

Biology 1010 B: The Evolution & Diversity of Life Fall 2016

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

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Office Hours: Mon 1:00-2:00 & Tues 11:00-12:00 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 questions.

Instructional Design: There will be online assignments in a *Connect* program associated with the eBook to introduce you to some of the lecture information before almost every class. These will be listed on the syllabus and the assignment page in *Connect*. You must keep track of the deadlines because these will not be reopened for any reason. 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. You will also be assigned online interactive homework for each unit called a Practice assignment. These will give you 3 graded opportunities to apply the information and identify any areas that you need to study more extensively. Before each exam, you will have access to a Practice Test which contains a large pool of multiple choice question from which you will have 3 graded chances to try 50 questions as preparation. On the Practice and Pretests, only your highest grade will count.

Text: Marielle Hoefnagels -Biology: Concepts & Investigations (2015) McGraw Hill in the *Connect* Platform (eBook & eLearning)
Purchase Directly from Publisher: <http://connect.mheducation.com/class/l-jones-section-b-dr-leslie-s-jones-l>
 You may sign up for a free 3 week trial until your financial aid money is available or you can purchase a code at the bookstore.
 If you would like a hard copy of the text, you can purchase a loose-leaf version for \$15.00 when you order *Connect*.

McGraw Hill Customer Support: Call (800) 331-5094 if you have any problems with the program.

Required Technology Platforms:

LMS=Blazeview: Learning Management System - Your VSU Account: This will be used for all class communication, writing assignments, and access to various resources. (<http://www.valdosta.edu/academics/elearning/blazeview-d2l.php>)
CMS=McGraw Hill Connect: Course Management System - This is a complete electronic version of the book and a versatile software product for the graded, adaptive pre-reading *LearnSmart*, practice assignments and pre-tests.

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, the first chapter in the text will be expanded into a unit on the Nature of Science to start the semester. In the second *Ecology* unit, 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 and the structure and function of populations, communities, and ecosystems." The final unit covers *Evolution* by describing the processes responsible for the diversification that has taken place since the origin of life.

Academic Honesty: Members of the class are expected to maintain high standards of integrity. This course will use the VSU Handbook Code of Ethics as a basic standard as well as the Biology Department Plagiarism Policy posted at: <http://www.valdosta.edu/colleges/arts-sciences/biology/documents/resources/PlagiarismPolicy.pdf> Students are required to present a VSU ID card prior to any exam in the course. Evidence of dishonest conduct or cheating will result in no credit for the assignment and depending on the case, a grade of "F" for the course. Do not expect lenience for claims that on the grounds of not knowing better. You will be reported to the Dean of Students and employers such as school systems do call that office at VSU to check on whether you have a record of infractions.

BIOL 1010B Course Objectives

Essential Questions:

What has made the natural sciences so effective at unraveling some of the mysteries of life and our universe?
 How do abiotic factors influence the communities 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:

Nature of Science
 Principles of Ecology
 Evolutionary History

Learning Outcomes - Students will be expected to:

- I. Distinguish the unique features of the natural sciences and the characteristics of living organisms.
- II. Compare and contrast how abiotic factors influence the biotic features of major global ecosystems.
- III. Describe the evolutionary processes responsible for the diversity of living organisms.

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

- I. Online *Connect* Assignments – Completion of reading, *LearnSmart*, Practice, & Pretests
- II. Participation – Attendance & Active responses during lecture
- III. Midterms & Final Exam - Based on Text, Lectures, Discussions, & Videos

Assessment:

Online Assignments	
LearnSmart	20%
Connect Practice & Pretests	20%
Attendance*	10%
Examinations	50%
3 Midterm Exams (10% Each) & Comprehensive Final Exam (20%)	

***Attendance:** You are expected to attend all class meetings. A class list will be passed around every day for you to initial. Being tardy or leaving early 3 times is counted as an unexcused absence. If you arrive late for class, go up the stairs and enter the back of the room, Sit in the back section on the right and be sure to contact the TA so that you are marked on the role. Anyone who misses more than 20% of the class sessions will receive a failing grade for the course. Here is how it will be calculated:

No Absences	125%
1 Absence & All Made-Up	100%
2 Absences	75%
3 Absences	50%
4 Absences	25%
More than 4	0%
More than 6	Course Failure

If you do miss class for any reason, you are responsible for obtaining notes from another student. Make contact with a classmate and exchange phone numbers early in the semester. I will not give you the notes or tell you what you missed because there are too many students in the class.

Email: We are going to use the **Blazeview email** for class. There is a certain standard of etiquette in higher education that is very different from the way you interact with your friends while texting. My VSU email is for emergencies.

My title is **Dr. Jones** and start any email with that included in a greeting.
 The first thing you should do is tell me **which of my classes you are in**.
 The next sentence should contain the **reason for your message**.
 After you explain yourself, you should close the message properly.

