

Syllabus: Bio 2

Mr. Sage

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Comfort and courtesy: I anticipate that this will be a comfortable learning environment and that you will feel free to ask questions and offer answers. It is my expectation that all students will extend common courtesy to each other and to me. It is also expected that students will refrain from any unnecessary noise when other students are trying to listen and learn. This includes, but is not limited to; conversing with friends about personal matters and ringing cell phones. You are expected to turn the ringer of your cell phone off **before** you enter class. Food is not allowed in any of the classrooms at any time. Please finish all food and beverages before entering either the lab or lecture hall. I am aware that you are adults and it is my expectation that you act as such.

Lecture Notes: Lecture notes will be provided to you by means of the website. The Bio 2 website (address above) contains downloadable files that should be printed by you and brought to class. My lectures will be presented at a pace assuming that you have the pre-printed notes in front of you. The schedule of lectures is on the attached page, so print the notes out with enough time to have them ready by the lecture date. Not all lecture notes will be available at one time so you will need to visit the site regularly to check for updates and to download the most recent posted notes and print them. (If you do not have access to a computer at home, the LRC has computers that you can use for this and other purposes.)

Attendance: Please do not arrive late to class. It disrupts the lecture and will result in a loss of points. You will be receiving credit for being ON TIME (that means arriving before class begins). If you have an on-going, legitimate problem with your schedule (leading to an inability to arrive on time), see me and we may be able to come to an arrangement. If you are late or absent, you will not receive attendance credit for that day. Attendance credit is a major component of participation points. If you do miss a class, you should contact someone to fill in your notes from lecture and/or lab.

Lab Reports: Each group (1-2 persons **MAXIMUM**) will be turning in a weekly 20 pt lab report, **at the beginning of class** on the following the lab day (1 week after the lab). **No late reports will be accepted, for any reason.** All lab reports must be typed (fully). Extra credit is often available on these, but the maximum score on all of my graded assignments is 100%. If you have any questions about the lab or the write-up, ask them during lab or come in during my office hours.

Plagiarism warning: **Do not** copy information off of another group's lab report. If I see that **any** significant portions of your lab report are identical or nearly identical to those of another group (or one of the books) you will receive a zero for that lab report.

Note: I understand that results may be coincidental between lab groups (if done correctly). What you need to avoid is copying sections that require you to answer a question such as "Why did this happen?" If you have any questions about this policy in regard to a particular lab report **ASK ME**.

Many review questions will be very difficult to answer correctly using the lab materials alone. You MUST ask questions to receive a high/perfect score.

Lecture Exams and Quizzes: There will be two exams and six quizzes. All lecture exams and quizzes will start at the beginning of class (see schedule). The format will be primarily multiple choice and T/F, but will also include some essays. I will give the essay questions to you with enough advance notice so that you can work on them at home, and see me in office hours with any questions that you might have. You will need scantron forms (form 882-E **ONLY**), a scantron

sleeve/holder, a magic eraser and a MAGIC no. 2 pencil (all available in the bookstore). You will have the entire class time to complete all exams. All scores (including current overall grade) will be given to you in the form of a progress report approximately once each month (usually after an exam or quiz in class). You may request a printout/progress report of all of your assignment grades at any time **during office hours**. Please do not request one immediately after I have just passed one out in class, unless there was an error on the one you received.

- ❖ If you miss **ANY** class meetings, it is **your** responsibility to find out (from me) whether or not there have been any important announcements regarding changes to the schedule. **Ignorance about announcements is not a valid excuse for missing an exam or due date.**

Make-up exams or quizzes* I understand that emergencies can occur from time to time. Makeup exams or quizzes will only be granted if you will be missing the exam or quiz due to a **serious** and **unavoidable** event or emergency. If you know of a date this semester when you cannot attend class and there is an exam or quiz, let me know as soon as you know. If you have an unforeseen emergency, you must contact me (in person, or by phone) within 24 hours of the exam to arrange a makeup. The makeup test/quiz must be completed within one week of the original test date, or the grade will be recorded as a zero. Do not use your makeup exam to do something optional; save it for an EMERGENCY.

Required texts: *Essential Biology* – by Campbell, et al, 3rd edition
 Concepts in Biology Lab Manual – by Enger and Ross

GOOD STUDENTS ASK MANY QUESTIONS. DON'T BE SHY.

- **THE ONLY STUPID QUESTION IS ONE THAT IS *NOT* ASKED**

Follow the S.C.O.R.E system for a higher grade:

Study Groups; Helps improve your study time by allowing you to share ideas and quiz each other. Form one.

