

BIOL 1108 Principles of Biology II Spring 2017 Syllabus

Instructor: Dr. Theresa J. Grove
Office: BC 1099
Office hours: Monday 4:30 p.m. – 5:30 p.m.
Tuesday 3:00 p.m. – 5:00 p.m.
Wednesday 3:00 – 5:00 p.m.
By appointment or stop by my office
Email: tjgrove@valdosta.edu (please do not message me on Blazeview)

Lecture (BC 1023): Tuesday/Thursday 8:00 a.m. – 9:15 a.m.
Lab (BC 1073): Section A Tuesday 9:30 p.m. – 12:20 p.m.
Section B Wednesday 8:00 a.m. – 10:50 a.m.
Section C Thursday 11:00 a.m. – 1:50 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 have 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
- OpenStax Biology (Recommended), pdf is available free online at openstax.org
- Van De Graaff's Photographic Atlas (Optional), Morton Publishing, ISBN 9781617310584
- Clicker (Required)
- Spiral notebook for lab (Highly recommended)
- Spiral notebook for 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" or not. 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. For excused absences, it may be possible to attend another section that I teach; contact me as soon as possible (see 1st page of syllabus for days and times of my lab sections that same week). 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.

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, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 229-333-5463.

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 talk 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. 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.
- 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.
- I will post practice quiz and exam questions for you to check your knowledge.
- There is a discussion board where you can post questions. Feel free to post a question, about course content or activities. If you see a question posted by someone that you can

answer, post an answer. I will also answer questions. The goal of this discussion is to help you learn or clarify the material or an assignment, and one way to learn is to explain content to other students. All I ask is that you treat everyone with respect, you do not purposefully give wrong information, and that the questions be somewhat remotely related to the lecture or lab, biology in general, or life at VSU.

- 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.

Clickers: Clickers will be used primarily during lecture to gauge your understanding of a particular concept and occasionally they will be used in lab. Grading on clicker questions will be 1 point for an answer and 0 points for not answering (for any reason including but not limited to dead battery, forgot clicker, absent from class). The use of clickers will begin the 2nd week of class. Bring your clicker to lecture and lab. There may be times when I ask the same question a few times during lecture; in these instances the maximum points you can earn (or lose) is 1 point.

Lecture Assignments: Lecture assignments may include take-home or in-class assignments. Take-home assignments will be worth variable points depending on the effort involved. Some of these assignments are designed to introduce you to the next topic and prepare for the next lecture. In-class active learning activities are designed to increase participation, apply your knowledge, and introduce new concepts. Active learning activities will be worth 2 points for participating and 0 points if you miss the class. In-class active learning exercises cannot be made up. Clicker questions asked as part of active learning exercises are part of the 2 points. 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: To help assist you in the development of your study skills that you will use throughout your college career, you will be maintaining a study journal. This will be a handwritten (not typed) record (a spiral notebook is required) of your expectations, goals, study schedules and habit, and self-reflections throughout this semester. I will collect it at the start of your lab period usually every other week (see Tentative lab schedule) during the semester, and they will be available to pick-up the next morning. No late notebooks will be accepted; if you don't bring it to lab, 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. What must be included:

- Step 1 (Page 1 and 2): Leave these two pages blank. You will use these pages to record your grades; one page for lecture and one page for lab. I do not post grades on Blazeview.
- Step 2 (Page 3): Your first entry will include the following:
 - 1) your preconceived ideas and expectations about this class, your goal(s) and expectations.
 - 2) Your plan on what you will do and not do to reach your goal(s)
- Step 4 (Page 4): Your first 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 each Sunday so that as the week progresses, you can check-off what you complete and circle items that you skipped.
- Step 5 (Page 5): 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 1st exam if you see me to get clarification on a topic before the 1st exam.*** Keep track of any "A-ha" moments or any other thoughts about the course content, your study habits.
- Step 6: At the end of each week 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.
- Step 7: Repeat steps Steps 5 and 6 until the exams.

- Step 8: After each exam you will complete exam wrappers to determine why you missed questions (more details will be given after the 1st exam). 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? You must have this final reflection in your journal when it is collected for the final time at the beginning of your last lab period.

Lecture 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 and may be at the middle or end of a lecture; assume that there will be a quiz during each lecture and lab period. If missed they cannot be made up, and if you arrive late you may have less time to complete the quiz. The quizzes will also include a few questions that have a confidence component associated with the point value. 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. How the quizzes will work is that you will be given a multiple-choice content question. After that 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 and will consist of 2 questions with a confidence component and 3 questions that do not. 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. I will give approximately 15 quizzes during the semester and will count the highest 10. Because I only count your highest 10 quiz grades, quizzes missed for any reason cannot be made up.

Lecture Exams: A total of 4 “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 will be a few questions (~5) on “old” material. All exams, including the final, will be multiple choice. The lowest exam grade will be dropped. 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. The final exam will be cumulative and will be multiple choice. **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. 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. 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 (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 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 will be keeping 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. Multiple 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, clicker points, and any other 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 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 0.65 (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.

