

**BIOLOGICAL SCIENCE II**  
**ABIO 102 (4 credit hours)**  
**Spring, 2005**

**Lecture Instructor:** Dr. Hugh Hanlin

**Phone:** 641-3439

**E-mail:** hughh@usca.edu

**Office:** SBDG 101 A

**Office hours:** T 1:30-3:00PM; W 9:30-11:30AM, 1:30-3:00PM or by appointment

**Laboratory Instructor:** Dr. Heather Bennett

**Office:** SBDG 101 C

**Lecture:** TTh 9:25-10:40AM in Sciences Building room 200

**Labs:** Weekly in Sciences Building room 103

Sec 1 T 10:50 - 1:30 AM

Sec 2 T 1:40 - 4:20 PM

**Required Materials:**

**Textbook:** Biology: A Guide to the Natural World, Krough (2<sup>nd</sup> ed.)

*Note:* You may use any other good biology textbook, such as Raven and Johnson 5<sup>th</sup> or 6<sup>th</sup> ed. which has more detail than you need for this course.

**Lab supplies:** Biology Laboratory Manual, Dyer, Bennett and 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 including tissues, organs, and systems and their functions.
- To trace the development of organisms.
- To trace the phylogeny of organisms.
- To acquaint students with the behavior, ecology, and evolution of organisms.

**Student competency statement:** 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 multi-cellular levels including 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 quizzes and exams, and a final comprehensive exam.

**Grading:** The lecture will count for 60% and the lab for 40% of the final course grade.

**Grades** in the course will be determined as follows:

10% - weekly laboratory quizzes

30% - 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 and 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 manual 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 **cannot** get a passing grade in lab with more than three absences and you **cannot** 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.

## LECTURE SCHEDULE

WEEK	DATES	TOPIC	CHAPTERS
1	Jan 11, 13	Science and Life, Evolution	1, 16-19
2	Jan 18, 20	Evolution; Prokaryotes & Eukaryotes; Cell Cycle	16-19, 4, 9-10
3	Jan 25, 27	Life Cycles, Fungi-like Protists & Fungi	20
4	Feb 1 Feb 3	<b>Quiz #1</b> Plant-like Protists & Plant Phylogeny	20
5	Feb 8, 10	Plant Phylogeny	20
6	Feb 15, 17	Plant Structure, Growth, and Function	22-23
7	Feb 22 Feb 24	Plant Structure, Growth, and Function <b>Quiz #2</b>	22-23
8	March 1,3 <b>Mar 2</b>	Animal Development, Animal Phylogeny <b>Last Day To Withdraw Without "WF"</b>	27-28, 21
9	<b>March 8, 10</b>	<b>Spring Break</b>	
10	Mar 15, 17	Animal Phylogeny	21
11	Mar 22 Mar 24	Animal Phylogeny <b>Quiz # 3</b>	21
12	Mar 29, 31	Anatomical Organization & Tissues, Animal Systems	24
13	Apr 5, 7	Animal Systems	24-26
14	Apr 12 Apr 14	<b>Quiz #4</b> Population & Community Ecology; Ecosystems	29-30
15	Apr 19, 21	Population & Community Ecology; Ecosystems	29-30
16	Apr 26	<b>Reading Day</b>	
17	<b>May 3</b>	<b>FINAL EXAM 8:00 AM</b>	

## LABORATORY SCHEDULE

<b>WEEK</b>	<b>DATES</b>	<b>TOPIC</b>	<b>LAB EXERCISE</b>
1	Jan 11	Scientific Method/Animal Behavior	I
2	Jan 18	Introduction to the Microscope; Cell Cycle, Division & Ploidy	II
3	Jan 25	Prokaryotes & Protists * Group Project I (Plant Growth) initiated	III
4	Feb 1	Fungi	IV
5	Feb 8	Plant Phylogeny	V
6	Feb 15	Monocots & Dicots; Plant Tissues	VI & VII
7	Feb 22	Flowers, Fruits & Seeds	VIII
8	Mar 1	<b>Laboratory Exam I</b> * Group Project I (Plant Growth) completed	
9	Mar 8	<b>Spring Break</b>	
10	Mar 15	Animal Development * Group Project II (Population Dynamics) initiated	IX
11	Mar 22	Animal Phylogeny I	X
12	Mar 29	Animal Phylogeny II	XI
13	Apr 5	Vertebrate Tissues, Form & Function	XII & XIII
14	Apr 12	Ecology	XIV
15	Apr 19	<b>Laboratory Exam II</b> * Group Project II (Population Dynamics) completed	