

COURSE SYLLABUS



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

CLASS SECTION: D01A, D01B

TERM: Fall 2021

COURSE CREDITS: 4

DELIVERY METHOD(S): Online (synchronous labs; asynchronous lectures)

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](#).

For COVID-19 information please visit <https://camosun.ca/about/covid-19-updates>

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

NAME: Laura Biggs (lectures, D01B lab); Megan Lewis (D01A lab)

EMAIL: BiggsL@camosun.bc.ca; LewisM@camosun.bc.ca

OFFICE: Laura – Fisher 352; Megan – Fisher 250D

HOURS*: Laura – Tuesdays 4:30-5:30pm, Fridays 10:30-11:30am (both online on Collaborate)

Megan – Mondays 3:30-4:30pm, Wednesdays 3:30-4:30pm (both at Lansdowne campus)

*Other meeting times can be arranged on campus or online if these times don't fit with your schedule.

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

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

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

(a) **Recommended Textbook:**

Biology 2e, Openstax by Rice University, available to view or download for free at <https://openstax.org/details/books/biology-2e>.

(b) **Lab Resources:**

- i) Lab procedures and related assignments will be posted on D2L prior to each scheduled lab. Please read each lab procedure BEFORE each online lab session.
- ii) Some labs require use of basic household items. You will be informed of this in advance.

(c) **Lecture Resources:**

Lectures are asynchronous; there is no scheduled meeting day/time but there are specific activities that must be completed each week. Lecture notes will be posted on the course D2L website as PowerPoint files, along with additional resources and activities.

(d) **Technology Requirements:**

- i) A reliable device (e.g. laptop, tablet) with reliable internet access is required to access online course materials, attend virtual classes, and work on/submit labs or other assignments. Your device must have audio/speakers and a microphone (a webcam is optional). Your device must be able to download and save files, upload and attach files, view videos, and send email.
- ii) Microsoft Word and Excel are required for completing lab assignments. A FREE version of Office 365 is available for all students: <https://legacy.camosun.ca/services/its/other-services.html>.
- iii) Camosun has created a guide to help you prepare to study online: <https://camosun.ca/services/student-orientation/online-learning>
- iv) The Camosun Library has a limited number of laptops and WiFi hotspots available for borrowing.

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: D01AB Asynchronous No set day/time Online

Labs: D01A Tuesday 9:30am-12:20pm Online
D01B Tuesday 1:30pm-4:20pm Online

WEEK #	DATES	LECTURE TOPICS	LAB TOPICS
1	Sept. 7-10	Module 1: Intro & Scientific Method	Lab Introduction
2	Sept. 13-17	Module 2: Chemistry of Life and Macromolecules	Lab 1: Science, Data, & Graphs
3	Sept. 20-24	Module 3: Cell Structure and Function	Lab 2: Properties of Water
4	Sept. 27-Oct. 1	Module 4: Cellular Respiration and Photosynthesis	Lab 3: Microscopes and Cells
5	Oct. 4-8	LECTURE MIDTERM #1	Lab 4: Macromolecules
6	Oct. 11-15	Module 5: Mitosis & Meiosis	Lab 5: Diffusion & Osmosis
7	Oct. 18-22	Module 6: Genetic Inheritance	Lab Exam Review
8	Oct. 25-29	Module 7: Transcription & Translation	LAB EXAM #1
9	Nov. 1-5	Module 8: Gene Control	Lab 6: Enzymes
10	Nov. 8-12	LECTURE MIDTERM #2	Lab 7: Genetics
11	Nov. 15-19	Module 9: Homeostasis & Urinary System	Lab 8: Mitosis
12	Nov. 22-26	Module 10: Digestive System	Lab 9: Nutrition
13	Nov. 29-Dec. 3	Module 11: Circulation & Respiration	Lab 10: Human Anatomy
14	Dec. 6-10	Module 12: Reproductive System	LAB EXAM #2
	Dec. 13 - 21	FINAL EXAM (Date and time scheduled by College Registrar)	

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 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
Lecture Quizzes	10%
Lecture Assignments	10%
Lab Assignments	20%
Lecture Midterm Exam #1 (Week of October 4)	10%
Lecture Midterm Exam #2 (Week of November 8)	10%
Lecture Final Exam (Dec 13-21, TBA)	15%
Lab Exam #1 (October 19)	12.5%
Lab Exam #2 (November 30)	12.5%
TOTAL	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](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>

Notes about evaluation methods:

- Lecture Quizzes on D2L are open-book and use of the PowerPoint slides is encouraged. There will be one quiz for each of the 12 course modules. Quizzes will be available by the beginning of each week and due the following Monday at 11:59pm (**no late submissions accepted**). Each quiz allows for **2 attempts**, with your highest grade of the two being kept. A missed submission will result in a grade of zero for that quiz.
- Lecture Assignments will be posted online, with normally one assignment per course module. These assignments must be completed **individually**. Assignments will be available by the beginning of each week and due the following Monday at 11:59pm. Like the quizzes, these assignments are intended to keep you on track with the course material. Therefore, **late submissions are not accepted** and will result in a grade of zero.
- Lab Assignments will be posted online prior to each lab period and will be due the following Monday at 11:59pm, unless otherwise specified by the instructor. Some labs will have individual assignments and some labs will have group assignments. Late assignments will be graded but marks equivalent to **10%** of the total value of the assignment will be deducted for each day past the deadline, including weekends. Late assignments will not be accepted once marked assignments have been returned to the class.
- Lecture Midterms are written online during Weeks 5 and 10 and are NOT cumulative, whereas the Final Exam takes place during the final exam period (as scheduled by the College Registrar) and IS cumulative. These exams are strictly based on lecture content and are timed open-book exams.
- Lab Exams take place during regular lab hours (Weeks 7 and 13) and are NOT cumulative. These exams are strictly based on lab content and are timed open-book exams. You will need a calculator for these exams.

