

BIOL 1108 Principles of Biology II (4 credits)
Lecture/Lab J and N Syllabus

Instructor: Dr. Catherine M. Bush
Office: Bailey Science 1108
Office hours: Monday and Friday 1-2 pm; or by appointment
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Lecture (BC 1011): Tuesday and Thursday 9.30 – 10.45 am
Lab (BC 1047): Section J – Monday 8 – 10.50 am
Section N – Thursday 11 – 1.50 pm

Prerequisite: A passing grade in BIOL 1107 (or equivalent).

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 also for future courses.

Learning goals include:

- Understanding physiology of the major systems in plants and animals that include:
 - o Structure/function relationships
 - o Nutrition
 - o Transport
 - o Movement
 - o Reproduction
 - o Development
 - o Sensory systems
- Learning common experimental tools and techniques used in physiology
- Strengthening your ability to think critically and process information and data

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

Textbook: Life: The Science of Biology, 9th edition. Sadava *et al.* Sinauer Associates, Inc.

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 5:00pm 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. The professor will NOT email notes that are missed.

Lecture Conduct:

- Arrive on time.
- Turn off/silence cell phones during class and lab.
- 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 March 3, 2011. If you don't officially withdraw, and instead just stop coming to class, you will receive 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 can't be made.

Students with disabilities: Students requiring special accommodations because of disability should discuss their needs with me as soon as possible. Those needing accommodations that 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: Pop quizzes will be given periodically throughout the semester in lecture. The quizzes will cover material from the previous lecture and will be given during the first 10 minutes of class. If you arrive late, you will still have to turn in your quiz at the end of the 10 minutes. Each quiz will be worth 10 pts. (the two lowest quiz grades will be dropped).

There are no make-up quizzes.

Exams: The dates for the exams are included in the Tentative Class Schedule. Note, that

these are TENTATIVE, therefore the professor reserves the right to adjust the dates of the exams. YOU MUST BRING A PENCIL WITH YOU. All cell phones must be turned off during exams. All bookbags, books, purses etc. must be placed on the stage at the start of the exam; 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 cannot be worn during exams.

Review sheets with topics on which the students will be tested will be handed out prior to the exam. These review sheets will contain a list of topics that the student is expected to understand; the review sheets do NOT contain the details that may appear on the exam. While the professor makes a reasonable effort to make these sheets all inclusive, it is entirely possible that a topic will be inadvertently left off that will show up on the exam.

There will be four exams (excluding the final) given throughout the semester. Each exam is worth 100 points and will consist of a variety of types of questions that may include matching, multiple choice, labeling, fill in the blank and short answer. The lowest exam grade will be dropped. **There will be NO make-up exams.** Only students with a University related excuse may take an exam early. Your best policy: **DO NOT MISS EXAMS!**

Final: The final will be cumulative and will have a format similar to the other exams. The date of the final is Thursday, May 5 (10:15 a.m. -12:15 p.m.). **NO EARLY EXAMS WILL BE GIVEN!**

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 lecture exams (each worth 100 points; one dropped; total 300 points)

Quizzes (100 points total)

Cumulative final (worth 200 points)

Lab component:

Lab assignments (variable points)

2 lab practicals (each worth 100 points; total 200 points)

To calculate your final grade:

- Lecture component: Add points earned from each of the quizzes, exams and final and divide by 600 (remember your lowest exam and two lowest quiz grades will be dropped). Multiply this number by 0.75.

- Laboratory component: Add points earned from each of the laboratory assignments 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 you earned.

