

## BIOL 1108 Principles of Biology II Summer 2017 Syllabus

**Instructor:** Dr. Theresa J. Grove  
**Office:** BC 1099  
**Office hours:** Monday and Wednesday 12:45-2:00, by appointment or stop by my office  
**Email:** tjgrove@valdosta.edu (I do not use on Blazeview)  
**Lecture (BC 1202):** Monday, Tuesday, Wednesday, Thursday 11:10 a.m. - 12:35 p.m.  
**Lab (BC 1073):** Tuesday and Thursday 1:00 - 3:50 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 structure-function relationships and physiological processes of plants and animals. This is the second introductory course, and it is expected that you are familiar with topics covered in BIOL1107 so that you can build on your foundational knowledge of biology. At the end of the semester you will be able to successfully complete higher level courses.

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

### Textbooks and Other Items

- Lab Manual (Required), Great River Learning, ISBN 9781680750201, available from the bookstore or publisher at grtep.com
- Textbook (choose one, Required): Although any introductory hardcover biology book for science majors could be used, a couple options are: Sadava et al. Life: Launchpad (isbn 9781464165658 contains an e-book, ISBN 9781464141263 is a loose-leaf hardcopy), Openstax Biology textbook is available free from Openstax.org or you can buy or rent a copy from the bookstore.)
- 3-ringed binder or folder (or something similar) for lab exercises and study journal (Required)

**Attendance:** Attendance in lecture and lab is required by all students. For lab, excused absences are given for university-related functions and medical emergencies; documentation must be provided. I determine whether or not an absence is "excused". If you miss three labs ***for any reason*** you cannot earn higher than a D for your final grade. You are responsible for all lab content even if you receive an excused absence. If you do miss a lab (excused or unexcused), while I am more than happy to get out the necessary specimens for you to examine the following week, some specimens may not be available, so do not assume that everything will be there.

**Academic conduct:** Cheating and plagiarism will not be tolerated and may result in a failing grade for the assignment, exam, or your final grade. The Department of Biology has a plagiarism policy on its website, which will be briefly 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.

**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](mailto:access@valdosta.edu).

**Title IX Statement:** Valdosta State University is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment and 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@valdosta.edu](mailto:titleix@valdosta.edu), 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 229-333-5463.

**Concealed Guns on Campus:** Beginning July 1, if you choose to carry a concealed weapon you are responsible for knowing and following the law. Licensed individuals may carry a handgun if it is mostly covered, does not actively draw the attention of people and is "not prominently, openly and intentionally displayed". While concealed guns are allowed in lecture and lab classrooms, no guns are allowed in faculty, staff and administrative offices and in rooms where Move On When Ready (MOWR) high school students are enrolled. It is the responsibility of you (the gun-carrier) to contact VSU's registrar to determine which classes guns are permitted because even though I know if there are high school students enrolled in this course, I will refer you to the registrar if you ask. It is a misdemeanor to violate this law. Further information regarding policies may be announced. If you have any questions concerning this new law, contact University Police (229-333-7861) or the University Attorney (229-333-5351; West Hall 125).

#### **Lecture and Lab "Rules"**

- Attendance is required.
- Arrive on time.
- Turn off cell phones during lecture; there is no reason you should be texting or calling someone.
- Don't have conversations with your neighbor during lecture; if you don't understand something or didn't hear something ask.
- Emailed assignments generally will not be accepted.
- 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 (including microscopes). Notify the professor if something is not working properly or if something breaks during the course of the lab.
- Cell phones are not allowed to be used in lab with the exception of using them to view the online lab manual, cameras or when I approve their use.
- There are no "open" lab periods.
- Bring tissues with you to exams and use the restroom before coming to an exam. I do not allow students to leave the room during an exam

**Blazeview D2L:** Take advantage of the resources on Blazeview, which include the following:

- Lecture slides will be available by ~5:00p.m. the day before lecture (if not earlier). I will not email complete notes and slides to you, nor will I let you sit in my office to copy my notes if you miss a class.
- Handouts and homework from lecture will also be posted online. Some homework assignments will require that they be turned in through Blazeview or completed on Blazeview and will be clearly marked as such.

**Lecture Assignments:** Lecture assignments may include take-home, in-class, or on-line assignments. Assignments will be worth variable points depending on the effort involved. In-class active learning activities are designed to increase participation, apply your knowledge, and introduce new concepts. In-class active learning activities will be worth 2-5 points for participating and 0 points if you miss the class. In-class active learning exercises cannot be made up. On-line assignments will open and close automatically; no late assignment will be accepted once the item closes; you will be able to complete on-line lecture assignments even if you missed class. I will post take-home assignments on Blazeview, so if you miss a lecture you will still be able to complete the assignment; the due date will still be the same, unless you have contacted me, and I extend the deadline.

