

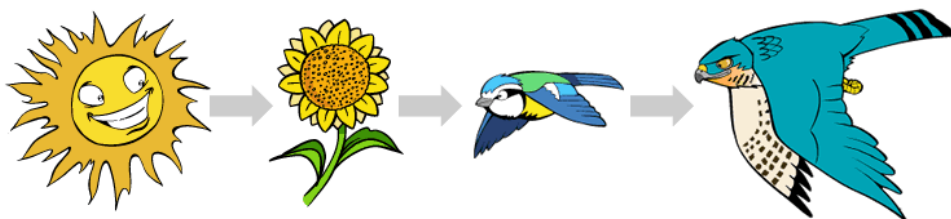
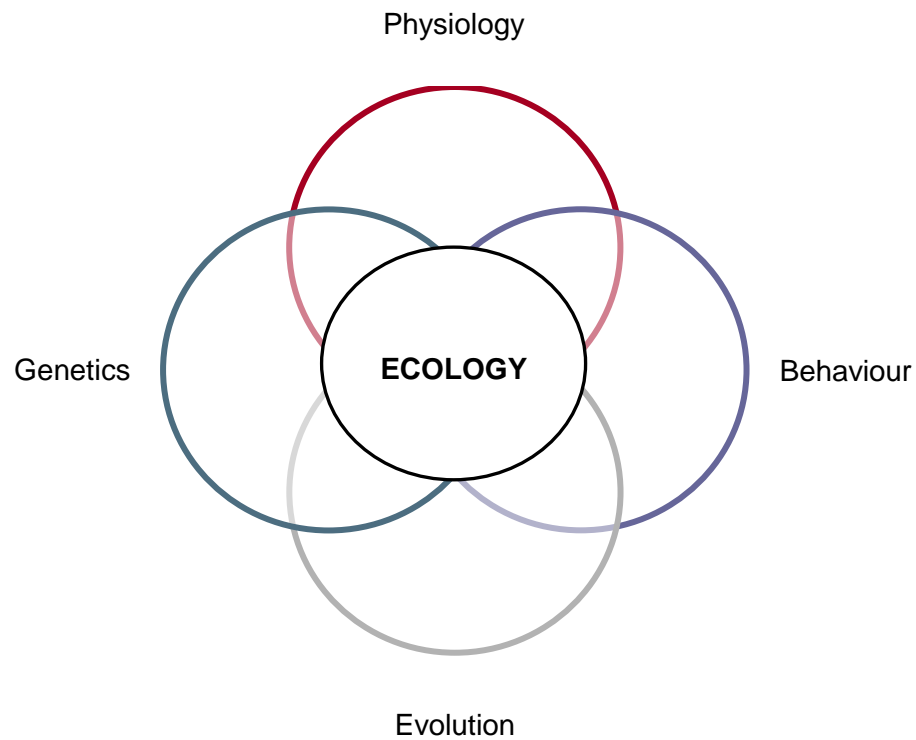
Biology 228

ECOLOGY

Course Outline and Schedule

Fall 2012

Instructor: Dr. David Blundon



COURSE MATERIALS F2012

Textbook (required): Ecology: A Canadian Context by Freedman *et al*, 1st edition
2011, Nelson Education Ltd.

Also available as an eTextbook at:

http://www.coursesmart.com/IR/1736867/9780176501143?_hdv=6.8

Lectures: see schedule

Laboratory and Assignment: see schedule

Form of Communication: D2L email only

<i>CONTENT</i>	<i>Evaluation</i>
	<i>PERCENT</i>
Quizzes	10%
Lecture Midterm	20%
Lecture Final	30%
Lab Assignments	30%
Lab Exam	10%

All lecture testing will be in D2L and consist of multiple choice and single word(s) answers. Quizzes will occur throughout the term and be done on your own computer. They will provide an opportunity to become familiar with the D2L style of testing. The midterm and final exams will be in Ewing computer lab rooms.

Lab attendance is compulsory – ten percent (10%) will be deducted from your final lab grade for each lab missed. Medical circumstances are exempt.

Plagiarism is unacceptable – all involved will receive a zero.

In the lab portion of the course you will be working in pairs so you are encouraged to work collaboratively. You and your lab partner will hand in assignments that must be uploaded in D2L (no exceptions). The lab exam will be in F244.

