

BIOL 184 – Evolution and Biodiversity

Summer 2025
Course Syllabus

General Course Information

Welcome! This course will offer a window into the process of organic evolution, and how it generated Earth's immense biological diversity. The course will be taught synchronously and 'face-to-face' and will be complemented by online tools.

Contact Hours & Delivery of Course Materials

Lectures: Monday, Wednesday & Thursday, 8:30am – 10:20am, COR B112

Labs*: Monday and Wednesday, 10:30am – 1:30pm (B01 & B02) in CUN 004 & CUN 018

**Enrolment in the laboratory section is mandatory*

Intended Learning Outcomes

After completion of this course, you will be able to demonstrate a solid understanding of the evolutionary process, and the logical and quantitative basis of its study. You will be able to classify the major groups of organisms based on hypothesized evolutionary relationships. You will be able to demonstrate fundamental skills including microscopy, biological observations, and interpreting phylogenetic trees. Identifying different types of scientific literature and understanding the importance of adhering to academic integrity standards are also essential learning outcomes. A graphical representation of the intended learning outcomes also appears below.



Territory Acknowledgment

The instructors of BIOL184 are grateful to live and work in the unceded territories of the Lekwungen speaking First Nations, and we support the University of Victoria's official territory acknowledgment:

We acknowledge and respect the Lək̓ʷəŋən (Songhees and X̱wsep̓səm/Esquimalt) Peoples on whose territory the university stands, and the Lək̓ʷəŋən and W̱SÁNEĆ Peoples whose historical relationships with the land continue to this day.

Guiding Philosophy and Practices

Students and instructors share the responsibility of cultivating of a **safe, inclusive, and kind** learning environment. We think that the keys to student success (in the course, and beyond) lies in practicing strong learning habits, developing resilience, and fostering a healthy mind, as well as healthy relationships. We also believe in having fun.

Inclusivity Statement:

We consider our classroom to be a place where you will be treated with respect, and we welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability and other visible and non-visible differences. All members of this class are expected to be a part of a respectful, welcoming and inclusive environment for every member of the class. We will gladly honour your request to address you by an alternate name or gender pronoun. Please advise us of this early in the semester, if applicable to you, so that we may make appropriate changes to our records.

Prerequisites

Any one of: Biology 11, Biology 12, Biology 150A, Biology 150B, Biology 186. You may also take this course if you have a high school biology course from outside British Columbia, or a post-secondary biology course from another institution. A course in chemistry at either the high school or university level is strongly recommended. If in doubt, contact davidpunzalan@uvic.ca.

Instructors:

Dr. David Punzalan (davidpunzalan@uvic.ca)

Dr. Doug Briant (dbriant@uvic.ca)

Dr. Lan Tran (biologylabs@uvic.ca)

Dr. Colin MacLeod (biologylabs@uvic.ca)

About the Instructors

This course is co-taught by Dr. David Punzalan (Lectures and Course Coordination), Dr. Doug Briant (Lectures), Dr. Lan Tran (Laboratory Coordination), and Dr. Colin MacLeod (Laboratory Coordination). Dave originally hails from Ontario and specializes in insect ecology and evolutionary biology. As a relative newcomer to the Pacific Northwest, he spends most of his free time learning about local biodiversity by chasing bugs, tidepooling, and snorkelling. Doug has split his life between Ontario and British Columbia. He is especially interested in microbes and metabolism. Lan is a local and is a plant biologist with research interests in how plants produce natural chemicals and pollinator interactions. She previously studied at UVic and at UBC. Colin is passionate about parasites, marine invertebrates, and experimental design; he has studied in Scotland, Canada, and New Zealand.

You can find out more about the instructors under 'Course Information' on Brightspace.

Required Materials and Technology

1. This course will require students to meet the UVic minimum technology requirements: <https://www.uvic.ca/systems/status/features/min-tech-requirements.php>
2. The Brightspace (BRS) course website: <https://bright.uvic.ca/d2l/home/417653> will serve as the primary means of sharing learning resources, so please check this page regularly for important information and announcements.
3. Textbook: OpenStax Biology 2e (<https://openstax.org/details/books/biology-2e>); this textbook can be downloaded for free and accessed electronically using a laptop, desktop, tablet, or smartphone; if you want a printed version, you must purchase one directly from OpenStax.
4. Lecture materials: live lectures will be recorded and will be posted on Brightspace along with electronic (.pdf) versions of the lecture slides.
5. Lab materials: Achieve from Macmillan Learning (<https://www.uvicbookstore.ca/text/search/results>) and a lab coat, which can be purchased from the UVic Bookstore. Lab documents will be posted on BRS.

