

BIOLOGY 324 – BIOLOGY OF LAND PLANTS

COURSE OUTLINE – FALL TERM 2026

Monday, Thursday; 11:30 –12:50 p.m.

MacLaurin (MAC) Room D207

Course Instructor: C. Peter Constabel email: cpc@uvic.ca
Office: Cunningham 147a

Senior Lab Instructor: Dr. Sarah Lane email: slane@uvic.ca
Office: Cunningham 126a

Course Objectives: To provide an understanding of the diversity in land plant anatomy, morphology, and modes of growth and reproduction; and of land plant evolution and the increasing complexity of plant form over time. Lab exercises are closely coupled to lecture topics and reinforce the concepts learned in class.

Learning Outcomes: By the end of the course, students should have a working knowledge of:

- the diversity in and anatomy of plant cells
- the anatomy, morphology, diversity and evolution of plant vegetative and reproductive structures and comfortable with botanical terminology
- the plant phyla and their evolution
- plant life cycles for the major groups of land plants

This knowledge will be demonstrated by the recall of formal botanical terms and names, and accurate, labelled diagrams of plant life cycles, cells, and vegetative and reproductive structures.

Textbook: Raven Biology of Plants, 8th Edition (2013), Evert & Eichhorn, Freeman Publ. (recommended but not required). Additional readings may be assigned.

Lab Manual: Biology 324 Laboratory Manual 2026 (required - available from the UVic Bookstore). Labs are held in Cunningham Rm 118. *You must attend the lab section in which you are registered!*

Web Material: Slides or notes for each lecture will usually be made available shortly before class on the BIOL 324 Brightspace site. **Be aware that outline notes are provided in condensed form** to will help you organize and review material presented in lecture. **It is important that you come to class.** Brightspace will also contain lab-related material, quiz results, general announcements, etc. Students should check the site for postings before coming to the lectures and labs.

Evaluation:	Lab assignments/tests (see lab manual)	35% (required)
	Two Midterms (Oct. 5 & Nov. 2)	30% (15% each)
	Final Exam - cumulative (Dec. 2026)	35% (required)

Midterm and final exams will be based mainly on lecture material, but readings from the text will help reinforce concepts. Midterm and final exams will be in-person with multiple choice, short answer and diagram questions. *There will be no deferred or supplemental midterm tests.* If you miss one midterm for a medical or other valid reason, the grade breakdown will be adjusted accordingly. If you miss both midterms, the second missed test will be given a mark of zero (0). Deferred final exams will only be possible if a formal Request for Academic Concession is provided. *Note: You must pass the lab to pass the course.*

Grade Conversion:	A+ 90-100%	A 85-89.5%	A- 80-84.5%
	B+ 77-79.5%	B 73-76.5%	B- 70-72.5%
	C+ 65-69.5%	C 60-64.5%	D 50-59.5%
	F (fail) <49.5%	N (incomplete)	

N: *Failure to complete the lab requirements or the final exam will result in a grade of “N” regardless of the cumulative percentage on other elements of the course. N is a failing grade and factors into GPA as a value of 0.*

Lecture Topics & Tentative Dates

DATE	LECTURE	TEXT	LABORATORY
Sept. 10	Introduction	Chapters 1	No lab this week
14	Cells & Tissues	3, 23	Organs, Cell types & Tissues
17	Roots	24	
21	Stems & Secondary Growth	25	Roots, Stems & Secondary growth
24	Leaves	26	
28	First Land Plants & Bryophytes	25	<i>*No labs this week*</i>
Oct. 1	Bryophytes	16	(Truth and Reconciliation Day)
5	MIDTERM 1		Leaves & Modified Plant Organs
8	First Vascular Plants & Lycopods	16	
12	Thanksgiving Monday - no classes		<i>*No labs this week*</i>
15	Ferns (Monilophyta) I	17	
19	Ferns (Monilophyta) II	17	Bryophytes
22	Evolution of Seeds, Gymnosperms	17	
26	Gymnosperms I (Cycadophyta)	18	Lycopodiophyta & Monilophyta
29	Gymnosperms II (Coniferophyta)	18	
Nov 2	MIDTERM 2		Gymnosperms
5	Gymnosperms III (Gnetophyta)	18	
9-11	Fall Reading Break		<i>*No labs this week*</i>
12	Evolution of Flowering Plants	18	
16	Anthophyta - flowers	18	Anthophyta (flowers)
19	Anthophyta - gametophytes	18	
23	Anthophyta - pollination	19, 20	Anthophyta (fruit & seed)
26	Anthophyta - seed & fruit	19, 20	
30	Anthophyta diversity	19	FINAL LAB EXAM
Dec. 3	Evolution of plant diversity	20	
7	Review	20	

- Exam time can be very stressful. Try to avoid cramming and review the material weekly. It is helpful to discuss course content with your classmates. Don't hesitate to reach out to me, I am keen to help you succeed.
- Stay healthy, and please talk to me if you have any concerns. UVic Counselling Services is free and can help if you feel overwhelmed. <https://www.uvic.ca/students/health-wellness/counselling/index.php#ipn-counselling>
- See the information on the next page for additional UVic resources.

Academic Policies and Regulations:

Undergraduate policies and academic regulations are described in the UVic Undergraduate Calendar [here](#). Please read very carefully the Academic Concession Regulation/Guidelines, Academic Important dates, and the [Policy on Academic Integrity](#). The University deals harshly with plagiarism!

Academic Concession Regulation/Guidelines:

Please refer to the links below for details on Academic Concessions and the process for requesting this. [Academic Concessions Regulation](#) and [Academic Concession Guidelines](#)

Important Academic Dates (i.e. drop and add dates this semester)

Check these [here](#). It is the student's responsibility to attend to Add/Drop dates published in the Calendar. Students must not assume they will be dropped automatically from any course they do not attend.

Important UVic Services:

Student Supports for Technology and Learning

Learn Anywhere: <https://onlineacademiccommunity.uvic.ca/LearnAnywhere/>

Student Mental Health Supports - provides in-person and online mental health resources through the Student Wellness Centre, a 24/7 phone & online student mental health resource and support program. It is available for all UVic students, no matter where they are located, at any time.

<https://www.uvic.ca/services/counselling/resources/supportconnect/>

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. <https://www.uvic.ca/services/counselling/>

Health Services - University Health Services (UHS) provides a full service, primary health clinic for students, and coordinates healthy student and campus initiatives. <http://www.uvic.ca/services/health/>

Centre for Accessible Learning - The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations.

<https://www.uvic.ca/accessible-learning/index.php>

Elders' in Residence - 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 others in Indigenous ways of knowing and being.

<https://www.uvic.ca/services/indigenous/students/programming/elders/index.php>

Sexualized Violence Prevention and Response - UVic takes sexualized violence seriously. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). If you want to take part in the important prevention work taking place on campus, you can also contact the sexualized violence resource office in EQHR; Sedgewick C119, Phone: [250.721.8021](tel:250.721.8021), Email: svpcoordinator@uvic.ca

We acknowledge and respect the lək'wəḡən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day.