BIOL 1010B Class Protocol

Class Sessions: Most students come to class to learn and I will not tolerate behavior that disrupts the learning environment. Come to class prepared to concentrate & pay attention. Since some people may not know what is expected in a college classroom, the following rules should make this clear. If I have to stop class and speak to you about a disruption, I will ask to see you after class, and if it happens more than once you will be told to leave.

Class Rules:

1. Attend to your personal needs before class and refrain from getting up during class unless it is urgent.
2. Class will start promptly at 5:00, please have your notebooks open and be ready to pay attention and begin.
3. Once class begins, refrain from side conversations. If you are asking about a word in lecture, make it short & quiet.
4. If a classmate is being rude or distracting you, let them know or say "Shhhhhhhh" loud enough for me to hear.
5. The VSU rules are no eating or drinking in the lecture hall. Water bottles are fine.
6. You are welcome to have your laptops, pads, & phones in class to record lectures, look up terms, and photograph slides. However, this is not an invitation to skype, take calls, or read & send texts. If anyone is bothering you with such behavior, report them to me after class or by email. There will be grade penalties for this type of disruption.
7. Class will end at 6:15, unless you see "THE END" on a slide before, so do not pack up & rustle your packs before this.

Assignments: We will use the *Connect* software program from McGraw Hill that is designed to improve your reading comprehension and give designed practice working to learn the course content. *LearnSmart* 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 Practice activities, and Pretests. Any online assignments on *Connect* must be done by the deadlines. Late submissions will not be accepted. No Exceptions!

Your success in this course depends on your completion of the online assignments. These comprise 40% of your grade, so they are very important because they help you learn the information and prepare for the tests. Effort on these assignments is clearly correlated to the grades students receive. However, do not just do this work without thinking. You will waste the time you spend doing these activities, if you do not concentrate on learning as you do it.

The *LearnSmart* (LS) prompts are lower order questions that drill on vocabulary and basic concepts. Think about the questions when you read the prompts. Think about what the answer is. Indicate how confident you really are. If you get the question wrong, ask yourself why you did not know it. That type of thinking is the best thing you can do to improve your learning. If you look back and it is right in the book, consider the fact that you might need to read more carefully. You can start as early as you want for all of the chapters in each unit to be sure you get the chapters completed on time. You will find the lectures much easier to understand after finishing these exercises. As you do *LS*, jot down words on questions you miss so that you can be sure to look for those explanations in lecture. If something is still unclear, be sure to ask. Do not expect questions like these on the test because those will be conceptual and require higher order thinking.

LearnSmart is an adaptive program. The number of points you get and the number of times you see a topic depends on getting the correct answer and how certain you are that you know the answer. Be sure to use the Confidence prompts carefully. You get the most points if you say you are "sure" and get the answer correct. You will also finish faster if you do that. However, if you say you are "sure" and get it wrong, you lose big points. If you get it wrong with one of the other prompts, the penalty is not as bad. You will get other questions on that topic or the same question until you master it. If you have problems, YOU must call McGraw Hill's Customer Support! Get the Case Number and if they do not help you, then email me in Blazeview and be sure to send me the case number so I can try to do something about it.

So that you can prepare for the tests and exam, there will be a *Connect Practice* activity for each unit. A *Connect Pretest* is due at midnight the night before the exam. Practices & Pretests will be interactive and higher order questions, so these should give you an idea if you are prepared. You can do these unit assignments 3 times and your best score will count. You have to start over and do the whole thing, though. As we finish each unit, you should go to the reports page to see which topics were a problem for you. The reports even show which *LS* questions you missed the first time. You can go back and drill on *LearnSmart* as often as you want, but you only get credit for completing *LS* before the lecture deadline. There are over 80 students in this class, so it is your responsibility to log on and learn to use the *Connect* programs after I explain them in class. Find your Metacognitive score and compare it to the grade you want on a test because there is usually a high correlation between these and how people score on the tests.

Examinations: Examinations will be multiple choice tests that assess conceptual understanding of course content. 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 3 tests will count for 10% of the grade and will be 100 questions. 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 100 multiple choice questions, and cover all accumulated course content for 20% of your grade. Your Test Scores will be available on *Blazeview* about 24 hours later.

WWWWeb – The web is a great resource for supplementing the information presented in class sessions. Use the Web to obtain images that are similar to the class slides and diagrams in the book. If something is difficult to understand search for a site that is easy to read.

Access Statement: Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU's Access Office or email: access@valdosta.edu.

Title IX Statement: Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including pregnancy status, sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, national origin, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: Maggie Viverette, Director of the Office of Social Equity, titleix@valosta.edu, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 333-5463.

