

COURSE SYLLABUS



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

CLASS SECTION: RH04

TERM: 2024F

COURSE CREDITS: 3

DELIVERY METHOD(S): In-person

Camosun College respectfully acknowledges that our campuses are situated on the territories of the Lək̓ʷəŋən (Songhees and Kosapsum) and WSÁNEĆ peoples. We honour their knowledge and welcome to all students who seek education here.

INSTRUCTOR DETAILS

NAME: Jennifer Putland, PhD

EMAIL: putlandj@camosun.ca (please note: emails answered M-F between 8am and 4pm)

OFFICE: Fisher 248D

HOURS: Tuesdays 5-6 pm in Fisher 248D (email prior to confirm). Meetings are also possible at Belmont Secondary School and over Zoom (please email to set up a time).

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

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):

- C in English 12 and/or
- C in a Camosun Alternative

CO-REQUISITE(S): Not Applicable

EQUIVALENCIES: BIOL 100

COURSE LEARNING OUTCOMES / OBJECTIVES

Upon completion of this course a student will be able to:

Describe the concept of homeostasis.

Explain how basic physicochemical changes can impact cell function.

Work in a culture of scientific endeavor and use critical thinking skills.

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.

Describe basic metabolism and energy producing pathways within the cell.

Explain the concept of the gene in the contexts of both Mendelian inheritance as well as the biochemical expression of genetic information.

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.

Describe the interactions between the environment and long-term changes in genetic information, particularly in consideration to neoplasia.

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.

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

PowerPoint slides (primary content for lecture exams)

- i. Available only on our D2L website (<http://online.camosun.ca/>), along with additional resources
- ii. Pre-reading slides and associated resources and bringing slides to each lecture is crucial for success

b. BIOL 103 Lab Manual 2024/2025 (primary content for lab exams)

- i. Available for purchase at Campus Bookstore or can be printed from our D2L website
- ii. Pre-reading and completing pre-lab quizzes prior to each lab is a graded component of the course

c. Microsoft Word and Excel (required for some lab assignments) Installation before 1st lab is required

- i. FREE version of Microsoft 365 is available to students: <https://webservices.camosun.ca/o365-opt-in/>
- ii. Contact IT support during first week if you have issues: <http://camosun.ca/services/its/contact.html>

d. Recommended (not required): Open Stax Biology 1st Canadian Edition textbook

- i. Free to access and print: <https://opentextbc.ca/biology/>
- ii. Printed copies of select chapters available for purchase at Campus Bookstore

e. Recommended (not required): Biology Colouring Book

- i. E-colouring and printing access on D2L, available to 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, as deemed appropriate by the instructor.

Lectures:	Belmont A312	T & Th every second F	10:28-11:50 am 9-10:08 am
Labs:	Fisher 226	T	6-8:50 pm

DATE	ACTIVITY or TOPIC	CHAPTER	LAB
10 Sep.	Overview		Lab 1
12 Sep.	1-Biology	1.1	
17 Sep.	2-Science	1.2	Lab 2
19 Sep.	3-Chemistry	2.1	
20 Sep.	4-Water and pH	2.2	
24 Sep.	5-Macromolecules	2.3	Lab 3
26 Sep.	6-Cell Biology	3.2, 3.3	
1 Oct.	7-Membranes and Transport	3.4-3.6	
3 Oct.	8-Enzymes	4.1	
4 Oct.	Review		
8 Oct.	Lecture Exam #1 (Units 1-7)		Lab 4
10 Oct.	9-DNA Replication I	9.1, 9.2	
15 Oct.	9-DNA Replication II		
17 Oct.	10-Protein Synthesis	9.3, 9.4	
18 Oct.	11-Mutations		
22 Oct.	12-Mitosis	6.1-6.3	Lab 5
24 Oct.	13-Meiosis I	7.1-7.3	
29 Oct.	13-Meiosis II		Lab Exam #1
31 Oct.	14-Genetics I	8.1-8.3	
1 Nov.	14-Genetics II		
5 Nov.	Review		Lab 6
7 Nov.	Lecture Exam #2 (Units 8-14)		

