

# COURSE SYLLABUS



COURSE TITLE: BIOL-090: Biology for Post-Secondary Preparation

CLASS SECTION: 002

TERM: Winter 2022

COURSE CREDITS: 4

DELIVERY METHOD(S):

**In-person lectures:** Lansdowne Campus, Fisher building room 266 (Mondays), room 100 (Thursdays)

**Lecture:** Mondays and Thursdays 8:30 to 9:50am

**Lab Section A:** Tuesdays 9:30am to 12:20am; **Lab Section B:** Tuesdays 1:30 to 4:20pm

Labs are held on Lansdowne Campus, Fisher building room 226

Online activities, assignments, and study tools will be provided on our D2L course page

Camosun College campuses are located on the traditional territories of the Lək̓ʷəŋən 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.*

See Important Dates for all college closures: <https://camosun.ca/events/important-dates/2021-22>

## LECTURE INSTRUCTOR DETAILS

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NAME: Dr. Megan Lewis

EMAIL: [LewisM@camosun.bc.ca](mailto:LewisM@camosun.bc.ca)

OFFICE: Fisher Building, room **250D** (Lansdowne Campus)

OFFICE HOURS: Mondays and Thursdays 10:00am to 11:30am

Or by request – please email ([LewisM@camosun.bc.ca](mailto:LewisM@camosun.bc.ca))

Please include your **full name, student number, and course and section number** in your email

*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.*

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## CALENDAR DESCRIPTION

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Learners will gain an understanding of basic life processes and acquire the human biology theoretical and laboratory foundations required for successful transition to first-year post-secondary majors biology courses, including anatomy and physiology. Learners will discuss animal and plant cellular structure and function, the mechanisms underlying cell reproduction, gene expression and energy production, and the anatomy and physiology of whole animals. As a preparatory course, an emphasis will be placed upon teaching learning skills effective for studying biology.

### 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 successful completion of this course, a student will be able to meet the following learning outcomes as outlined in the 2018-19 BC ABE Articulation Guide (<http://www.bctransferguide.ca/search/abe>):

1. Explain the roles for the various molecules and macromolecules in cellular function;
2. Explain the structure and functions of cells and subcellular structures and compartments;
3. Describe the cellular and molecular processes of cell division, including mitosis, meiosis, DNA replication and gene expression;
4. Describe the cellular and molecular requirements for cell metabolism and the processes of cellular respiration, photosynthesis and carbon fixation;
5. Use the principles of Mendelian inheritance to solve genetics problems;
6. Using examples, explain how human body systems are under controlled by mechanisms of homeostasis;
7. Explain how and why the human body is organized at the cellular, tissue and organ levels;
8. Describe the structure and function of the digestive, cardiovascular, respiratory, endocrine, renal and reproductive systems;
9. Demonstrate effective use of laboratory reagents, equipment and microscopes;
10. Demonstrate the ability to accurately collect and process data in the laboratory setting;
11. Communicate experimental results, interpretations and conclusions effectively, including through formal lab reports.

## REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

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- 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) **Microsoft Word and Excel** is required for completing laboratory assignments
  - i. A FREE version of Microsoft 365 is available to all Camosun students, go to <https://webservices.camosun.ca/o365-opt-in/>
  - ii. Contact IT support if you have issues: <http://camosun.ca/services/its/contact.html>

- c) Hard copy of **BIOL 103 Lab Manual 2021** is a requirement for all lab sessions
- Available for purchase at Campus Bookstore, or
  - Available for download and print on our D2L website
  - Labs must be read and pre-lab questions must be completed prior to arrival for lab sessions
- d) Recommended textbooks (NOT a requirement)
- Open Stax Biology 2e** is free to access: <https://openstax.org/details/books/biology-2e>
    - Printed copies of select chapters available for purchase at Campus Bookstore

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

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The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

WEEK	TOPIC	LABS
1 (Jan. 10-14)	Module 1: Intro and Scientific Method	Introductions
2 (Jan 17-21)	Module 2: Chemistry of Life and Macromolecules	1: Science, Data, and Graphs
3 (Jan. 24-28)	Module 3: Cell Structure and Function	2: Water and pH
4 (Jan. 31- Feb. 4)	Module 4: Cellular Respiration and Photosynthesis	3: Microscopes and Cells
5 (Feb. 7-11)	Review: Monday <b>EXAM 1: Thursday (February 10)</b>	4: Diffusion and Osmosis
6 (Feb. 14-18)	Module 5: Mitosis and Meiosis	5: Enzymes
7 (Feb. 21-25)	Reading Week – No Lectures	Reading Week – No Labs
8 (Feb. 28- Mar. 4)	Module 6: Genetics Module 7: Transcription and Translation	<b>LAB EXAM 1</b>
9 (Mar. 7-11)	Module 8: Gene Control	6: Cell Cycle and Cancer
10 (Mar. 14-18)	Review: Monday <b>EXAM 2: Thursday (March 17)</b>	7: Genetics
11 (Mar. 21-25)	Module 9: Homeostasis and Urinary System	8: Nutrition
12 (Mar. 28-Apr. 1)	Module 10: Digestive System	10: Anatomy
13 (Apr. 4-8)	Module 11: Circulatory and Respiratory System	<b>LAB EXAM 2</b>
14 (Apr. 11-15)	Module 12: Reproductive System	No Lab
15 (Apr. 18-22)	<b>Final Exam Period – Date will be announced</b>	No Lab

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 noticed is required. Deadlines scan 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

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DESCRIPTION	WEIGHTING	1
Lab Quizzes	5%	
Lab Assignments	20%	
Lab Exam 1	12.5%	
Lab Exam 2	12.5%	
Lecture Quizzes/Assignments	15%	
Lecture Exam 1	10%	
Lecture Exam 2	10%	
Lecture Final Exam	15%	
	<b>TOTAL</b>	100%

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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### Lecture Attendance

Aside from the first week of classes, attendance will NOT be required for lectures. EXAMS are the only exception- students MUST attend exams, no exceptions.

