

COURSE SYLLABUS



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

CLASS SECTION: B01A & B01B

TERM: Summer 2024

COURSE CREDITS: 3

DELIVERY METHOD(S): Blended: Online asynchronous lectures and in-person labs

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

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

INSTRUCTOR DETAILS

NAME: Laura Biggs

EMAIL: BiggsL@camosun.ca

OFFICE: Fisher 352, Lansdowne Campus

HOURS: Mondays & Wednesdays 4:00-5:00pm (online - Zoom)

Tuesdays & Thursdays 9:30-10:00am and 5:00-5:30pm (in person - Fisher 352)

(Other meeting times can be arranged by appointment 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):

One of: C in English 12; C in Camosun Alternative

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

Concepts of Biology, 1st Canadian Edition is a free online textbook: <https://opentextbc.ca/biology/>
(Printed copies of select chapters are available for purchase at Lansdowne Campus Bookstore)

(b) Lab Resources

i) *Biology 090 Lab Manual* is **REQUIRED** and available for purchase at Lansdowne Campus Bookstore.
(Labs must be read and pre-lab questions must be completed prior to arrival at each lab session.)

ii) Microsoft Word and Excel are **REQUIRED** for completing lab assignments. A FREE version of Microsoft 365 is available to all Camosun students, go to <https://camosun.ca/services/its/software-other-services>. Contact IT support if you have issues: <http://camosun.ca/services/its/contact.html>.

(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 and work on/submit labs or other assignments. Your device must be able to download and save files, upload and attach files, view videos, and send email.

ii) Camosun has created a guide to help you prepare to study online:
<https://camosun.ca/services/student-orientation/online-learning>

iii) The Camosun Library has a limited number of laptops and WiFi hotspots available to borrow.

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:	B01AB Asynchronous	No set day/time	Online
Labs:	B01A Tuesdays and Thursdays	10:30am-1:20pm	Fisher 224, Lansdowne
	B01B Tuesdays and Thursdays	6:00pm-8:50pm	Fisher 224, Lansdowne

WEEK #	DATES	LECTURE TOPICS	LAB TOPICS
1	July 2-7	Module 1: Intro & Scientific Method Module 2: Chemistry of Life and Macromolecules	Course Introduction (July 2) Lab 1: Science & Data (July 4)
2	July 8-14	Module 3: Cell Structure and Function Module 4: Cellular Respiration and Photosynthesis	Lab 2: Water and pH (July 9) Lab 3: Microscopes and Cells (July 11)
3	July 15-21	LECTURE MIDTERM #1 Module 5: Mitosis & Meiosis	Lab 4: Osmosis (July 16) Lab 5: Enzymes (July 18)
4	July 22-28	Module 6: Genetic Inheritance Module 7: Transcription & Translation	Lab Exam Review (July 23) LAB EXAM #1 (July 25)
5	July 29-Aug 4	Module 8: Gene Control LECTURE MIDTERM #2	Lab 6: The Cell Cycle & Cancer (July 30) Lab 7: Genetics (Aug 1)
6	Aug 5-11	Module 9: Homeostasis & Urinary System Module 10: Digestive System	Lab 8: Nutrition & Digestion (Aug 6) Labs 9&10: Anatomy Part I & II (Aug 8)
7	Aug 12-18	Module 11: Circulation & Respiration Module 12: Reproductive System	Lab Exam Review (Aug 13) LAB EXAM #2 (Aug 15)
	Aug 20-22	LECTURE 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 (x 12)	10%
Lecture Assignments (x 12)	10%
PreLab Questions and Lab Completion (x 10)	5%
Lab Assignments (x 10)	20%
Lecture Midterm Exam #1 (Week of July 15)	10%
Lecture Midterm Exam #2 (Week of July 29)	10%
Lab Exam #1 (July 25)	10%
Lab Exam #2 (August 15)	10%
Lecture Final Exam (TBD)	15%
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](#) 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 zero grade.