**Study Journal:** This will have both required and optional components. The purpose of the study journal is: 1) to help assist you in the development of your study skills that you will use throughout your college career and 2) to serve as optional credit for those of you who continue the study journal after the first exam. This will be a handwritten (not typed) record of your expectations, goals, study schedules and habits, and self-reflections. I will collect the study journal every Wednesday at lecture (see Tentative Lecture Schedule), and they will be available to pick-up the next morning. No late notebooks will be accepted; if you don't bring it to lecture, you will earn a zero for the week. You will earn 2/2, 1/2, and 0/2 points based on the completeness of entries. This is not meant to be busy-work, but should help you develop good study skills if you take this seriously. Use a three-ringed binder or something similar for the study journal.

Components:

1. **Required:** For page 1 write your a) preconceived ideas about this class, b) your goal(s) and expectations and c) develop a plan on what you will do to reach your goal(s).
2. **Required:** Make a weekly schedule. You must each week develop a schedule that blocks out time for courses, study, exercise, meals, sleep, parties, job, and whatever else you do during a week (Monday through Sunday). I will post a template on Blazeview, but feel free to modify it so that it works for you. You need to tape this into your notebook (starting with the first day of lecture June 7) so that as the week progresses, you can check-off what you complete and circle items that you skipped.
3. **Required:** Each day keep track in your journal of when, what, where and how you study for this class. If you find a confusing topic write a note about what is confusing (try to be specific). When you identify confusing areas, you can ask for clarification at the next lecture, see me, or go to the Student Success Center. *As an incentive to take advantage of my help (it can get lonely during office hours) you can earn 2 points back on your 2nd exam if you see me to get clarification on a topic before the 1<sup>st</sup> exam.* Keep track of any "A-ha" moments or any other thoughts about the course content, your study habits.
4. **Required:** At the end of each week (each Sunday) critically evaluate your schedule, describe any changes to your schedule for the following week, identify scheduling and time management issues (or things that work), and make modifications as necessary, and put the next week's schedule in your journal. Yes, I do realized that this Sunday you will only be critically analyzing a partial week.
5. **Required:** After each exam you will complete exam wrappers to determine why you missed questions (more details will be given after the 1<sup>st</sup> exam (tentatively scheduled for June 15)).
6. **Required:** Repeat 2 through 5 for 2<sup>nd</sup> exam (tentatively scheduled for June 22)
7. **Optional:** Continue study journal for rest of summer following the above steps
8. **Extra Credit (5 points):** At the end of the semester you will write a brief self-reflection that answers the following questions: How accurate were your preconceived ideas about the course, your expectations of the course and yourself? Did you reach your goal(s)? What will you continue to do, and what will you do differently in your next biology course? Turn-in this and page 1 together to earn 5 extra credit homework points.

**Lecture and Lab Quizzes:** To help prepare you for the lecture exams and lab practicals short quizzes (15 pts) will be given in both lecture and lab. Lab quizzes will be given at the beginning of lab; lecture quizzes may be at the beginning, middle and/or end of a lecture. Quizzes cannot be made-up, and if you arrive late you may have less time to complete the quiz. I will give approximately 15 lecture quizzes throughout the course and will count the highest 10. Because I only count your highest 10 quiz grades, quizzes missed for any reason cannot be made up. Expect a lab quiz each lab period at the start of lab.

There will be two types of quizzes. For Type 1 quizzes you will answer the questions on your own; these are designed to give you a better understanding of your knowledge of the course content. Type 2 quizzes will be taken in two stages: you will first answer the content questions individually, and with each content question will also be a confidence question where you evaluate your confidence in your answer. For the second stage of Type 2 quizzes you will discuss with a neighbor your answer. During your discussion you will disclose to your neighbor not only your initial answer but also your confidence in your answer, and you will come up with your “final answer” for each content question and a final confidence score. Your “final answer” will be the one that is actually graded and will also include a confidence component.

The goal of the confidence component is to 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. 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

**Lecture Exams:** A total of 6 “regular” exams and 1 cumulative 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. Any content from take-home and in-class assignments or lecture is fair game for the exams. On each exam there may be a few questions (~5) on “old” material. All exams, including the final, will be multiple choice. The lowest exam grade will be dropped. Generally, no make-up exams will be given for sickness, vacations, etc. and will be the exam dropped. Only students with a University related excuse may take an exam early. **NO EARLY FINAL EXAMS WILL BE GIVEN!** During each 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.

**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 are required to read the background information and complete the pre-lab assignment before 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. For the first 4 plant labs (Lab 2, 3, 4, 5), you will be required to bring a printed copy of the lab exercises (2.5 pts) and either a printed copy of the background information or show me your electronic access to the background information (2.5 pts) for a total of 5 homework points. For the rest of the semester you should either bring hard copies or be able to view these documents on your phone, tablet, laptop computer, etc. in lab.

