

Course Syllabus

COURSE: Bio 106, INTRODUCTORY BIOLOGY II, (Fall, 2003)

Section 1: Lecture MWF, 9:00-9:50, Harman Hall 103

Lab R 9:00-10:50, Harman Hall 104

Section 2: Lecture MWF, 9:00-9:50, Harman Hall 103

Lab R 11:00-12:50, Harman Hall 104

PROFESSOR: Dr. T. M. Hardig (hardigm@montevallo.edu)
B. S. & M. A., Humboldt State University
Ph.D., Washington State University

OFFICE & HOURS: Rm 109, Harman Hall
MWF 10:00-1:00; T 11:00-1:00; or by appointment
Office Phone: 665-6463 (Home Phone: 620-9728)

CREDITS: 4 semester hours.

TEXTBOOK: Raven and Johnson, *Biology* 6 ed., WCB/McGraw-Hill Publishers, 2002.

LAB MANUAL: Vodopich and Moore, *Biology Laboratory Manual (CUSTOMIZED)*, WCB/McGraw-Hill Publishers, 2002

COURSE OBJECTIVES: This course satisfies the GEC goal that states "Students will acquire knowledge of nature". To accomplish this, the second semester of *Introductory Biology* will provide the student with an overview of the diversity of organisms and how they function, and an understanding of how those organisms interact to form ecosystems. Specific objectives are as follows:

- A. To develop a working basic biological vocabulary.
- B. To improve basic study skills as well as analytical ability.
- C. To develop an understanding of the interdependence of life forms.
- D. To understand the use of the microscope and techniques of dissection as tools of exploration/investigation.
- E. To develop an understanding of the evolutionary relationships of different groups of organisms.
- F. To develop an appreciation of the environment and its diversity of inhabitants, and an understanding of the effects of alteration of environmental factors.

Additionally, this course is intended to meet all of the mandated State Department of Education (SDE) program standards for teacher education in the areas of Common Rules (.14), General Science (.15) and Biology (0.16), as outline in Appendix 1.

LECTURE: There will be four (4) lecture exams during the course of the semester (below). The final exam (Exam IV) will be comprehensive. The lecture grade will constitute 80% of your final course grade.

EXAM	DATE
I	9/19/03
II	10/17/03
III	11/7/03
IV	FINAL EXAM PERIOD

LABS: You should be registered for a Biology 106 lab, either Section 1 or Section 2. If not, see me immediately after class. Complete lab guidelines will be handed out and discussed at your first lab session.

There will be a quiz given at the beginning of most labs. Quizzes will cover the material presented during the previous lab. You will be allowed 10-15 minutes to complete the quiz. Your lab grade will constitute 20% of your final course grade.

In addition to scheduled lab periods, you may work in lab on your own time from opening in the morning until closing in the afternoon, Monday through Friday (when other labs are not in session.)

GRADING AND EVALUATION: Final course grades will be determined on a modified 100-point scale. Point totals of 90% or above are guaranteed an A level grade, 80% or above a B level grade, 70% or above a C level grade, and 60% or above a D level grade. Those point totals near a cutoff will be individually considered for the next higher grade. I RESERVE THE RIGHT TO CURVE OR SCALE TEST SCORES ON AN EXAMINATION-BY-EXAMINATION BASIS.

Final grades will be determined by both lecture and lab exams and quizzes as follows:

	Proportion of Final Grade
Lecture exams	80%
Lab quizzes	20%

ATTENDANCE REQUIREMENTS: No seats will be assigned and no attendance taken (except for the first few classes so I can correct the roll sheet). You are responsible for all announcements and material covered in this class.

HONOR CODE: All work submitted under your signature in this course is pledged as being your own work. This applies to all quizzes, tests, and examinations. The honor code prohibits discussing any tests with anyone until the test is graded and returned.

