

BIOLOGICAL SCIENCE II
ABIO 102 (4 credit hours)
Spring, 2007

LECTURE INSTRUCTOR: Dr. Hugh Hanlin
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LAB INSTRUCTOR: Tracey Tuberville
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OFFICE: SBDG 101B (Office Hours: Th 8:30-9:25AM)
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(include in subject line "USCA Lab Class")

LECTURE: TTh 9:25-10:40 AM, SBDG 200

LABS: Sec. 4 Th 10:50AM - 1:30 AM SBDG 103
Sec. 5 Th 1:40PM - 4:20PM SBDG 103

TEXTBOOK: Biology (7th ed.), Raven, Johnson, Losos & Singer (or any earlier edition of Raven & Johnson)

LAB MANUALS: A Photographic Atlas for the Biology Laboratory, Van de Graff & Crawley
Biology Laboratory Manual, Dyer, Bennett & Hanlin

COURSE DESCRIPTION: Biological principles and concepts from the tissue through ecosystem levels of organization.

COURSE OBJECTIVES:

- To acquaint students with biological principles associated with multicellularity, development, phylogeny, ecology and evolution.
- To acquaint students with the anatomical organization of organisms to include tissue, organs, and systems and their functions.
- To trace the development of organisms.
- To trace the phylogeny of organisms.
- To acquaint students with the behavior and ecology of organisms.

STUDENT COMPETENCY STATEMENTS: By the end of this course the student will have demonstrated the ability to:

- Discuss biological principles and topics of historical and current interest and importance.
- Describe the biological processes that operate at the multicellular levels to include histological, organismal, population, community and ecosystem levels of organization.
- Apply theoretical concepts in the laboratory by following a written procedure.

METHODS OF PRESENTATION: This course will consist of lectures by the instructors, classroom discussion, and group and individual laboratory exercises. The instructors will utilize appropriate modes of visual aids and laboratory equipment.

METHODS OF EVALUATION: Achievement of course objectives will be evaluated by lecture exams, laboratory reports, quizzes and exams, and a final comprehensive exam.

GRADES: The lecture will count 60% and the lab 40% of the final course grade. However, **you must receive a passing grade in lab to pass the class.**

Grades in the course will be determined as follows:

- 10% - weekly laboratory quizzes
- 10% - lab notebooks
- 10% - 2 laboratory reports
- 10% - 2 laboratory exams
- 40% - 4 lecture exams
- 20% - final comprehensive exam

See the course schedule below for dates of lecture quizzes, lab exams and final exam.

IMPORTANT GUIDELINES:

- 1) This is a survey course that covers a great deal of material! The text is good and can help explain lecture material you may not fully understand. I will not cover all of the text in class, but you will understand lectures better if you read the assigned text sections **before you come to class**, and you will do better on tests if you keep up with the reading. In addition, I will provide information in lecture that will **supplement** your text. You will be expected to know this additional material for lecture quizzes, so it is imperative that you attend lectures to do well in this class.
- 2) The lab is heavily scheduled and you will be expected to stay for the entire period.
- 3) You will be expected to have read all laboratory exercises and the accompanying text references before attending labs. You must bring both your laboratory manuals and your text to the laboratory.
- 4) No make-up exams will be given for missed lecture quizzes except under extreme situations (see your Student Handbook). **There will be no opportunity to make up missed lab quizzes or exams.**
- 6) Students are expected to adhere to the University attendance policy as stated in the Student Handbook. In addition, 75% attendance in lab is required. You **will not** get a passing grade in lab with more than three absences, and you **will not** pass the course if you do not pass the lab.
- 7) You are strongly encouraged to make appointments with your instructor if you are having problems in the course. Office hours will be posted on my office door. Please drop by my office if you have questions or are having difficulty in class or for any other reason. You may make an appointment or drop in if I am not busy with another student. If my office hours conflict with your schedule, we can make arrangements to meet at another time during the week. You must contact Ms Tuberville to arrange appointments with her.
- 8) You will be expected to endorse the following HONOR PLEDGE on every quiz/assignment:

"On my honor as a University of South Carolina at Aiken student, I have neither given nor received any unauthorized aid of this assignment/examination. To the best of my knowledge I am not in violation of academic honesty."

Infractions of this honor pledge will not be tolerated!

- 9) If you have a physical, psychological, and/or learning disability which might affect your performance in this class, please contact the Office of Disability Services, 126A B&E, (803) 641-3609, as soon as possible. The Disabilities Services Office will determine appropriate accommodations based on medical documentation.

TENTATIVE LECTURE SCHEDULE

WEEK	DATES	TOPIC	TEXT CHAPTERS
1	Jan 16, 18	Biology as a Science; Evolution: An Overview	1, 21-24
2	Jan 23, 25	Evolution: An Overview; Cell Cycle; Life Cycles	1, 21-24; 11-12; 28
3	Jan 31, Feb 1	Fungi-like Protists & Fungi	28,30
4	Feb 6 Feb 8	Quiz #1 Plant-like Protists & Plant Phylogeny	28-29
5	Feb 13, 15	Plant Phylogeny	29
6	Feb 20, 22	Plant Structure, Growth, and Function	35-37,40-41
7	Feb 27 Mar 1	Plant Structure, Growth, and Function Quiz #2	35-37,40-41
8	Mar 6, 8 Mar 9	Animal Development Last Day To Withdraw Without "WF"	31,51
9	Mar 13, 15	Spring Break	
10	Mar 20, 22	Animal Phylogeny	31-34
11	Mar 27 Mar 29	Quiz #3 Protection, Support, and Movement	42
12	Apr 3, 5	Neural & Endocrine Controls	45-47
13	Apr 10, 12	Circulation, Respiration & Digestion	43-44
14	Apr 17 Apr 19	Quiz # 4 Osmoregulation & Reproduction	49-50
15	Apr 24, 26	Population & Community Ecology; Ecosystems	53-55
16	May 1 May 3	Reading Day FINAL EXAM 8:00 AM	

LABORATORY SCHEDULE

WEEK	DATES	TOPIC	LAB EXERCISE
1	Jan 18	No Lab	
1	Jan 25	Scientific Method/Animal Behavior	I
3	Feb 1	Introduction to the Microscope; Cell Cycle, Division & Ploidy	II
4	Feb 8	Prokaryotes, Protists & Fungi * Group Project I initiated	III & IV
5	Feb 15	Plant Phylogeny	V
6	Feb 22	Monocots & Dicots; Plant Tissues	VI & VII
7	Mar 1	Flowers, Fruits & Seeds	VIII
8	Mar 8	Laboratory Exam I * Group Project I completed	
9	Mar 15	No Lab -- Spring Break	
10	Mar 22	Animal Development * Group Project II initiated	IX
11	Mar 29	Animal Phylogeny I	X
12	Apr 5	Animal Phylogeny II	XI
13	Apr 12	Vertebrate Tissues, Form & Function	XII & XIII
14	Apr 19	Ecology * Group Project II completed	XIV
15	Apr 26	Laboratory Exam II	