

BIOL 1108 Principles of Biology II

Syllabus

Instructor: Dr. Theresa J. Grove

Office: BC 1099

Office hours: Tuesday 9:00 – 11:00 a.m. and Wednesday 3:00 – 5:00 p.m. (or by appointment)

Email: tjgrove@valdosta.edu (do **NOT** email me on Blazeview)

Lecture (BC 1202): Wednesday/Friday 8:00 a.m. – 11:59 a.m.

Lab (BC 1073): Wednesday/Friday 1:00 p.m. – 2:50 p.m.

Prerequisite: BIOL 1107 (or the equivalent) or permission of the instructor.

Description: An introduction to physiological processes in plants and animals. Structure, nutrition, transport, coordination, reproduction, and development will be addressed.

Course goals and objectives: The primary goal of this course is to introduce physiological processes of plants and animals. This is the second introductory course, and it is expected that the student is familiar with topics covered in BIOL1107. By the end of the semester students should have sufficient background to successfully complete higher level courses that will cover specific topics in much greater detail.

The Department of Biology seeks to help develop general skills, such as communication skills and information processing skills. In the lab portion of BIOL1108 communication skills will be exercised through laboratory assignments and lab practicals. Information processing skills will be developed because of the nature of biology. Learning and retain the information presented to you in BIOL1108; it will prepare you for future courses and will be useful in your life outside of college.

Learning goals include:

- Increase your understanding of structure-function relationships in biology
- Increase your understanding of the physiology of the major systems in plants and animals including:
 - Structure/function relationships
 - Nutrition
 - Transport
 - Movement
 - Reproduction
 - Development
 - Sensory systems
- Strengthen your ability to critically analyze scientific data and test scientific hypotheses
- Cultivate the linkage of biology with math, physics and chemistry.

These goals support the Department of Biology Education Outcome #2, #3 and #5 and VSU General Education #5.

Lab Manual: Required: Biology Lab Manual (Great River Learning, ISBN 9781680750201)
Recommended: Van De Graaff's Photographic Atlas (Morton Publishing, ISBN 9781617310584)

Attendance: Attendance in lecture is expected by all students. Attendance in laboratory is mandatory; see lab policy below.

Academic conduct: Cheating and plagiarism will not be tolerated and may result in a failing grade for the assignment, exam, or the class. The Department of Biology has a plagiarism policy on its website, which will be discussed in the first lab period. It is the student's responsibility to make sure they understand this policy.

Privacy Act (FERPA): The Family Educational Rights and Privacy Act (FERPA) prohibits the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given over the telephone or over email because positive identification cannot be made.

Students with Disabilities: Students requiring special accommodations because of disability must discuss their needs with me as soon as possible. Those needing accommodations who are not registered with the Special Services Program must contact the Access Office for Students with Disabilities located in Farber Hall. The phone numbers are 245-2498 (voice) and 219-1348 (tty).

Lab Conduct

- Attendance is mandatory. Excused absences are usually given for medical emergencies and documentation must be provided; the professor determines whether or not an absence is “excused” or not. If you miss three labs *for any reason* you cannot earn higher than a D for your final grade. Students are responsible for all lab content even if they received an excused absence.
- Arrive on time.
- Emailed assignments will not be accepted.
- It is strongly advised that you keep a laboratory notebook, which will help you complete assignments and study for lab practicals.
- No eating or drinking during the lab. There are NO exceptions! If you come to lab with food or drink you will be asked to put it away or out in the hall.
- Students must take care of lab equipment. Notify the professor if something is not working properly or if something breaks during the course of the lab.
- Students will be assigned a microscope. It is the student’s responsibility to properly use the microscope. After lab the professor will check each scope to make sure that it was put away properly. Failure to do so will result in one (1) point for each infraction being subtracted from the student’s total lab points (not the final percentage). For example if you leave a slide on the stage, it’s not on the lowest objective and the light hasn’t been dimmed you will lose 3 points.
- Cell phones are not allowed to be used in lab with the exception of using them as timers or cameras or when I approve their use.
- There are no “open” lab periods.

How to Use the Lab Manual: The lab manual is an online manual. I will go over how to use this manual during the first week of class. But, briefly, each lab includes all the content necessary to understand and complete the lab. You should at least look through the background information before coming to lab. At the end of the background information is a pre-lab assignment that must be completed prior to coming to lab. The page after the pre-lab assignment contains pdfs of the exercises that you will complete during lab and another pdf with all the background information. You can either view these documents on your phone, tablet, laptop computer, etc. in lab, OR you can print them off. You will need to be able to view the background information during lab in order to complete each lab, but you do NOT need to print them off if you have an electronic method for looking at the information. There are no computers in the lab for you to use. Van De Graaff’s Photographic Atlas is optional and has other images that may help you in lab; however, it is not required.

