## BIOLOGY 324 – BIOLOGY OF LAND PLANTS COURSE OUTLINE – SPRING TERM 2016

Monday, Thursday; 1:00 – 2:30 p.m. Engineering and Computer Science (ECS) Rm. 124

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

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

**Lab Instructor:** Ms. Becca Westley email: rwestley@uvic.ca

Course Objectives: To provide a basic understanding of land plant anatomy, morphology, diversity and evolution. We will learn how plants grow and reproduce. Plant response to the environment will be explored on anatomical and morphological levels. We will discuss how plants evolved and the increasing complexity of plant form over time. Laboratory exercises are closely coupled to lecture topics and reinforce the concepts learned in class.

**Textbook:** Raven & Eichhorn (2013) Biology of Plants. 8<sup>th</sup> Edition (2015), Freeman (recommended)

Additional readings may be assigned.

**Lab Manual:** Biology 324 Laboratory Manual 2016 (required - available from the Bookstore)

Web Material: The slides for each lecture will usually be made available before class on the BIOL 324 CourseSpaces site. Please be aware that these are outlines, not detailed notes, which are provided to help you organize and review the lecture material. Exams will be based on lecture material, but readings from the text will help reinforce the concepts.

**Evaluation:** Lab 35%

Midterm Exam (Feb. 18) 25% Final Exam (April 2015) 40%

**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 < 49.5%

There will be no supplemental midterm or final exams. If you miss the midterm for a **documented** medical reason, the evaluation breakdown will be adjusted accordingly. Make-up final exams will only be considered if a formal Request for Academic Concession is provided.

## **Proposed Course Outline**

DATE	<u> </u>	LECTURE	TEXT	LABORATORY
Jan	4	Introduction	Chapters	No lab this week
	7	Cells & tissues	3, 23	
	11	Roots	24	Organs, cells & tissues
	14	Stems	25	
	18	Secondary growth	26	Roots & stems
	21	First land plants	16	Roots & stems
	21	That fand plants	10	
	25	Bryophytes	16	Secondary growth
	28	Bryophytes	16	
Feb	1	First vascular plants	17	Leaves & modified plant organs
	4	Lycophytes & equisetophytes	17	Evolution project due this week
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	8 - 12	Reading Break		Reading Break – no labs
	15	Ferns	17	LAB EXAM 1
	18	MIDTERM	1,	
	22	Progymnosperms & first seed plants	18	Evolution, life cycles & bryophytes
	25	Cycads	18	
3.4	29	Ginkgo & conifers	18	Lycophytes & monilophytes
Mar	3	Conifers	18	Bryophyte project due this week
	7	Gnetophytes	18	Gymnosperms
	10	Angiosperms - flowers	19, 22	Gymnosperms
	10	Thigrosperms nowers	15, 22	
	14	Angiosperms - gametophytes	19	Anthophytes (angiosperms)
	17	Angiosperms - pollination	20	
	21	Angiosperms - seed & fruit	20	LAB EXAM 2
	24	Angiosperms - diversity	20	
	31	Land plant ecology		Anthophyte project due March 29 <sup>th</sup>
	31	Land plant ecology		Anthophyte project due March 29
Apr	4	Land plant ecology		