BIOLOGICAL SCIENCE II
ABIO 102 (4 credit hours)
Spring, 2006

LECTURE INSTRUCTOR: Dr. Hugh Hanlin **OFFICE:** SBDG 101A
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LAB INSTRUCTOR: Dr. Heather Bennett **OFFICE:** SBDG 101C
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LECTURE: TTh 10:50AM-12:05 PM, SBDG 327

LABS: Sec. 1	M	8:00AM - 10:40 AM	SBDG 103
Sec. 2	M	1:40PM - 4:20PM	SBDG 103
Sec. 3	T	8:00AM - 10:40AM	SBDG 103
Sec. 4	T	8:00AM - 10:40AM	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 or 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 for 60% and the lab for 40% of the final course grade.

G**rades** in the course will be determined as follows:

10% - weekly laboratory quizzes
10% - 2 laboratory reports
20% - 2 laboratory exams
40% - 4 lecture quizzes
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. 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. Dr. Bennett also welcomes student visits. Office hours will be posted on our office doors.

8) You will be expected to endorse the following HONOR PLEDGE on every quiz:

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

LABORATORY SCHEDULE

WEEK	DATES	TOPIC	LAB EXERCISE
1	Jan 9, 10	Scientific Method/Animal Behavior	I
2	Jan 16, 17	**No Labs -- MLK Holiday**	
3	Jan 23, 24	Introduction to the Microscope; Cell Cycle, Division & Ploidy	II
4	Jan 30, 31	Prokaryotes, Protists & Fungi * Group Project I (Plant Growth) initiated	III & IV
5	Feb 6, 7	Plant Phylogeny	V
6	Feb 13, 14	Monocots & Dicots; Plant Tissues	VI & VII
7	Feb 20, 21	Flowers, Fruits & Seeds	VIII
8	Feb 27, 28	**Laboratory Exam I** * Group Project I (Plant Growth) completed	
9	Mar 6, 7	**No Labs -- Spring Break**	
10	Mar 13, 14	Animal Development * Group Project II (Population Dynamics) initiated	IX
11	Mar 20, 21	Animal Phylogeny I	X
12	Mar 27, 28	Animal Phylogeny II	XI
13	Apr 3,4	Vertebrate Tissues, Form & Function	XII & XIII
14	Apr 10, 11	Ecology * Group Project II (Population Dynamics) completed	XIV
15	Apr 17, 18	**Laboratory Exam II**	