COURSE: BI 100-02 – Principles of Evolution and Ecology

(First Year Science Seminar: Science, Society, and the Biosphere)

TIME: 08:30-09:20 AM, Fridays (August 24 - Dec. 4, 2015)

PLACE: Henry Hall 202

INSTRUCTOR: Dr. Hank Trapido-Rosenthal **Phones:** 735-4808 (CU) and 551-3625 (cell) **email:** henry.trapido-rosenthal@chaminade.edu

OFFICE: WSC 101 **OFFICE HOURS:** When the office door is open, or by

appointment

TEXT: *Big Questions in Ecology and* Evolution, by T.N. Sherratt and D.M. Wilkinson; other reading materials will be available on the course website

COURSE DESCRIPTION: This course is designed to introduce you the concept of using ecological and evolutionary concepts in our studies of our planet's biosphere. This will be done by critical reading of review literature, largely that presented in the Sherratt and Wilkinson book *Big Questions in Ecology and Evolution*, but also including some articles from the primary literature.

OBJECTIVES:

- 1. To understand the way the scientific method is used to gain knowledge.
- 2. To gain some basic knowledge of the processes of our natural environment.
- 3. To increase awareness of the complex relationships among all living things and their non-living environment.
- 4. To examine man's past and present relationship with his environment and the possible affects of these relationships on our future.

LECTURES:

- 1. Lecture topics and text assignments are listed in the course outline.
- 2. The instructor reserves the right to add, omit, or change the materials as he sees fit.

ATTENDANCE:

- 1. Presence in class is mandatory & necessary in order for a student to fully grasp concepts.
- 2. Too many unexcused absences will result in a grade reduction.
- 3. If you do miss a class session it is **YOUR** responsibility to ask the instructor or your classmates for the information that you missed.

MISCELLANEOUS:

- 1. *Music Devices and Cellular Phones:* Unless specifically permitted by your instructor, use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes, as it is discourteous and may lead to suspicion of academic misconduct. Students unable to comply will be asked to leave class.
- 2. ADA Accommodations: Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from CUH Couseling Center (Dr. June Yasuhara, 735-4845) by the end of the third week of classes. Failure to provide written documentation will prevent your instructor from making necessary accommodations. Please refer any questions to the Dean of Students and review procedures at www.chaminade.edu/student_life/sss/counseling_services.php

EXAMS, QUIZZES & GRADES:

- 1. All exams & quizzes will consist of multiple choice, true-false, and short essay questions. You will be graded on your ability not only to answer the question (some can be answered in several ways), but also in how effectively you can defend your answer/position using your knowledge of the subject & applying what you learned through the use of appropriate facts/examples. Thus all questions asking for your opinion or position, whether stated or not have an implied "Why?" or "How?" question attached.
- 2. Quizzes will be unannounced & if missed cannot be made up w/o a valid excuse.
- 3. If you are absent it is your responsibility to inform the instructor and to inquire about missed assignments, tests, etc. & to make these up on the day of your return to class. Otherwise this will be considered an unexcused absence & the work cannot be made up.
- 4. Grades will be based on the following system & scale:

Grade Scale:		Grading System:	
85% & above	=A	Quizzes	60%
70 - 84.9%	= B		
60 - 69.9%	= C	Final	40%
50 - 59.9%	= D		
49 9% & below	v = F		

BI 100-01 Course Schedule

Date Subject Readings

August	28	Course Introductions My past and present, your present and future Entry Examination	
		Introduction to Science	Lucas-Clark, What to Tell Students About Science
September 4		Papal Encyclical: On Care for Our Common Home	
		Earth History	
	11	Background Meteorology and Oceanography	
	18	Why Do We Age?	Sherrat & Wilkinson, Chapter 1
	25	Why Do We Eat Fish?	

October	2	Why Do We Have Sex?	Sherrat & Wilkinson, Chapter 2
	9	Why Do We Cooperate? Tragedy of the Commons	Sherrat & Wilkinson, Chapter 3 Hardin Articles
	16	Young and Old	
	23	Why Value Biodiversity?	
	30	What Can We Learn from Whales?	Palumbi Articles, Roman et al., 2014
November	6	Domestication and Evolution	Diamond, 2002
	13		
	20	Why are there disparities between Pacific Islanders and Europeans, Asians, and Americans?	Various Reading, To Be Determined
	27	No Class – Day After Thanksgiving	
December	4	Review for Final	
		Course Evaluation	
	10	Final Exam, 8:30	