

BSC 413/513 PRINCIPLES OF ORGANIC EVOLUTION – Fall 2016

TEXT: D. Futuyma. 2013 *Evolution*. 3^d Ed. (2009 2nd Ed is also OK).

PLACE & TIME: Science Building 376: MWF, 2 – 2:50 pm.

INSTRUCTOR: Dr. Victor Fet email: fet@marshall.edu

Office: Science Building 206, phone: 696-3116. Office Hours: MWF 10-12, Tue 2-3:30.

Course Description: Facts and possible mechanisms underlying the unity and diversity of life with emphasis on neo-Darwinian concepts of the role of species in evolutionary phenomena.

Pre-requisite(s): BSC 302 or BSC 320 or BSC 322 or BSC 324; 3 credit hours.

Desired Learner Outcomes: to understand basic fundamental mechanisms of biological evolution as known to modern science. You will be expected to keep up with the assigned class readings.

Assessment & Grading: 4 tests (including final) @ 100 pts= 400 pts; 15 quizzes @ 10 pts=150 pts; 5 homework assignments @ 30 pts=150 pts; term paper = 100 pts; total 800 pts (undergraduates). GRADUATE students will write an additional paper (50 points).

Guidelines on term paper writing will be distributed separately.

SCALE (%) 90-100, A; 81-89, B; 71-80, C; 60-70, D; below 60, F.

If you miss a quiz or a test you can make it up only if you have university excuse.

NO EXTRA CREDIT WILL BE GIVEN.

Plagiarism Policy/Academic Honesty: plagiarism or cheating will not be tolerated, and will result in immediate dismissal (F grade).

Attendance is not mandatory, but you are absolutely and solely responsible for any material covered or announcements made in class.

Inclement Weather Policy and Disabled Student Accommodation: see University standards.

Please feel free to discuss with me any problems you might be having (email preferred).

PLEASE MAKE GOOD LECTURE NOTES !!!

<u>Dates</u>	<u>Lecture Topic</u>	<u>BOOK CHAPTER</u>
Aug 22-24	Introduction & Short History	1 (part)
Aug 26-31 (no class Friday Sept 2 and Sept 5, Labor Day Monday), Sept 7-16	The Tree of Life; Patterns of Evolution	2, 3
Sept 19-23	Fossil Record; History of Life – 1	4, 5 (part)
Monday Sept 26 Test 1 (Ch. 2-5); term paper guidelines distributed		
Sept 28, 30	History of Life – 2	5 (end)
Oct 3-7	Geography of Evolution	6
Oct 10-14	Origin of Genetic Variation (mutations)	8
Oct 17-21	Variation: The Foundation of Evolution	9
Monday Oct 24 Test 2 (Ch. 5-9); email first draft of your term paper!		
Oct 26- 31	Genetic Drift: Evolution at Random	10
Nov 2-14	Natural Selection & Adaptation; The Genetic Theory of Natural Selection	11, 12 (parts)
Wednesday Nov 16 Test 3 (Ch. 10-12); email final PDF of your term paper!		
Nov 18	Introduction to Species	17
Nov 21-27 THANKSGIVING BREAK		
Nov 28, 30, Dec 2	Species	17
Dec 5-9 “Dead week”	Speciation	18
(Friday December 9: Last Day to Drop Class!)		
Final Test (comprehensive!): Monday, December 12, 12:45-2:45		