



CAMOSUN COLLEGE
School of Arts & Science
Department of Biology

BIOL-103-D03AB
Non-Majors General Biology
Winter 2021

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
(b) Office hours	9:30am-11am Mondays-Thursdays
(c) Location	Online via Collaborate (e-mail to set up appointment)
(d) Phone	-- Alternative: --
(e) E-mail	Cameronb@camosun.bc.ca
(f) Website	https://online.camosun.ca/d2l/home

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) All lecture resources will be available on D2L in the format of **PowerPoint slides**, which will be used for weekly lectures (available for download/printing), along with additional resources
- (b) Access to **Microsoft 365 Word & Excel** is a requirement for the lab component. It is free with Camosun student e-mail, go to <https://webservices.camosun.ca/o365-opt-in/>
Contact IT support if you have issues: <http://camosun.ca/services/its/contact.html>
- (c) For students eager to read, the **recommended textbook** is OpenStax Concepts of Biology, 1st Canadian Edition. It is available for FREE online: <https://opentextbc.ca/biology/>
- (d) Some labs require the use of common household supplies. Please see lab instructions on D2L
- (e) Students **MUST** be aware of **Academic Honesty Guidelines**, due to the severity of cheating and plagiarism for a college level online course: <http://camosun.ca/learn/school/arts-science/images/Arts%20and%20Science%20Academic%20Honesty%20Guidelines.pdf>

4. Course Content and Schedule

- (a) Lectures: Mondays and Wednesdays from 11am-12:20pm via Collaborate (D2L)
 - (i) Each week, there will be two scheduled “live” lectures on Collaborate that cover that week’s course content PowerPoint slides
 - (ii) Attendance for the live lectures is not a requirement, but *highly encouraged*
 - (iii) The **lectures will be recorded** and are expected to be reviewed by students who missed live sessions
- (b) Labs: Section A Monday from 1:30pm-2:30pm via Collaborate (D2L)
Section B Wednesday from 1:30pm-2:30pm via Collaborate (D2L)
 - (i) Each week, students will attend their section’s lab sessions to receive brief explanations and instructions regarding the weekly lab assignment
 - (ii) **Students are required to attend lab sessions, as they are NOT recorded**

5. Basis of Student Assessment (Weighting)

- (a) Weekly Lecture Quizzes (10%)
- (b) Weekly Lab Assignments (25%)
- (c) Lecture Exams
 - (i) Lecture Exam #1 (10%)
 - (ii) Lecture Exam #2 (15%)
 - (iii) Lecture Exam #3 (15%)
- (d) Lab Exams
 - (i) Lab Exam #1 (12.5%)
 - (ii) Lab Exam #2 (12.5%)

Details Regarding Assessment:

- (a) Weekly Lecture Assignments (10%)
- (i) Lecture assignments will mainly be in **D2L quiz format** and will cover that week's content
 - (ii) Quizzes are open-book and the use of the PowerPoint slides is encouraged
 - (iii) Quizzes will be available at the start of each week and close the following **Monday at 5pm (no late submissions accepted)**
 - (iv) Each quiz allows for **2 attempts**, with your highest grade being kept (a missed submission will count as a zero for that week)
- (b) Weekly Lab Assignments (25%)
- (i) Each week, there will be a lab session to explain the lab requirements (**attendance required**)
 - (ii) Some weeks, assignments will be in the form of **D2L tutorial quizzes** (these are always do be done individually)
 - (iii) Other weeks, assignments will include at-home lab experiments and **written reports**
 - (iv) **Labs are always due Mondays at 5pm** the following week, regardless of when your lab session takes place
 - (v) Written assignments are allowed to be submitted **ONE day late with a 10% penalty but will not be accepted after that**. Quizzes are always due by 5pm on Monday, **no exceptions**
- (c) Lecture Exams (40% across three exams)
- (i) All lecture exams are in the form of **D2L quizzes**
 - (ii) All lecture exams are **open-book**, meaning course notes (PowerPoint Slides) are allowed
 - (iii) All lecture exams are available from **9AM to 12:30PM** on the day they are scheduled (see page 4 for schedule), and are limited to **2 hours**
 - (iv) If you are CAL student and require extra time, please contact your instructor at least one week before the exam date to allow for your accommodations
 - (v) Lecture exams 2 and 2 are NOT cumulative
- (d) Lab Exams (25% across two exams)
- (i) All lab exams are in the form of **D2L quizzes**
 - (ii) All lab exams are **open-book**, meaning lab assignments and course notes are allowed to be reviewed during the exam
 - (iii) All lab exams are available from **1:30pm-5:30pm** on the day they are scheduled (see page 4), and are limited to **2 hours**
 - (iv) If you are CAL student and require extra time, please contact your instructor at least one week before the exam date to allow for your accommodations
 - (v) Lab exams are NOT cumulative and are strictly based on lab material

