Evolutionary Ecology (Bio. 143) Class Schedule

Class		Date	Topic	Reading	
1	W	9/9	Course introduction–Historical Context	Ch 1	C
2	F	9/11	Tree of Life	Ch 2	C
3	W	9/16	Patterns of Evolution	Ch 3	C
4	F	9/18	Evolution in the Fossil Record	Ch 4	C
5	W	9/23	History of Life on Earth	Ch 5	C
6	F	9/25	Geography of Evolution	Ch 6	C
7	W	9/30	Evolution of Biodiversity *Due: Problem Set I*	Ch 7	C
8	F	10/2	Origins of Genetic Variation	Ch 8	E
	F	10/2	*Seminar by Dr. Doug Emlen "The origin and evolutionary diversification of beetle horns" (see pg 574 in text)*		
9	W	10/7	Genetic Variation in Populations	Ch 9	E
10	F	10/9	Random Change by Genetic Drift	Ch 10	E
11	W	10/14	Deterministic Change by Natural Selection	Ch 11	E
12	F	10/16	*Literature Report I*	None	
13	W	10/21	Theory of Natural Selection *Due: Problem Set II*	Ch 12	E
14	F	10/23	Phenotype Evolution	Ch 13	E
15	W	10/28	**Mid-term exam (through chapter 13)**	None	
16	F	10/30	How to be Fit	Ch 14/15	C
17	W	11/4	Conflict and Cooperation	Ch 16	C
18	F	11/6	Species	Ch 17	E
19	W	11/11	Models of Speciation	Ch 18	E
20	F	11/13	Coevolution	Ch 19	C
21	W	11/18	Evolution of Genes and Genomes	Ch 20	E
22	F	11/20	*Literature Report II*	None	
	W	11/25	University holiday—no class	None	
	F	11/27	University holiday—no class	None	
23	W	12/2	Evolution and Development	Ch 21	E
24	F	12/4	Macroevolution	Ch 22	E
25	W	12/9	Evolution and Society	Ch 23	C
26	F	12/11	**Final exam & course evaluations**	None	

Course description.

Theory and evidence on mechanisms of evolutionary change in natural populations. Population genetics, speciation, biogeography, biochemical coevolution, life history strategies, sexual selection, and genome evolution. Prerequisites: Bio 14 or equivalent. *Dr. Orians & Dr. Dopman*

Block E+: W & F 10:30-11:45 AM Barnum 114.

Contact info and office hours.

Dr. Colin Orians Barnum 203, x7-3543, colin.orians@tufts.edu Office Hours: T 1-3 pm or by appointment

Dr. Erik Dopman Barnum 209, x7-4360, erik.dopman@tufts.edu Office Hours: M 9:45-11:45 am hours or by appointment.

Text.

Futuyma, D. J. 2009. Evolution, 2e. Sinauer Associates, Inc., Sunderland MA.

Assignments.

1. Problem Sets 10%
   Due W 9/30 & F 10/23
2. Oral Literature Reports 15%
   F 10/16

"Replaying evolution," "Evolution of Invasions," "Evolution of Domestication"
   F 11/20

"What is the locus of evolution?", "Evolution of mimicry," Evolution of Aging"

3. Written Literature Report 15%
   Individual 2-page (750 words) report and discussion of one issue related to oral literature report topic; *normally due one week after presentation*.
4. Mid-term 20%
   In class, F 10/28
5. Final Exam 35%
   Take home, due Tuesday 12/15 at 5 PM
6. Attendance and Participation 5%
   You are strongly advised to attend class. Some material covered in lecture will not be in the text. You are responsible for this material even if you are absent from class. While lectures will emphasize important points in the readings, you are also responsible for all material in the assigned readings even if it is not discussed in the lectures.

Academic dishonesty.

It is firm policy in this course that cheating, facilitation of cheating or plagiarism are unacceptable violations of academic integrity. Academic dishonesty will result in a failing grade.