	7 Genetics
11	Mar 19-23	10 Circulation and respiration	8 Nutrition
12	Mar 26-30	11 Excretion and fluid balance March 30 Good Friday College Closed	No Lab
13	Apr 2-6	April 2 Easter Monday College Closed 12 Reproduction	9 Human Anatomy
14	Apr 9-13	13 Immune System	Lab Exam 2

5. Basis of Student Assessment (Weighting)

(Should be directly linked to learning outcomes.)

Tests*	15%
Lab Exam 1	10%
Lab Exam 2	10%
Lab assignments	10%
Lecture assignments	10%
Lecture group assignments*	5%
Exam 1	20%
Exam 2 (Final Exam)	20%

*Tests and some Lecture assignments will be based on work carried out in groups. If a student achieves a higher mark on Exam 1 and 2 (together) than on Tests and group assignments (together), then their Tests and Lecture group assignments categories will be eliminated and Exams 1 and 2 will count 30% each.

6. Grading System

(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)

(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)

Standard Grading System (GPA)

Competency Based Grading System

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

N/A

8. College Supports, Services and Policies



Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @

<http://camosun.ca/about/mental-health/emergency.html> or <http://camosun.ca/services/sexual-violence/get-support.html#urgent>

College Services

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/>

College Policies

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <http://camosun.ca/about/policies/>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

A. GRADING SYSTEMS <http://camosun.ca/about/policies/index.html>

The following two grading systems are used at Camosun College:

1. 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		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

B. 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 at <http://camosun.ca/about/policies/index.html> 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 are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
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.