

COURSE SYLLABUS



COURSE TITLE: BIOL-124: Evolution and Diversity

CLASS SECTION: 002AB

TERM: Fall 2021

COURSE CREDITS: 4

DELIVERY METHOD(S): F2F

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> (*note - legacy page link works too: <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.

INSTRUCTOR DETAILS

NAME: DAVID RAJU

EMAIL: raju@camosun.bc.ca

OFFICE: F342A

HOURS: Fri 12:00-1:30 PM (online and will respond immediately), also on call 24/7 (will respond when online)

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 Biology 12
- C+ Camosun Alternative

CO-REQUISITE(S):

Not Applicable

EXCLUSION(S):

Not Applicable

COURSE LEARNING OUTCOMES / OBJECTIVES

Upon 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

All materials will be provided, including an electronic Biology textbook.

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.

SCHEDULE FOR STUDENTS IN 002A Wednesday Lab Section:

Tuesday Lecture from 2:30-3:50 PM in Fisher 200

Wednesday Lab from 2:30-5:20 PM in Fisher 244

Thursday Lecture from 12:00-1:20 PM in Fisher 268

Week, Day, Date, Lecture or Lab, Attendance required (@)	Lab #, Lecture #, or Exam #, Topical Heading	Due Day and Due Date
W1, T, Sep 7, Lec @	Lec #1 Course Introduction	T, Sep 7
W1, W, Sep 8, Lab @	Lab #1 Systematics	W, Sep 8
W1, Th, Sep 9, Lec	Lec #2 Conservation Biology	M, Sep 13
W2, T, Sep 14, Lec	Lec #3 Prokaryotes	
W2, W, Sep 15, Lab @	Lab #2 Insect Taxonomy	W, Sep 15
W2, Th, Sep 16, Lec	Lec #3 Prokaryotes continued	M, Sep 20
W3, T, Sep 21, Lec	Lec #4 Plants	
W3, W, Sep 22, Lab @	Lab #3 Native Plants	W, Sep 22
W3, Th, Sep 23, Lec	Lec #4 Plants continued	M, Sep 27
W4, T, Sep 28, Lec	Lec #5 Sexual Selection	M, Oct 4
W4, W, Sep 29, Lab @	NO LAB	
W4, Th, Sep 30, Lec	NO LECTURE	
W5, T, Oct 5, Lec	Lec #7 Biomagnification	M, Oct 11
W5, W, Oct 6, Lab @	Lab #5 Owl Pellet Diversity	W, Oct 6
W5, Th, Oct 7, Lec	Lec #8 Threats to Biodiversity	M, Oct 11
W6, T, Oct 12, Lec	Lec #9 Protozoans	
W6, W, Oct 13, Lab @	Lab #6 Protozoa Diversity	W, Oct 13
W6, Th, Oct 14, Lec	Lec #9 Protozoans continued	M, Oct 18
W7, T, Oct 19, Lec	Lec #10 Scientific Inquiry	M, Oct 25
W7, W, Oct 20, Lab @	Lab #7 Planarian Behaviour Study	W, Oct 20
W7, Th, Oct 21, Lec	Lec #11 Experimental Research	M, Oct 25
W8, T, Oct 26, EXAM	EXAM #1 Case Study Format	
W8, W, Oct 27, NO LAB	NO LAB	
W8, Th, Oct 28, EXAM	EXAM #1 continued	M, Nov 1
W9, T, Nov 2, Lec	Lec #12 Fungi	
W9, W, Nov 3, Lab @	Lab #8 Fungi Diversity	W, Nov 3
W9, Th, Nov 4, Lec	Lec #12 Fungi continued	M, Nov 8
W10, T, Nov 9, Lec	Lec #13 Invertebrate A&P	M, Nov 15
W10, W, Nov 10, NO LAB	NO LAB	
W10, Th, Nov 11, NO LECTURE	NO LECTURE	
W11, T, Nov 16, Lec	Lec #14 Invertebrates	
W11, W, Nov 17, Lab @	Lab #9 Invertebrate I Diversity	W, Nov 17
W11, Th, Nov 18, Lec	Lec #14 Invertebrates continued	M, Nov 22
W12, T, Nov 23, Lec	Lec #15 Vertebrate A&P	
W12, W, Nov 24, Lab @	Lab #10 Invertebrate II Diversity	W, Nov 24
W12, Th, Nov 25, Lec	Lec #15 Vertebrate A&P continued	M, Nov 29
W13, T, Nov 30, Lec	Lec #16 Vertebrates	
W13, W, Dec 1, Lab @	Lab #11 Vertebrate Diversity	W, Dec 1
W13, Th, Dec 2, Lec	Lec #16 Vertebrates continued	M, Dec 6
W14, T, Dec 7, EXAM	EXAM #2 Multiple Choice Format	
W14, W, Dec 8, NO LAB	NO LAB	
W14, Th, Dec 9, EXAM	EXAM #2 continued	To Be Announced

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SCHEDULE FOR STUDENTS IN 002B Thursday Lab Section:

Tuesday Lecture from 2:30-3:50 PM in Fisher 200

Thursday Lecture from 12:00-1:20 PM in Fisher 268

Thursday Lab from 2:30-5:20 PM in Fisher 244

Week, Day, Date, Lecture or Lab, Attendance required (@)	Lab #, Lecture #, or Exam #, Topical Heading	Due Day and Due Date
W1, T, Sep 7, Lec @	Lec #1 Course Introduction	T, Sep 7
W1, Th, Sep 9, Lab @	Lab #1 Systematics	Th, Sep 9
W1, Th, Sep 9, Lec	Lec #2 Conservation Biology	M, Sep 13
W2, T, Sep 14, Lec	Lec #3 Prokaryotes	
W2, Th, Sep 16, Lab @	Lab #2 Insect Taxonomy	Th, Sep 16
W2, Th, Sep 16, Lec	Lec #3 Prokaryotes continued	M, Sep 20
W3, T, Sep 21, Lec	Lec #4 Plants	
W3, Th, Sep 23, Lab @	Lab #3 Native Plants	Th, Sep 23
W3, Th, Sep 23, Lec	Lec #4 Plants continued	M, Sep 27
W4, T, Sep 28, Lec	Lec #5 Sexual Selection	M, Oct 4
W4, Th, Sep 30, Lab @	NO LAB	
W4, Th, Sep 30, Lec	NO LECTURE	
W5, T, Oct 5, Lec	Lec #7 Biomagnification	M, Oct 11
W5, Th, Oct 7, Lab @	Lab #5 Owl Pellet Diversity	Th, Oct 7
W5, Th, Oct 7, Lec	Lec #8 Threats to Biodiversity	M, Oct 11
W6, T, Oct 12, Lec	Lec #9 Protozoans	
W6, Th, Oct 14, Lab @	Lab #6 Protozoa Diversity	Th, Oct 14
W6, Th, Oct 14, Lec	Lec #9 Protozoans continued	M, Oct 18
W7, T, Oct 19, Lec	Lec #10 Scientific Inquiry	M, Oct 25
W7, Th, Oct 21, Lab @	Lab #7 Planarian Behaviour Study	Th, Oct 21
W7, Th, Oct 21, Lec	Lec #11 Experimental Research	M, Oct 25
W8, T, Oct 26, EXAM	EXAM #1 Case Study Format	
W8, Th, Oct 28, NO LAB	NO LAB	
W8, Th, Oct 28, EXAM	EXAM #1 continued	M, Nov 1
W9, T, Nov 2, Lec	Lec #12 Fungi	
W9, Th, Nov 4, Lab @	Lab #8 Fungi Diversity	Th, Nov 4
W9, Th, Nov 4, Lec	Lec #12 Fungi continued	M, Nov 8
W10, T, Nov 9, Lec	Lec #13 Invertebrate A&P	M, Nov 15
W10, Th, Nov 11, NO LAB	NO LAB	
W10, Th, Nov 11, NO LECTURE	NO LECTURE	
W11, T, Nov 16, Lec	Lec #14 Invertebrates	
W11, Th, Nov 18, Lab @	Lab #9 Invertebrate I Diversity	Th, Nov 18
W11, Th, Nov 18, Lec	Lec #14 Invertebrates continued	M, Nov 22
W12, T, Nov 23, Lec	Lec #15 Vertebrate A&P	
W12, Th, Nov 25, Lab @	Lab #10 Invertebrate II Diversity	Th, Nov 25
W12, Th, Nov 25, Lec	Lec #15 Vertebrate A&P continued	M, Nov 29
W13, T, Nov 30, Lec	Lec #16 Vertebrates	
W13, Th, Dec 2, Lab @	Lab #11 Vertebrate Diversity	Th, Dec 2
W13, Th, Dec 2, Lec	Lec #16 Vertebrates continued	M, Dec 6
W14, T, Dec 7, EXAM	EXAM #2 Multiple Choice Format	
W14, Th, Dec 9, NO LAB	NO LAB	

W14, Th, Dec 9, EXAM	EXAM #2 continued	To Be Announced

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

DESCRIPTION	WEIGHTING
11 LABS (Top 10 used in calculation)	35%
16 Lecture Assignments (Top 15 used in calculation)	50%
Exam 1 (Midterm)	5%
Exam 2 (Final)	10%
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>

COURSE GUIDELINES & EXPECTATIONS

On the first day of class you will email the instructor the following information before the end of the day and it will count as your first lecture assignment:

- 1) **Subject line of email: "Your Full Name" followed by the words "Lec #1 Assignment"**
- 2) **In the body of the email:**
 - a) **Once again your full name**
 - b) **Once again your student number**
 - c) **The email address you wish to use for the course (make sure this email address matches the email listed for you on D2L (Your grades on D2L will be regularly updated for your viewing as you progress through the course))**
 - d) **Any Questions you may have about the Course outline thus far that wasn't answered on the first day of classes, would like repeated, or feel more comfortable asking by email.**

This course has been carefully designed so that the only stress there is will be the stress you create for yourself. I am well aware that proper learning can't take place if stress is present and so I will do my part to provide a proper learning environment but this can't be accomplished without you doing your part. And so complete assignments ahead of time so that you have time to ask questions before the due date, show up to lab early, follow all directions carefully, and most of all have fun. The course is not based on memorization and regurgitation teaching methods but rather is based on learning through student centered processes such as active learning and discovery to achieve the learning outcomes of the course. The learning is in the search. In other words those that do the doing do the learning. For meaningful and long lasting learning it is my belief that you can not be a

passive participant in the process but rather must be the investigator in an investigation and the investigation you have been assigned is Biology 124. I hope you enjoy the course and make the most of it. After all, you get out of life what you put into it). 😊

SCHOOL OR DEPARTMENTAL INFORMATION

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.