DATE	ACTIVITY or TOPIC	CHAPTER	LAB
12 Nov.	15-Cellular Respiration I	4.2-4.4	Lab 7 (not at Camosun)
14 Nov.	15-Cellular Respiration II		
15 Nov.	16-Homeostasis and Nutrition	11.1	
19 Nov.	17-Histology and Digestive System	11.2	Lab 8
21 Nov.	18-Urinary System	11.1	
26 Nov.	19-Respiratory System	11.3	Lab 9
28 Nov.	20-Circulatory System	11.3	
29 Nov.	21-Immune System	12.3, 12.4	
3 Dec.	Review		Lab Exam #2
5 Dec.	Lecture Exam #3 (Units 15-21)		

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](https://camosun.ca/services/academic-supports/accessible-learning/academic-accommodations-exams). <https://camosun.ca/services/academic-supports/accessible-learning/academic-accommodations-exams>

EVALUATION OF LEARNING

DESCRIPTION	WEIGHTING
Lecture Quizzes	5%
Pre-Lab Quizzes	5%
Lab Assignments	20%
Lecture Exam #1	14%
Lecture Exam #2	14%
Lecture Exam #3	14%
Lab Exam #1	14%
Lab Exam #2	14%
	TOTAL 100%

Lecture Quizzes

Throughout the course there will be lecture quizzes that will engage students with the course content and test their understanding and communication skills.

Pre-Lab Quizzes

Students will need to complete a pre-lab quiz in D2L prior to the lab to demonstrate that they have read and understood the lab procedures and content. Quizzes will be open-book. No late submissions are accepted.

Lab Assignments

Lab assignments are due one week after the lab. Late submissions will be accepted at a penalty of 10% per day late. Note that late lab assignments will not be accepted once marked assignments have been returned to the class. Lab assignments must be completed and submitted in lab groups (3-4) and one grade will be provided. If your group submits a lab that is not neat and legible, then the lab assignment may receive reduced marks or be rejected.

Exams

Exams are not cumulative. Lecture exams are based on lecture notes/slides, while lab exams are based on the lab manual and lab assignments (calculators are required for lab exams). All exams are closed-book and the use of phones, smart watches, or other electronic devices during exams is NOT permitted. A missed exam that is not accompanied by acceptable documentation (i.e. medical note), will result in a grade of zero. Travel, holidays, flights, events, and work are not considered to be acceptable reasons for missing an exam. It will be at the instructor's discretion whether to administer a make-up exam or adjust the student's grade weighting.

COURSE GUIDELINES & EXPECTATIONS

Lecture Attendance

Lecture attendance is expected for students to do well in this course. Arriving on-time and with a copy of the slides/notes is crucial for success. Reviewing the available resources to prepare is highly encouraged. If a lecture is missed, students must check D2L and the course outline to see what material must be reviewed.

Lab Attendance

Reviewing the lab procedures prior to the lab and arriving on-time for your lab is crucial for success in the laboratory component of the course. It is in your best interest to arrive on time for the lab as each lab begins with a short pre-lab orientation. If you miss a lab for a legitimate reason (e.g., illness), notify your instructor as soon as possible. Note: **No more than 3 labs can be missed** before a student will be given a failing grade in the course (see Laboratory Attendance Policy). In lab, you are required to wear closed shoes, tie long hair back, and wash hands before leaving the lab. There is absolutely no eating (including chewing gum) or drinking in the lab.

Study Habits

This course is content-heavy and students will need to stay on top of the material if they are to do well. Visiting office hours and/or the science help centre (<https://camosun.ca/services/academic-supports/help-centres/science-help-centre>) are highly encouraged, as is the formation of study groups to review material with peers. It is recommended to invest at least 6 hours per week for studying and completion of course assignments.