### Laboratory Attendance

Laboratory attendance for this course is mandatory. It is expected that students will read and prepare for each lab BEFORE arrival. Lateness in arriving, failure to attend the lab or leaving the lab before its scheduled finish time will result in forfeiting credit for that lab, including any written assignments.

### Written Assignments

All assignments must have the following information in the top right corner of the page: full name, course, section, and date. Failure to have this information on the first page may result in loss of marks. A **professional format** is expected, i.e. a neat, legible, clean copy. "Rough" drafts risk rejection and a subsequent late penalty or reduced marks. If the assignment is more than one page, separate pages **must be stapled**.

Unless otherwise stated, all assignments are due at the beginning of the lab/class of the due date. Late assignments will **not** be accepted after a one-day grace period (10% penalty).

### Missed Lecture Exams

All lecture exams must be written at the scheduled times. However, it is understood that emergency circumstances occur (e.g. illness or emergency in the immediate family); for such circumstances accommodation may be offered at the discretion of the instructor, provided the student:

- (a) notifies the instructor **in advance** of the exam (not after), and
- (b) provides documented evidence of the circumstance (i.e. medical documentation).

In the event of emergency circumstances, it is at the instructor's discretion whether to administer an oral or written make-up exam.

***\* HOLIDAYS OR SCHEDULED FLIGHTS ARE NOT CONSIDERED TO BE EMERGENCIES \****

Be sure not to make travel plans for the end of semester until the final exam schedules are finalized and posted. Please ask any family members who might make travel plans on your behalf to consult you before booking tickets.

### Missed Lab Exams

Without exception, all lab exams must be written at the scheduled times. Lab exams differ from lecture exams in their formatting and the fact that they cover lab content in a non-cumulative manner. Due to the nature of our shared lab space with other courses, lab exams cannot be made up outside of our regularly scheduled lab time. In the event of emergency circumstances (see lecture exam), it is up to the instructor whether an oral exam may be scheduled.

### Cheating & Plagiarism

Cheating is a serious offence and is considered to be academic misconduct. A student caught cheating on an exam, quiz, or assignment will forfeit all credit for that submission, as well as have a note sent to the Dean. Cheating includes but is not limited to:

- (a) using unauthorized materials or resources in a quiz/exam (including cell phones and smart watches),
- (b) providing information to another person regarding exam content

Plagiarizing is appropriating the work of another person (including the ideas or language) and passing them off as your own (see <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.1.pdf>). For example, having a classmate "help" by seeing and copying their work is a serious form of plagiarism and will result in forfeit all credit for that submission, as well as have a note sent to the Dean.

Except where work is assigned to a group, all written work, **including lab data processing** and graphs, must be done individually.

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>).

### Student Safety

Consider the following laboratory safety practices:

Lab footwear	<ul style="list-style-type: none"><li>• For safety reasons <b>WorkSafeBC</b> mandates that students are <b>required</b> to wear closed shoes in all lab times. Flip flops, sandals or shoes with holes are not acceptable.</li></ul>
Eating & drinking	<ul style="list-style-type: none"><li>• Absolutely <b>NOTHING</b> may be ingested while in the lab. Chewing gum and applying makeup or lip balm are similarly prohibited.</li><li>• If something must be consumed, then it may be taken out of the lab.</li></ul>
Hair	<ul style="list-style-type: none"><li>• Long hair must be tied back securely</li></ul>
Hand washing	<ul style="list-style-type: none"><li>• Hands should be thoroughly washed <b>BEFORE</b> leaving the lab.</li></ul>

### Study Habits

Regular study habits are required to do well in this course. You should plan on a minimum of 3 hours outside of scheduled class time for the completion of assignments and for general studying. Joining a study group can help make this more fun.

Lecture notes will be posted on D2L in PowerPoint form. It is highly recommended that students print them out (3 to a page) and bring them to each lecture (or have them in front of them as they watch recordings). These slides should be used as a study guide, not as your sole source of information. You will need to write down additional key words for examples and explanations given during lecture and watch recommended videos to really solidify your understanding. It is also recommended practice to transcribe these notes into a study-friendly format after each lecture, incorporating additional information from your textbook. Study these notes before the next class to prepare yourself for new material, which will often build on previously covered material.

**Please take advantage of office hours to check-in, have a chat, or clarify a concept or assignment. It makes a world of difference.**

## SCHOOL OR DEPARTMENTAL INFORMATION

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### 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.

## 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/>.

Academic Advising	<a href="http://camosun.ca/advising">http://camosun.ca/advising</a>
Accessible Learning	<a href="http://camosun.ca/accessible-learning">http://camosun.ca/accessible-learning</a>
Counselling	<a href="http://camosun.ca/counselling">http://camosun.ca/counselling</a>
Career Services	<a href="http://camosun.ca/coop">http://camosun.ca/coop</a>
Financial Aid and Awards	<a href="http://camosun.ca/financialaid">http://camosun.ca/financialaid</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

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### 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](http://camosun.ca/services/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.