SPRING 2010 TENTATIVE LECTURE SCHEDULE

January

11 Chapter 22: Introduction to Structure-Function Relationships and Phylogenies

13 Chapter 40: Homeostasis in Animals and the Role of Physiological Systems

18 Chapter 41: Animal Hormones

20 Chapter 43: Animal Reproduction

25 Chapters 45 and 47: Neurons and Nervous Systems

27 Chapter 46: Sensory Systems

February

1 Sensory Systems (cont'd)

3 Chapter 48: Muscles

8 EXAM 1

10 Chapter 49: Gas Exchange

15 Gas Exchange (cont'd) and Chapter 50: Circulatory System

17 Circulatory System (cont'd)

22 Chapter 51: Nutrition and Digestion

24 Chapter 52: Salt and Water Balance

March

1 Salt and Water Balance (cont'd) and Review

3 EXAM 2; MIDTERM

8 Chapter 28: Seedless Plants

10 Seedless Plants (cont'd) and Chapter 29: Evolution of Seed Plants

15 NO CLASS SPRING BREAK

17 NO CLASS SPRING BREAK

22 Seed Plants (cont'd)

24 Chapter 34: The Plant Body

39 The Plant Body (cont'd)

31 Chapter 35: Transport in Plants

April

5 Transport in Plants (cont'd)

7 Exam 3

12 Chapter 36: Plant Nutrition

14 Chapter 37: Regulation of Plant Growth

19 Chapter 38: Reproduction in Flowering Plants

21 Reproduction in Flowering Plants (cont'd)

26 Chapter 39: Plant Responses to Environmental Challenges

28 Exam 4

May

3 Exam prep day

5 FINAL EXAM, 10.15 - 12.15 pm

BIOL 1108 Principles of Biology II Lab Syllabus

Lab Conduct

- Arrive on time. Assignments are due at the start of lab. Students arriving 10 minutes late will not be able to turn in assignments and will receive a zero (0) on those assignments
- It is strongly advised to maintain a laboratory notebook with drawings, descriptions, data etc. of the laboratory exercises. The notebook will help you study for the practicals.
- No eating or drinking during the lab.
- Attendance to lab 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 a student misses three labs *for any reason* the student cannot earn higher than a D for his/her final grade. Except under extenuating circumstances, labs cannot be made up outside of scheduled laboratory sessions. Students are still 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.
- Labs will be posted on BlazeView a week in advance. It is the responsibility of the student to print out the lab for the following week. No copies of the lab will be handed out to students who forgot their labs handouts.
- Cell phones are not to be used in lab with the exception of using them as timers when necessary. Do NOT text during labs!

Lab assignments and Lab Practicals

Throughout the semester lab assignments will be given. Information on lab assignments will be handed out in lab and will involve analysis of laboratory exercises. These assignments are due at the start of the following lab period. No late assignments will be accepted (see above). Two lab practicals will be given, one covering animals and one covering plants. Questions may include microscope slides, whole specimens and a written component. To do well on practicals, it is critical that you take detailed notes in your lab notebook each session. Lab practicals can only be taken the week they are scheduled. More information will follow.

TENTATIVE LAB SCHEDULE AND TOPICS

Week of January 10	Introduction and Learn to Use Excel (Meet in Computer Lab room 3018) (Lab 1)
Week of January 17	NO LAB
Week of January 24	Diversity: Porifera and Cnidaria (Lab 2) Vertebrate Anatomy
Week of January 31	Diversity: Platyhelminthes (Lab 3) Vertebrate Animal Tissues
Week of February 7	Sensory Systems and Muscle Structure and Function (Lab 4) Diversity: Annelida and Mollusca
Week of February 14	Cardiovascular System (Lab 5) Diversity: Nematoda and Arthropoda
Week of February 21	Digestive System and Excretory Systems (Lab 6) Diversity: Echinodermata and Chordata
Week of February 28	LAB PRACTICAL
Week of March 7	Non-Tracheophytes (Seedless Plants) (Lab 7)
Week of March 14	NO CLASS SPRING BREAK
Week of March 21	Tracheophytes (Vascular Land Plants) (Lab 8) Plant Anatomy-Roots, Stems and Leaves
Week of March 28	Angiosperm Development (Lab 9)
Week of April 4	Water Movement: Stomata and Transpiration (Lab 10)
Week of April 11	Plant Growth and Mineral Nutrition (Lab 11)
Week of April 18	Pollution: Effects of Chemical, Thermal and Acid Pollution (Lab 12)
Week of April 25	LAB PRACTICAL