

BIOLOGY 112: General Zoology
Office: Collier Hall of Science 321
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Instructor: Dr. James Mitchell
Fall 2007

Office Hours: T Th 8-10:30 a.m.
(If these hours are inconvenient contact me for an appointment. If I am not in my office check room 324 or LAB 303.)

Lecture: M W F 10:20-11:10
Laboratory: Section A -T 12:45-3:45 p.m.
Section B -Th 12:45-3:45 p.m.

Prerequisite: High school biology or permission of instructor.

Required text: Hickman, Roberts, Larson, I-Anson, Eisenhour, *Integrated Principles of Zoology*, 13th edition, McGraw-Hill Science/Engineering/Math, 2005.

Required items: A good dissection kit, a large loose-leaf notebook for handouts, and goggles. Bring lecture text to lab. You may obtain all these items in our bookstore, or at Staples and/or Lowes.

Course description:

This course deals with morphology, evolution, reproduction, development, and behavior of selected groups of animals. It is the basic course in animal science taken by students who major in Biology. I cannot cover all animals in a one-semester course, but will attempt to emphasize major concepts and features. I have elected to introduce you to the Animal Kingdom first. Part of the reason for this is the necessity for scheduling two major field trips, taking into consideration possible weather conditions and the students' schedules as they become more hectic. Also, I have to consider the availability of off-campus facilities.

Course objectives:

- A. To present to the students an introduction to certain areas of animal science.
- B. To gain an understanding of the structural and functional relationships between animals and their environment.
- C. To understand some major biological problems confronting man and society.
- D. To appreciate the history, complexity, and diversity of animal life.
- E. To see how animals have been used as experimental organisms to solve important biological problems.

Attendance:

You should plan to attend all regular classes, labs, and exams. Missing an exam without a valid excuse means that the exam will be given a score of zero and averaged with other test grades for the semester. In the event that the exam is missed for a valid reason, it will not count against the final average and the remaining test scores will be averaged.

Due to time and financial restraints I cannot take you to Alaska, Australia, Bermuda, Hawaii, New Zealand, the deserts, etc. The next best thing is to show you visual information that I have personally obtained. You cannot obtain a full appreciation of the material unless you are in class. Also this may provide you with ideas about spending a semester off campus. It has been my experience that students who attend class do much better than those who habitually absent themselves.

Grading Policy:

There will be three hourly exams covering the notes, text, and handouts. Exams may be objective and subjective in nature. I expect you to use good English in your answers.

Spelling: Why is it important? Confusion may arise from imprecision. Many biological or medical terms are similar—they may have the same Latin or Greek roots. Would you like your pharmacist to misread your prescription?

Also, in ALL jobs, written communication is important in making a good first impression. Would you hire someone whose application has spelling and/or grammatical errors?

The lecture will count as two-thirds ($2/3$) of the grade, and the laboratory one-third ($1/3$)—before the end-of-the-term exam. The average from these figures will represent $2/3$ of your course grade and the final exam $1/3$. When assigning a final course grade, I will also consider such intangibles as attendance, interest, industry, and cooperation.

Cancelled classes:

The Registrar's Office will post cancelled classes on the intranet. Students and faculty may access this listing from on-or off-campus; a link to the page exists on both the home page and main page of the intranet. (The link is <http://home.moravian.edu/public/regis/classCancellations.htm>). The Registrar's Office will also notify, via distribution list, key individuals on campus for posting of information about cancelled classes. The distribution list includes the Academic Affairs office, department secretaries, LouAnn Vlahovic (campus operator), and Ann Claussen (Hauptert Union).

Mrs. Vlahovic will also post class cancellations, due to inclement weather, on Moravian's Weather Hotline (610-625-7995).

If the school closes due to inclement weather or another emergency, notification will be posted on the website listed above, on the Weather Hotline, and on local TV and radio stations (Channel 69, AM 790, AM 1400, FM 96.1, FM 100.7, and FM 104.1).

Academic honesty:

I adhere to the policy statement concerning academic integrity that is published in the current Student Handbook.

Extra Credit:

If you want to improve your grade there will be extra credit videos that must be viewed in Reeves Library. To receive credit you will need to sign a form in the library and submit a paper discussing the main ideas. **Give the paper to Mrs. Vlahovic in the Hall of Science within one week after observing the film.** The amount of credit awarded will be dependent on the completeness of your work. All work must be turned in on or before **Friday, April 20th**. You may select up to four from the following list.

