

Biology 1010: The Evolution & Diversity of Life Fall 2014

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

Instructor: Dr. Leslie S. Jones

Office: 1096 Bailey Science Center

Phone: 219-1337

Email: Please use Blazeview email for course matters and lesliesj@valdosta.edu only if it is urgent.

Office Hours: Tues 2:00-3:00 & Thurs 1:30-2:30 or By Appointment. Please feel free to call the office or email to schedule a more convenient time. Anytime I am in my office, you are welcome to stop in to ask quick questions.

Instructional Design: This will be a "Hybrid" course that combines online assignments with a "Flipped" face-to-face classroom. Instead of a traditional lecture/lab format, we will use an eBook to introduce you to information before class. Then you will complete online homework that will give you the opportunity to identify any areas that need clarification. This is so that we can use class for elaboration of important concepts, explanation of anything that was unclear, and learning activities that are more effective than sitting and taking notes. Most of the lab periods will be used for field trips, but there will be some other inquiry-oriented sessions.

Required Platforms:

LMS=Blazeview: Learning Management System - Your VSU Account: This will be used for all class communication, listing your assignments, and access to various resources. (<http://www.valdosta.edu/academics/elearning/blazeview-d2l.php>) Free

CMS=Connect: Course Management System - McGraw Hill **Connect Plus** Version of *Biology: The Essentials* by Marielle Hoefnagels. This is a complete electronic version of the book and a versatile software product that will be the basis for most of your assignments. It is integrated with D2L, so you can access Connect from a direct link in Blazeview. Log into Connect and there will be instructions on how to purchase the product. You will be given a personal code in class that will give you access to the LearnSmart Labs we will use. To save money, you will purchase this directly from the publisher. (<http://connect.mheducation.com/class/1-jones-biol-1010-fall-2014>) \$85.00

SRS=TopHat: Student Response System - We are testing a BYOD Bring Your Own Device (SmartPhone, LapTop, I/Android Pad, Text Phone) as an alternative to traditional clickers. These will play an important part as the communication tool for class participation grades, and you are responsible for having your device in class for every session after the first week or you will not be able to earn participation points. (You will receive a direct invitation from <https://tophat.com/> because we get a discount) \$15.00

Educational Outcomes: This class fulfills 3 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. The course will address the VSU Learning Outcome that states: *"Students will demonstrate understanding of the physical universe and the nature of science, and they will use scientific methods and/or mathematical concepts and reasoning to solve problems."* According to the VSU Undergraduate Course Catalog, BIOL 1010 is "an introduction to the diversity of life on Earth with a special emphasis on ecological and evolutionary processes and relationships." The BIOL 1020 Biodiversity Lab is a co-requisites that complements this course by covering parallel material.

Course Content: To meet that VSU Core Outcome, there will be a module on the *Nature of Science* at the start of the course which addresses the systematic manner in which scientists investigate and explain natural phenomena. In the *Ecology & Evolution* modules, emphasis is on the Biology Departmental outcomes that call for the ability to "interpret 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 "describe the evolutionary processes responsible for biological diversity." The details of *Biological Diversity* will be dispersed among these modules.

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. 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 "F" for the course. Never copy text from a book or website and represent it as your own work.

Special Services: Students requiring classroom accommodations or modifications because of a documented disability should discuss this need with me at the beginning of the semester. Students not registered with the Special Services Program should contact the Special Services Office, Farber Hall 1115, 245-2498.

Family Educational Rights & Privacy Act: Grades cannot be posted by Name or Social Security Number. Scores and student work will not be given over the telephone, by email or to another student.

BIOL 1010B Course Objectives

Enduring Understanding: The natural world includes the totality of the physical and biological factors that have and continue to influence the evolution of living organisms, and science is the specific collection of processes employed by humans to understand natural phenomena.

Essential Questions:

What is the Nature of Science as both a body of knowledge and a set of systematic processes?
 How do abiotic factors influence the variety of organisms within the ecosystems that make up the biosphere?
 How does the Theory of Evolution explain the history of life and the vast diversity of living organisms?

