

# COURSE SYLLABUS



COURSE TITLE: BIOL-103: Non-Majors General Biology

CLASS SECTION: 002AB

TERM: Fall 2023

COURSE CREDITS: 3

DELIVERY METHOD(S): In Person

Camosun College campuses are located on the traditional territories of the Ləkʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here.

Learn more about Camosun's [Territorial Acknowledgement](#).

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For COVID-19 information please visit <https://legacy.camosun.ca/covid19/index.html>.

*Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.*

## INSTRUCTOR DETAILS

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NAME: Brooke Cameron

EMAIL: [cameronb@camosun.ca](mailto:cameronb@camosun.ca)

OFFICE: Fisher 246

HOURS: Mondays and Wednesdays, 11-11:30am and 3:00pm-4:30pm or by appointment

*As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.*

## CALENDAR DESCRIPTION

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This course is for the student interested in learning about the basics of the structure and function of living beings. Topics include cell biology, human anatomy and physiology, basic principles of biochemistry, genetics and nutrition.

### PREREQUISITE(S):

One of:

- C in English 12
- C in Camosun Alternative

### CO-REQUISITE(S):

Not Applicable

### EXCLUSION(S):

Not Applicable

## COURSE LEARNING OUTCOMES / OBJECTIVES

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Upon completion of this course a 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.

## REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

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- a) **Lecture PowerPoint slides** (content for lecture exams)
  - i. Available on D2L, along with additional resources
  - ii. Printing and bringing the slides to each lecture is highly recommended
- b) **BIOL 103 Lab Manual 2023** (content for lab exams)
  - i. Available for purchase at Campus Bookstore, or available for download & print on D2L
  - ii. Students are expected to pre-read the lab and complete pre-lab questions prior to each lab
- c) **Microsoft Word and Excel** (required for lab assignments)
  - i. A FREE version of Microsoft 365 is available to Camosun students:  
<https://webservices.camosun.ca/o365-opt-in/>
  - ii. Contact IT support if you have issues: <http://camosun.ca/services/its/contact.html>
- d) **Biology Colouring Book** (helpful, not required)
  - i. Available for e-colouring printing on D2L
  - ii. Printed copies will soon be available at Campus Bookstore
- e) **Open Stax Biology 1<sup>st</sup> Canadian Edition** (helpful, not required)
  - i. Free to access and print: <https://opentextbc.ca/biology/>
  - ii. Printed copies of select chapters available for purchase at Campus Bookstore

## COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

The following schedule and course components are subject to change with reasonable advance notice.

**Lectures:**      002AB              Mondays                              1:30pm-2:50pm              F266  
                          002AB              Wednesdays                              1:30pm-2:50pm              F268

**Labs:**              002A              Tuesday                              9:30am-12:20pm              F226  
                          002B              Tuesday                              1:30pm-4:20pm              F226

Week	Dates	Lecture Topic/Activity	Textbook	Tuesday Labs
1	04-Sep	<i>No Lecture- Holiday</i>		<i>No Labs (Holiday Monday)</i>
	06-Sep	1- Biology	1.1	
2	11-Sep	2- Science	1.2	Lab 1- Science & Data
	13-Sep	3- Chemistry	2.1	
3	18-Sep	4- Water & pH	2.2	Lab 2- Water & pH
	20-Sep	5- Macromolecules	2.3	
4	25-Sep	6- Cell Biology	3.2 & 3.3	Lab 3- Microscopes & Cells
	27-Sep	7- Membranes & Transport	3.4 – 3.6	
5	02-Oct	<i>No Lecture- Holiday</i>		<i>No Labs (Holiday Monday)</i>
	04-Oct	8- Enzymes	4.1	
6	09-Oct	<i>No Lecture- Holiday</i>		<i>No Labs (Holiday Monday)</i>
	11-Oct	<b>Lecture Exam #1 (Modules 1-7)</b>		
7	16-Oct	9- DNA Replication	9.1 & 9.2	Lab 4- Osmosis
	18-Oct	10- Protein Synthesis	9.3 & 9.4	
8	23-Oct	11- Mutations		Lab 5- Enzymes
	25-Oct	12- Mitosis	6.1-6.3	
9	30-Oct	13- Meiosis	7.1-7.3	<b>LAB EXAM #1 (12.5%)</b>
	01-Nov	14- Genetics I	8.1 & 8.2	
10	06-Nov	14- Genetics II	8.3	Lab 6- Cell Cycle and Cancer
	08-Nov	<b>Lecture Exam #2 (Modules 8-14)</b>	4.2-4.4	
11	13-Nov	<i>No Lecture- Holiday</i>		<i>No Labs (Holiday Monday)</i>
	15-Nov	15- Cellular Respiration		
12	20-Nov	16- Homeostasis & Nutrition	11.1	Lab 8- Nutrition & Digestion
	22-Nov	17- Histology & Digestive System	11.2	
13	27-Nov	18- Urinary System	11.1	Labs 9 and 10 - Anatomy
	29-Nov	19- Respiratory System	11.3	
14	04-Dec	20- Circulatory System	11.3	<b>LAB EXAM #2 (12.5%)</b>
	06-Dec	21- Immune System	12.3-12.4	
11-19 Dec		<b>Lecture Exam #3 (Modules 15-21)</b>		

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced notice is required. Deadlines can be reviewed on the [CAL exams page](http://camosun.ca/services/accessible-learning/exams.html). <http://camosun.ca/services/accessible-learning/exams.html>