TENTATIVE LECTURE TOPIC SEQUENCE:

Introduction; Ch. 1
The Art/Act of Classification; Ch. 32
Domain Archaeobacteria; Chs. 32 & 34
Domain Prokaryia; Chs. 32 & 34
Domain Eukarya, to Kingdoms; Ch 32
Kingdom Fungi, to Phyla; Ch. 36
Kingdom Plantae, to Phyla; Ch. 37
Kingdom Animalia, to Phyla; Ch. 44
Origin of Species; Chs. 20, 22, & 32
Plant development; Ch 40
Plant anatomy;
Plant reproduction;
Evolution of Plant Characteristics; Chs. 37, 41, and 42
Animal development; Ch. 44
Animal anatomy;
Evolution of Animal Characteristics; Ch. 44
Ecology; Chs. 25, 28, 42

LAB SCHEDULE:

1. 8/28 Microscopes (Exercise 2)
2. 9/4 Survey of the bacteria (Exercise 23)
3. 9/11 "Protista"
3. 9/18 Fungi (Exercise 26)
4. 9/25 Plants I – Nonvascular and Seedless Vascular (Exercises 27 & 28)
5. 10/2 Plants II – Gymnosperms (Exercise 29)
- 10/9 NO LAB – Founder's Day
6. 10/16 Plants III – Angiosperms (Exercise 30)
7. 10/23 Animals I – Porifera & Cnidaria (Exercise 35)
8. 10/30 Platyhelminthes & Nematoda (Exercise 36)
9. 11/6 Animals II – Mollusca & Annelida (Exercise 37)
- 11/13 Animals III – Arthropoda (Exercise 38)
10. 11/20 Animals IV – Echinodermata & Chordata (Exercise 39)
11. 11/27 NO LAB – THANKSGIVING
- 12/4 DEAD DAY - Ebenezer Swamp field trip

CLASS PROCEDURES/STUDY SUGGESTIONS:

1. Bio 106 has both lab and lecture components. Labs are intended to illustrate key issues from the lectures. **DO NOT** neglect the laboratory portion of the course.
2. Try to read the text and lab material **BEFORE** they are discussed in class.
3. Study your notes **DAILY**. Review all notes on new material up to that day to remain current and so that you don't forget what you have "learned". Reading is **NOT** studying.
4. I **HIGHLY** recommend reviewing and rewriting your notes after every lecture. Hastily scribbled notes can quickly become indecipherable with the passage of time.
5. Flash cards (i.e., 3x5" note cards) may prove helpful for learning new terms, definitions, etc.
6. Study groups can be very helpful for test preparation. I encourage you to form small (2-4 people) study groups.
7. I have 11 hours of office time every week. **PLEASE** come see me if you are having any problems. I want you to understand this material, I hope you all get A's, but I can't help if I don't know there's a problem.
8. You may ask questions at any time in lecture or lab by raising your hand.
9. I will hold Question & Answer sessions prior to each lecture exam. These will take place during the final hour of the lab session immediately preceding the lecture exam. These sessions are intended to help clear up any final points of confusion you might have regarding the material.
10. If you have taken Bio 100 (Principles of Biology) you may lose credit for it by taking any other biology courses at UM. Remember, you must take two different science areas to satisfy the general education requirement. Check with your advisor if in doubt.

WEB RESOURCES:

Links to course-related web sites have been posted on Campus Pipeline (by course number).

The Tree of Life Home Page

<http://phylogeny.arizona.edu/tree/>

How to earn an "A" in Biology

<http://dept.lamar.edu/biology/getasem/study.htm>

New York Times on the Web

<http://www.nytimes.com/>

IT IS THE POLICY OF THE UNIVERSITY OF MONTEVALLO TO AFFORD EQUAL OPPORTUNITY IN EDUCATION TO QUALIFIED STUDENTS. IF YOU HAVE A DISABILITY THAT MAY PREVENT YOU FROM MEETING COURSE REQUIREMENTS, CONTACT ME IMMEDIATELY TO FILE A STUDENT DISABILITY STATEMENT AND TO DEVELOP AN ACCOMMODATION PLAN. COURSE REQUIREMENTS WILL NOT BE WAIVED, BUT REASONABLE ACCOMMODATIONS WILL BE DEVELOPED TO ASSIST YOU IN MEETING THE REQUIREMENTS. YOU ARE EXPECTED TO WORK WITH THE INSTRUCTOR AND THE OFFICE OF STUDENT SUPPORT SERVICES TO DEVELOP AND IMPLEMENT A REASONABLE ACCOMMODATION PLAN.