PreLab Questions and Lab Completion: Each lab will have questions to complete in the lab manual PRIOR to arrival to the lab session. Before leaving each lab, manuals will be checked by the instructor for completion and accuracy.

Lab Assignments are due at the beginning of the next lab period, unless otherwise specified by the instructor. 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 Midterm Exams take place online during Weeks 3 and 5 and are NOT cumulative, whereas the **Lecture Final Exam** takes place online 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. The instructor will provide more information regarding allowable exam materials.

Lab Exams take place in person during regular lab hours. These are closed-book exams strictly based on lab content and are NOT cumulative. The use of phones, smart watches, or other electronic devices during lab exams is NOT permitted and will result in a zero on the exam.

COURSE GUIDELINES & EXPECTATIONS

Lecture Component

The lecture component of this course is **asynchronous**, meaning there are no scheduled lecture 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, suggested readings, and additional resources/activities to be completed by Monday of the following 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. Please refer to the schedule on Page 3 of this syllabus to see which module(s) to study each week.

Laboratory Component

In order to pass the course, students are required to meet the minimum lab attendance, participation, and completion requirements:

- Laboratory activities involve practical application of your knowledge as well as development of lab techniques and manual skills. Development of these skills is a requirement to meet the Course Learning Outcomes. Meeting Course Learning Outcomes is a requirement for gaining credit in the course, as well as ensuring pre-requisite and transferability standards are met.
- Laboratory activities are in-person activities; attendance and participation is **mandatory**. Online alternatives are NOT available.
- Laboratory attendance will be monitored by a sign-in sheet in the lab. It is the student's responsibility to record their attendance using this sheet. Attendance from the sign-in sheet will be transferred to D2L by your instructor. It is the student's responsibility to monitor their attendance progress.
- Arriving late to the lab may result in a missed opportunity to sign in.

Guidelines for missed labs:

- Students who miss a laboratory session have an obligation to seek out concessions directly from their instructor in a timely manner, BEFORE the lab period begins. If notification is provided AFTER the lab period begins, concessions may not be available.
- If a student misses up to three (3) laboratory sessions, they are still eligible to meet the Learning Outcomes for the course. Concessions offered for the first three (3) missed laboratory sessions will depend on the reason for the laboratory absence and is at the instructor's discretion. Concessions may include writing up the laboratory report with provided data or omitting the lab.
- **If a student misses a total of four (4) or more laboratory sessions for ANY reason** (including but not limited to: life circumstances, significant illness or family/pet emergency, planned vacations, family events, work commitments, childcare or eldercare commitments, competitive athletic events), they will be unable to meet the Course Learning Outcomes and will receive a **failing grade (F) in the course**, regardless of marks received on graded lecture and lab components. Exceptions will only be considered through an academic concession granted by the instructor or Dean/Associate Dean.
- This guideline applies to laboratory activities only; for missed Lab Exams please see the "Missed Exams" section on the following page.
- Please note that if you are suffering from a serious medical illness that prevents you from fully participating in the course, Camosun College has a Compassionate Medical Withdrawal Policy (<https://camosun.ca/services/forms#medical>).

Assignments

All assignments must be submitted 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; in general, lecture assignments are due Mondays at 11:59pm and lab assignments are due at the start of the following lab. As described earlier, 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.

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.

Except where work is assigned to a group, all written work must be done individually. Plagiarism is a serious offence that is considered to be academic misconduct and **will not be tolerated**. A student caught plagiarizing will forfeit all credit for the assignment and documentation will be sent to the Chair and Dean for their records. Please visit the link to the Academic Integrity Policy later in this syllabus for more information.

Missed Exams

All exams must be written at the scheduled times. However, it is understood that emergency circumstances occur (e.g. severe illness or emergency in the immediate family); for such circumstances accommodation may be offered at the discretion of the instructor, provided the student notifies the instructor **in advance** of the exam (not after).

