# Biology 1952H: The Evolution & Diversity of Life Spring 2011

**Department of Biology, College of Arts & Sciences, Valdosta State University**

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**Office Hours: Monday & Wednesday 11:00-12:00** or By Appointment. Please feel free to call the office or use email to schedule a convenient time. Anytime I am in my office, you are welcome to stop in to ask quick questions.

**Custom Textbook: 16 Chapters from McGraw Hill's Biology: Concepts & Investigations (2009). by Marielle Hoefnagels.**
One chapter is from *Biology (9th Edition) by Raven et al*. This book will provide critical scientific content and you are required to read the chapters listed in the *Course Schedule* before the lecture on the day they are listed. There will be some impromptu writing assignments in class that will be based on the reading. Information in the text could be included on the examinations whether or not it is mentioned in class.

**Course Objectives:** This class fulfils 4 of the 11 general education credit hours required in section D1 (Science, Mathematics, and Technology) of the VSU core curriculum as prescribed by the University System of Georgia. According to the VSU Undergraduate Course Catalog, BIOL 1952 is ñan introduction to modern biology with an emphasis on the diversity of life on Earth and a close examination of ecological and evolutionary processes and relationships taught in an enriched environment.ò

**Course Description:** The course has a 3-2-4 credit hour format. Each of the two class meetings per week will begin with a one hour inquiry-oriented lab activity followed by a lecture/discussion session. We will meet on Mondays and Wednesdays from 2:00-4:15 in room 1043 of the BSC. Lectures will consist of visual PowerPoint presentations with slides that will consist mostly of images with very little text. This requires students to be present, listen carefully, and take careful notes in order to assimilate the course content. Lectures will not be taken from the text, so there is no reason to haul the book to class. Do not assume that these sessions will be endless monologues; there will be frequent discussions. You are welcome to ask questions, and I will frequently ask questions and appreciate/expect voluntary responses.

**Instructional Philosophy:** My role as the instructor is to provide coherent explanations of these aspects of biological science, but you hold the responsibility for learning this material. Just attending class, memorizing material, and taking the tests is not enough. You will only learn by making an effort on the assignments and studying because I design conceptual test questions that require you to think and demonstrate that you have mastered the material. Rote learning (memorization) is the most transient form of knowledge and is a waste of time because you will forget most of it quickly. However, if you develop a true conceptual understanding of the material, you will not forget most of what you learn and it will be a much better use of your time and mine.

**Academic Honesty:** Class members are expected to maintain high standards of integrity. This course will use the VSU Handbook Code of Ethics as a basic standard of behavior, but everyone in the class is required to read the Biology Department Plagiarism Policy and you are expected to sign-off that you understand this document as part of your student information sheet. Dishonesty will not be tolerated and any student misconduct will be reported to the Office of the Dean of Students. Evidence of cheating will result in no credit for the assignment or depending on the case, a grade of ñFò for the course. Never copy text from a book or website and represent it as your own work. By taking this course, you agree that all required course work may be subject to submission for textual similarity review to SafeAssign, a tool within BlazeVIEW. For more information on the use of SafeAssign at VSU see SafeAssign for Students (http://www.valdosta.edu/academic/SafeAssignforStudents.shtml).

**Special Services:**

# *BIOL 1952 Course Objectives*

**Educational Outcomes:**

ñDescribe the evolutionary processes responsible for biological diversity, explain the phylogenetic relationships among the major taxa, and provide illustrative examples.ò (Department of Biology ï Educational Outcome #2 in the VSU catalog)

**Enduring Understanding:**

Recognize how misrepresentation of the Theory of Evolution and the failure to understand the distinction between scientific and religious knowledge has led to the Evolution/Creationism Controversy.

**Essential Questions:**

What is the nature of science as both a body of knowledge and a set of systematic processes?
What characterizes the dynamic balance and predictable patterns that are seen in living systems?

**Field Trips:** During the unit on Ecology (Feb 14), we will visit one of the hidden treasures of Valdosta, the Grand Bay Wildlife Management Area. On that day, there will be no lab or lecture. I will take the Biology van or you can meet us out there. You will take no notes - the whole excursion will be "free-choice learning." We will feed the animals, tour the education center, and hike out the boardwalk. The highlight of the semester will be a weekend trip to Sapelo Island on the coast of Georgia (Mar 25-27). The Honors Program is supporting the trip which includes two nights at the UGA Marine Institute, great food, splendid scenery, etc.

**Book Review:** Early in the semester each person will select a different book that presents science to the public. This should be something you are interested in and would enjoy reading. Fiction, non-fiction, biography, or anything else that deals with a real scientno notr e3dw 0 0 1 396 UGA, thse t-4(ni)-4(di[14)]TJETBT1 0 0.610 1 36 602.26 Tm[-)]TJETBT1 254 1 2

# BIOL 1952: Tentative Class Schedule (Subject to Change)

| Date | | Class Topic | Custom Book Chapters | Assignment/Extension |
|---|---|---|---|---|
| Jan | 10 | The Natural World | | In-class Writing Assignment |
| | 12 | Patterns in Nature | | Student Information Sheet |
| | 17 | No Class in Honor of the Memory of Dr. Martin Luther King, Jr. | | |
| | 18 | Classification | Chapter 1 | Essay on Nature |
| | 24 | Inductive & Deductive Reasoning | Chapter 2 | Dichotomous Key |
| | 26 | Data Analysis & Display | | |