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 1010 - Tentative Course Schedule and Plan for Instruction

Dates	Topics	Assignments
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The Nature of Science

1. The Natural World

Aug 16 - Levels of Organization
18 - Alphabetical Hierarchy Homework

2. The Sciences

23 - Processes Read Chapter 1
25 - Reasoning

3. The Diversity of Life

30 - Characteristics *LearnSmart* (LS) Ch.1
Sept 1 - Domains & Kingdoms NoS Practice Due (Best of 3 Attempts Counts)

4. Assessment

6 - Nature of Science Unit Test NoS Pretest (Best of 3 Attempts Due 9/5)
8 - Test Review & Ecology Intro

The Revelations of Ecology

5. Biomes

13 - Terrestrial LS Ch. 39
15 - Aquatic

6. Communities & Ecosystems

20 - Nutrient Cycling LS Ch. 38
21 - Energy Flow

7. Populations

27 - Dispersal & Features LS Ch. 37
29 - Size & Stability

8. Animal Behavior

Oct 4 - Instincts & Learning LS Ch. 36
6 - Survival & Reproduction Ecology Practice Due

Oct 6th= Midterm

9. Assessment

11 - NO CLASS FALL BREAK
13 - Ecology Unit Test Ecology Pretest Due 10/12

The Theory of Evolution

10. 18 - Prokaryotes LS Ch 17
20 - Protists LS Ch 18

11. 25 - Fungi LS Ch 20
27 - Plants LS Ch 19

12. Nov 1 - Lower Animals LS Ch 21
3 - Evidence for Evolution LS Ch. 13

13. 8 -Origins LS Ch. 15
10 -Selection LS Ch. 12

14. 15 - Adaptations & Change LS Ch. 14
17 - Why the Controversy? Evolution Practice Due

15. Evolution Summary & Assessment

22 - Evolution Unit Test Evolution Pretest Due 11/21
24 - NO CLASS THANKSGIVING HOLIDAY

16. Anthropogenic Disruption

29 - Environmental Issues LS Ch. 40
Dec 1 - Human Impact

COMPREHENSIVE FINAL EXAM – Wednesday, May 4th from (5:00-7:00)

Top Ten” Strategies for Success in Biology 1010

(You can even count up by reading from the bottom if you are a David Letterman fan)

If you want to earn an “A” and or do well in this course, you need to think about your own approach to studying. You will not even pass unless you work hard so (before you waste your time and someone’s tuition money) consider the following:

#1. Pre-Read the Book & Do *LearnSmart* before the Lectures – The *Connect* chapter assignments are due on specific days, before class when the lectures will begin covering the specific topic. Read the book so that you will come in knowing how to spell words and have some familiarity with key ideas.

#2. Attend Class and Take Detailed Notes – The information in class sessions will not identical to your book. The scientific topics will be explained differently and additional information will be covered. Think as we go along, and if you do not understand - ask questions. Clicker prompts are designed to get you thinking, so you can evaluate your own understanding of the subject. **Keep an Orderly Notebook** – If you use a spiral for class notes, have another folder where you can assemble all of your papers and outside information in preparation for studying for the tests.

#3. Summarize Your Notes Every Day after Class - Write a short Summary or synopsis of the information covered to be sure that you understand it all. If not, read up on the subject in your text or on the Web or come in for help on anything you do not understand. If you miss something in lecture, leave a space in your notes where you can look it up on the web or come to office hours for an explanation. By going over your notes to be sure they make sense and writing a paragraph in your own words, you will be way ahead when it is time for a test.

#4. Get to Know Someone in the Class – Make contact with a student that sits next to you in class. This is so that you can quickly look over at their notes if you miss something during lecture. Get notes from them if you have to miss class, and check on the specifics of assignments by phone or email. You can also study together for the exams.

#5. Structure Regular Study Sessions – Set up a pattern of regular times that you attend to the course material and be sure to keep up with the assignments (which are not accepted if they are late). **Re-Read the Text after Class Sessions** to be sure you have mastered the material. Find Websites on the topic for more information. If you know you need to work hard for good grades, take detailed study notes on the book modules to reinforce the concepts.

#6. Make a Vocabulary List of Important Terminology – Construct a list of the terms you do not know and define them in your own words. As you go through *LearnSmart*, take note of concepts that are challenging. Drill yourself until you are sure you know these words. If any are particularly troublesome, try writing a sentence that uses the term. **You must understand the “language of biology”** and there is plenty of it!

#7. Use the Assignments to Be Certain You Know the Content –*LearnSmart* will check your familiarity with the vocabulary. The *Blazeview* papers prompt you to think outside of the box and will reinforce the content. The *Connect* practice activities and pre-tests for each unit are interactive biology exercises that serve as a good way for you to determine whether or not you really know the information.

#8. Get Additional Help –My Office Hours are a time that I will be in my office to meet with students. I will be happy to make appointments at other times. If you do not ask, I can’t help you! There are also designated Biology tutors in the Student Success Center who can also help.

#9. Plan Ahead for Tests – Write the dates in your calendar, then count back one week to remind yourself to start preparing. Spend at least a week studying gradually. Stop and rest your brain right before the test. Give the information time to sink in. **Do Not Pull “All-Nighters”** – These tests require you to think, so you will not do well if you are too tired to reason and figure out the answers.

#10. Decide that You Plan to Succeed and Work Consistently for a Good Grade – It is your choice! **Start Working Hard at the Beginning of the Semester** – Do not fool around and suddenly decide to work after you get behind and need to dig yourself out of a big hole.