BIOL 1107

Biology for Science Majors Laboratory II Credit: 1

semester credit hour (2 Lab hours)

Prerequisite: Passed the reading and writing entrance exams for LIT and passed BIOL 1306 and BIOL 110
Co-requisite: BIOL 1307 Biology for Science Majors II

Course Description

This laboratory-based course accompanies Biology 1307, Biology for Science Majors II.
Laboratory activities will reinforce study of the diversity and classification of life, including
animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy,
physiology, ecology, and evolution of plants and animals.

Required Textbook and Materials

1. Biology, Seventh Edition,
Publisher: Campbell, Reece, and Mitchell, The Benjamin/Cummings Publishing Company, Inc.,
Language: English
ISBN-20050-8053-7146-X

Objectives

Course Objectives

Upon successful completion of this course, students will:

1. Apply scientific reasoning to investigate questions, and utilize scientific tools such as Microscopes and laboratory equipment to collect and analyze data.

2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.

3. Communicate effectively the results of scientific investigations.

4. Demonstrate knowledge of modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.

5. Distinguish between phylogenetic relationships and classification schemes.

6. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and Ecological significance.

7. Describe basic animal physiology and homeostasis as maintained by organ systems.

8. Compare different sexual and asexual life cycles noting their adaptive advantages.

9. Illustrate the relationship between major geologic change, extinctions, and evolutionary
trends.

Core Objectives

1. Critical Thinking Skills: To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. Communication Skills: To include effective development, interpretation and expression of ideas through written, oral, and visual communication
3. Empirical & Quantitative Skills: To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusion
4. Teamwork: To include the ability to connect choices, actions, and consequences to ethical decision-making

Course Outline

List of topics that should be covered in this course:
Chapters in the book that SHOULD be covered either in whole or in part:
22, 23, 24, 25, 28, 31, 35, 36, 32, 33, 34, 40, 48

Origin of Life and Classification of Organisms	
Invertebrate Evolution	
Vertebrate Evolution, Human Evolution	
Tissues and Homeostasis	

Circulation and Cardiovascular Systems	
Digestive Systems and Nutrition	
Plant Structure, Growth, & Development	
Respiratory Systems	
Animal Behavior, Ecology, and Conservation	

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

1. 3 Unit Tests 25%
2. Comprehensive Final Exam 35%
3. Course Assignments 20%

Course Requirements

1. Written report. Due on 8/23/2014

Course Policies

1. No food, drinks, or use of tobacco products in class.
2. Beepers, telephones, headphones, and any other electronic devices must be turned off while in class.
3. Do not bring children to class.
4. No late assignments will be accepted.

5. Students that miss a test must make up the test the day they return to class. It is the student's responsibility to make arrangements to make up test.
6. Attendance Policy. Two absences are allowed. If a student is tardy to class or departs early three (3) times, it will be equal to one (1) absence. Each absence beyond two absences will result in a 5 point deduction from your final grade.
7. The student is responsible for initiating and completing the drop process. A student who stops coming to class and fails to drop the course, will earn an 'F' in the course.
8. Additional class policies as defined by the individual course instructor.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course Schedule

Week	Topic	Reference
Week 1	Origin of Life and Classification of Organisms	Lab Manual
Week 2	Origin of Life and Classification of Organisms, cont.	Lab Manual
Week 3	Invertebrate Evolution	Lab Manual
Week 4	Invertebrate Evolution, cont	Lab Manual
Week 5	**Test 1**	Study guide
Week 6	Vertebrate Evolution, Human Evolution	Lab Manual
Week 7	Vertebrate Evolution, Human Evolution, cont.	Lab Manual
Week 8	Tissues and Homeostasis	Lab Manual
Week 9	**Test II**	Lab Manual

Week 10	Circulation and Cardiovascular Systems	Study guide
Week 11	Digestive Systems and Nutrition	Lab Manual
Week 12	Respiratory Systems	Lab Manual
Week 13	Animal Behavior, Ecology, and Conservation	Lab Manual
Week 14	**Test III**	Lab Manual
Week 15	**review**	Study Guide
Week 16	**Comprehensive final**	Study guide

Contact Information:

Instructor: Stephanie Lanoue

Office: MPC 237

Telephone: (409) 880-2935

E-mail: slanoue@lit.edu

Office Hours: 10-11 a.m. MWF; 3-4 p.m. MW; 11-3 p.m. TR

This course will be web enhanced utilizing the Black Board platform
The 'base' syllabi plus additional pages will be linked to the faculty member's webpage.