Make arrangements so that there are no conflicts with the scheduled tests time of the midterm and final exams.

Letter Grades:	A+	90-100%	A	85-89%	A-	80-84%
	B+	77-79%	B	73-76%	B-	70-72%
	C+	65-69%	C	60-64%	D	50-59%
	F	<50%				

F2012 COURSE SCHEDULE

Weeks	Dates	Lecture Topics	Lab Topics
1	September 4 - 7	Introduction	No Lab
2	September 10 - 14	Environmental Factors	Esquimalt Lagoon Field Study (Transect Sampling)
3	September 17 - 21	Energetics	Island View Park Field Trip
4	September 24 – 28	Nutrient Cycling	Set up Lemna Population Lab Statistical Analysis Exercise
5	October 1 - 5	Populations	Discuss Statistical Analysis Niche Overlap Lab Lemna (second count)
6	October 8 October 9 - 12	College Closed Behavioural	Haro Woods Field Study (Ordered Distance Sampling) Discuss Niche Overlap Lab Lemna (third count) Assign I: Statistical Analysis due
7	October 15 - 19	Physiological	Set-up Germination Experiment Discuss Haro Woods Lab Lemna count (fourth count) Assign II: Niche overlap due
8	October 22 – 26	Life Histories	Lecture Midterm (D2L exam in Ewing computer lab) Germination Expt (first count) Lemna (fifth count)
9	October 31 – November 2	Communities	Germination Expt (final count) Assign III: Haro Woods due Lemna (sixth count)
10	November 5- 9	Communities	Mark-Recapture Lab Discuss Germination Lab Lemna (seventh count)
11	November 12 November 13 - 16	College Closed Disturbance	Lemna (final count) Assign IV: Mark-recapture due Discuss Lemna Lab
12	November 19 – 23	Disturbance	Assignment V: Lemna due Lab Assignment VI: Germination due
13	November 26 – 30	Succession	REVIEW
14	December 3 - 7	Biomes	Lab Exam (F244)
15	December 10 - 18	Final Lecture Exam – posted in October (wait until the exam schedule is posted to book a flight)	

GENERAL COMMENTS ABOUT THE SUBJECT OF ECOLOGY AND THIS COURSE

Ecology is the science dealing with the study of the interactions that determines the distribution and abundance of organisms. Ecologists deal with the structure and dynamics of systems that consist of organisms in their biotic and abiotic environments. The particular system studied by an ecologist depends on the level of organization or complexity of interest. These levels of complexity increase from the individual and its immediate environment, to the population, then to the community, and finally to the ecosystem level.

Historically ecology was purely descriptive. From descriptive ecology have come techniques to assess the physical and chemical factors that affect an organism, along with qualitative and quantitative techniques for describing individuals, populations and communities. Modern ecology is an empirical and experimentally based science attempting to answer ecological questions using sampling and analytical techniques. The study of ecology has become more rigorous in approach and more strongly oriented toward the testing of hypotheses. That is, ecological hypotheses ask why something happened and not just what happened. In order to go beyond merely counting of organisms, quantitative methods and techniques of mathematical and statistical analysis have gained prominence. Computer simulations and analyses are now the tools used to apply this hypothesis-testing approach to the most complex levels of ecological organization. As in all ecological work, it is important to think before you leap into analysis.

The exercises in this laboratory manual emphasize quantitative methods that are frequently used in ecology. This manual is meant to stand alone and complement the lecture portion of the course. Biology 228 is a general survey course and attempts to provide a balanced approach emphasizing a common body of theory and technique existing in ecology.

NAME: David Blundon

Office: F246

Phone: 3984

Semester: F2012

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
8:30-9:20							
9:30-10:20		Biol 228 01A F244	ENVR 246 X01 Y220				
10:30-11:20							
11:30-12:20	Office Hour				Office Hour	Office Hour	
12:30-1:20	Biol 228 Y310		Biol 228 Y310		Biol 228 Y216		
1:30-2:20	Office Hour	Biol 228 01B F244		ENVR 246 X01 F244	Office Hour		
2:30-3:20			Biol 228 01C F244				
3:30-4:20							
4:30-5:20							
5:30-6:20							
6:30-7:20							
7:30-8:20							
8:30-9:20							