COURSE GUIDELINES & EXPECTATIONS

Lecture Component

The lecture component of this course is **asynchronous**, meaning there are no scheduled classes to attend. The lecture content is divided into 12 modules that you will work through independently on a weekly basis. Each module has a set of learning objectives, a set of PowerPoint notes, and additional resources/activities to be completed by the end of the week. Although you may work through the lecture material and activities on your own time throughout the week, it is important to stay on track to meet assignment/quiz deadlines - this is NOT a self-paced course.

Laboratory Component

Labs will “meet” in the virtual Collaborate classroom at the scheduled times (Section A is Tuesdays at 9:30am, Section B is Tuesdays at 1:30pm). Lab attendance for this course is **mandatory**. It is expected that students will read and prepare for each lab BEFORE the scheduled lab period. 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. Exceptions can be made **at the instructor’s discretion** in legitimate cases of emergency (e.g. significant illness); in such cases the instructor must receive **advance notification** to grant approval for any accommodation.

Assignments

All assignments must be submitted to D2L in the requested format, according to the instructor’s criteria. A **professional format** is expected, i.e. a neat, legible, clean copy. “Rough” drafts risk rejection and a subsequent late penalty or reduced marks.

All assignments are due at the specified due date and time (generally Mondays at 11:59pm). As described on the previous page, late lecture assignments will not be accepted, and late lab assignments will be accepted with a penalty of **10% per day**, including weekends. Late assignments will not be accepted once marked assignments have been returned to the class.

This course involves a mixture of individual assignments and group assignments. **Group work is required for this course**. Should you not contribute sufficiently to your lab group assignments, your group is expected to omit your name from the group submission. In this case, you will receive a zero on the lab. You cannot complete group assignments alone.

Plagiarism

You are encouraged to discuss assignments with your classmates, however, **individual assignments must be your own individual work – beware of plagiarism**.

Plagiarizing is appropriating the work or parts or passages of another’s writing (including the ideas or language) and passing them off as the product of one’s own mind or manual skill (see <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.1.pdf>).

Except where work is assigned to a group, all written work must be done individually. Plagiarism is a serious offence and is considered to be academic misconduct, and **will not be tolerated**. A student caught plagiarizing will forfeit all credit for the assignment and a note will be sent to the Dean regarding the student’s behaviour.

Missed Exams

All exams must be written as scheduled. 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 **acceptable documentation** of the circumstance where possible (i.e. medical documentation).

In the event of emergency circumstances, it is at the instructor's discretion whether to administer a make-up exam or allocate the marks to a future exam.

**** HOLIDAYS, SCHEDULED FLIGHTS, AND WORK ARE NOT CONSIDERED TO BE EMERGENCIES ****

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

Cheating

A student caught cheating on an exam will forfeit all credit for that exam and perhaps for the course. Cheating is a serious offence and is considered to be academic misconduct. Cheating includes but is not limited to:

- (a) using unauthorized materials or resources in a quiz/exam, and
- (b) providing information to another person regarding exam content.

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>) and penalties may be severe.

Study Habits

Good (and regular!!) study habits are required to do well in this course. You should plan on a minimum of 6 hours per week for the completion of lecture activities (e.g. readings, videos), assignments and quizzes, and for general studying. Joining a study group can help make this more fun.

Lecture notes will be posted on D2L in PowerPoint form. These should be used as a study guide, not as your sole source of information. You will need to write down additional information from the other lecture resources and readings assigned each week. It is also recommended practice to transcribe these notes into a study-friendly format after each week, incorporating additional information from your textbook. Study these notes before the next week to prepare yourself for new material, which will often build on previously covered material.

Please take advantage of office hours if you need assistance with course material or assignments.

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 <http://camosun.ca/students/>.

Academic Advising	http://camosun.ca/advising
Accessible Learning	http://camosun.ca/accessible-learning
Counselling	http://camosun.ca/counselling
Career Services	http://camosun.ca/coop
Financial Aid and Awards	http://camosun.ca/financialaid
Help Centres (Math/English/Science)	http://camosun.ca/help-centres
Indigenous Student Support	http://camosun.ca/indigenous
International Student Support	http://camosun.ca/international/
Learning Skills	http://camosun.ca/learningskills
Library	http://camosun.ca/services/library/
Office of Student Support	http://camosun.ca/oss
Ombudsperson	http://camosun.ca/ombuds
Registration	http://camosun.ca/registration
Technology Support	http://camosun.ca/its
Writing Centre	http://camosun.ca/writing-centre

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](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. To contact the Office of Student Support: 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.



(<https://www.amoebasisters.com/parameciumparlorcomics/cancelled-biology-reality-shows>)