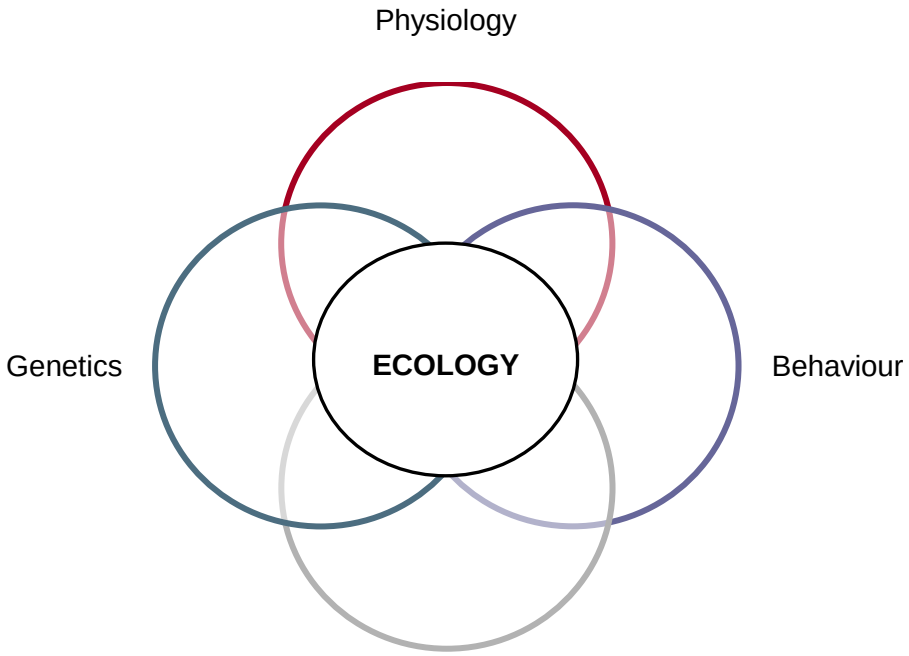
Biology 228

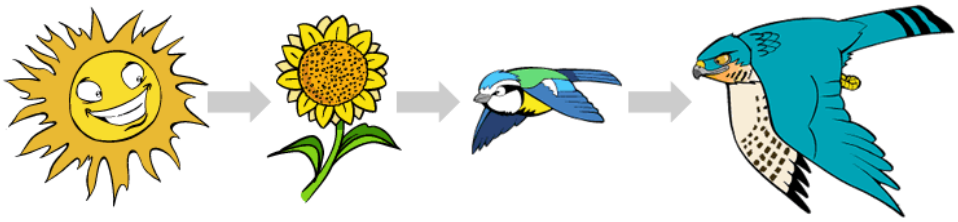
ECOLOGY

Course Outline and Schedule

Fall 2017

Instructor: Dr. David Blundon





COURSE MATERIALS F2016

Textbook (required): SimBio (ebook).

Lectures: see schedule

Laboratory and Assignment: see schedule

Evaluation

CONTENT	*PERCENT*
Lecture Quizzes & Assignments	10%
Lecture Midterm	20%
Lecture Final	30%
Lab Assignments	30%
Lab Exam	10%

Lecture exams will consist of multiple choice and short and long answer questions. Lecture quizzes and assignments are from SimBio and are based on SimBio chapters.

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 one assignment on paper (typed) for a total of six lab assignments. 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%				

F2017 COURSE SCHEDULE

Weeks	Dates	Lecture Topics	Lab Topics
1	Sept. 5 - 8	Introduction (What is Ecology)	No Lab
2	Sept. 11 – 15	Introduction Cordova Shore	Basic Statistics Setup *Lemna* Lab
3	Sept. 18 – 22	Life History, Adaptation and Environment	*Lemna* Count Island View Park Field Trip
4	Sept. 25 – 29	Life History, Adaptation and Environment	*Lemna* Count Rithet's Bog Field Trip Stats Due
5	Oct. 2 - 6	Nutrient Cycling	Lemna Count Niche Lab
6	Oct. 9 Oct. 10 – 13	College Closed Population Ecology	No Lab *Lemna* Count?
7	Oct. 16 – 20	Population Ecology	*Lemna* Count Haro Woods Field Study Niche Due
8	Oct. 23 – 27	Population Ecology	Lecture Midterm (Tuesday) *Lemna* Count Setup Germination Lab
9	Oct. 30 - Nov. 3	Competition	Germination Count *Lemna* Count Mark Recapture Lab Haro Woods Due
10	Nov. 6 - 10	Competition	Germination Counts *Lemna* Due
11	Nov. 13 Nov. 14 –17	College Closed Community Dynamics	No Lab Mark Recapture Due
12	November 20 – 24	Community Dynamics	Germination Due
13	Nov. 27 – Dec. 1	Ecosystem Ecology	Review
14	Dec. 4 – 8	Ecosystem Ecology	Lab Exam (F244)
15	Dec. 11 - 19	Final Lecture Exam – posted October 20. (please don't book travel plans before this date)	

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.

Dr. David Blundon

Office F246 **Schedule F2017** **Phone 3984**

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:30-9:20						
9:30-10:20	BIOL 228 001A Lab F244	BIOL 228 Lec A/B F200		BIOL 228 Lec A/B F200	ENVR 246 001 Lec F210	
10:30-11:20		Office Hours		Office Hours		
11:30-12:20					Office Hours	
12:30-1:20						
1:30-2:20	BIOL 228 001B Lab F244	Office Hours				
2:30-3:20		ENVR 246 001 Lab 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						