

BIOLOGY 150A – Modern Biology

Fall 2024

Department of Biology, University of Victoria

A. Basic Course Information

Course Description

An introduction to biological science, discussing the diversity of organisms and the evolutionary and ecological principles underlying this diversity. Topics include the history of life, genetics, mechanisms of evolution, biological diversity, and the ecology of communities and ecosystems.

Meetings

A01 (CRN 10272) – Tuesday, Wednesday and Friday, 9:30 – 10:20 AM, MacLaurin A144 (David Lam Auditorium)

A02 (CRN 10273) – Tuesday, Wednesday and Friday, 1:30 – 2:20 PM, Engineering and Computer Science 123

Instructors

Dr. Greg Beaulieu (September; genetics and evolution)

Office: 006 Petch

Email: gregoryb@uvic.ca. If you send an email, please put "Biology 150A" in the message line.

Phone: 721-7140

Office hours: Mondays, 1:00 – 2:30 PM, or by appointment, or drop by

Dr. Beaulieu is also the course coordinator. You should communicate with him on matters of course business. If your question concerns specific course material, you should direct it to the relevant instructor.

Dr. David Punzalan (he/him) (October; biological diversity)

Office: 007 Petch

Email: davidpunzalan@uvic.ca. If you send an email, please put "Biology 150A" in the message line.

Phone: 721-7109

Office hours: by appointment

Dr. Gerry Gourlay (she/her) (November & December; ecology)

Office: Cunningham 217 (but only in November & early December on class days)

Email: holmgera@uvic.ca. If you send an email, please put "Biology 150A" in the message line.

Office hours: by appointment

Prerequisites

None.

Course Website

Biology 150A has a Brightspace site. There you will find lecture notes, marks, links, items of business etc. Each instructor will use the site in their own way.

Please be aware that lecture notes are for personal use only and must not be published, distributed, sold or posted anywhere else.

Textbook (required)

Biology – Concepts and Connections, 10th edition, by MR Taylor, EJ Simon, JL Dickey and K Hogan, 2021.

The text is available online, and you can purchase access through the UVic bookstore, either for six months or permanent. If you are planning to take Biology 150B, which will use the same text, you should purchase permanent access.

You will not need the publisher's associated online materials, Mastering Biology, in this course. It costs more, and although we will not be using it in the course, some students have found it useful in the past.

We recommend that you read the text in light of what is covered in the lectures. We will not test material found only in the text and not in the lectures (unless it can be inferred from what we say in lectures); however, you must read the text section we assign to grasp the course material fully.

Learning Outcomes

In this course you will learn about basic biology, of course, but we hope the course also helps you to develop good work and study habits that serve you throughout your university career.

In terms of the course material, you will ...

- understand the basics of heredity and evolution, and how they interrelate.
- identify unique aspects of invertebrates and vertebrates as they relate to evolution and diversity.
- describe the importance of ecology from an environmental and evolutionary perspective including behavioural, community, ecosystem, and population ecologies.
- relate community attributes in a population to both ecology and conservation.

In terms of your development as a student, you will actively work towards ...

- developing time management skills.
- asking strong questions and finding out answers.
- relating lecture and text material.
- recording useful notes in class that address key concepts but are not a direct transcription of what is said.
- coping with the pressures of university and finding solutions through on- and off-campus resources.

A few tips

- You should make a friend in class so that you can get notes from them if you miss a class for an unavoidable reason.
- Regular exercise helps with all aspects of your life: physical health, emotional equilibrium, intellectual functioning.
- Take advantage of student hours – we are here to help! We look forward to connecting with students and answering your questions.

B. Evaluation

Components of your course grade

Midterm exam 1 (Friday, October 4; Greg's topics only)	30%
Midterm exam 2 (Friday, November 8; Dave's topics only)	30%
Final exam (December final exam period; cumulative)	40%
	<hr/>
	100%

Writing the final exam is the essential component of the course. If you do not write the final exam, either at the regular time or deferred, you will receive a grade of N.

Midterm exams

Format: approximately 30-35 multiple choice questions, 45 minutes; in class, during the regular lecture period.

Final exam

Format: approximately 70-75 multiple choice questions. The exam will test all the material in the course, but the emphasis will be on Gerry's topics, which will not have been tested on the midterms.

The final exam will be written during the final exam period (Saturday, December 7 – Friday, December 20). The specific day and time for Biology 150A will be arranged by the Registrar's office and announced in October.

Because the final exam period ends for all faculties on Friday, December 20, the university's last exam will be in the evening of that day. Your last exam might be on this date, or it might be earlier – you will know for sure only when the final exam schedule is drawn up and posted.

Travel plans are not a valid reason for missing a midterm or the final exam. Please do not make plans to leave Victoria in December without being sure that your final exams in all your courses will be over.

Exam Policy

No electronic devices will be permitted during the midterm or final exam.

If you must miss a midterm for a valid reason (illness, accident, personal or family affliction, participation in an important cultural, community or sporting event), your course mark will be calculated based on the other components of the course (40% the midterm you wrote, 60% final exam), and you will not incur any penalty. If you miss both midterms, you will be given a deferred midterm (counting for 40% of your course grade).

If you expect to miss a midterm for any of the above reasons, please notify the course coordinator (GB) as soon as possible. You will not need supporting documentation if you miss the midterm for a medical reason, but you will need to show documentation for any other reason.

Deferred final exam

The final exam can be missed and deferred for the same reasons listed above for missing a midterm (illness, accident, personal or family affliction, participation in an important cultural, community or sporting event).

