

## BIOL 1108 Principles of Biology II Lab Syllabus

**Instructor:** Dr. Theresa J. Grove

**Office:** BC 1099

**Office hours:**

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

**Lecture:**

**Lab (BC 1073):**

**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.

**Textbooks:** Required: OpenStax Biology available at OpenStax.org  
Required: Biology Lab Manual (Great River Learning, ISBN 9781680750201)  
Optional: 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.

**Study Habits:** I will have "How Dr. Grove would study for biology courses" sessions during the second week of class. These are not review sessions nor will I tell you what will be on the exams, but I will provide you with the techniques I used to study during college. So, if you are unhappy with your grades you have earned so far during your college career this may be of some use to you. Times will be announced on Blazeview.

**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).

**Quizzes:** During lecture approximately 15 quizzes each worth 5 points. Your highest 10 quiz scores will be combined for a 50 point grade that will be included in your final grade. Make-up quizzes for any reason are not available. The format of the quiz may vary and quiz dates will NOT be announced.

**Exams and Final:** A total of 6 “regular” exams and 1 final exam will be given during the semester. The first 3 exams will be over animals, the next 3 exams will cover plants, and the final is cumulative. Each exam will be worth 100 points. Please note the dates for the “regular” exams in the Tentative Class Schedule. Note, that these are TENTATIVE; therefore I reserve the right to adjust the dates (or content) of the exams. The 3<sup>rd</sup> plant exam will be given during the time of the final. The decision to do this was based on MANY comments from students during previous semesters who thought that they did not perform well on exams when the last in-class exam was given on the last day of lecture and the final a couple of days later. The “regular” exams will consist mainly of multiple choice questions, but will have other question formats (e.g. fill in the blank, short answer, etc). The final will be all multiple choice. The lowest exam grade (out of all 6 exam grades) will be dropped. No make-up exams will be given. A missed exam (for any reason) will be the exam dropped. **If you skip the day of the final that will be 2 missed exams; so do not skip it!** Only students with a University related excuse may take an exam early. Exam grades will be returned in class ~7 days after exam date, but students will not be allowed to keep exams. The final is scheduled for Thursday, May 8 (8:00-10:00). No early exams will be given for starting summer break early.

**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. on the stage 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. **If you have a cold and need tissues bring them with you; you will not be allowed to go to the bathroom during exams.**

### 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. If you have an excused absence from a lab you may attend one of my other lab sections, but you must get my approval. 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 at the beginning of the first two lab periods. 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 for that 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. The recommended and optional Van De Graaff's Photographic Atlas 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 available through the lab manual one week prior to the lab period and will be due at the start of the lab period. 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 available for completion at the start of lab and will be due at the start of your next lab period. All online assignments should automatically open and close at the start of your lab period. 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 and Quizzes**

Two lab practicals (50 points each) will be given, one covering animals and one covering plants. 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. To help prepare you for the practicals and check your progress in lab, there will be short quizzes (~5 points each) each week. These quizzes will be cumulative for plant or animal information from lab. If missed they cannot be made up.

### **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 will post your grades on Blazeview so you can keep track of your grade in lab. To calculate your laboratory grade add all your earned points and divide by the total points possible. Multiply by 100 to get a percentage. See your lecture professor's syllabus on how your final grade will be calculated.

### **Spring 2016 LECTURE SCHEDULE**

- Week 1: Animal Body (Chapter 33) and Animal Nutrition (Chapter 34)
- Week 2: The Nervous System (Chapter 35)
- Week 3: Sensory Systems (Chapter 36)
- Week 4: Endocrine System (Chapter 37)
- Week 5: The Musculoskeletal System (Chapter 38)
- Week 6: The Respiratory System (Chapter 39) and Circulation (Chapter 40)
- Week 7: Osmotic Regulation and Excretion (Chapter 41) and Reproduction (Chapter 43)
- Week 8: Seedless Plants (Chapter 25)
- Week 9: Seed Plants (Chapter 26)
- Week 10: Seed Plants (Chapter 26)
- Week 11: Plant Form and Physiology (Chapter 30)
- Week 12: Plant Form and Physiology (Chapter 30)
- Week 13: Plant Form and Function (Chapter 30)
- Week 14: Soil and Plant Nutrition (Chapter 31)

Week 15: Plant Reproduction (Chapter 32)

**Spring 2016 Lab Schedule**

<b>Lab</b>	<b>Date</b>
Intro to Statistics (Lab 1)	Jan
MLK Holiday: No Lab	Jan
Diversity Part I (Lab 7)	Jan
Diversity Part II (Lab 8)	Feb
Animal Tissues (Lab 9)	Feb
Fetal Pig Anatomy (Lab 10)	Feb
Sensory System (Lab 11)	Feb
Cardiovascular System (Lab 12)	Feb
Excretory System (Lab 13)	<sup>2</sup> Feb
<b><i>Animal Practical</i></b>	Mar
Spring Break: No lab	Mar
Nonvascular Plants (Lab 2)	Mar
Vascular Plants (Lab 3)	Mar
Plant Cells, Organs and Growth (Lab 4)	Apr
Angiosperm Development (Lab 5)	Apr
Growth and Transpiration (Lab 6)	Apr
<b><i>Plant Practical</i></b>	Apr