Cards; Flash cards will help you review material alone or with your study group. Start making them.

Organize; Organize your time, **make time** to study several times each week and
ASK QUESTIONS

Read; Reading the text is a good way to fill in the blanks from lecture and review the figures.
You bought it.

Explain; Give detailed explanations on the essays for full points. **NEVER LEAVE AN ESSAY BLANK.**

Week	Dates	Monday (lecture)	Wednesday (lecture)	Lab
1	Jan 12 – 16	Intro. to Bio 2; Syllabus	Ch. 1; Scientific Method	Scientific Method
2	Jan 19 – 23	<i>No Class (MLK)</i>	Ch. 2; Chemistry	Atoms and Molecules
3	Jan 26 – 30	Ch. 3; Molecules of Life	Quiz 1; M.C. Portion Syllabus and Chs. 1, 2	Biomolecules Lab Quiz 1; Essays
4	Feb 2 – 6	Ch. 4; Cells	Ch. 5; The Working Cell	Enzymes
5	Feb 9 – 13	Ch. 6a; Respiration	Quiz 2; M.C. Portion Chapters 3, 4, and 5	Cells Lab + Quiz 2; Essays
6	Feb 16 – 20	<i>No Class (Washington's Birthday Holiday)</i>	Ch. 6b; Respiration (continued)	Respiration and Photosynthesis
7	Feb 23 – 27	Ch. 7; Photosynthesis	Quiz 3; M.C. Portion Chapter 6	Cells Lab + Quiz 3; Essays
8	March 2 – 6	Ch. 8a; Mitosis	Ch. 8b; Meiosis	Mitosis and Meiosis
9	March 9 - 13	Ch. 9; Genetics (begin) Review for Midterm	Midterm; M.C. portion Chs. 1 – 8	Genetics Problems + M.T; Essays
	March 16 - 20	Ch. 9; Genetics (finish)	Genetics Problems, Term project	Human Genetics; Make a baby lab
10	March 23 - 27	Ch. 10a; Transcription	Quiz 4; M.C. Portion Ch. 9 + Genetics Problems	DNA/RNA lab Quiz 4; Essays
11	March 30 – 3	Ch. 10b; Translation	Ch. 13; Evolution	Bean Game Lab
12	April 6 – 10	Ch. 13; Evolution (cont.)	Ch. 15a; Bacteria	Begin Bacteria Lab
13	April 13 – 17	Spring Break; No Classes		
14	April 20 – 24	Ch. 15b; Protists	Quiz 5; M.C. Portion Chs. 10, 13	Protist + Bact.lab Quiz 5; Essays
15	April 27 – May 1	Ch. 16; Plants and Fungi	Ch. 17a; Invertebrate animals	Plant Field Trip
16	May 4 – 8	Ch. 17b; Vertebrate animals	Quiz 6; M.C. Portion Chs. 15, 16	Roll Call of Animals Quiz 6; Essays
17	May 11 - 15	Ch. 18a; Ecology	Ch. 18b; Ecology (cont.)	Review for Final
18	May 20	Final Exam; Chs. 9 - 18; Wednesday, May 20, 1:00 – 3:00 pm in S1 (checked)		

Grading	15 Labs (@ 20 pts each)	=	300 pts	A = 90 – 100%	1080-1200 pts
	2 Lecture Exams (150 pts. ea.)	=	300 pts	B = 80 – 89%	960-1079 pts
	6 Quizzes (@ 75 pts. each)	=	450 pts	C = 70 – 79%	840-959 pts
	Project (Pedigree or Plant growth)	=	100 pts	D = 60 – 69%	720-839 pts
	<u>Participation and professionalism</u>	=	50 pts	F < 60%	fewer than 720
	Total possible	=	1200 pts		

Exam/Quiz Essay Response Rubric:

- 5 points = All portions of question answered correctly with sufficient detail and evidence to support statements
- 4 points = Most portions of question answered correctly, but is lacking sufficient support of statements (detail)
- 3 points = Some portions of question answered correctly, lacking sufficient support of statements
- 1 – 2 pts = Most portions of question answered incorrectly, lacking support of statements
- 0 points = Blank (no response)

