

BIOL 1108 Principles of Biology II (4 credits) Syllabus

Instructor: Dr. Theresa J. Grove

Office: BC 1099

Office hours: Tuesday 2:00-3:00 p.m. and Thursday 9:30-11:30 a.m. or by appointment

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

Lecture (BC 1023): Tuesday and Thursday 8:00 - 9:15 a.m.

Lab (BC 1073): Section A: Monday 9:00 - 11:50 p.m.

Section B: Monday 1:00 - 3:50 p.m.

Section C: Tuesday 9:30 a.m. - 12:20 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. Communication skills will be exercised through laboratory assignments and lab practicals and lecture exams. Information processing skills will be developed because of the nature of biology. A lot of information will be given to students in a relatively short period of time, and students are expected to retain this information, not only for the final exam, but for future 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.

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

Lecture Textbook: Life: The Science Biology by Sadava *et al.* 9th or 10th ed. Sinauer Associates, Inc.

Lab Manual: Principles of Biology II Lab Manual by T. J. Grove

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

Access to Slides/Information: Lecture slides will be made available on BlazeView by 5:00 p.m. the day before lecture. These slides will not have all the information on them; it is the student's responsibility to come to class and take notes. Students are responsible for getting the notes from other students if they miss a lecture. I will NOT email notes that are missed, nor will let you copy my slides in my office.

Lecture Conduct:

- Arrive on time. Quizzes missed due to late arrival or leaving early cannot be taken at a later time.
- Do not use cell phones during lecture or lab unless I have given you permission.
- Don't talk during lecture; if you don't understand something or didn't hear something ask.
- Unless it's an emergency (and using your cell phone does not constitute an emergency) do not get up in the middle of lecture, leave and come back.
- Do not leave class early unless you have informed me prior to the start of the class or if it's an emergency.
- During exams NOBODY can leave the exam and re-enter the exam room. If a student leaves, their exam will be graded as is; the student will not be allowed to finish the exam.

Withdrawing from the course: The last day to withdraw without penalty is Thursday, October 3. If you don't officially withdraw, and instead just stop coming to class, you will earn an F for the course.

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, which will be handed out during the first lab period.

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. **Keep this in mind that the exam 4 is the Thursday before Thanksgiving vacation and the final exam is Wednesday, December 4 during the week immediately following Thanksgiving.**

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: A total of 4 "regular" exams and 1 final exam will be given during the semester (a total of 5 exams), and each exam will be worth 100 points. The dates for four in-class exams are included in the Tentative Class Schedule. Note, that these are TENTATIVE; therefore I reserve the right to adjust the dates (or content) of the exams. All exams will consist mainly of multiple choice questions, but will have other question formats (e.g. fill in the blank, short answer, etc). The lowest exam grade (out of all 5 exam grades) will be dropped, which makes the final optional. No make-up exams will be given. A missed "regular" exam (for any reason) will be the exam dropped, and then the final will no longer be optional. 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.

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.

Final: The final will be cumulative and will be multiple choice. The date of the final is Wednesday, December 4 (10:15 a.m. -12:15 p.m.). **NO EARLY EXAMS WILL BE GIVEN!**

LAB CONDUCT

- 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!
- 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. Labs cannot be made up outside of scheduled laboratory sessions, and if you miss your regular lab period, you cannot come to another lab section. Students are responsible for all lab content even if they received an excused absence.
- 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 being subtracted from the student's total lab points (not the final percentage) each week it is not put away properly. Notify the professor if your microscope is not functioning properly.
- Cell phones are not allowed to be used in lab with the exception of using them as timers, when necessary.

Lab assignments

Throughout the semester students will complete assignments that deal with either data analysis or comprehension of topics covered in the lab. These are due at the beginning of lab. No late assignments and no emailed assignments will be accepted.

Lab Practicals

Two lab practicals 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. More information will be distributed 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:

For Biology majors, a grade of C or higher is required for this course.

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

To Calculate your Final Grade:

Final grades will be based on both the lecture and laboratory components of the course.

Lecture is worth 75% of your final grade, and lab is worth 25% of the final grade.

Lecture component (total 600 points):

- 4 exams (each worth 100 points; total 400 points)
- 10 quizzes (each worth 5 points; total 50 points)

Lab component:

- Lab assignments and quizzes (variable points)
- 2 lab practicals (each worth 50 points; total 100 points)

To calculate your final grade:

- Lecture component: Add points earned from each of the exams, quizzes and final and divide by 450 (total points possible). Multiply this number by 0.75.
- Laboratory component: Add points earned from each of the laboratory assignments, lab quizzes, and practicals and divide by total points possible. Multiply this number by 0.25
- Finally, do the following: Take the lecture component and laboratory component numbers you just calculated and add them together. Multiply this number by 100. This will give you your final percentage your earned.

FALL 2013 TENTATIVE LECTURE SCHEDULE

August

- 13 Introduction to Phylogenies
- 15 Chapter 28: Seedless Plants
- 20 Seedless Plants (cont'd) and Chapter 29: Evolution of Seed Plants
- 22 Seed Plants (cont'd)
- 27 Chapter 34: The Plant Body
- 29 The Plant Body (cont'd)

September

- 3 Chapter 35: Transport in Plants
- 5 Catch-up and Review
- 10 **EXAM 1**
- 12 Chapter 36: Plant Nutrition
- 17 Chapter 37: Regulation of Plant Growth
- 19 Chapter 38: Reproduction in Flowering Plants
- 24 Chapter 39: Plant Responses to Environmental Challenges
- 26 Catch-up and Review

October

- 1 **EXAM 2**
- 3 Chapter 40: Homeostasis in Animals and the Role of Physiological Systems
- 8 Chapter 41: Animal Hormones
- 10 Chapter 41: Animal Hormones (cont'd) and Chapter 43: Animal Reproduction
- 15 Animal Reproduction (cont'd) and Chapter 45: Neurons and the Nervous System
- 17 Neurons and the Nervous System (cont'd) and Chapter 47: Mammalian Nervous System
- 22 Chapter 46: Sensory Systems
- 24 Catch-up and Review
- 29 **Exam 3**
- 31 Chapter 48: Muscles

November

- 5 Chapter 49: Gas Exchange
- 7 Chapter 50: Circulatory System and Chapter 51: Nutrition and Digestion
- 12 Nutrition and Digestion (cont'd)
- 14 Chapter 52: Salt and Water Balance
- 19 Catch-up and Review
- 21 **Exam 4**
- 25-29 NO CLASS THANKSGIVING

FALL 2013 TENTATIVE LAB SCHEDULE

August

- 12/13 *NO LAB*
- 19/20 How to use Excel to Analyze Basic Biological Data (lab will meet in the computer lab room 3018)
- 26/27 Non-Vascular, Seedless Plants

September

- 2/3 *NO LAB*
- 9/10 Vascular Plants
- 16/17 Roots, Stems and Leaves
- 23/24 Angiosperm Development
- 30/1 Growth and Transpiration

October

- 7/8 Plant Lab Practical
- 14/15 Diversity: Porifera and Cnidaria
Animal Tissues
- 21/22 Diversity: Platyhelminthes
Vertebrate Anatomy
- 28/29 Review of tissues and vertebrate anatomy
Diversity: Annelida and Mollusca
Sensory Systems

November

- 4/5 Diversity: Nematoda and Arthropoda
Cardiovascular System
- 11/12 Diversity of Echinodermata and Chordata
Excretory System
- 18/19 Animal Lab Practical
- 25/26 *NO LAB: Thanksgiving*