- If you expect to miss the final exam in December, please notify the course coordinator (GB) as soon as possible, either by phone, email or in person, and tell me the reason. You will not need a note if it is a medical issue, but you will need a note for any other reason. *Holiday travel plans are not an acceptable reason to miss the final exam.*
- To make your deferred status official in the eyes of the university, you must fill out a [Request for Deferral form](#).
- Here is more general information about the [types of concessions and accommodations available to UVic students](#). It might come in handy in other courses you take.
- **A writing of the deferred final exam will be offered to you on Friday, January 3, 2025, at 10:00 AM, in Bob Wright Center B150 (Flury Hall). This constitutes your official notification of time and place.**

Grading Policy

At the University of Victoria, grades are submitted by instructors as percentages. These will be converted to letter grades by the Registrar, according to this grading scale:

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%

The only circumstances under which we change a submitted course grade are as follows: a) if we have made a calculation error in determining your grade; b) if a student has deferred the final exam, received an N, and then written a deferred final exam.

Please do not ask us to raise your percent grade to qualify you for a higher letter grade. We turn down all such requests.

You will receive an F in the course if your aggregate grade is less than 50% (rounded to the nearest whole number). It is not necessary to pass the individual course components – the midterms or the final exam – in order to pass the course.

You will receive an N in the course if you miss the final exam in December. If you write the deferred final exam, your course grade will be updated on your transcript to include your final exam score.

No supplemental final exam (second-chance final exam) will be given in this course, although, as described above, you may defer the final exam for any of the reasons given.

C. Important Dates for Biology 150A

On the UVic website you will find a fuller list of important [UVic academic dates](#), but the ones listed below are the ones that will matter to students in this course and to students wishing to add the course. Items in **bold** are worth points in the course.

Wednesday, September 4	First day of classes for first term; first day of class for Biology 150A
Tuesday, September 17	Last day for 100% reduction in fees for standard courses
Friday, September 20	Last day for adding courses that begin in the first term
Monday, September 30	Last day for paying first term fees without penalty
Friday, October 4	Midterm Exam 1; Greg's material only; in class
Tuesday, October 8	Last day for 50% reduction of tuition fees for standard courses
Thursday, October 31	Last day for withdrawing from first term courses without penalty of failure
Friday, November 8	Midterm Exam 2; Dave's material only; in class
Monday, November 11	University closed (Remembrance Day); no classes
Monday, November 11 – Wednesday, November 13	Reading Break; no classes
Wednesday, December 4	Last day of class for first term courses; last day of class for Biology 150A
Saturday, December 7	First day of final examinations period
Friday, December 20	Last day of final examinations period

D. Lecture Schedule (tentative)

Greg's Topics (September 6 – 27)

Life and the study of life

Inheritance 1: Mitosis, meiosis and sexual life cycles

Inheritance 2: Genetics

Evolution 1: Introduction to evolution

Evolution 2: Evolution of populations

Evolution 3: Speciation and systematics

Dave's Topics (October 1 – October 30)

TBA

Gerry's Topics (November 1 – December 4)

Introduction to Ecology – Chapter 34

Behavioural Ecology – Chapter 35

Population Ecology – Chapter 36

Community Interactions – Chapter 37

Ecosystem Ecology – Chapter 37

Conservation – Chapter 38

E. University Resources, Statements and Policies

Club life

UVic has an active student club scene. Check out your choices; you might want to get involved. The friendships you make in class or outside of class will enrich your university experience, and can last long after your UVic career is over.

Diversity

This course welcomes all students regardless of income level, political and social views, religion, age, nationality, ethnicity, gender and sexual orientation.

Part of the value of a university education comes from interacting with students with different backgrounds, opinions and world views. Curiosity, civility, and respect are the important guiding principles of these interactions.

Special Resources

Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

[Counselling Services](#) – Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students.

[Health Services](#) – University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives.

[Centre for Accessible Learning](#) – The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Public Health Policies

All staff and students are expected to abide by the [guidelines provided by the University of Victoria for public health](#).

Academic Integrity

The University of Victoria and the Department of Biology take academic integrity (including plagiarism) as a serious matter. Please [review the undergraduate academic calendar for more information](#).

Fair Dealings

All course materials (including but not limited to lecture slides, recordings, exam questions, and in-class activities) are made pursuant to the [Fair Dealing Guidelines](#) of the University, library database licenses, and other university licenses and policies. These materials are made available by your instructor for educational purposes and for the exclusive use of students registered in our class. The material is protected under copyright law, even if not marked with a ©. Any further use or distribution of materials to others requires the written permission of the instructor, except under fair dealing or another exception in the Copyright Act. Sharing course content (such as including but not limited to lecture slides, recordings, exam questions, and in-class activities) through note-sharing sites or other means violates UVic's policy on academic integrity.

Violations may result in disciplinary action under the [Resolution of Non-Academic Misconduct Allegations policy \(AC1300\)](#).

Indigenous Academic & Community Engagement (IACE)

Indigenous UVic students have [access to many sources of support on campus](#) including a centrally located First Peoples House. Before, during and after your time at UVic, you are encouraged to explore programs and services available to you, such as [Indigenous counselling services](#) and the [Elders in Residence](#), as well as non-academic programs that may be of interest to you.

[Elders' Voices](#) - The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students and other university community members.

Learn Anywhere

[Learn Anywhere](#) is UVic’s student portal with a full range of student and academic support services including:

- [Centre for Academic Communication](#) (CAC)
- [Library](#)
- [Computer Help Desk](#)

UVic Territory Acknowledgment

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