

Biology 112:  
General Zoology

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**Required Text:**

*Integrated Principles of Zoology*, Hickman, Roberts, Larson, L'anson and Eisenhour. McGraw-Hill. 13<sup>th</sup> Edition, 2006.

**Course Description:**

This course deals with morphology, evolution, physiology, and behavior of selected animals. It is the basic course in animal science, taken by students who major in Biology. I obviously cannot cover all animals in a one-semester course, but will try to emphasize major concepts and features.

**Goals:**

The purpose of this course is to provide an introduction to animal science. You can really enjoy animals after understanding many facts about them. Understanding these facts requires work, but more importantly, facts will be presented within the context of concepts. Zoologists use concepts to handle all the information they must know. Try to develop a conceptual understanding about how each animal relates to its natural environment and/or how each topic covered relates to you.

The syllabus represents a tentative plan. I may expand or contract a topic depending on time and/or progress of the students.

**Prerequisite:**

A course in high school biology or permission of the instructor

**Grading Policy:**

There will be three hourly exams that may cover the notes, text, and handouts. Exams may be objective and subjective in nature. I expect you to use good English in your answers. The lecture will count 2/3 of the grade, and the lab 1/3-prior to the end-of-the-term exam. The average obtained from these figures will represent 2/3 of your grade, and the final exam 1/3. When assigning a final grade, I will also consider such intangibles as cooperation, interest, industry, and attendance.

**Extra Credit Options:**

You will be able to improve your grade by doing some extra credit work. However, this does not mean that you should minimize your efforts in lecture and lab. We will discuss these options later.

**Honesty Policy:**

I adhere to the honesty policy formulated at Moravian College. You should read the statement in the Student Handbook and the Catalog and consider its ramifications.

**Office Hours:**

Monday, Wednesday, and Friday, 8 to 9 a.m. I will be in Rooms 321 or 324. Also, I will be available Tuesday morning 8 to 10 a.m. If you can not find me, leave a note on my office door or a message with the Hall of Science secretary, Mrs. Vlahovic (CHS 201 or Ext. 1425).

**Attendance:**

Unless there is illness or extreme extenuating circumstances, I expect you to attend class. Many studies indicate that students who attend class regularly earn better grades. During the semester, I will utilize numerous handouts. If you miss a class due to events beyond your control, then it is your responsibility to obtain a copy of any material that was distributed or discussed. Also, please be prompt as chronic tardiness could affect your grade.

In case of inclement weather conditions, call **610-625-7995** for information regarding a possible closing of the college

## Tentative Schedule

- January 16 Introduction (pgs 1-20)
- January 18 continued (study questions 1, 2,3,8,10,12 on pg 19)
- January 20 Water
- January 23 Carbohydrates (pgs 22-23)
- January 25 Fats (pg 24)
- January 27 Proteins (pgs 25-34 study questions 1,2,7,8,10,13,15 on pgs 34-35)
- January 30 Nucleic Acids (pgs 89-95)
- February 1 Cells (pgs 36-47)
- February 3 Cells continued (study questions 1, 2,6,10 on pg 55)
- February 6 Exam 1
- February 8 Mitosis (pgs 50-55 study questions 11,12,13,14 on pg 55)
- February 10 Meiosis (pgs 74-78 study questions 1, 2, 3 on pg 100)
- February 13 Evolution (pgs 102-128)
- February 15 Evolution continued (study questions 1,2,3,4,5,6,10,12 on pg 129)
- February 17 Evolution continued
- February 20 Human Evolution (pgs 615-619)
- February 22 continued (study questions 18, 19,20,21,22 on pg 619)
- February 24 continued
- February 27 The Reproductive Process (pgs 132-150)
- March 1 continued (study questions 1, 2, 3,7,8,9,10,14,15 on pg 150)

- March 3 Principles of Development (pgs 151-175)
- March 6-10 no classes college closed Spring Break
- March 13 Principles of Development continued  
(study questions 1,2,3,5,6,9,11,12,18 on pg 175)
- March 15 Exam 2
- March 17 Diversity of Vertebrate Life (pgs 179-185) (study question 1 on pg 192)
- March 20 Classification and Phylogeny (pgs 193-207 selected sections)
- March 22 continued (study questions 1, 2,3,4,5 on pg 209)
- March 24 Chordates (pgs 480-486)
- March 27 Fish (pgs 498-505)
- March 29 Class Chondrichthyes Cartilaginous Fish (pgs 505-509)
- March 31 Class Osteichthyes Bony Fish (pgs 509-525)  
(study questions 1,4,5,6,7,13,15,16,17,18,20,21,22 on pgs 525-526)
- April 3 Early Tetrapods and Modern Amphibians (pgs 527-533; 541-546)
- April 5 continued (study questions 1,3,10 on pg 546)
- April 7 Exam 3
- April 10 Amniote Origins and Reptilian Groups (pgs 547-553; 560-564)
- April 12 continued (study questions 2, 4,5,6,7,8,16 on pg 566)
- April 14 no classes college closed Good Friday
- April 17 no classes college closed Easter Monday
- April 19 Birds (pgs 569-590 study questions 1,2,3,4,8,13 on pg 594)
- April 21 Mammals (pgs 595-614)  
(study questions 3,4,5,6,7,8,9,13 on pgs 623-624)

April 24

April 26

April 28

April 29 classes end

May 1<sup>st</sup>-5<sup>th</sup> final exams