2009 Spring Schedule B. Sage

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00					
9:30		Biology 2 Lab		Biology 2 Lab	
10:00					
10:30	Office Hours: 10:00 - 10:45		9:00 - 11:50		Office Hours: 10:00 - 10:45
11:00		T 10		T 10	
11:30	Human Sexuality 11:00 - 12:15 S4A		Human Sexuality 11:00 - 12:15 S4A		
12:00					
12:30	Lunch Time	Campus Meetings 12:00 - 1:00	Lunch Time	Campus Meetings 12:00 - 1:00	Office Hours: 12:00 - 1:00
1:00					
1:30	Biology 2 Lecture S1 1:00 - 2:15		Biology 2 Lecture S1 1:00 - 2:15		Human Physiology Lab 1:00 - 3:50 T10
2:00					
2:30					
3:00					
3:30		Office Hours: 2:45 - 3:45		Office Hours: 2:45 - 3:45	
4:00					
4:30		Human Physiology Lecture 4:00 - 5:50 S1		Human Physiology Lecture 4:00 - 5:50 S1	
5:00					
5:30					

Catalog Description: An integrated approach to the interrelationships of the life sciences. Basic processes common to all living things. Concepts of biochemistry, cell morphology, cell metabolism, genetics, evolution and classification.

Degree Applicable. UC/CSU

Prerequisites/Corequisites: Math 55

Course Objectives:

Having successfully completed the course, the student will:

1. List the attributes of life and outline the scientific method.
2. Draw and label plant and animal cells and describe the function of each organelle.
3. Discuss the role of enzymes.
4. Describe the steps of photosynthesis and respiration.
5. Describe the structure and duplication of DNA.
6. Describe protein synthesis.
7. Discuss mitosis and meiosis.
8. Complete basic genetic problems.
9. Describe the process of speciation and evolution.
10. Describe the origin of life.
11. Discuss the classification of living organisms using the five kingdom approach.
12. Discuss the principles of ecology.

Syllabus Review Questions;

(Work on these and we will go over them during the next class session)

1. You receive attendance credit for;
 - A. Coming to class
 - B. Showing up for most class meetings
 - C. Arriving before the beginning of class
 - D. Giving good reasons why you were late
 - E. None of the above are correct
2. What does "on time" mean?
 - A. Coming to class
 - B. Showing up for most class meetings
 - C. Arriving before the beginning of class
 - D. Giving good reasons why you were late
 - E. None of the above are correct
3. What should you do if you miss a class session?
 - A. Ask a classmate what happened
 - B. Hope that Mr. Sage approaches you with missing work, just like high school
 - C. See Mr. Sage to find out what assignments have been given and/or test dates changed
 - D. Don't worry about it. We do so little in this class you probably didn't miss anything important
 - E. Both A and C above are correct
4. You will be excused from a lab report if you have missed the lab session from that week; True (A) or False (B)
5. If you are very sick or in a car accident, you can make up an exam; True (A) or False (B)
6. What are the facts about the essay portion of the tests?
 - A. They are usually 15 – 25 percent of most quizzes
 - B. You will be given them in advance with time to study them
 - C. You should see Mr. Sage to find out the score your essay would receive
 - D. All of the above are true
 - E. None of the above are correct
7. Anybody who would like to have extra time to study can take a make-up exam later; True (A) or False (B)
8. What must you do in order to receive a make-up exam?
 - A. Talk to Mr. Sage when you return from your absence
 - B. Call or see Mr. Sage within 24 hours of the

- quiz or exam to schedule a makeup
- C. Just show up in class when you get back and Mr. Sage will have your makeup ready
- D. Nothing, you don't get any make-ups
- E. None of the above are correct
9. How long after the exam do you have to complete a make-up?
- A. 1 day
- B. 1 week
- C. 1 month
- D. 1 semester
- E. None of the above are correct
10. You should only ask questions that are really important and necessary, because you don't want to look stupid; True (A) or False (B)
11. How do you get the blank lecture notes?
- A. From Mr. Sage
- B. From your classmates
- C. From the website
- D. From the book
- E. None of the above are correct
12. When are all lab reports due?
- A. When you finish the lab report
- B. Within 1 week of your lab day
- C. Before the end of the semester
- D. On the quiz day
- E. None of the above are correct
13. You will be excused from turning in a lab report if you have missed the lab session; True (A) or False (B)
14. You can have 3 names on a single lab report if all three people helped to write it; True (A) or False (B)
15. What are the basic rules about lab reports?
- A. They can be typed or hand-written
- B. You can copy out of the lab manual to make it sound good
- C. You can get a perfect score every time without asking questions
- D. All of the above are correct
- E. None of the above are correct
16. When do all exams and quizzes begin?
- A. At the beginning of class on certain Wednesdays
- B. On Mondays
- C. In the middle of class
- D. During lab days
- E. None of the above are correct
17. How are lab reports graded?
- A. Each question is worth one point
- B. Overall; based partly on the number of incorrect answers
- C. Using a dart board
- D. They are not graded
- E. None of the above are correct
18. It is necessary to ask questions in order to receive a high score on your lab report; True (A) or False (B)
19. When can you request a printout of all current grades?
- A. Any time
- B. Any time in class
- C. Any time in my office
- D. Any time in my office that is not immediately after a previous progress report
- E. None of the above are correct
20. You can avoid receiving a zero on your lab report if you copy another group's work by changing just enough of their lab report so that the two are not *exactly* the same; True (A) or False (B)
21. What does plagiarism mean?
- A. Having an identical lab report as another group
- B. Making your lab report sound good
- C. Copying sections of your lab report from another group, the internet or from the texts
- D. Having the same results as another group
- E. None of the above are correct
22. What are lab participation/professionalism points awarded for?
- A. Arriving to class before the beginning of class
- B. Asking and Answering questions
- C. Being respectful to Mr. Sage and your classmates
- D. Making sure that your lab area is cleaned up before you leave
- E. All of the above are correct

