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

LECTURE INSTRUCTOR: Dr. Lynn D. Wike
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LECTURE: Tuesday 6:00-8:40 PM, SBDG 103

LABS: Thursday 6:00-8:40 PM, SBDG 103

TEXTBOOK: Biology (7^{th} 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:

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

STUDENT COMPETENCY STATEMENTS: By the end of this course the student will demonstrate 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.

Grade will be determined as follows:
10% - weekly laboratory quizzes

10% - laboratory reports
20% - 2 laboratory exams
40% - 4 lecture exams
20% - final comprehensive 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 exams except under extreme situations. There will be no make up 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 an appointment with your instructor if you are having problems.

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

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	Biology as a Science; Evolution: An Overview	1, 21-24
2	Jan 23	Evolution: An Overview; Cell Cycle Life Cycles	11, 12
3	Jan 30	Fungi-like Protists & Fungi	28, 30
4	Feb 6	Plant-like Protists & Plant Phylogeny	28, 29
5	Feb 13	Plant Phylogeny	29
6	Feb 20	Plant Structure, Growth, and Function	35-37
7	Feb 27	Plant Structure, Growth, and Function	40, 41
8	Mar 6 **Mar 9**	Animal Development **Last Day To Withdraw Without "WF"**	31, 51
9	**Mar 12 - 16**	**Spring Break**	
10	Mar 20	Animal Phylogeny	32-34
11	Mar 27	Protection, Support, and Movement	42
12	Apr 3	Neural & Endocrine Controls	45-47
13	Apr 10	Circulation, Respiration & Digestion	43, 44
14	Apr 17	Osmoregulation & Reproduction	49, 50
15	Apr 24	Population & Community Ecology; Ecosystems	53-55
16	**May 8**	**FINAL EXAM 8:00 PM (6 PM if possible)**	

LABORATORY SCHEDULE

WEEK	DATES	TOPIC	LAB EXERCISE
1	Jan 18	no lab	
2	Jan 25	Scientific Method/Animal Behavior	I
3	Feb 1	Introduction to the Microscope; Cell Cycle, Division & Ploidy * Group Project initiated	II
4	Feb 8	**Lecture Exam #1** Prokaryotes, Protists & Fungi	III & IV
5	Feb 15	Plant Phylogeny	V
6	Feb 22	Monocots & Dicots; Plant Tissues	VI & VII
7	Mar 1	**Lecture Exam #2** Flowers, Fruits & Seeds	VIII
8	Mar 8	**Laboratory Exam I** * Group Project completed	
9	Mar 15	**No Labs -- Spring Break**	
10	Mar 22	Animal Development	IX
11	Mar 29	**Lecture Exam #2** Animal Phylogeny I	X
12	Apr 5	Animal Phylogeny II	XI
13	Apr 12	Vertebrate Tissues, Form & Function	XII & XIII
14	Apr 19	**Lecture Exam # 4** Ecology	XIV
15	Apr 26	**Laboratory Exam II**	