Basic Knowledge & Skills Students Will Acquire:

The Nature of Science as both a Body of Knowledge and Set of Processes
 Principles of Ecology
 Evolutionary History and Biological Diversity of Living Organisms

Students will be expected to:

- I. Characterize the *Nature of Science* as both a *Body of Knowledge* and a *Set of Processes*.
- II. Compare and contrast how abiotic factors influence the biotic features of major ecosystems in Georgia.
- III. Describe the evolutionary processes responsible for biodiversity and explain characteristics of major Taxa.

Proof of mastery for each will be demonstrated by the knowledge & skill shown in:

- I. **Online Assignments** – Completion of a reading and interactive, adaptive programs including virtual labs
- II. **Participation** - Attendance, Department, Class Discussions, Field Trips, Lab Activities, TopHat Questions in Class etc.
- III. **Midterm & Final Exams** - Based on Online SmartBook, Labs, Discussions, Field Trips, & Videos

Assessment:

Online Assignments - Connect Plus SmartBook Chapters, Writing Assignments , LearnSmart Labs, Quizzes & Pretests	50%
Class Participation TopHat SRS Scores, Attendance, etc.	25%
Examinations 3 Midterm Exams (5% Each) Comprehensive Final Exam (10%)	25%

Dates for Modules, Exams, & Other Events (Subject to Change with Notice)

NATURE OF SCIENCE MODULE - Weeks 1-5, August 19th - Sept 18th

Thursday, Sept 18 - NoS Exam

ECOLOGY MODULE - Weeks 6-10, Sept. 23rd - Oct 16th

Lake Louise Study - Sept 25

Thursday, Nov 16 - Ecology Exam

EVOLUTION MODULE - Weeks 10-14, Oct 21st - Nov 20th

Thursday 6- Class is Cancelled

Thursday, Nov 20 - Evolution Exam

Week of 25 & 28 **No Class - Thanksgiving Break**

Summary Activities

2 - Human Impact Presentations

4 - Human Impact Presentations

Final Exam – Thursday, Dec 11th 5:00-7:00 pm

Class Sessions: Please be on time to class and if you are late, enter through the rear door without disturbing the class. I expect everyone to be considerate of the other students. Do not bring food or drinks to class. Since cell phones will be used instead of clickers, you may use them for class work, but not social activity. During the class session, please refrain from holding private conversations. I will stop class for rude behavior. If I have to stop the lecture for a disruption more than once, you may be asked to leave. Repeated problems will result in a reduction of your grade or permanent removal from the course.

Attendance: You are expected to attend all class meetings. Attendance will be taken via the TopHat SRS. If you forget your phone, you will not be able to earn participation points. Being tardy or leaving early 3 times is an unexcused absence. If you do miss class, you are responsible for obtaining notes from another student. Make contact with a classmate and exchange phone numbers early in the semester. Anyone who misses more than 20% of the class sessions can receive a failing grade for the course. I will not give you the notes or tell you what you missed because there are too many students in the class.

Examinations: Examinations will be multiple choice tests that assess. Do NOT try to memorize the information because the test questions will probe your understanding of the concepts. I am not interested in whether you are good at rote learning. We will discuss the type of questions you can expect before the first exam and will go over part of the first exam during the following class session. Each of these tests will be scored for 100 points, but there will be 110 questions, so you can miss any 10 questions without jeopardizing your grade. If you have an emergency and can't make the exam, be sure to contact me within 24 hours by office phone or by email. Make-up exams will only be given for valid reasons with documented excuses and these will be essay tests that are much more difficult. The final examination will be comprehensive, consist of 200 multiple choice questions, and cover all accumulated course content for 20% of your grade. Your Test Scores will be available on Blazeview.

Assignments: We will use the *SmartBook* software program from McGraw Hill that is designed to improve your reading comprehension. This is an adaptive program that adjusts to a student's individual skills, especially the ability to know what you understand. The *Connect* package also has quizzes and practice activities. Any electronic assignments and the electronic submission of your papers must be done by the deadline posted in Blazeview. Late submissions will not be accepted unless there is a very good reason. Paper assignments will be typewritten, single-spaced and no more than one page in length. Your formal name and the date should be in the upper right corner and there should be a title. Papers will be graded for both content and writing on 10 point scales. (10 = Excellent, 8= Good, 6= Adequate.) If you miss the description of the assignment in class, it is your responsibility to contact a classmate. Assignments will also be posted on Blazeview. On the lower left side of the McGraw Hill page there is a black square that has the registration options. There are videos to show you how to register with the access code that came with your book or how to purchase your access online.