23. What are Mr. Sage's office hours?
- A. Every day from noon to 1 pm
 - B. Monday and Wednesday mornings
 - C. M/W 10 – 11 and 2:15 – 2:45, T/Th 3:30 – 4, and Fri noon to 1pm
 - D. Whenever you need to talk to Mr. Sage
 - E. None of the above are correct

24. What is Mr. Sage's office phone extension?
- A. 252-2411
 - B. www.geocities.com/bretsage
 - C. 7229
 - D. 7992
 - E. None of the above are correct

25. What is the address of the website for this class?
- A. 252-2411
 - B. www.geocities.com/bretsage
 - C. 7229
 - D. 7992
 - E. None of the above are correct

26. What should you **not** do during lecture?
- A. Talk to other students
 - B. Talk on your cell phones
 - C. Eat a large nachos
 - D. All of the above are correct
 - E. None of the above are correct

Essay: What is the SCORE system? How does it help you? Have you started doing it yet?

Extra Credit: What did the letter called "Success with Biology" say (in detail)? (See next page)

Success with Biology

After successfully completing four biology classes with Mr. Sage as my instructor, Mr. Sage asked me to put into words the strategies I used to receive high scores throughout the duration of these classes. The strategies I employed to successfully make it through Bio 2, Human Anatomy, Microbiology, and Human Physiology are as follows:

- I would always try to print out the lecture notes two-three days before the lecture. Once I had the lecture notes, I would review some of the key points from the chapter that was going to be covered in lecture in the text book.
- I would, as quickly as the lecture was finished, answer all of the review questions while the covered material was still fresh in my mind.
- After all the review questions had been answered, I would make out a set of flash cards- reviewing them as often as possible.
- I would always look for potential essays for each upcoming test by looking at which diagrams/figures in the notes had more than a couple of steps to explain what was happening- required detail to explain a process. These types of essays are what Mr. Sage calls a, "First-string essay."
- I would practice writing out the potential essays a few times at home, until I was sure that I understood the essay material.
- Two-three days before a test, my lab partner and I would meet and go over the flash cards, and all of the essays. I found that the better I am able to explain concepts to someone, the better I understand the material.
- I also would start working on my lab report as soon as the lab was completed. I do not recommend waiting until the last minute to write it up. I would always take my time with the lab write-up, being sure I fully understood all of the concepts.

As time progresses in the class, you will come to see that Mr. Sage is arguably one of the most approachable instructors on campus in class, lab, and both in and out of his office. Use this to your advantage-ask as many questions as needed, Mr. Sage will help you as often as you need it.

Study hard, ask questions, and enjoy the classes in the area of biology. Remember this-the more you put into the classes, the more you are going to benefit. Good luck with your studies!

Respectively,

Mike Pearson

Former Biology Student

SAVE THIS (UPPER) COPY FOR YOUR RECORDS

Statement of Understanding

I, (please print) _____ have read and fully understand the content of the syllabus for _____ (this course). I understand that this syllabus may be changed by the instructor if the situation mandates such. I understand that I will be informed of any changes thereto. I further understand that I must find out if there have been any announcements of schedule changes when I have been absent.

Signed _____ Date _____

FOLD AND TEAR OR CUT OFF LOWER SECTION (BELOW) AND SUBMIT TO INSTRUCTOR

Statement of Understanding

I, (please print) _____ have read and fully understand the content of the syllabus for **Biology 2** (this course). I understand that this syllabus may be changed by the instructor if the situation mandates such. I understand that I will be informed of any changes thereto. I further understand that I must find out if there have been any announcements of schedule changes when I have been absent.

Signed _____ Date _____