Assessments

You will have the opportunity to demonstrate your progress and proficiency through various forms of evaluation, including:

Lecture Component (60%)

Pre-Lecture Online Quizzes or Surveys (6 x 0.5%)	3%
Lecture Test 1 (see below) (Stage I = 16%, Stage II = 3%)	19%
Lecture Test 2 (see below)	19%
Lecture Test 3 (see below)	19%

Laboratory Component (40%)

Scientific Literature Workshop Assignment I	2%*
Scientific Literature Workshop Assignment II	2%*
Organismal Design Project	2%*
In-Lab Assignments	10%
Achieve Pre-Labs	5%
Achieve Post-Labs	5%
Lab Exam (course requirement)	14%

*To access these assignments, you must first complete the Integrity in Practice quiz on Brightspace

To pass the course, students must:

- 1) Write all **Lecture Tests**
- 2) Write the **Lab Exam** – a course requirement
- 3) Meet the minimum **lab** attendance requirement (attend at least 4 of the 5 **in-person** labs)
- 4) Score a grade of 20.0, or greater, points out of a possible 40 (50%) in the **Laboratory** component; scores lower than 50% will not be permitted to write the lecture final exam
- 5) Score a grade of 50.0 points, or greater, combined across **Lecture** and **Laboratory** components

If any of 1 through 3 are not completed, the student will automatically fail the course and receive an "N" ('Incomplete') on their transcript. If a student successfully completes 1 through 3, but is not successful in either 4 or 5, they will receive an "F" on their transcript.

Schedule of Major Assessments and Modes of Examination

To maximize accessibility, the **Lecture Tests** will use Universal Design (for Lecture Test 1, this will only apply to Stage I), and are designed to be completed in 60 minutes, but all learners will be given 90 minutes to complete. All lecture tests will be held in large rooms, NOT THE USUAL LECTURE HALL. Rooms will be announced on Brightspace. This format will provide a distraction-reduced environment and 1.5x extended time for all learners. You may choose to wear ear plugs or other non-electronic forms of noise reduction. Learners with accommodations that are not met with by this delivery will make exam arrangements with the Centre for Accessible Learning (CAL). A similar format will occur for the Lab Exam. Details will be provided during the lab. **Lecture Prep Quizzes** will be administered online using Brightspace (BRS) and can be completed any time before June 26, 2025. **Lecture assessments** will be open book. The **Lab Exam** will be written in-person during regular lab time (in CUN 004 or 018) and will be closed book. In all cases, students who need to write the deferred assessment should contact the course coordinator (davidpunzalan@uvic.ca). The dates/times of each major assessment, and their mode of examination, are summarized below.

Major Assessments	Date & Time	Mode
Lecture Test 1 <i>Stage I</i>	May 28, 2025 - 8:30am – 10:00am	Paper exam, open book, Universal Design, individual
Lecture Test 1 <i>Stage II</i>	May 29, 2025 - 8:30am – 9:00am	Paper exam, open book, team
Lecture Test 2	June 12, 2025 - 8:30am – 10:00am	Paper exam, open book, Universal Design, individual
Lab Exam	June 18, 2025 - 10:30am – 1:30pm	Paper exam, closed book, individual
Lecture Test 3	June 26, 2025 – 8:30am – 10:00am	Paper exam, open book, Universal Design, individual

Other Important Dates (check BRS for lab assignment due dates)

May 12 – Lectures begin (COR B112); Labs begin (CUN 146; an introduction to Achieve)

May 18 – 100% fee reduction

May 19 – course add deadline; ***you must be registered in a lab by this date to remain in the course***

May 28 – Lecture Test 1, Stage I

May 29 – Lecture Test 1, Stage II (and 50% fee reduction)

June 11 – course drop deadline (no fee reduction)

June 12 – Lecture Test 2

June 18 – Lab Exam

June 26 – Lecture Test 3

Additional inquiries and Contact Hours

Lecture content: There are no scheduled office hours to review lecture content, but any questions should be made using the appropriate discussion forum on Brightspace:

<https://bright.uvic.ca/d2l/le/content/417653/viewContent/3296984/View>

Additional inquiries, including appointments to meet can be made via e-mail to the appropriate instructor.

