

BIO 101 SYLLABUS - SECTIONS 003 & 004 - SPRING 2007

Instructor: Dr. Laurel Hester **Lecture:** 9:25 – 10:40AM TTH SBDG 327
Phone: (803) 933-0265 **Lab:** Sec 3: Tues. 10:50AM – 1:30PM, SBDG 107
e-mail: laurelh@usca.edu Sec 4: Thurs. 10:50AM – 1:30PM, SBDG 107
Office hours: Tues. 2:30 – 4:30 pm or by appointment
Required lecture text: Biology, 7th Ed. by Peter Raven et al.
Required laboratory text: Biology 101 Laboratory Manual by Jackson and Yates

Course Objectives: This course will introduce the student to the underlying principles governing the science of biology. Its primary emphasis will be on cellular components and processes. Upon completion of this course students will be expected to understand the following:

1. The basic chemistry that governs biology
2. The major biological molecules used by cells
3. The structure of prokaryotic and eukaryotic cells
4. How materials get into and out of cells
5. How cells convert sunlight and food into energy
6. Cellular reproduction (mitosis and meiosis)
7. Mendelian Genetics and inheritance
8. The structure of DNA and how it is replicated
9. Synthesis of proteins

Methods of Presentation and Evaluation:

Information will be presented through lectures along with appropriate visual aids and in lab through practical and computer-based exercises. Students are expected to read their lab manual and course text. Exams, quizzes, lab performance and other assignments will be used to evaluate student progress. Exams will include multiple choice, terms/definitions and short answer. There will be several unannounced quizzes which will be administered during the first 10 minutes of class, and there will be no make-up opportunities for absence or late arrival. Other quizzes and assignments will be administered via Blackboard (see attached schedule of on-line assignments). In order to encourage critical thinking, mini-assignments will be given in class every Thursday. Answers to these mini-assignments must be emailed to Dr. Hester no later than noon (EST) the following Monday. There is one written library research assignment for which details will be handed out in lab the week of Jan. 30.

Your final course grade (4 credits) will be based on the following point distribution:

4 Lecture exams	100 pts. each	400
1 Final exam	200 pts.	200
Quizzes / assignments	5 – 10 pts. each	200
Library research assignment	100 pts.	100
Laboratory assignments (see lab syllabus for point breakdown)		<u>300</u>
		1200 total pts. available

GRADING SCALE:	A (90-100%)	1080-1200
	B (80-89)	960-1079
	C (70-79)	840-959
	D (60-69)	720-839
	F (0-59)	below 720

Lecture Schedule for BIO 101, Sections 003 and 004 for spring 2007

Date	Topic	Chapter
16-Jan	The Science of Biology	1
18-Jan	The Nature of Molecules	2
23-Jan	The Chemical Building Blocks of Life	3
25-Jan	The Chemical Building Blocks of Life	3
30-Jan	The Origin and Early History of Life	4
1-Feb	Exam 1: Chapters 1 - 4	
6-Feb	Cell Structure	5
8-Feb	Cell Structure	5
13-Feb	Membranes	6
15-Feb	Cell-Cell Interactions	7
20-Feb	Energy and Metabolism	8
22-Feb	Exam 2: Chapters 5 - 8	
27-Feb	How Cells Harvest Energy	9
1-Mar	How Cells Harvest Energy	9
6-Mar	Photosynthesis	10
8-Mar	Photosynthesis	10
	** Spring Break **	
20-Mar	How Cells Divide	11
22-Mar	Sexual Reproduction and Meiosis	12
27-Mar	Exam 3: Chapters 9 - 12	
29-Mar	Patterns of Inheritance	13
3-Apr	Patterns of Inheritance	13
5-Apr	DNA: The Genetic Material	14
10-Apr	DNA: The Genetic Material	14
12-Apr	Genes and How They Work	15
17-Apr	Genes and How They Work	15
19-Apr	Exam 4: Chapters 13 - 15	
24-Apr	Gene Technology	16
26-Apr	Control of Gene Expression	18
3-May	COMPREHENSIVE FINAL EXAM 8AM	

The instructor reserves the right to make changes in the lecture or laboratory schedule, the number of quizzes and exams given, and the contents of each exam as deemed necessary.

ATTENDANCE POLICY: Students are expected to adhere to the University attendance policy as stated in the Student Handbook. In this regard, the instructor may impose a penalty for absences in excess of 25% of regularly scheduled class meetings (lectures and labs) by assigning an “F” in the course. Absences, *neither excused nor unexcused*, absolve the student from meeting class assignments. Lecture exam dates are clearly stated in the syllabus, and all students are expected to take the exam at the regularly scheduled time. Make-up lecture exams will be considered only for a **documented, excusable** reason. If there is an illness or emergency, you are expected to contact the instructor immediately. Be prepared to show documentation (doctor’s excuse, etc.). Failure to contact the instructor within 24 hours will forfeit any chance of making up the test.