I will bring handouts for the first statistics lab, but I will not bring handouts for any of the later labs. If you have problems buying the manual because of slow financial aid see me. I will work with you until you are able to purchase the manual.

Lab assignments: Throughout the semester students will complete the following types of assignments. Online pre-lab assignments will be due at the start of the lab period (I can see when the assignment was completed). Pre-lab assignments will be worth 0 or 2 points (0 points if not completed and 2 points if completed). In-class assignments will be described at the start of lab and will be due at the end of lab. Online post-lab assignments through the lab manual will be due at the start of your next lab period (I can see when the assignment was completed). Data analysis for a lab will be discussed during the lab you collect data and will be due at the start of the next lab period. In-class and post-lab assignments will be worth variable points. No late assignments (unless I approve an exception) and no emailed assignments will be accepted. Do not assume that you will have time immediately before lab to print assignments or finish online assignments; nonfunctional printers, no paper, slow internet etc. are not acceptable reasons for why you did not complete an assignment. It is good practice to plan ahead and have assignments completed and/or printed the day before your lab.

Lab Practicals: Two lab practicals (50 points each) will be given, one covering plants and one covering animals. Anything that the student examined or studied in the lab is fair game for a lab practical. The lab practicals will be timed and will be a powerpoint presentation. More information will be given in lab.

Quizzes: To help prepare you for the lecture exams and lab practicals short quizzes will be given in both lecture and lab. These quizzes will not be announced; assume that there will be a quiz during each lecture and lab period. If missed they cannot be made up. The quizzes will also have a confidence component associated with the point value. The goal of the confidence component help students with their metacognitive skills, which simply means help students learn about their learning (or think about their thinking). Students who are accurate and confident in their knowledge and understanding of the material will earn the most points, and students who are wrong, but think they are right will earn the least amount of points. Essentially, the metacognitive component of the quiz should increase the confidence in students who do know the material, but may not be confident in their understanding, and to help some students who are overly confident in their understanding of the material recognize that they are not as prepared as they think they are. How the quizzes will work is that you will be given a multiple-choice content question. After each question will be another question that asks you to rank your confidence (confident or not confident). The point values for your answers will be:

- 3 pts: Right answer and confident
- 2 pts: Right answer but not confident
- 1 pt: Wrong answer and not confident
- 0 pts: Wrong answer but confident

Each 5 question quiz will be worth a maximum of 15 points. So, you can see that you get the most points with being right and confident, the least points with thinking you know the right answer, but being overly confident in your knowledge.

Exams: A total of 6 “regular” exams and 1 final exam will be given during the semester (a total of 7 exams), and each exam will be worth 100 points. The dates are included in the Tentative Schedule. Note, that these are TENTATIVE; therefore I reserve the right to adjust the dates (or content) of the exams. All exams, including the final, will be multiple choice. The lowest “regular” exam grade will be dropped. No make-up exams will be given. A missed “regular” exam (for any reason) will be the exam dropped. Only students with a University related excuse may take an exam early. The final exam will be cumulative and will be multiple choice. **NO EARLY FINAL EXAMS WILL BE GIVEN!**

During the exam all cell phones must be turned off. All bookbags, books, purses etc. must be placed in the front of the classroom; NO EXCEPTIONS. If you do not feel comfortable putting your purse, bag, books, etc. at the front of the room don't bring them with you to class. Hats and hoods cannot be worn during exams. All hands must remain above the desk at all times during exams. On each exam there will be a few questions (<5) on “old” material. You will have 60 minutes for each “regular” exam, followed by a 20 minute break. Lecture will begin after the 20 minute break.

Study Tracker Logbook: To help assist you in the development of study skills that you will use throughout your college career, you will be maintaining a study tracker logbook. This will be a handwritten (not typed) record (it can either be a looseleaf binder that you add pages to, or a notebook; no loose papers or pocket folders will be accepted) of your studying throughout this term. I will check it each Friday in lab, and no late logbooks will be accepted; if you don't bring it to lab, you will earn a zero for the week. This is not meant to be busy-work, but should help you develop good study skills if you take this seriously. What must be included:

- 1) At the start of the notebook leave a couple pages blank (one page for lecture and one page for lab) for you to input your grades as you get them returned to you.
- 2) Date and time you start studying
- 3) Topic that you are studying
- 4) If you come up to a confusing aspect of that topic, write down what is confusing and why. Then try to unconfuse yourself from notes, book, web, etc. Indicate if you were successful at figuring out what you were confused about, and explain the concept that you initially were confused about. If you cannot figure it out, write out the question/issue/problem; at the start of each lecture and lab I will ask the class if there are any questions.
- 5) When you stop for a break (food, bathroom, texting, tv, phone, etc.) write down the time, and then when you resume studying indicate the time again.