Academic Integrity

“Academic integrity is the commitment to and demonstration of honest and ethical behaviour in an academic setting. It is the performance of all academic work without cheating, plagiarizing, lying, stealing, inappropriately collaborating, falsifying information, or receiving unauthorized assistance from any other person or using any source of information not appropriately authorized or attributed.” Academic Misconduct includes, “obtaining an academic advantage dishonestly through conduct such as cheating or plagiarism.” (Camosun Policy). The consequences of Academic Misconduct are outlined in Camosun College policies (see <https://camosun.ca/sites/default/files/2021-05/e-1.13.pdf>). Please reach out if you need support BEFORE you submit work that involves an academic misconduct issue. We are here to ensure that you understand the rules and regulations of the college and maintain your academic integrity.

SCHOOL OR DEPARTMENTAL INFORMATION

Laboratory Attendance Policy

To pass the course, students are required to meet the minimum in-person lab attendance, participation, and completion requirements. Students who will miss a laboratory session have an obligation to seek out concessions directly from their instructor BEFORE the lab period occurs. If a student misses a total of three or more labs for any reason, they will be unable to meet the learning outcomes for the class and will receive a failing grade (F) for the course, regardless of marks received on graded lab and lecture components. Please note that if you are suffering from a serious medical illness that prevents you from participating in this course, Camosun College has a Compassionate Medical Withdrawal Policy (<https://camosun.ca/services/forms#medical>)

STUDENT RESPONSIBILITY

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

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 camosun.ca/services.

Support Service	Website
Academic Advising	camosun.ca/services/academic-supports/academic-advising
Accessible Learning	camosun.ca/services/academic-supports/accessible-learning
Counselling	camosun.ca/services/health-and-wellness/counselling-centre
Career Services	camosun.ca/services/co-operative-education-and-career-services
Financial Aid and Awards	camosun.ca/registration-records/financial-aid-awards
Help Centres (Math/English/Science)	camosun.ca/services/academic-supports/help-centres
Indigenous Student Support	camosun.ca/programs-courses/iecc/indigenous-student-services
International Student Support	camosun.ca/international
Learning Skills	camosun.ca/services/academic-supports/help-centres/writing-centre-learning-skills
Library	camosun.ca/services/library
Office of Student Support	camosun.ca/services/office-student-support
Ombudsperson	camosun.ca/services/ombudsperson
Registration	camosun.ca/registration-records/registration
Technology Support	camosun.ca/services/its
Writing Centre	camosun.ca/services/academic-supports/help-centres/writing-centre-learning-skills

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.

Academic Integrity

Students are expected to comply with all College policy regarding academic integrity; which is about honest and ethical behaviour in your education journey. The following guide is designed to help you understand your responsibilities: <https://camosun.libguides.com/academicintegrity/welcome>
Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.13.pdf> for Camosun's Academic Integrity policy and details for addressing and resolving matters of academic misconduct.

Academic Accommodations for Students with Disabilities

Camosun College is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging appropriate academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a documented disability and think you may need accommodations, you are strongly encouraged to contact the Centre for Accessible Learning (CAL) and register as early as possible. Please visit the CAL website for more information about the process of registering with CAL, including important deadlines: <https://camosun.ca/cal>

Academic Progress

Please visit <https://camosun.ca/sites/default/files/2023-02/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 <https://camosun.ca/sites/default/files/2021-05/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <https://camosun.ca/registration-records/tuition-fees#deadlines>.

Grading Policy

Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

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 (see

[Medical/Compassionate Withdrawals policy](#)). Please visit <https://camosun.ca/services/forms#medical> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence

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 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 Policy: <https://camosun.ca/sites/default/files/2021-05/e-2.9.pdf> and camosun.ca/services/sexual-violence-support-and-education.

To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-370-3841

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 <https://camosun.ca/sites/default/files/2021-05/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

Looking for other policies?

The full suite of College policies and directives can be found here: <https://camosun.ca/about/camosun-college-policies-and-directives>

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.