## EVALUATION OF LEARNING

DESCRIPTION	WEIGHTING
Pre- and In-Class Activities	5%
Lecture and Lab Assignments	30%
Lecture Exam #1- Wednesday, Oct 11 <sup>th</sup>	12.5%
Lecture Exam #2- Wednesday, Nov 8 <sup>th</sup>	12.5%
Lecture Exam #3- Date TBA	15%
Lab Exam #1- Tuesday, Oct 31 <sup>st</sup>	12.5%
Lab Exam #2-Tuesday, Dec 5 <sup>th</sup>	12.5%
<b>TOTAL</b>	<b>100%</b>

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the [Grade Review and Appeals](http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf) policy for more information. <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

### Details of Assessment:

#### **Pre- and In-Class Activities (5%)**

Pre-lecture and pre-lab activities typically involve a small (5-20 minute) amount of preparatory work to be done prior to arrival to better engage in the material of the day. In-lecture and in-lab activities typically act as learning opportunities, with major weighting to participation and completion. Students are expected to attend all lectures and labs, so a missed activity will result in a missed grade.

#### **Lecture and Lab Assignments (30%)**

All assignments are typically done outside of class time, so students can fine tune and fully complete their work. Assignments must be submitted on time for prompt grading and return (late work is not accepted). Submissions are expected to be neat and legible with all key course information (full name, course, section, date) at the top of the document and should be completed solely by the student themselves unless otherwise stated.

#### **Lecture Exams (40%)**

Lecture exams 1 and 2 will take place during regular lecture hours and are closed-book and non-cumulative. Final exam will take place during exam period and will be primarily non-cumulative. DO NOT book travel before learning the exam schedule. More details on the format and content later in the course.

#### **Lab Exams (25%)**

Lab exams take place during regular lab hours and are strictly on lab materials. Lab Exams are non-cumulative and are hands-on in nature. More details on the format and content can be found within the Lab Manual.

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the [Grade Review and Appeals](#) policy for more information.

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

## COURSE GUIDELINES & EXPECTATIONS

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### Weekly Habits

This course is FUN but full of content. Missed lectures/labs and poor study habits can lead students struggling in the course. To do well, time management is key. Come to each lecture and lab prepared, having pre-read the material and reviewed any relevant resources. Check D2L weekly for updates and communications. Mark your calendars with important dates and deadlines listed in this outline and look ahead to what is due as you progress. Submit ALL assignments. These habits will help you through your academic career.

### Office Hours

Students are *highly* encouraged to visit office hours throughout the term to better acquaint themselves with the course and its instructor (they take place right after lecture!). Office hours are a great chance to check in, review assignment details, tests, or content, get time management strategies and study tips, or just say hi. Students who check in typically gain accountability with the course and their grade demonstrates this. Promise you will come say hi AT LEAST ONCE this term!

### Cheating and Plagiarism

In this science-based course, many students struggle with the amount of content covered. When completing assignments, cheating and plagiarism are more likely to occur as students lack the confidence to complete their work on their own. The consequences for cheating and plagiarism are outlined by Camosun College policies (see <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf>). Please reach out if you need support BEFORE it becomes an academic integrity issue!

### Science Help Center

If a student is ever confused or uncertain about a concept or assignment and wanted outside help, the science help center offers *free tutoring* in biology, chemistry, and physics! A great place to confirm your assignments and graphs, study, and get to find study groups. View their hours via <https://camosun.ca/services/academic-supports/help-centres/science-help-centre>

## STUDENT RESPONSIBILITY

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Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

## SUPPORTS AND SERVICES FOR STUDENTS

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Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

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Academic Advising

<http://camosun.ca/advising>

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Accessible Learning

<http://camosun.ca/accessible-learning>

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Counselling

<http://camosun.ca/counselling>

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Career Services	<a href="http://camosun.ca/coop">http://camosun.ca/coop</a>
Financial Aid and Awards	<a href="http://camosun.ca/financiaid">http://camosun.ca/financiaid</a>
Help Centres (Math/English/Science)	<a href="http://camosun.ca/help-centres">http://camosun.ca/help-centres</a>
Indigenous Student Support	<a href="http://camosun.ca/indigenous">http://camosun.ca/indigenous</a>
International Student Support	<a href="http://camosun.ca/international/">http://camosun.ca/international/</a>
Learning Skills	<a href="http://camosun.ca/learningskills">http://camosun.ca/learningskills</a>
Library	<a href="http://camosun.ca/services/library/">http://camosun.ca/services/library/</a>
Office of Student Support	<a href="http://camosun.ca/oss">http://camosun.ca/oss</a>
Ombudsperson	<a href="http://camosun.ca/ombuds">http://camosun.ca/ombuds</a>
Registration	<a href="http://camosun.ca/registration">http://camosun.ca/registration</a>
Technology Support	<a href="http://camosun.ca/its">http://camosun.ca/its</a>
Writing Centre	<a href="http://camosun.ca/writing-centre">http://camosun.ca/writing-centre</a>

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

#### COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

##### Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](#) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started:

<http://camosun.ca/services/accessible-learning/>

##### Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

##### Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

##### Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

### Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

### Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

### Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the “Attendance” section under “Registration Policies and Procedures” (<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.

### Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

### Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun’s Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student’s right to choose what is right for them. For more information see Camosun’s Sexualized Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf> and [camosun.ca/sexual-violence](http://camosun.ca/sexual-violence). To contact the Office of Student Support: [oss@camosun.ca](mailto:oss@camosun.ca) or by phone: 250-370-3046 or 250-3703841

### Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College’s Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College’s expectations of academic integrity and student behavioural conduct.

**Changes to this syllabus:** Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.