Helpful Tips for Success:

1. See the instructor if you need help. I will attempt to facilitate the learning process.
2. Make good use of lab time. Be on time; don't leave early.
3. Make a study schedule.
4. Frequently review material that was covered.
5. Make zoology interesting. How does it relate to you? How can it make your life more meaningful?
6. Study with peers who are serious and have similar goals.
7. Cramming and "all nighters" usually don't work. Keeping up is much easier than catching up.
8. When possible, attempt to correlate structure and function.
9. Be willing to accept constructive suggestions

Tentative Lecture Syllabus
Biology 112 Fall 2007

August 27	Introduction
August 29	Principles of Classification pp. 194-205
August 31	cartilaginous fish pp. 499-508
September 3	College Closed Labor Day
September 4 (Tuesday)	(Final day for course changes)
September 5	cartilaginous fish continued
September 7	bony fish pp. 509-525 study questions 10,11,13,15,16,18,20,21,23
September 10	ecological interactions between reef invertebrates and bony fish (Hawaii)
September 12	continued
September 14	Amphibia pp. 527-533 study questions 1,3,10, on p. 546
September 15 (Saturday)	Family Day
September 17	continued
September 19	EXAM I
September 21	Reptilia pp. 547-554 study questions 2, 4, 5 on p. 566
September 24	birds pp. 568-590 (selected sections) study questions 1,2,3,4,7
September 26	continued
September 28	Mammalia pp. 597-614 Study questions 3,4,5,6,7,8 on pp. 622-23
October 1	continued Bone Diggers, Australia
October 3	continued bats pp. 609-610 study question 12 on p. 624

October 5	Mid Term (this does not mean there will be an exam on this date)
October 8-9	COLLEGE CLOSED FALL BREAK
October 10	continued
October 12	molecules of biological significance Water pp. 2-4, 34-35
October 15	carbohydrates study questions 7, 8 on p. 38
October 17	fats
October 19	proteins study question 9 on p. 35
October 20 (Saturday)	Homecoming
October 22	nucleic acids pp. 88-96 study questions 15,16,17,18,19 on p. 100
October 24	continued
October 26	EXAM II
October 29	mitosis and meiosis pp. 50-53 study questions 11, 12, 13 on p. 55 pp. 75-78
October 31	Evolution pp. 102-108 study questions 3,4,5,6,10,12,13 on p. 129
November 2	continued
November 5	continued
November 7	development pp. 151-174 study questions 1,2,3,4,5,6,11,12,13 on p. 175
November 9	last day for a W
November 12	continued
November 14	continued
November 16	continued

November 19	EXAM III
November 21-25	College Closed Thanksgiving Break
November 26	muscle pp. 637-646 study questions 14,15 on p. 646
November 28	continued
November 30	circulation pp. 668-680 study questions 2,4,5,6 on p. 688
December 3	continued
December 5	continued
December 7	nervous system (if there is time) Pages to be assigned.
December 10	Review, Classes End
December 11	Reading Day

The registrar will determine the date of the final exam

General Rules and Information:

1. Student behavior in lecture and lab is to be maintained in a manner conducive to learning and study.
2. You should attend the lecture and lab unless there are extenuating circumstances (illness, family problems, etc.)
3. You are not allowed to remove any materials from the laboratory. Please return microscopes to their proper place (with scope # corresponding to slot #) at the end of the lab.
4. Food, drinks, and all tobacco products are not allowed in lab.

5. I expect you to treat the animals, models, slides, microscopes, and specimens with care and respect.
6. Dissection products should be placed in the designated containers, NOT in the sinks.
7. At the end of each lab, you are responsible for cleaning your work area. Wipe the table with antibacterial soap, clean your dissection tools, and return materials to their proper location.
8. Activated electronic devices, such as cell phones, radios, Walkman, etc., are NOT allowed in the lab or lecture hall. Please turn them off.
9. No form of academic dishonesty will be tolerated. Refer to the Moravian College Honor Code in the Handbook.
10. If you want to use the lab and another instructor is conducting a class, ask for permission to work quietly in the back of the room.