- 6) Keep track of any "A-ha" moments or any other thoughts about the course content, your study habits, etc.
- 7) After each exam you will go through the questions you missed and indicate in your journal the correct answer. You will also indicate why you missed the question, for example: did you misread the question or put down the wrong answer (ie dumb mistake), didn't have the material in your notes, didn't study the material, remembered studying the material but didn't know the correct answer etc.

Grade Scale:

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F < 60

Final Grade: Your final grade in BIOL1108 will be based on both lecture and lab components. I do not post grades in Blazeview. You will be keeping track of your grades in your Study Tracker Logbook so you will be able to calculate your own grade, but you can also come to my office hours to ask. Below is how your grade will be calculated:

Lab Grade:

Lab Homework (component 1): Add up all lab homework grades (includes prelabs, postlabs, graphing, and any other homework grades), divide by the total points possible. Multiply by 100 to get a percentage. Multiply this percentage by 0.40 (which is 40%).

Lab Quizzes (component 2): Add up all quiz grades and then divide by the total points possible. Multiply by 100 to get a percentage. Multiply this percentage by 0.10 (which is 10%).

Lab Practicals (component 3) : Each practical will be worth 50 points. Add up your practical grades and divide by the total possible points (100 points). Multiply by 100 to get a percentage. Multiply this percentage by 0.50 (which is 50%)

Add Component 1 + Component 2 + Component 3 together. This will give you your lab grade.

Lecture Grade:

Lecture Homework (component 1): Add up all lecture homework grades (includes Study Tracker Logbook, and any other homework), divide by the total points possible. Multiply by 100 to get a percentage. Multiply this percentage by 0.15 (15%). There are less assignments given in lecture, which is why lecture homework is worth less than lab homework.

Lecture Quizzes (component 2): Add up all quiz grades and then divide by the total points possible. Multiply by 100 to get a percentage. Multiply this percentage by 0.10 (10%).

Lecture Exams (component 3): Add up all lecture exam grades and then divide by the total points possible. Multiply by 100 to get a percentage. Multiply this percentage by 0.75 (75%).

Add Lecture Component 1 + Component 2 + Component 3 together. This will give you your lecture grade.

Final Grade:

Now (finally), because your lab grade makes up 25% of your total course grade, multiply your lab grade by 0.25. Because your lecture grade makes up 75% of your total course grade, multiply your lecture grade by 0.75. Add these two numbers together; this is your final percentage.

Summer 2016 Tentative Schedule

June

8	Lecture:	Introduction to Phylogenies Chapter 28: Seedless Plants
	Lab:	Intro to Statistics (Lab 1)
10	Lecture:	Chapter 29: Evolution of Seed Plants Seed Plants Chapter 34: The Plant Body
	Lab:	Nonvascular Plants (Lab 2)
15	Lecture:	<u>Exam 1</u> Chapter 35: Transport in Plants
	Lab:	Vascular Plants (Lab 3)
17	Lecture:	Chapter 36: Plant Nutrition
	Lab:	Plant Cells, Organs and Growth (Lab 4)
22	Lecture:	<u>Exam 2</u> Chapter 37: Regulation of Plant Growth
	Lab:	Angiosperm Development (Lab 5) Growth and Transpiration (Lab 6)
24	Lecture:	Chapter 38: Reproduction in Flowering Plants
	Lab:	<u>Lab Practical</u>
29	Lecture:	Chapter 39: Plant Responses to Environmental Challenges
	Lab:	Diversity Part I (Lab 7) Diversity Part II (Lab 8)

July

1	Lecture:	<u>Exam 3</u> Chapter 40: Homeostasis in Animals and the Role of Physiological Systems
	Lab:	Animal Tissues (Lab 9)
*6	Lecture:	Chapter 41: Animal Hormones Chapter 43: Animal Reproduction
	Lab:	No lab
*8	Lecture:	Chapter 45: Neurons and the Nervous System
	Lab:	No lab
13	Lecture:	<u>Exam 4</u> Chapter 47: Mammalian Nervous System
	Lab:	Fetal Pig Anatomy (Lab 10)
15	Lecture:	Chapter 46: Sensory Systems Chapter 48: Muscles
20	Lecture:	<u>Exam 5</u> Chapter 49: Gas Exchange
	Lab:	Sensory System (Lab 11)
20	Lecture:	Chapter 50: Circulatory System Chapter 51: Nutrition and Digestion
	Lab:	Cardiovascular System (Lab 12) Excretory System (Lab 13)
22	Lecture:	Chapter 52: Salt and Water Balance
	Lab:	<u>Lab Practical</u>
27	Lecture:	<u>Exam 6 and Cumulative Final Exam</u> (final exam will cover all material prior to Exam 6)

* I will be out of the county at a conference July 2-11. There will be no labs this week (material will be moved to other lab periods). On-line lectures will be made available to students to watch at your convenience and will likely cover Chapters 41, 43, and 45