Biology 120 - Concepts in Biology
Spring 2007, "Headline Biology"

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Office hours: Monday and Wednesday, 12:30 – 1:30
Thursday, 1:00 – 3:00
Other times are available by appointment. Also, feel free to stop by my office anytime to ask questions, clarify information, or introduce yourself.

Lecture hours: TTH 11:30 – 12:45 Room: Pierce 102
Lab hours: W, 2:00 PM – 5:00 PM Room: Pierce 119

Required texts: *Inquiry into Life*, 11th Edition. Mader, Sylvia. McGraw-Hill.
Laboratory Manual for Concepts in Biology, 3rd Edition. Morgan, Judith Giles. Emory University Press. (purchase from Ms. Budensiek before the first lab, cost TBA)

Required material: Please purchase a pack (of at least 50) 3" x 5" index cards and bring to class each day.

Blackboard site: The Blackboard site is available at http://classes.emory.edu. Please check it frequently as there will sometimes be materials posted for you to print out and bring to class. Also, I strongly encourage you to use the Discussion Board section of the course site.

Objectives: This course is a survey of important aspects that relate science to the world around us. My goal is to ACTIVELY engage you in the learning of the material so this course is a useful and positive aspect of your undergraduate experience. This course will emphasize using facts about science rather than simply memorizing information.

To accomplish this goal, I use a variety of teaching methods rather than simply lecturing. Some examples include discussions, articles, case studies, hands-on activities, and writing assignments. These exercises foster critical thinking about real-world problems and application. Active learning will not make the course easier, nor will it take less of your time, however, if you participate fully in the course, you will enjoy it more and increase your likelihood of success in the class.

To be successful, you must take responsibility for your own learning. This syllabus describes how to do this and is a resource for the semester. You will be expected to do significant work outside the classroom as our in-class activities depend on an understanding of the topic in advance, and often your learning group will depend on you.

My other goals for you this semester are:

- Gain understanding of what science is, the scientific process, scientific inquiry, and critical thinking skills.
- Gain basic knowledge of biological concepts, such as cells, genetics, environmental issues, and evolution.
- Explore how scientific topics are related to real-world scenarios.
- Practice scientific communication skills through presentations and writing.
- Begin to make connections between information in textbooks and its applications.

Academic honesty: Students are expected to abide by the Oxford College Honor Code. To that end, all assignments should include a signed pledge that no unauthorized aid has been given or received. To read the complete statement of the Honor Code, please see *http://www.emory.edu/OXFORD/CampusLife/Policies/honor.html*.

Attendance: Attendance at lectures is expected. This is very important for you to gain an understanding of the material, but also because many of our activities involve work in learning groups and members of your group will count on you to be present. Attendance will be assessed through "The Murkiest Point" cards. Students are allowed 4 absences from lecture *for any reason*. Attendance at laboratory sections is mandatory. Please see the attached Absence Policy for more information.

Cell phones: Cell phones should be turned off before class and lab and should remain out of sight for the duration of the time in class. If cell phones become a problem, they will be taken and kept until the end of class.

Grading: The course grade will be based on the total number of points you accumulate on the class assignments, quizzes, and exams.

Exams	100 points each
Lab Exams	50 points each
Final Exam	150 points
Debate	50 points
Short writing assignments	10 points each
Participation	Grade may be docked up to 10% if inadequate

The grade will be calculated as a percentage of total possible points and the following scale used:

A	93% and above	C	73 – 76%
A-	90 – 92%	C-	70 – 72%
B+	87 – 89%	D+	67 – 69%
B	83 – 86%	D	60 – 66%
B-	80 – 82%	F	59% and below
C+	77 – 79%		

Late work: Assignments turned in after the due date will have 10% taken off per day late.

Learning groups: You will be assigned a learning group and will work with this group throughout the semester. When you arrive in class, you should sit with your group. Additional guidelines will be handed out about the learning groups.

Make-up exams: The policy for missed tests is outlined on an additional page.

Murkiest Point: During the last two minutes of each class, describe "The Murkiest Point" from the class on an index card. This is an idea from the class that you still do not fully understand. If you understand everything, describe "The Most Interesting Point." These cards should have your name and the date listed, but they do not count against your grade. (They are, however, used for attendance assessment.) The next class will begin with an explanation of the two or three "Murkiest Points."

Additionally, if there are specific questions or topics that you would like clarified during class, particularly from the reading for that day, e-mail me before 7:30 AM on the day of each class. If I do not receive any questions, I will assume everyone understands the topic for the day and will not spend class time explaining.

Participation: Class participation is expected. This includes your work on case studies and presentations during the semester.

Short written assignments: There may be several short written assignments given throughout the semester. These will be worth 10 points each.

Topic schedule: The topics to be covered in class will be determined on the first day. A schedule will be distributed the following week.

Biology 120 Topic Schedule

Spring 2007

1/18	Introduction	
1/23	What is science?	1.1 – 1.3
1/25	Scientific process	1.4 – 1.5
Are we all going to get cancer?		
1/30	Cell structure	3.1 – 3.2, 4.1 – 4.2
2/1	Cell cycle	5.1 – 5.2
2/6	Cancer	25.2, p. 516
2/8	Cancer	
2/13	Genetic testing	p.518
2/15	**Exam I**	
What's in my genes?		
2/20	DNA	24.1 – 24.2
2/22	Mendelian genetics	23.1 – 23.3
2/27	Genetic disorders	
3/1	Cystic fibrosis	
3/6	Genetically Modified Organisms	24.3
3/8	**Exam II**	
3/13	*Spring Break*	
3/15	*Spring Break*	
Save the planet!		
3/20	Global warming	33.1, 34.1, p. 714
3/22	Alternative fuel	36.1
3/27	Green buildings	
3/29	Biodiversity	36.2
4/3	Animal behavior	32.1 – 32.5
4/5	**Exam III**	
Let's get it out in the open…		
4/10	Reproductive systems	21.1 – 21.4
4/12	Sexually transmitted diseases	21. 5
4/17	Abortion	
4/19	Stem cells	p. 231, pp. 508 – 9
4/24	Bacteria	28.2 – 28.4
4/26	Evolution	27
5/1	Wrap up	
Monday, May 7, 2:00 PM	**Final Exam**	

Laboratory Schedule

The laboratory for Biology 120 meets on Wednesdays in Pierce 119. Lab is mandatory. If you miss more than one lab, you will receive an F in the course. For more information, please see the attendance policy and laboratory guidelines attached to the syllabus.

Please read the laboratory in advance.

1/24	Scientific Investigation
1/31	Microscope, cells
2/7	Yeast and UV light
2/14	Digestive system
2/21	**Lab Exam I**
2/28	Respiratory system
3/7	Molecular biology
3/21	*An Inconvenient Truth*
3/26	**Lab Exam II**
4/4	Zoo
4/11	Reproductive system
4/18	Monera, protista, fungi
4/25	**Lab Exam III**