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. If you are retaking the class do not buy another access code for the manual, simply email Great River Support and they will give you access. Let me know if you have issues.

**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. 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

usually be due one week later (although you should complete them before then next lab because of lab quizzes that you will take based on the previous lab content). Data analysis for a lab will be discussed during the lab you collect data and will be due usually 1 week later. 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 Quizzes:** At the start of lab each week I will give you a quiz over the previous week's lab exercise. These will be timed powerpoint quizzes (15 pts each) and will have 3 "regular" content based questions and 2 questions with a confidence component (see Lecture Quizzes for more information). If you arrive late to lab or if you miss the lab for an unexcused reason you will not be able to take the quiz. All lab quiz grades will be figured into your final course grade (no quiz grades are dropped).

**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.

**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 can keep track of your grades in your Study Journal 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 0.50 (which is 50%).
- *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 0.40 (which is 40%)
- *Lab Grade:* Add Component 1 + Component 2 + Component 3

Lecture Grade:

- *Lecture Homework (component 1):* Add up all lecture homework grades (includes study journal, active learning exercises, and any other lecture homework), divide by the total points possible. Multiply by 100 to get a percentage. Multiply this percentage by 0.25 (25%).
- *Lecture Quizzes (component 2):* Add up 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 0.65 (65%).
- *Lecture Grade:* Add Lecture Component 1 + Component 2 + Component 3

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 2017 TENTATIVE SCHEDULE** (Chapter numbers not in parentheses correspond to Sadava text and Chapter numbers in parentheses correspond to the OpenStax text)

June

- 7 Introduction
- 8 Phylogenetic trees and Chapter 28 (Chapter 25): Seedless Plants  
**Lab 1:** Statistics
- 12 Chapter 29 (Chapter 26 and 32): Evolution of Seed Plants
- 13 Chapter 34 (Chapter 30): The Plant Body  
**Lab 2:** Nonvascular Plants
- 14 Chapter 34 (Chapter 30): The Plant Body
- 15 Exam 1 (11:10-12:00)  
Chapter 35 (Chapter 30): Transport in Plants (12:10-12:35)  
**Lab 3:** Vascular Plants
- 19 Chapter 35 (Chapter 30): Transport in Plants
- 20 Chapter 36 (Chapter 31): Plant Nutrition  
**Lab 4:** Plant Cells, Vegetative Organ Structures, and Patterns of Growth
- 21 Chapter 37 (Chapter 30): Regulation of Plant Growth
- 22 Exam 2 (11:10-12:00)  
Chapter 38 (Chapter 32): Reproduction in Flowering Plants (12:10-12:35)  
**Lab 5:** Angiosperm Development
- 26 Chapter 38 (Chapter 32): Reproduction in Flowering Plants
- 27 Chapter 39 (Chapter 30): Plant Responses to Environmental Challenges  
**Lab 6:** Growth and Transpiration
- 28 Chapter 39 (Chapter 30): Plant Responses to Environmental Challenges (cont'd)
- 29 Exam 3 (11:10-12:00)  
**Lab Practical**

July

- 3 Chapter 40 (Chapter 33): Homeostasis in Animals and the Role of Physiological Systems  
Chapter 41 (Chapter 37): Animal Hormones
- 4 No Class
- 5 Chapter 43 (Chapter 43): Animal Reproduction
- 6 Chapter 45 (Chapter 35): Neurons and the Nervous System  
**Lab 9:** Introduction to Tissues
- 10 Exam 4 (11:10-12:00)  
Chapter 45 (Chapter 35): Neurons and the Nervous System (cont'd) (12:10-12:35)
- 11 Chapter 47 (Chapter 35): Mammalian Nervous System  
**Lab 10:** External and Internal Anatomy of the Fetal Pig
- 12 Chapter 46 (Chapter 36): Sensory Systems
- 13 Chapter 48 (Chapter 38): Muscles  
**Lab 11:** Sensory Systems
- 17 Chapter 49 (Chapter 39): Gas Exchange  
Chapter 50 (Chapter 40): Circulatory System
- 18 Exam 5 (11:10-12:00)  
Chapter 50 (Chapter 40): Circulatory System (cont'd) (12:10-12:35)  
**Lab 12:** Cardiovascular System and **Lab 13:** Excretory System
- 19 Chapter 51 (Chapter 34): Nutrition and Digestion
- 20 Chapter 52 (Chapter 41): Salt and Water Balance  
**Labs 7 and 8:** Overview of Diversity and Review of Systems
- 24 Chapter 52: Salt and Water Balance (cont'd)
- 25 Exam 6 (11:10-12:00)  
**Lab Practical**