Expectations on BIOL 1010 Writing Assignments

Objective

Written assignments will reinforce class lessons and will help you to learn, outside the classroom, through your own thinking. Papers are an opportunity to display your knowledge through more than just exams or what you might or might not say in class. These assignments also allow you to show your own style of expression and personal interests, so you should take pride in them.

Focus

Well-crafted writing always has a specific purpose. Every paragraph or paper should have a distinct thesis or central idea. Your thesis should directly address the nature of the writing assignment. Decide on the topic and a specific case you want to make before you start writing. Write the thesis or topic sentence down and check back throughout the writing process to be certain that the work supports it. Concentrate on demonstrating your understanding of the scientific information.

Paper Organization

Before you begin to write, think through how you plan to develop your thesis and use an outline to structure the paper. An Introduction and Conclusion will be the first and last paragraphs of your paper. Start paper with something catchy to interest the reader. Make it perfectly clear, in this introductory section, what your point or central idea will be. Support that concept throughout the body of your paper. Paragraphs in the middle will be the Body of your text. Subheadings should be used for clarity. Your assignments in this class should usually be in first person. Avoid using statements such as "In this paper I will discuss..." since it is much more sophisticated to avoid this type of "crutch statement."

Paragraphs

Divide the paper by major themes and make each of these a distinct paragraph. You should have at least 3 paragraphs on a 1-page paper. The first sentence of each paragraph is a topic sentence that shows what the paragraph covers. ONE SENTENCE IS NEVER AN ENTIRE PARAGRAPH because there should be at least 3 sentences elaborating any significant idea.

Format

A header on the upper right should include the student's name and the date of submission. Each paper should have a creative title identifying the approach to the assignment. Since the course will be paperless, coversheets are not necessary. Your papers are to be typed using something comparable to 10-12 point Times New Roman type, single-spacing, and reasonable (0.5 to 1 inch) margins. Other professors often expect double-spacing, **I require single-spacing**. The lengths of these papers are stated in the assignments. After your draft you realize, if the paper is too long, go back through and shorten it up by taking out the less important aspects. If it is too short, go back and incorporate more support or add more detail to what you are saying. When I say 1 page that means one sheet of paper that is full of text. Put your references and heading on that sheet. Use the word counting function on your word processor to be sure your text is 600-800 words per assigned page when single-spaced.

References

Any very general scientific information does not need to be cited. We consider this common knowledge because the place you found it is not the original source of the information. How would you know? The answer is if you can find the same information in 2 or 3 books, it does not require a citation in the text or a reference at the end of the paper. However, you must be very careful about giving appropriate credit to the sources of any original outside information that you use. If you use original information, it should be cited in the text of the paper. You also should have properly formatted references at the end of the paper that include: Author (Last name, Initials), Year (In parentheses), Title, Place & Name of Publisher, Pages. Use the APA or American Psychological Association style and check the web if you want an example of this. Even WWWeb sources must be cited properly. Be sure to reword or paraphrase text from any of your sources to avoid plagiarism. Paraphrasing means changing more than 1 word in a sentence. Think about what something says and completely restate it in your own words. No direct quotes are allowed in papers for this course to prevent you from making your paper look like a mosaic of other people's ideas. The point of writing is to demonstrate your thinking, so first person is usually fine.

Grading

Your assignments will be described in detail in lecture, so listen carefully and be sure that you know what is expected or ask about anything that is unclear. Grades will be docked for any failure to follow directions precisely. If you need more clarification than is given in the Blazeview description, contact your classmates by email, phone, or posting a question on the Blazeview discussion board. Focus on the objective of the assignment and address it clearly in thesis of your paper. You can dramatically improve your work if you critique your own rough draft and revise it at least once. Outside feedback can also make a difference. Proofread to avoid careless errors. Spelling, Punctuation, and Grammar do effect our impression of the quality of your presentation. These papers will be graded on Effort, Quality, Organization, Content, Proper citations and whether or not you followed these directions. I will look specifically at extent of your coverage of the topic and the clarity in your presentation of the material. If you need assistance with your writing, please see me for help and/or contact the Student Success Center.