*** Attending lecture and taking notes is the sole responsibility of the student. Under no circumstance will the instructor provide copies of lecture notes or slides for students. Exams may include questions on material presented in lecture but not found in the textbook.***

On-Line Assignments –

There will be 12 Mini-Assignments. These will be assigned in class each Thursday and will be due by email to laurelh@usca.edu by noon (EST) each Monday. These assignments are worth 5 points each for a total of 60 points. Dr. Hester may read these answers out loud in class (anonymously). Late Mini-assignments will receive a zero. Other on-line assignments are listed below.

Date Assigned	Assignment	Points	Date Due
Every Thurs	Mini-Assignments 1 - 12	5*12=60	Noon each Monday
Tues 16 Jan	Syllabus Quiz	10	Tues Jan 23
Tues 23 Jan	Find website for class topic	10	One week before test on that topic (2/15, 3/20 or 4/12)
	Contribute thoughtfully to a Blackboard Discussion Board	10	March
	Contribute thoughtfully to a Blackboard Discussion Board	10	April
Jan 30/Feb 1	Library Assignment (must be uploaded to Blackboard)	100	Thurs March 8
Tues 23 Jan	On-line Quiz 1	10	Tues Jan 30
Tues 13 Feb	On-line Quiz 2	10	Tues Feb 20
Thurs 8 Mar	On-line Quiz 3	10	Thurs March 22
Tues 10 Apr	On-line Quiz 4	10	Tues April 17
Tues 24 Apr	On-line Quiz 5	10	Tues May 1

Note: The assignments listed above add up to 250 points. The other 50 quiz/assignment points will come from 5 unannounced quizzes given at the beginning of class.

COMPUTER USE AND EMAIL: In addition to the above assignments, all laboratory reports will require the use of a computer. You must be able to log on to the USCA computer system, send and receive email via your USCA account and use Blackboard (ask for a Blackboard handout if you need help using Blackboard). All official email communications, including class announcements, are made to USCA email accounts. **Students should check their USCA email account on a regular basis** and use this account for communication with the instructor. If you do not know how to sign on to the USCA computer system, you should contact the CSD HELP desk as soon as possible.

DISABILITY STATEMENT: 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 Disability Services Office will determine appropriate accommodations based on medical documentation.

HONESTY: You are expected to follow the honor pledge on every assignment:

“On my honor as a University of South Carolina at Aiken student, I have neither given nor received any unauthorized aid on the assignment/examination. To the best of my knowledge, I am not in violation of academic dishonesty.” It is your responsibility to ask the instructor if you have any questions about what level of collaboration is acceptable on any course assignment. In general, assume that you should work independently unless specifically told otherwise.

Academic dishonesty at a minimum result in failure on the assignment of question.

LABORATORY ATTENDANCE: Because of their nature, **laboratory investigations cannot be made up** – therefore students must make every effort to attend laboratory sessions. If you miss a laboratory investigation, you will not be allowed to take the associated quizzes or turn in a lab report the following week. This also applies if you come in late, leave early, or do not participate fully. You cannot write a report on a laboratory investigation that you did not do.

Laboratory Schedule for BIO 101, Spring 2007

Date	Topic
23/25-Jan	Measurement Techniques: Investigation #1
30-Jan/1-Feb	quiz and in-class assignment for #1
6/8-Feb	Organic Molecules in Cells: Investigation #2
13/15-Feb	quiz and in-class assignment for #2
20/22-Feb	Cells and Microscopy: Investigation #3
27-Feb/1-Mar	quiz and in-class assignment for #3
6/8-Mar	Enzymes: Investigation #4
	Spring Break - no lab
20/22-Mar	quiz and in-class assignment for #4
27/29-Mar	Photosynthesis: Investigation #5
3/5-Apr	quiz and in-class assignment for #5
10/12-Apr	Chi Square and Mendelian Genetics: Investigation #7 & 8
17/19-Apr	quiz and in-class assignment for #7 & 8
24/26-Apr	In-class Assignment/Exam Review

Please purchase a binder, folder or notebook of some sort for use in lab. You will need it the first day. It should contain both paper for taking notes and a pocket or rings for holding handouts.

Your lab grade will be determined as follows:

Labbook check	10 points per investigation	60
Lab Quizzes	10 points each	60
In-Class Assignments	20 points each	140
<u>Participation and Skills Tests</u>		<u>40</u>
		300 total pts.

****If you have questions or need help with anything in this course (lecture or lab) please email Dr. Hester and/or set up an appointment to meet with her!****