BIOL 418 FOREST ECOLOGY
Spring 2024
Tues, Wed, Fri: 10:30 am – 11:20 pm
Cunningham Building (CUNN) Rm. 146

INSTRUCTORS:	Dr. Barbara J. Hawkins &	Dr. Paul de la Bastide
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Office hours by arrangement – please email us to arrange. We'd love to chat!

TEACHING ASSISTANT: Lise Nehring
Labs: Wednesdays, 11:30 am-2:20 pm & 2:30-5:30 pm

COURSE OBJECTIVES: To explore the structure and function of forest ecosystems at the tree, stand and landscape scale, including: effects of the abiotic and biotic environment upon plant abundance, distribution and diversity; nutrient, carbon and water cycles; population and community ecology; disturbance; forest management and conservation; and climate change. The focus will be on forests of British Columbia, but Canadian and global forest ecosystems are discussed.

INTENDED LEARNING OUTCOMES: By the end of the course, students should be able to think, write and speak effectively about:

- the structure and function of forest ecosystems locally, nationally and globally;
- forest soil properties and processes, hydrology, and water quality;
- biogeochemical, nutrient, carbon and water cycles in forests;
- ecological concepts and principles including forest plant and animal communities, population dynamics, competition, disturbance and succession;
- the effects of climate, moisture, nutrients, genetics, fire, insects and diseases on tree physiology and forest health and productivity

The laboratory portion of the course is worth30% of your final grade. If you miss more than three labs for any reason, even with a medical excuse, you will receive a failing grade

PROPOSED COURSE OUTLINE – 2024

Date	Lecture Topics		Lab topics (weekly)
Jan 9	Introduction to the course, history of forest ecology	BH	No lab
10	Subdisciplines of forest ecology		
12	Introduction to forest ecosystems		
16	Forest ecosystems – global to local	PB	BC forests; forest classification and variation
17	Global forest biomes, forest regions of Canada		
19	forest zones of B.C., the BEC system		
23	Primary productivity – transfer and storage of energy	BH	Paper discussion
24	Sources of energy, trophic chains, food webs, ecological		
26	pyramids, energy & carbon flow, production ecology		
30	Biogeochemical cycling & nutrition	PB	Methods of forest community sampling
31	Geochemical, biogeochemical, biochemical cycles, N cycle		
Feb 2	Feb 2 – Midterm I		
6	Physiography & soils – Elevation, slope, soil physical and	PB	
7	chemical properties, soil microbes and fauna		
9	Forest soil bacterial communities – Guest lecture Dr. R. Roy		

Academic Policies and Regulations:

Undergraduate policies and academic regulations 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 University calendar, 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 Con0 Tks sexo relhnetn1.5 (s)2