Course Schedule for BIOL 103 D03AB Winter 2021

Week	Dates	Lectures (Mon/Wed)	Text Chapter	Labs (A:Mon B:Wed)	Lab Format
1	Jan 11-15	Course Introductions Biology & Science	1.1 & 1.2	Introduction & Partners	Individual discussion post
2	Jan 18-22	Chemistry & Water	2.1 & 2.2	Lab 1: Science and Graphs	Individual D2L tutorial and written assignment
3	Jan 25-29	Macromolecules & Cells	2.3 3.1-3.3	Lab 2: Properties of Water	At-home experiments and written assignment
4	Feb 1-5	Cell Transport & Enzymes	3.4-3.6, 4.1	Lab 3: Microscopes and Cells	Individual D2L tutorial
5	Feb 8-12	EXAM 1 (Mon, Feb 8) Cellular Respiration	4.2-4.4	Lab 4: Diffusion & Osmosis	At-home experiments and written assignment
6	Feb 15-19	NO CLASSES/LABS FAMILY DAY AND READING WEEK			
7	Feb 22-26	Mitosis & Meiosis	6.2, 6.3 7.2, 7.3	Lab 5: Enzymes	At-home experiments and written assignment
8	Mar 1-5	DNA Replication & Protein Synthesis	9.1-9.4	LAB EXAM 1	D2L Exam
9	Mar 8-12	Mutations & Genetics	8.1-8.3	Lab 6: Mitosis	Individual D2L tutorial
10	Mar 15-19	Gene Expression & Histology	9.5 --	Lab 7: Genetics	Written assignment
11	Mar 22-26	EXAM 2 (Mon, Mar 22) Homeostasis & Nutrition	16	Lab 8: COVID-19	Individual D2L tutorial
12	Mar 29-Apr 2	Digestive & Respiratory Systems	11.2 11.3	Lab 9: Nutrition & Anatomy Part 1	Individual written assignment and D2L tutorial
13	Apr 5-9	Circulatory & Urinary Systems	11.3 & 11.1	Lab 10: Anatomy Part 2	Individual D2L tutorial
14	Apr 12-16	Immune System	12.2-12.4	LAB EXAM 2	D2L Exam
	Apr 19-27	EXAM 3 TBA - Exam Period			

6. Grading System

- Standard Grading System (GPA)
- Competency Based Grading System

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

- (a) The **D2L course page** will contain all the required materials regarding course content. See “Start Here” under “Content” to familiarize yourself with how the D2L website is organized
- (b) If certain concepts or assignments require further support, students are encouraged to seek help from the **Biology Help Center**, a free tutoring service offered by Camosun College:
<http://camosun.ca/services/help-centres/science-help.html>
- (c) Other useful support services offered by Camosun:
 - (i) Counselling Centre: <http://camosun.ca/services/counselling-centre/>
 - (ii) Mental Health and Wellbeing: <http://camosun.ca/about/mental-health/students.html>
 - (iii) Technology Support: <http://camosun.ca/services/its/>

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, Student Ancillary Fees, Academic Integrity, Grade Review & Appeals, Student Misconduct and Academic Accommodations for Students with Disabilities 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.