

BIOL 355 Ecology and Evolution (Fall 2009)

Instructor : Dr. Jim Barron, office – Rm 132 Science, 657-2918
Office Hours: MWF 10:30-11:30 or By Appointment or Walk In ANYTIME
Email: jbarron@msubillings.edu

Textbook: *Ecology 6th ed.*
By: Charles J. Krebs

Expected Outcomes and Assessment (i.e. objectives and grading): The objective of this course is to expose you to the broad range of evolutionary and ecological theory. To assess your understanding and knowledge, you will be graded on three lecture exams and a cumulative final exam. Exams will consist of multiple choice, matching, fill-in-the-blank, short answer, and essay questions covering material from lecture, handouts, and the text. The multiple choice, matching, and fill-in questions will primarily test your knowledge of facts and theories, while the short answer and essay questions will assess your deeper understanding of the concepts and your ability to synthesize answers to questions for which you have not been previously given answers. **Exams tend to be long; - clear your schedule after this class on exam days.**

- Of the three lecture exams, the one that you score lowest on will be worth 20% of your grade, and the remaining two will each be worth 25%
- The final exam will be comprehensive and will be worth 30% of your final grade

Grades are guaranteed: 90-100%=A; 80-89%=B; 70-79%=C; 60-69%=D; below 60% = F
I **may** use minus (-) grades at my discretion if I feel it is warranted. In all cases, these would only help you. For example, a score of 69 should be a D, but I may give it a C-. A score of 70 will always be a solid C. I will not use plus (+) grades.

THERE WILL BE MATERIAL ON THE EXAMS THAT WAS COVERED IN LECTURE THAT WAS NOT IN THE TEXT, AND MATERIAL THAT WAS IN THE TEXT THAT WAS NOT SPECIFICALLY COVERED IN LECTURE. COME TO LECTURE AND READ THE BOOK.

Extra Credit - Although there will be some 'extra credit' questions on each exam, I will not accept ANY 'extra credit' reports or other special projects for the purpose of raising grades. Please do not ask me if you can do a special project for extra credit to raise your grade. Instead, put that effort into studying for the exams in the first place.

Academic Misconduct: I WILL NOT TOLERATE CHEATING OR PLAGIARISM. A student caught cheating will receive a zero on the exam, potentially an F in the course, and a referral to the office of Student Affairs.

Make-up Exams: Make-up exams will be given on Friday, December 7 from 7:00 am-9:00 am, in Science 106.

Students with disabilities, whether psychological, physical or learning, who believe they may need accommodations in this class, are encouraged to meet with Disability Support Services located in the Academic Support Center. Students who are registered with DSS and need accommodations in this class should meet with me early in the semester.

Date	Topic	Reading
	WEEK 1	
Sept. 9	Introduction	Chap. 1
Sept. 11	Evolution and Ecology	Chap. 2
	WEEK 2	
Sept. 14	Evolution and Ecology Cont.	Chap. 2
Sept. 16	Behavioral Ecology	Chap. 3
Sept. 18	Analyzing Geographic Distributions	Chap. 4
	WEEK 3	
Sept. 21	Biotic Factors Limiting Distributions	Chap. 5
Sept. 23	Biotic/Abiotic Factors Limiting Distributions	Chaps. 5 & 6
Sept. 25	Abiotic Factors Limiting Distributions	Chap. 5
	WEEK 4	
Sept. 28	Distribution and Abundance	Chap. 7
Sept. 30	EXAM 1	Chaps. 1-7
Oct. 2	Population Parameters and Demographic Techniques	Chap. 8
	WEEK 5	
Oct. 5	Population Parameters and Demographic Techniques	Chap. 8
Oct. 7	Population Growth	Chap. 9
Oct. 9	Population Growth	Chap. 9
	WEEK 6	
Oct. 12	Competition	Chap. 10
Oct. 14	Predation	Chap. 11
Oct. 16	Herbivory and Mutualism	Chap. 12
	WEEK 7	
Oct. 19	Disease and Parasitism	Chap. 13
Oct. 21	EXAM 2	Chaps. 8-13
Oct. 23	Regulation of Population Size	Chap. 14
	WEEK 8	
Oct. 26	Applied Problems: Harvesting Populations	Chap. 15
Oct. 28	Applied Problems: Pest Control	Chap. 16
Oct. 30	Applied Problems: Conservation Biology	Chap. 17
	WEEK 9	
Nov. 2	Applied Problems: Conservation Biology	Chap. 17
Nov. 4	Succession	Chap. 18
Nov. 6	Biodiversity	Chap. 19
	WEEK 10	
Nov. 9	Biodiversity	Chap. 19
Nov. 11	Veteran's Day – No Class	
Nov. 13	Predation and Competition in Equilibrium	Chap. 20
	WEEK 11	
Nov. 16	Disturbance and non-equilibrium	Chap. 21
Nov. 18	EXAM 3	Chaps. 14-21
Nov. 20	Primary Production	Chap. 22
	WEEK 12	
Nov. 23	Secondary Production	Chap. 23
Nov. 25	Thanksgiving Break	
Nov. 27	Thanksgiving Break	
	Week 13	
Nov. 30	Nutrient Cycles	Chap. 24
Dec. 2	Ecosystem Dynamics and Climate Change	Chap. 25
Dec. 4	Ecosystem Health and Human Impacts	Chap. 26
	WEEK 14	
Dec. 7	Review and Catch-up	
Dec. 9	Cadillac Desert – An American Nile	
Dec. 11	Cadillac Desert – The Mercy of Nature	
	FINAL EXAM	
Dec. 14	8:00 – 9:50 AM FINAL EXAM	(Cumulative, with emphasis on material since exam 3)