Valdosta State University

Department of Biology, College of Arts and Sciences

ISCI 3103: Natural History for Middle School Teachers

Lecture and Lab Syllabus, Fall 2013

Instructor: Dr. Cy L. Mott

Office: Bailey Science Center 1212

Office Hours: Monday 2:00 4:00 P. M., Tuesday 3:30 4:30 P. M. or by appointment

Phone: 229-333-7851

E-mail: clmott@valdosta.edu

Note: Please DO NOT send messages through BlazeVIEW, as they are not automatically forwarded to my VSU email account. Using the email address above will result in the most prompt response.

Course Time and Location: Lecture (Bailey Science Center #1024): Tu Th 2:00 3:15 P. M.

Lab (Bailey Science Center #1043): Tu 10:00 11:50 A. M.

Required Texts:

Custom designed E-Book by McGraw Hill (www.mcgrawhillcreate.com/shop)

You are required to have access to the course textbook in order to complete assigned readings. Readings are to be completed ***before*** class in order to be able to participate in class activities. Homework/exam questions will be based on readings from the text as well as in-class material.

Course Description: Natural History is the study of the relationships between living organisms and how they interact with, influence, and are influenced by their natural surroundings, primarily examined through observational rather than experimental approaches. According to the VSU

Georgia and associated biological processes. Using the biota of southern Georgia as a model, students will study basic ecological principles, population structure and dynamics, life history patterns, and reproductive strategies and behaviors common to living systems. Special topics covered in the course include the biology of rare and endangered species and the importance of

Course Objectives: ISCI 3103 addresses the VSU General Education Outcome that specifies

in lab

ecological data pertaining to the behavior of the individual organism in its natural environment; to the structure and function of populations, communities, and ecosystems; and to human

scientific and educational disciplinary training by allowing future teachers to learn new scientific information through a variety of instructional strategies. The course has been designed to model methods that enact the rhetoric of the science education reform movement. This nontraditional approach to college science is structured to help prospective middle school teachers make connections between methods of teaching and the process of learning science.

Attendance: Attendance in lecture and lab is expected of all students (updated records of your attendance **will not** be provided throughout the semester, therefore students who frequently miss class must be responsible for keeping track of their own attendance habits). Any student missing more than 20% of the scheduled class time (i.e. combined lecture and lab missed) will -attendance; students arriving > 5 minutes late to lecture or lab will earn minutes late to lecture or lab will be counted as absent for that day. Excused absences for college-approved activities and in cases of

of cheating to the instructor will be considered an accomplice and subject to similar penalties as those actually cheating.

I maintain office hours for students needing to discuss course material, and these hours will always be available unless students are otherwise notified in advance. Office hours are meant to address specific questions students may have, not to re-teach lecture material in the case of student absence. If students cannot attend these scheduled office hours, they may make an appointment for an alternate time. However, if a student schedules an appointment outside of scheduled office hours and does not arrive, that student will lose the opportunity to schedule appointments outside of established office hours in the future.

NEVER, EVER, EVER, <u>EVER</u> EMAIL ME TO ASK WHAT YOU MISSED IN LECTURE/LAB IF YOU ARE ABSENT; IT IS YOUR

h) D for Degree

are graduating with a biology degree, to such extent that just having the degree is no longer the easy way into getting a job. Due to the overabundance of degree-holders, those with lower GPAs will only have those jobs available to them that better students did

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now as a student, and you should get into the habit of practicing good workplace ethics now: be on time, be prepared, and take responsibility for yourself (because no one else will!)

TENTATIVE Schedule: Subject to change

Date	Topic	Reading
13-Aug	Course Introduction; Life, Science, and Natural History	Ch. 1 What is Biology?
15-Aug		
20-Aug	The Physical Template of Life	Ch. 2 Life on Land Ch. 3 Life in Water
22-Aug		
27-Aug	Nutrient Cycling	Ch. 4 Food Webs and Energy Flow
29-Aug		Ch. 5 Biogeochemical Cycles
3-Sep	**EXAM 1**	
5-Sep	Population Ecology/Dynamics	Ch. 6 Population Ecology
10-Sep		
12-Sep	Community Ecology/Species Interactions	Ch. 7 Species Interactions and Comm. Ecol. Ch. 8 Species Abundance and Diversity
17-Sep		
19-Sep	Species Richness and Succession	Ch. 9 Species Richness Patterns
24-Sep		Ch. 10 Succession
26-Sep	**EXAM 2**	
1-Oct	Life History Strategies	Ch. 11 Life Histories
3-Oct		
8-Oct	The Value of and Threats to Biodiversity	Ch. 12 Biodiversity: Preserving Space
10-Oct		Ch. 13 Biodiversity: Preserving Landscapes
15-Oct	Classifying Life	Ch. 14 Classification / Evolution of Organisms
17-Oct		
22-Oct	**EXAM 3**	

TENTATIVE Schedule: Subject to change

Date	Lab
13-Aug	M & M Lab
15-Aug	
20-Aug	Climatogram Lab
22-Aug	
27-Aug	Food Web Lab
29-Aug	
3-Sep	Host-Parasite Lab
5-Sep	
10-Sep	Niche Overlap Lab
12-Sep	
17-Sep	Species Diversity Lab
19-Sep	
24-Sep	Cane Toad Video Activity
26-Sep	
1-Oct	"Cemetery" Lab
3-Oct	
8-Oct	Economic Value of Amphibians Lab
10-Oct	
15-Oct	Phylogeny Lab
17-Oct	
22-Oct	Natural Selection / Ring Species Dating Game
24-Oct	
29-Oct	Data Mining Lab
31-Oct	
5-Nov	Human Evolution Lab
7-Nov	
12-Nov	Addressing Evolution in the Classroom
14-Nov	
19-Nov	TBD
21-Nov	
26-Nov	No Lab
28-Nov	

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