

COURSE SYLLABUS



COURSE TITLE: BIOL-124-Evolution and Diversity

CLASS SECTION: 02AB

TERM: 2024F

COURSE CREDITS: 3

DELIVERY METHOD(S): In-Person

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

INSTRUCTOR DETAILS

NAME: **Brooke Cameron, MSc., BEd.** (*you can call me Brooke*)

EMAIL: cameronb@camosun.ca (*I answer e-mails within 24h, Monday-Friday, 8am-4pm*)

OFFICE: **F246** (*Fisher building, second floor- come say hi during office hours, listed below*)

OFFICE HOURS: **Mondays 4-4:30pm, Wednesdays 12:30pm-2:30pm and 4-4:30pm,
Thursdays 10:30am-11:30am**

(office hours are for students to check in with progress, ask for support with assignments or studying, or ask questions about career, research, and anything academia)

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 consists of studies in the general areas of evolution and organism diversity. Topics include natural selection, the genetic basis of evolution, speciation and evolutionary change and the adaptive radiation of organisms.

PREREQUISITE(S):

One of:

C in English 12

C in Camosun Alternative

And one of:

C+ in Anatomy and Physiology 12

C+ in Biology 11

C+ in Camosun Alternative

CO-REQUISITE(S):

Not Applicable

EQUIVALENCIES:

BIOL 224

COURSE LEARNING OUTCOMES / OBJECTIVES

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

1. Identify and classify living organisms to their major taxonomic groupings, and list their defining characteristics.
2. Describe the major lines of evidence for evolution.
3. Explain major topics in evolutionary theory.
4. Discuss the nature of scientific knowledge in biology, its limits and strengths, and how it is documented.

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

- a. **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 124 Lab Manual 2024/2025** (content for lab exams)
 - i. Will be posted on D2L each week. Students must read, print, and bring a copy to each lab session
- 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* textbook (not required) Campbell Biology, Canadian Edition. 2021. Biology 3rd ed., Pearson Education, Inc., San Francisco, CA.
 - i. *Note: Campbell Biology 1st/2nd Canadian Edition, Campbell Biology 10th, 9th and 8th US edition are also okay to use as a textbook
 - ii. Printed copies 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, as deemed appropriate by the instructor.

Lectures:	002AB	Mondays	2:30pm-3:50pm	F266
	002AB	Wednesdays	2:30pm-3:50pm	F302
Labs:	002A	Wednesdays	9:30am-12:20pm	F244
	002B	Thursdays	1:30pm-4:20pm	F244

Week	Dates	Lecture Topic/Activity	Chapter	Lab
1	02-Sep M	<i>No Lecture- Holiday</i>		Lab Introductions
	04-Sep W	1- Biology, Science, Diversity	1	
2	09-Sep M	2- Evolution	22	Lab 1- Phylogeny
	11-Sep W	3- History of Life	25	
3	16-Sep M	4- Phylogeny	26	Lab 2- Biodiversity Field Trip
	18-Sep W	5- Population Evolution	23	
4	23-Sep M	6- Species Evolution	24	Lab 3- Bacteria
	25-Sep W	7- Prokaryotes	27	
5	30-Sep M	<i>No Lecture- Holiday</i>		<i>No Labs (Holiday Monday)</i>
	02-Oct W	7- Prokaryotes	27	
6	07-Oct M	Lecture Exam #1 (Modules 1-6)		Lab 4- Protists
	09-Oct W	8- Protists	28	
7	14-Oct M	<i>No Lecture- Holiday</i>		<i>No Labs (Holiday Monday)</i>
	16-Oct W	8- Protists	28	
8	21-Oct M	9- Seedless Plants	29	LAB EXAM #1 (12.5%)
	23-Oct W			
9	28-Oct M	10- Seeded Plants	30	Lab 5- Fungi and Plants
	30-Oct W			
10	04-Nov M	11- Fungi	31	Lab 6- Plants
	06-Nov W	Lecture Exam #2 (Modules 7-10)		
11	11-Nov M	<i>No Lecture- Holiday</i>		<i>No Labs (Holiday Monday)</i>
	13-Nov W	11- Fungi	31	
12	18-Nov M	12- Animal Evolution	32	Lab 7- Invertebrates
	20-Nov W	13-Invertebrates	33	
13	25-Nov M	13- Invertebrates	33	Lab 8 - Vertebrates
	27-Nov W			
14	02-Dec M	14- Vertebrates	34	LAB EXAM #2 (12.5%)
	04-Dec W			
09-17 Dec		Lecture Exam #3 (Modules 11-14)		

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 Assignments, D2L Quizzes	10%
Weekly Pre-Lab Questions and Lab Completion	5%
Weekly Lab Assignments (8)	25%
Lecture Exam #1 (Oct 7 th)	10%
Lecture Exam #2 (Nov 6 th)	10%
Lecture Exam #3 (Date TBA)	15%
Lab Exam #1 (Oct 23 rd /24 th)	12.5%
Lab Exam #2 (Dec 4 th /5 th)	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](#) policy for more information.

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

Lecture Assignments (10%)

Throughout the course there will be homework assignments, in-class participation-based assignments, and handout lecture assignments that will engage students with the course content and test their comprehension and communication skills. In-class participation-based assignments are typically completed in groups while homework and handout assignments are to be done individually. D2L Quizzes are also a form of lecture assignment and are typically 2 chances with your highest grade being kept.

Weekly Pre-Lab Questions and Lab Completion (5%)

Each week, students may need to complete pre-lab questions prior to the lab itself to demonstrate that they have read and understood the lab procedures and content. Completion is checked promptly at the start of lab time. Late arrival will result in a grade of zero for the pre-lab questions and lost marks for in-lab participation. Students will also need to show their lab manuals at the session and demonstrate proper lab safety and procedure for full marks. Late arrivals will lead to a grade reduction for this section.

Weekly Lab Assignments (25%)

Weekly lab assignments are due one week after the lab and may be in the form of handwritten responses, typed reports, or quizzes. Depending on the content of the assignment, some may be worth more than others- your instructor will clarify. Assignments must be submitted on time for prompt grading and return (late work is not accepted).

Exams (60%)

Aside from the final exam, all exams will take place during regular lecture and lab hours and are non-cumulative. Lecture exams are based on PowerPoint slides, while lab exams are based on Lab Manual and lab assignments. All exams are closed-book and the use of phones, smart watches, or other electronic devices during exams is NOT permitted. A missed exam will result in a grade of zero, there are no re-weighting of final exams or deferrals. NOTE: DO NOT book travel before learning the final exam schedule.

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 PowerPoint slides 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

Lab attendance is mandatory (no more than 3 labs can be missed before a student will be given a failing grade in the course, see School Information below). A missed lab results in a missed opportunity to submit the associated lab assignment. Arriving on-time having pre-read the lab manual is crucial for individual and group success.

Arriving more than **5 minutes** after the start of the lab time is considered late and will only be acceptable one time. If a lab session is missed, another student's data **may not** be used to complete a lab assignment for credit. Exceptions can be made **at the instructor's discretion** in legitimate cases of emergency (e.g. illness); in such cases the instructor must receive **advance notification** and **documented evidence** of the situation (e.g. medical certificate) and grant approval for any accommodation.

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. Students to visit office hours, the science help centre, and study together develop better accountability.

Common Challenges

In this science-based course, many students struggle with the amount of content covered. When completing assignments, cheating and plagiarism are often 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. We are here to ensure you understand the rules and regulations of the college.

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 four (4) 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

