



CAMOSUN COLLEGE
School of Arts & Science
Department of Biology

BIOL-103-D02AB
Non-Majors General Biology
Fall 2020

COURSE OUTLINE

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

☐ 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	Brooke Cameron, MSc., BEd.
(b) Office hours	Any time mutually convenient time (set up via e-mail)
(c) Location	N/A
(d) Phone	N/A Alternative:
(e) E-mail	cameronb@camosun.bc.ca (Please use BIOL 103 in the subject line!)
(f) Website	https://online.camosun.ca/d2l/home (D2L)

2. Intended Learning Outcomes

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) Access to Microsoft 365 Word & Excel
 - a. Free with Camosun student e-mail, go to <https://webservices.camosun.ca/o365-opt-in/>
- (b) For Book Club Project, one of the following books (your choice):
 - a. *Braiding Sweetgrass*, by Robin Wall Kimmerer
 - i. Unlimited e-versions available via Camosun library
 - ii. Hard copies for purchase at Camosun Bookstore
 - b. *The Immortal Life of Henrietta Lacks*, by Rebecca Skloot
 - i. Limited hard copies available for borrow via Camosun Library
 - ii. Hard copies for sale at Camosun Bookstore
 - iii. Limited e-versions available via Victoria Public Library
- (c) For some of the labs, some simple household kitchen materials will be needed (see D2L)

4. Course Content and Schedule

This course will be taught remotely and involves reading articles, watching videos, attending virtual tutorials and labs and completing assignments and exams to engage with the material. There will be synchronous and asynchronous activities.

Synchronous D2L Collaborate Meetings:

Labs:	Section B:	Tuesdays	1:30pm-4:20pm
	Section A:	Thursdays	1:30pm-4:20pm

Lab assignments will be posted on D2L and students are expected to be present for the first part of the synchronous lab session to confirm understanding of lab requirements. The rest of the lab period is used to aid in the completion of the assignment.

Lecture/Tutorials:	Tuesdays	11am-12:20pm
	Thursdays	11am-12:20pm

Lecture material will be posted on D2L and students are expected to read/review the material prior to the tutorial sessions. Weekly assignments will allow students to demonstrate understanding.

Important College Dates

Sept 7- Labour Day (No classes)

Sept 22- Fee Deadline Fall '20

Oct 12- Thanksgiving Day (No classes)

Oct 16- Final Exam Schedule Posted

Nov 11- Remembrance Day (No classes)

Dec 12- Last Day of Instruction

Dec 14-22 Exam Period

Table 1. BIOL 103 Course Content Schedule

Week	Dates	Lectures/Tutorials (Tues/Thurs)	Labs (Tues/Thurs)
1	Sep 7-11	Course Introductions Introduction to Biology & Science	Introductions/Partners
2	Sep 14-18	Chemistry of Life Water & pH	Lab 1: Science
3	Sep 21-25	Organic Macromolecules Cell Biology	Lab 2: Water
4	Sep 28-Oct 2	Cell Membranes & Transport Enzymes	Lab 3: Microscopes and Cells
5	Oct 5-9	Oct 6- Exam #1 Cellular Respiration	Lab 4: Diffusion
6	Oct 12-16	Mitosis Meiosis	Lab 5: Enzymes
7	Oct 19-23	Genetics Inheritance	Lab Exam #1
8	Oct 26-30	Translation Transcription	Lab 6: Mitosis
9	Nov 2-6	DNA Replication Mutations	Lab 7: Genetics
10	Nov 9-13	Nov 10- Exam #2 Gene Expression	Lab 8: Case Study of COVID-19
11	Nov 16-20	Histology Homeostasis & Nutrition	Lab 9: Nutrition
12	Nov 23-27	Digestive System	Lab 10: Human Anatomy and Physiology
13	Nov 30-Dec 4	Respiratory System Circulatory System	Review/Wrap up
14	Dec 7-11	Urinary System Immune System	Lab Exam #2
15	Dec 14-22	FINAL EXAM PERIOD (Exam #3 Date and Time TBA)	

5. Basis of Student Assessment (Weighting)

(a) Assignments

Weekly Lab Assignments	25%
Lecture Assignments	10%

(b) Exams

Lecture Exam #1 (Oct 6)	10%
Lecture Exam #2 (Nov 10)	10%
Lecture Exam #3 (TBA)	15%
Lab Exam #1 (Oct 19-23)	10%
Lab Exam #2 (Dec 7)	10%

(c) Other

Book Club Project	10%
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6. Grading System

Standard Grading System (GPA)

Competency Based Grading System

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

Student Expectations in this Course:

- Attendance:
 - Students are expected to attend virtual collaborate sessions twice weekly (tutorials)
 - Students unable to attend are encouraged to review the recorded sessions
 - Students are required to write the quizzes/exams on their scheduled date (no exceptions)
- Assignment Submissions:
 - Students are expected to submit all work on time via D2L
 - **Late submissions will receive a 10% deduction** for every day they are past due
- Academic Honesty
 - It is the student's responsibility to review the school's policy on cheating/plagiarizing to ensure they do not act dishonestly in this course. See the [School of Arts & Science Academic Honesty Guidelines](#)
 - Students caught cheating or plagiarizing (whether accidental or on purpose) will have a permanent record sent to the Dean, and be academically penalized according to the guidelines
 - **Having ANYONE other than the student create or write an assignment/exam will result in an immediate zero on the assessment piece and may be removed from the course/college**
- Work Ethic
 - Students are expected to reach out to the instructor if there is any confusion or concern regarding the course schedule or its content, and to keep up with content
- Group Work
 - All group work will be marked with one single grade, with the assumption that all students have reviewed the work and contributed equally

See D2L "Content Page" entitled "Start Here" for greater detail regarding assessment in this course, expectations, and instructor details.

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.