## BIOLOGY 324 – BIOLOGY OF LAND PLANTS COURSE OUTLINE – WINTER TERM 2024

Monday, Thursday; 1:00 – 2:30 p.m. David Turpin Building (DTB) Rm. A104

Course Instructor: Dr. Barbara Hawkins email: bhawkins@uvic.ca

Office: Cunn 151, ph. 250-721-7117

Senior Lab Instructor: Dr. Lan Tran email: lttran@uvic.ca

Office: Cunn 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. Laboratory exercises are closely coupled to lecture topics and reinforce the concepts learned in class.

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

- the anatomy and diversity of plant cells,
- the anatomy, morphology, diversity and evolution of plant vegetative and reproductive structures,
- plant life cycles,
- plant phyla and their evolution.

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, 8<sup>th</sup> Ed'n (2013), Evert & Eichhorn, Freeman Publ. (recommended) Additional readings may be assigned.

**Lab Manual:** Biology 324 Laboratory Manual 2024 (required - available from the Bookstore)

Labs are held in Cunn 118 – Please attend the lab section in which you are registered.

Web Material: The slides for each lecture will usually be made available before class on the BIOL 324
Brightspace site. Please be aware that these are outlines, not detailed notes that are provided to help you organize and review the lecture material. 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 35% (required)

Two Midterm Exams (Jan. 29 & Feb. 29) 30% (15% each) Final Exam - cumulative (April 2024) 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, closed book, hard copy exams with multiple choice, short answer and diagram questions. There will be no deferred or supplemental midterm or lab exams. If you miss one midterm, the evaluation breakdown will be adjusted accordingly. If you miss two midterms, the second missed midterm will be given a mark of zero (0). Deferred final exams will only be considered if a formal Request for Academic Concession is provided.

**Letter 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 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.

# **Proposed Course Outline 2024**

DATE	Ξ	LECTURE	TEXT	LABORATORY
Jan	8 11	Introduction Cells & tissues	Chapters 1 3, 23	No lab this week
	15 18	Roots Stems	24 25	Organs, cell types & tissues
	22 25	Secondary growth Leaves	26 25	Roots & stems
Feb	29 1	MIDTERM 1 First Land Plants & Bryophytes	16	Secondary growth  Evolution project due this week
	5 8	Bryophytes Fist Vascular Plants	16 17	Leaves & modified plant organs
	12 15	Lycophytes & Equisetophytes Ferns	17 17	LAB EXAM 1
	19-23	Reading Break – No classes		No labs this week
	26 29	Ferns MIDTERM 2	18	Evolution, life cycles & Bryophytes
Mar	4 7	Progymnosperms & Seed Plants Cycads	18 18	Lycophytes & Monilophytes Bryophyte project due this week
	11 14	Ginkgo & Conifers Conifers	18 18	Gymnosperms
	18 21	Gnetophytes Angiosperms - flowers	18 19, 20	Anthophytes (flowers, fruit & seed)
	25 28	Angiosperms - gametophytes Angiosperms - pollination	19, 20 19	LAB EXAM 2 Anthophyte project due this week
Apr	1 4	Easter Monday – No class Angiosperms - seed & fruit	20	
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## **Academic Policies and Regulations:**

<u>Undergraduate policies and academic regulations</u> are described in the UVic Undergraduate Calendar. Please read very carefully the Policy on Academic Integrity, the Academic Concession Regulation/Guidelines, and Academic Important dates.

Academic Integrity: Students are required to abide by all academic regulations set as set out in the <u>University calendar</u>, including standards of academic integrity. Violations of academic integrity (e.g. cheating and plagiarism) are considered serious and may result in significant penalties. The exams (quizzes, midterms and final exam) must all be completed **individually** and not with a friend or classmate or a group. You are prohibited from sharing any information about the exam with others.

Academic Concession Regulation/Guidelines:

Please refer to the links below when determining what is a 'valid reason' to request an Academic Concession and the process for requesting a concession.

Academic Concessions Regulation and Academic Concession Guidelines

Academic Important Dates:

Check <u>here</u>. It is the student's responsibility to attend to Add/Drop dates published in the Calendar (last day to add courses – Jan 24, last day to drop without failure – Feb 29). Students must not assume they will be dropped automatically from any course they do not attend. It is also the students' responsibility to check their records and registration status.

#### **UVic Services:**

Centre for Accessible Learning - The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations for those with accommodation letters. https://www.uvic.ca/accessible-learning/index.php

**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/

**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. <a href="https://www.uvic.ca/services/indigenous/students/programming/elders/index.php">https://www.uvic.ca/services/indigenous/students/programming/elders/index.php</a>

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

**Mental Health Supports** - In addition to providing both face to face and online mental health resources through the Student Wellness Centre, a 24x7 phone & online student mental health resource and support program is available for all UVic students, no matter where they are located, at any time. https://www.uvic.ca/services/counselling/resources/supportconnect/

### **Student Support for Online Technology**

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

**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 <a href="www.uvic.ca/svp">www.uvic.ca/svp</a>. 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: <a href="mailto:250.721.8021">250.721.8021</a> , Email: <a href="mailto:svpcoordinator@uvic.ca">svpcoordinator@uvic.ca</a>