GENERAL BIOLOGY II - BIOL 151 Spring 2013
COURSE SYLLABUS

COURSE DESCRIPTION: A survey of the Protist and Animal kingdoms and an introduction to animal evolution, behavior, and ecology. This course consists of three one-hour lecture and one two-hour lab each week.

INSTRUCTOR: Kenneth Cabarle

OFFICE: NSC 113
OFFICE HOURS: MWF: 9:00-9:50, by appointment
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LECTURE: 1:00 to 1:50 pm MWF in NSC 125

LAB: Tuesday 1:00-2:50, Thursday 10:00-11:50 in NSC 128

TEXT: Campbell Biology (8th Edition) Hardcover: 1464 pages

GRADING: Grading is based on a standard college curve, where students earn a grade based upon the percent of total possible points they obtain. The lecture component of this course consists of 600 points (12 drop quizzes worth 5 points each, assignments worth 100 points, 3 lecture exams worth 100 points each, and one final exam worth 150 points). Drop quizzes and assignments may not be made up, but students will be able to drop the lowest two scores of the twelve drop quizzes given during the semester. There is a one week grace period to make up any missed exam. Any missed exam not made up within the allotted time will be given a zero. Make-up exams may be of an essay nature and are usually considered more difficult. (Note: It is the responsibility of the student to schedule make-up work with the instructor at a time convenient to both parties.) Final letter grades are assigned based on the following criteria:

A = 90-100% of the total points
B = 80-90% of the total points
C = 70-80% of the total points
D = 60-70% of the total points
F = <60% of the total points

ATTENDANCE: Attendance in lecture and lab is mandatory.

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GOAL:

The goal of this course is to facilitate learning about organismal biology so that students better understand and appreciate the inter-relationships between animals and their environment in order to promote the advancement of life sciences in society and to prepare students for a career in life sciences. This course serves as a fundamental introduction to the science of life, the field of biology. We cover a wide variety of topics, ranging from the microscopic to the macroscopic and from the laboratory to the field. The

course will be divided into three parts. The first portion of the course will focus on the biology of cells and the chromosomal basis of inheritance. We will then turn our attention to the mechanisms of evolution and biological diversity. Finally, we will conclude by examining organismal functions and ecology. In addition to the science involved, we will discuss the individuals responsible for major discoveries and the process of hypothesis formation, experimental design, and interpretation of results. Classes will be supplemented with weekly laboratory work

OBJECTIVES:

1) To learn and retain information essential to a broad knowledge of Organismal Biology.
2) To understand and utilize scientific methods of inquiry.
3) To understand current scientific views of natural phenomenon.
4) To practice sound, safe, and sensible laboratory techniques.
5) To appreciate the historic development of science.
6) To approach and solve problems by utilizing logical thought processes.
7) To apply scientific information and principles to everyday life.
8) Collect and organize data in a systematic manner.
9) To analyze and interpret data in accordance with scientific principles to make informed decisions and ethical choices.
10) To recognize the relationship between science and technology.

Tentative Course Outline:

BIOLOGY 151 TENTATIVE SYLLABUS

DATE	**TOPIC**	**READING ASSIGN.**
Week 1	Macroevolution Lab: no labs this week	Chapter 1, 25
Week 2	Descent with Modification LAB**:** Phylogeny Simulation	22
Week 3	Populations and evolution LAB**:** Hardy-Weinberg Law	23
Week 4	Speciation Hour Exam I LAB: Island Biogeography and Evolution	24
Week 5	Classification System, Bacteria, Archaea LAB: Classification and Binomial System of Nomenclature	26,27
Week 6	Bacteria & Archaea cont'd, Protista LAB: Bacteria & Protista Diversity	27,28
Week 7	Fungi, Plant Structure & Function (LVP's) LAB: Fungi & Plant Diversity	31,29

Week 8	Plant Structure & Function (HVP's) Hour Exam II LAB: Lab Midterm	30,35
Week 9	Animal Diversity & Invertebrates LAB: Invertebrate Animal Diversity	32,33
Week 10	Vertebrates LAB: Vertebrate Animal Diversity	34
Week 11	Organs and Organ Systems LAB: Fetal Pig Dissection	42,43,45
Week 12	Organs and Organ Systems Exam III LAB: Fetal Pig Dissection	46,48,49
Week 13	Population ecology LAB: Population Sampling	53
Week 14	Community Ecology LAB: Community Sampling	54
Week 15	Ecosystems LAB: Pheasant Habitat Model	55
Week 16	Conservation/Restoration Ecology LAB: Lab Final	56
Week 17	Climate Change & Future Considerations Final Exam LAB: no labs this week	