In the event of emergency circumstances, it is at the instructor's discretion whether to administer a make-up exam or adjust exam grade weighting accordingly.

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

Be sure not to make travel, work, or other personal 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 with 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's Academic Integrity policy.

Student Safety

The following laboratory safety practices are required to participate in all laboratory activities. Students must sign a safety contract in the first lab and follow all safety rules and procedures.

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

Study Habits

Good (and regular!!) study habits are required to do well in this course. Regularly check D2L for updates and other communication. Mark your calendar with the important dates and deadlines from this syllabus to help you stay on track, and frequently look ahead so you can plan for upcoming exams or due dates. 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. It is recommended to set aside specific study times in your weekly schedule to help with time management. These habits will help you throughout your academic career.

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](#) (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

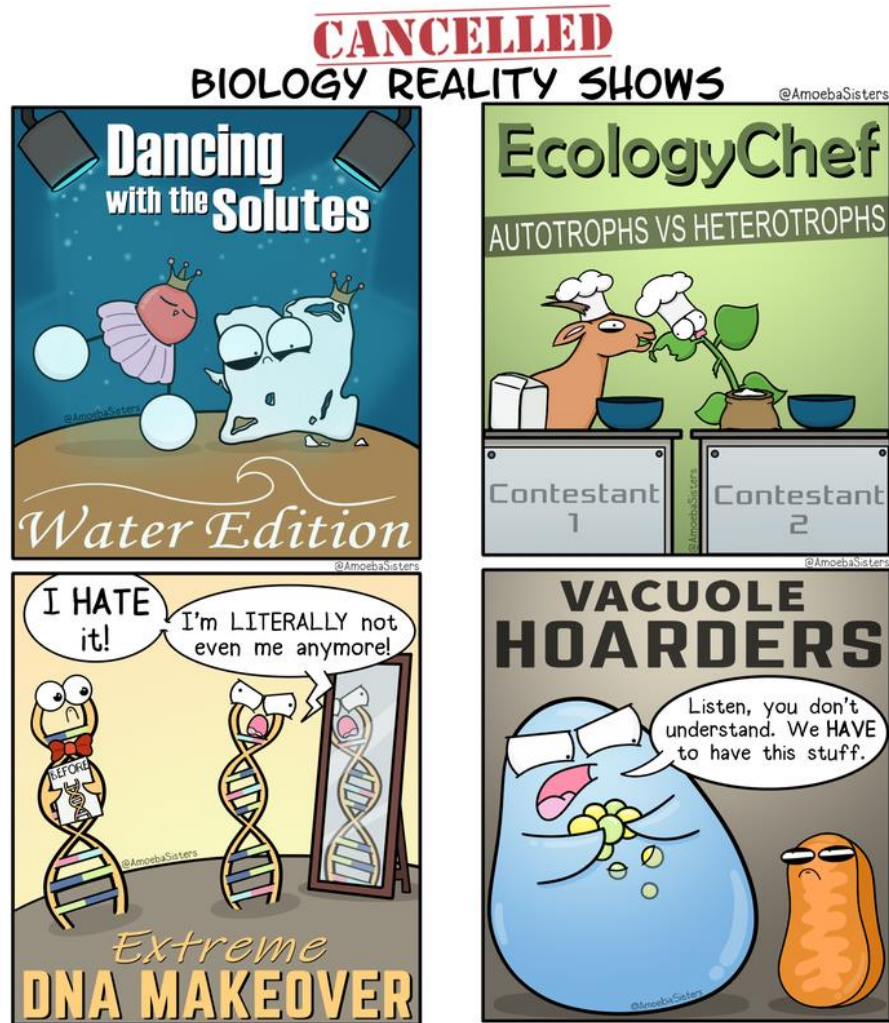
Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun’s Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. 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.amoebasisisters.com/parameciumparlorcomics/cancelled-biology-reality-shows>)