Spring 2017 TENTATIVE LECTURE SCHEDULE

January

- 10 Introduction to Course Content and Hypothesis, Theory, Law, Fact
- 12 Introduction to Physiology and Phylogenies
Chapters 27 (excerpts) and 33: The Animal Body: Basic Form and Function
- 17 Chapter 37: The Endocrine System
- 19 Chapter 34: Animal Nutrition and the Digestive System
- 24 Chapter 35: The Nervous System
- 26 The Nervous System (cont'd) and Chapter 36: Sensory Systems
- 31 Sensory Systems (cont'd) and Chapter 38: The Musculoskeletal System

February

- 2 Exam 1 (thru Sensory Systems)
- 7 The Musculoskeletal System (cont'd) and Chapter 39: The Respiratory System
- 9 The Respiratory System (cont'd)
- 14 Chapter 40: The Circulatory System
- 16 Chapter 41: Osmotic Regulation and Excretion
- 21 Chapter 43: Animal Reproduction and Development
- 23 Animal Reproduction and Development (cont'd)
- 28 Exam 2 (thru Animal Reproduction and Development)

March

- 2 Chapter 25: Seedless Plants
- 9 Chapter 26: Seed Plants
- 13-17 **SPRING BREAK—NO CLASS**
- 21 Seed Plants (cont'd)
- 23 Chapter 32: Plant Reproduction
- 28 Plant Reproduction (cont'd)

April

- 4 Chapter 30: Plant Form and Physiology – The Plant Body
- 6 Chapter 30: Plant Form and Physiology – Plant Growth
- 11 Exam 3 (thru The Plant Body)
- 13 Chapter 30: Plant Form and Physiology – Transport of Water and Solutes
- 18 Transport of Water and Solutes (cont'd)
- 20 Plant Sensory Systems and responses and Chapter 31: Soil and Plant Nutrition
- 25 Soil and Plant Nutrition (cont'd)
- 27 Exam 4 (thru Soil and Nutrition)

Final Exam: May 2 8:00-10:00

Spring 2017 Lab Schedule

Lab	Date	¹ Online Pre-lab open – close dates	¹ Online Post-lab open – close dates
No lab	Jan 10, 11, 12		
Intro to Statistics (Lab 1)	Jan 17, 18, 19	None	None
Animal Tissues (Lab 9)	² Jan 24, 25, 26	Jan 17, 18, 19 – Jan 24, 25, 26	Jan 24, 25, 26 – Jan 31, Feb 1, 2
Fetal Pig Anatomy (Lab 10)	Jan 31, Feb 1, 2	Jan 24, 25, 26 – Jan 31, Feb 1, 2	Jan 31, Feb 1, 2 – Feb 7, 8, 9
Sensory System (Lab 11)	² Feb 7, 8, 9	Jan 31, Feb 1, 2 – Feb 7, 8, 9	Feb 7, 8, 9 – Feb 14, 15, 16
Cardiovascular System (Lab 12) Excretory System (Lab 13)	Feb 14, 15, 16	Feb 7, 8, 9 – Feb 14, 15, 16	Feb 14, 15, 16 – Feb 21, 22, 23
Diversity Part I (Lab 7)	² Feb 21, 22, 23	Feb 14, 15, 16 – Feb 21, 22, 23	Feb 21, 22, 23 – Feb 28, Mar 1, 2
Diversity Part II (Lab 8)	Feb 28, Mar 1, 2	Feb 21, 22, 23 – Feb 28, Mar 1, 2	Feb 28, Mar 1, 2 – Mar 7, 8, 9
<i>Animal Practical</i>	² Mar 7, 8, 9		
<i>Spring Break: No Lab</i>	Mar 14, 15, 16		
Nonvascular Plants (Lab 2)	² Mar 21, 22, 23	Mar 7, 8, 9 – Mar 21, 22, 23	Mar 21, 22, 23 – Mar 28, 28, 29
Vascular Plants (Lab 3)	Mar 28, 29, 30	Mar 21, 22, 23 – Mar 28, 29, 30	Mar 28, 29, 30 – Apr 4, 5, 6
Plant Cells, Organs and Growth (Lab 4)	² Apr 4, 5, 6	Mar 28, 29, 30 – Apr 4, 5, 6	Apr 4, 5, 6 – Apr 11, 12, 13
Angiosperm Development (Lab 5)	Apr 11, 12, 13	Apr 4, 5, 6 – Apr 11, 12, 13	Apr 11, 12, 13 – Apr 18, 19, 20
Growth and Transpiration (Lab 6)	² Apr 18, 19, 20	Apr 11, 12, 13 – Apr 18, 19, 20	Apr 18, 19, 20 – Apr 25, 26, 27
<i>Plant Practical</i>	² Apr 25, 26, 27		

¹Lab assignments will open and close on the dates at the same time your lab starts

²Turn in study journals in lab; you can collect them from my office the next day.