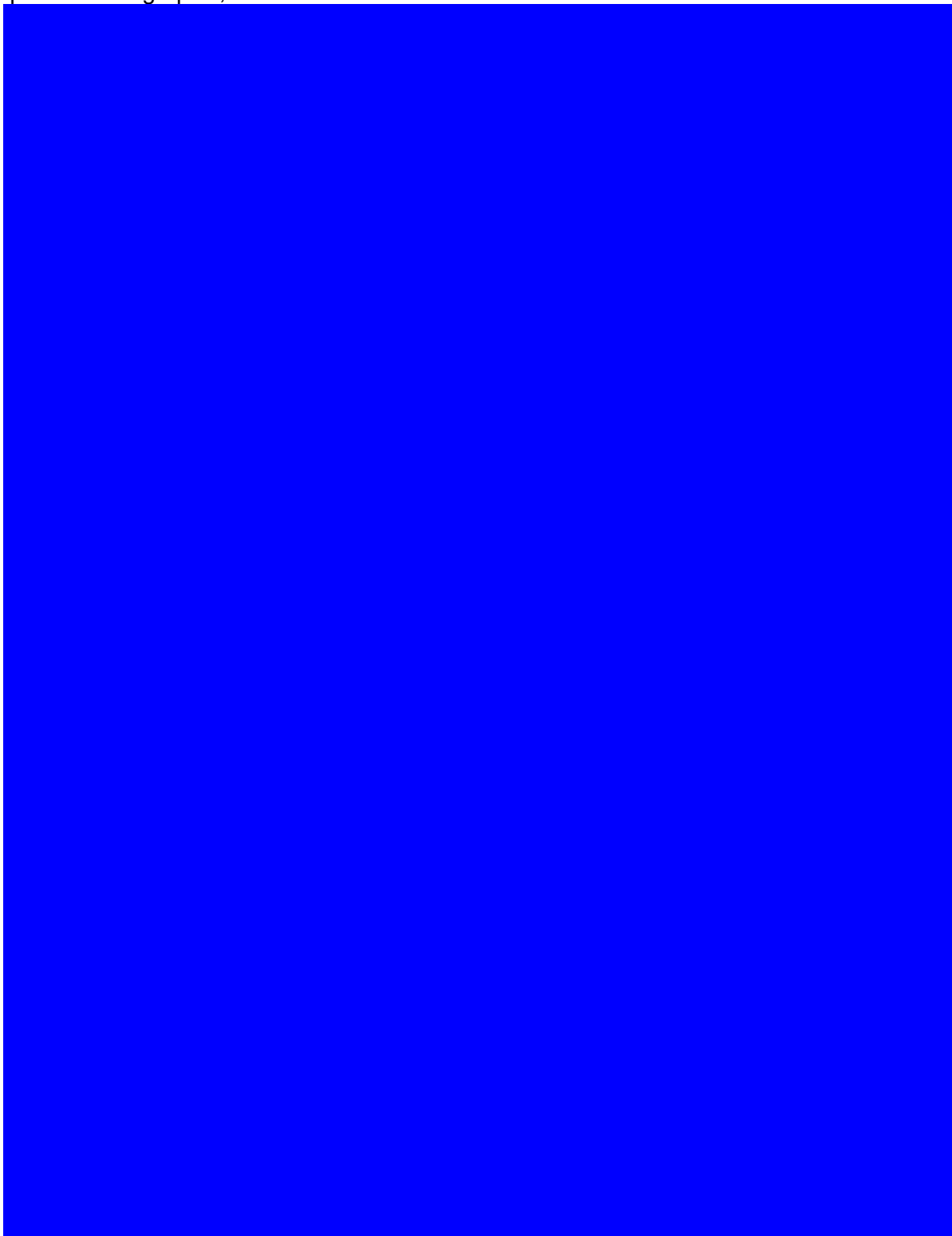
Laboratory content: You are always welcome to make an appointment with your teaching assistant (TA) to review lab material. Inquiries about lab registration should be emailed to biology.reghelp@uvic.ca. For all other inquiries, email biologylabs@uvic.ca.

Please start by checking the FAQs on page 6, and be sure to include “BIOL 184” in the subject line of all e-mail correspondence

We try to get back to you within 48h

Frequently Asked Questions

Detailed policies are outlined in this syllabus, as well as in the lab manual documents on Brightspace—please read those carefully. For ease, a selection of questions and answers are depicted in the graphic, below.



University and Course Policies

Public Health Policies

All staff and students are expected to abide by the guidelines provided by the University of Victoria <https://www.uvic.ca/covid19/>.

Academic Integrity

The University of Victoria and the Department of Biology take academic integrity (including plagiarism and unsanctioned use of AI tools) as a serious matter. Please read this: https://www.uvic.ca/calendar/undergrad/index.php#/policy/Sk_0xsM_V

Missed examinations and assignments

You are NOT required to provide a medical note. If a test is missed (with valid reason), contact your instructor immediately **by email**. Your instructor may opt to have you write a deferred test (scheduled by the instructor within 5 business days), or have those grades reallocated to another assessment. For missed laboratory assignments, refer to the laboratory manual and contact your TA/Senior Laboratory Instructor as soon as possible.

Course Grade and Academic Transcript

Grades for all UVic courses are submitted as percentiles. A student's academic transcript will include the percentile grade and a letter grade plus the class average and the number of students registered in the course at the time of the final exam. Percentiles will be rounded to the nearest whole number; a grade of xx.5 will be rounded up. Percentile grades will be converted to letter grades on the student's academic transcript according to the table given below.

A+	90 – 100%	B+	77 – 79%	C+	65 – 69%
A	85 – 89%	B	73 – 76%	C	60 – 64%
A-	80 – 84%	B-	70 – 72%	D	50 – 59%

<p>A grade less than 50% is a failing grade and results in an “F” on your transcript.</p> <p>Failure to complete lab requirements, including missing more than 1 lab will result in an incomplete grade and an “N” on your transcript</p>
