Core Biology II (BIO 140)
Rhodes College
Spring 2008
MWF 8:00am
Frazier-Jelke B
Dr. Sara Gremillion

## Course Purpose

The purpose of this course is to understand basic principles and current knowledge of the biology of organisms. Themes of this class will include the following:

- 1) The process of evolution and the diversity of life
- 2) Plant comparative anatomy and physiology
- 3) Animal comparative anatomy and physiology
- 4) Animal behavior
- 5) Ecology

After successfully completing this course students will have gained a very thorough background in organismal level biology. Biology majors will secure a solid background (along with Bio. 130) that will be needed for our upper-level courses. Non-majors should be able to recognize, understand and come to value the role biology plays in their lives and in a global context.

# Attendance and Participation

Attendance is a key component of doing well in this course. Student's who skip class and rely on other's notes, power points and the text may not adequately understand and connect important course topics and themes. Also, students will be expected to contribute to this class by participating. Examples of such contributions include asking questions when appropriate, answering questions when asked, maintaining a positive attitude, and coming to class on time.

Students are expected to take detailed notes in class as well as read assigned material. Power points will be available after class.

#### Grading

Makeups for missed exams will require documented medical emergencies involving the student or a member of the student's immediate family. Students who will be traveling off-campus during the semester for a **school-related purpose** (i.e. athletics, mock trial team, etc.) must submit a schedule with conflicting test dates highlighted to the professor **during the first week of class**.

## 1. Quizzes (15%)

Quizzes will be taken every Friday and will be available on Moodle at least 24 hours before class. They will be "turned off" at 7:40 am (20 minutes before class). If you fail to take a quiz you will receive a zero for that quiz. Each quiz will cover class and outside reading material covered since the preceding quiz. In addition, each quiz will cover general aspects of the work that you'll be beginning that day, so you should read assignments in advance. The quiz grades will comprise 15% of a student's final grade.

#### 2. Written Exams (60%)

There will be four examinations, each covering approximately one fourth of the course material. Each exam will require students to the major concepts covered in class as well as outside readings. The lowest grade of the four exams will be dropped. The three remaining exams will comprise a total of 60% of the final grade (20% + 20% + 20%).

# 3. <u>Cumulative Final Exam</u> (20%)

A cumulative final will include questions testing student's ability to synthesize all major topics cover in the course. It is worth 20% of the final grade.

## 4. <u>Seminars</u> (5%)

There will be Biology departmental seminars throughout the semester. Attendance along with a one page, typed summary and critique of **two** seminars will determine 5% of the final grade. Papers will be due on Moodle within 48 hours of the seminar. Late papers will not be accepted. Unless announced otherwise, seminars are scheduled on Mondays in FJ–B at 4:15 PM (see syllabus for topics).

Grading Scale for Dr. Gremillion's Bio 140 lecture course								
Grade	Score	Grade	Score					
A	93-100	С	73-76.9					
A-	90-92.9	C-	70-72.9					
B+	87-89.9	D+	67-69.9					
В	83-86.9	D	63-66.9					
В-	80-82.9	D-	60-62.9					
C+	77-79.9	F	59.9 or less					

# **Contact Information**

Dr. Sara Gremillion
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Phone: x3699
Email: gremillions@rhodes.edu
Office hours:
Monday 1:00-2:00pm
Wednesday 1:00-2:00pm

Thursday 1:00-2:00pm Or by appointment

Email communication by Dr. Gremillion to students carries the same weight as do announcements made in class.

# Syllabus

Week	Date	Topic	Reading*	Seminar**		
	The	The syllabus schedule & topics are subject to change				
1	W Jan. 9	Introduction – Evolution	Ch. 22-23			
	F Jan. 11	Evolution	Ch. 24			
2	M Jan 14	Evolution	Ch. 24			
	W Jan 16	Diversity of Life- Prokaryotes	Ch. 26-27			
	F Jan. 18	Diversity of Life – Protists	Ch. 28			
	M Jan 21	Martin Luther King Day – no class				
3	W Jan 23	Diversity of Life – Plants and Fungi	Ch. 29 & 31			
	F Jan 25	Diversity of Life – Animals	Ch. 32			
4	M Jan 28	Plant Biology	Ch. 35	FJB 4:15pm		
	W Jan 30	Plant Biology	Ch. 36			
	F Feb 1	Plant Biology	Ch.38-39			
	M Feb 4	Exam I				
5	W Feb 6	Animal Form & Homeostasis	Ch. 40			
	F Feb 8	Animal Nutrition & Tissue	Ch. 41			
6	M Feb 11	Nutrition, Digestive System	Ch. 41	FJB 4:15pm		
	W Feb 13	Circulation	Ch. 42			
	F Feb 15	Circulation	Ch. 42			
7	M Feb 18	Gas Exchange	Ch. 42			
	W Feb 20	Immune System	Ch. 43			
	F Feb 22	Osmoregulation & Excretion	Ch. 44			
8	M Feb 25	Exam II				
	W Feb 27	Hormones & Endocrine	Ch. 45			
	F Feb 29	Hormones & Endocrine	Ch. 45			
9	Mar 3-7	Spring Break- no class				
10	M Mar 10	Immune System	Ch. 43			
	W Mar 12	Immune System	Ch. 43			
	F Mar 14	Development	Ch. 47			
11	M Mar 17	Nerve Function	Ch. 48			
	W Mar 19	Nerve Function	Ch. 48			
	F Mar 21	Easter Recess- no class				
12	M Mar 24	Sensory System	Ch. 49			
	W Mar 26	Sensory System	Ch. 49			
	F Mar 29	Exam III				

13	M Mar 31	Reproduction	Ch. 46	
	W Apr 2	Reproduction	Ch. 46	
	F Apr 4	Behavior	Ch. 51	
14	M Apr 7	Behavior	Ch. 51	FJ B 4:15pm
	W Apr 9	Ecology- Intro	Ch. 50	
	F Apr 11	Population Ecology	Ch. 52	
15	M Apr 14	Community Ecology	Ch. 53	
	W Apr 16	Ecosystems	Ch. 54	
	F Apr 18	Conservation Biology	Ch. 55	
16	M Apr 21	Exam IV		
	W Apr 23	Final Review		
	F Apr 25	URCAS – no class		
17	W Apr 30	Cumulative Final Exam		

\*Text: Campbell, N. A. and J. B. Reece. 2005. *Biology* 7<sup>th</sup> ed. New York: Benjamin Cummings.

# \*\*Seminar descriptions (all held in Fazier Jelke B at 4:15pm)

January 28: <u>Dr. Carolyn Jaslow</u> - "From Here to Fertility: More Than Just a Roll on the Beach."

February 11: <u>Dr. Andrew Jackson</u> - "Why It Takes a Biologist to Clean Up a Rocket Scientist's Mess: The Biological Impact and Control of Perchlorate (ClO4-) in the Environment"

April 7: Natalie Bailey - "Eating in The Rat or Eating Rats? From Rhodes to the Bushmeat Crisis"

All student are expected to abide by the Honor Code, "As a member of the Rhodes community, I pledge I will not lie, cheat, or steal, and that I will report any such violation that I may witness."