

CAMOSUN COLLEGE School of Arts & Science Department of Biology

BIOL-103-004 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 <u>not</u> 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	Dr. Geoff Haywood		
(b) Office hours	Mon, Wed, Thurs 1.30 pm -	- 2.20 pm,	
(c) Location	Fisher 246		
(d) Phone	370 3196	Alternative:	N/A
(e) E-mail	haywoodg@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.
- Explain the structures and roles of biological macromolecules, particularly carbohydrates, proteins and lipids.
- 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.
- 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) Texts (Optional) Any good biology text book.
- (b) Other Biol 103 Lab Manual (posted on D2L)

4. Course Content and Schedule

Week	Week	Chapter	Lab Activity
1	Jan 8-12	01 Introduction	Intro / Safety / Meet and Greet
2	Jan 15-19	Water, Macromolecules	1 Measurements and Equipment
3	Jan 22-26	Cell structure	2 Microscopes and Cells
4	Jan 29-Feb 2	03 Molecules 04 Tissues	3 Organic Macromolecules
5	Feb 5-9	Cell Division Mitosis	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	Meiosis, Genetics Mendel Theory Midterm Exam 1	5 Enzymes
8	Feb 26-Mar 2	Inherited disorders Environmental effects	Lab Exam 1
9	Mar 5-9	DNA replication Protein synthesis	6 Mitosis
10	Mar 12-16	Human Physiology Respiration, Nervous System	7 Inheritance
11	Mar 19-23	Circulation and Digestion Theory Midterm Exam 2	8 Cat Lab & 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	9 Human Anatomy
14	Apr 9-13	Revision period	Lab Exam 2
	Apr 16-20	Final Exams	_

5. Basis of Student Assessment (Weighting)

- (a) Assignments 10%
- (b) Quizzes and lab reports: 10%
- (c) Exams: Theory Midterms 30%; Final Theory 30%; Lab exams 20%
- (d) Other (e.g. Project, Attendance, Group Work)

6. Grading System

X	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	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		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	
СОМ	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	Incomplete: 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	Compulsory Withdrawal: 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.

STUDENT ASSIGNMENTS

Assignments will be given out on the Friday of each week and are due in on the following Tuesday – by the end of the lecture period.

Assignments received on the day due will be marked out of 100% - but if not received until the following day will be marked out of 80%. There will be a further drop of 20% for any assignment not received until Friday. Any assignment not received by the following Wednesday (1 week after given out) will receive a zero mark.

Assignments MUST be printed as hard copies. No hand-written assignments will be accepted. Assignments will NOT be accepted as emails unless there is a serious illness involved in their tardy return – for which a doctor's note will be mandatory.

Plagiarism will NOT be tolerated. Any case will automatically disqualify the student from marks and may result in disciplinary action on the part of the college up to and including expulsion. Equally, any case of cheating during exams will be treated severely and may result in an automatic Fail grade and dismissal from the course.