

Bio 311D: Introductory Biology II (Spring 2010)

Lecture MWF 11am-noon in WEL 2.122

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| <u>Date</u> | <u>Subject</u> | <u>Relevant Textbook Chapters</u> |
|------------------------|-------------------------------------|-----------------------------------|
| Jan 20 | Introduction, Philosophy of Science | |
| 22 | Strong Inference | article on webpage |
| 25, 27 | Meiosis | 13 |
| 29, Feb 1, 3, 5, 8 | Inheritance | 14, 15 |
| February 10 | Exam 1 | |
| 12, 15, 17, 19, 22, 24 | Evolution | 21, 22, 23, 24, 25, 26 |
| 6, Mar 1, 3, 5 | Plant Physiology | 29, 30, 35, 36, 37, 38, 39 |
| March 8 | Exam 2 | |
| 10, 12 | Plant Physiology | 29, 30, 35, 36, 37, 38, 39 |
| <i>Mar 15-19</i> | <i>No Class (Spring Break)</i> | |
| 22, 24 | Plant Physiology | 29, 30, 35, 36, 37, 38, 39 |
| 26, 29, 31, Apr 2, 5 | Animal Physiology | 40, 41, 42, 43, 46, 48, 49, 50 |
| April 7 | Exam 3 | |
| 9, 12, 14 | Animal Physiology | 40, 41, 42, 43, 46, 48, 49, 50 |
| 16, 19, 21, 23, 26 | Ecology | 52, 53, 54, 55, 56 |
| April 28 | Exam 4 | |
| 30, May 3, 5, 7 | Ecology | 52, 53, 54, 55, 56 |
| Friday, May 14 | Final Exam (9am-noon) | |

Feb. 15 is the last day to drop w/o academic penalty, and **March 29** is the last day to drop with a Q.

While a very broad outline of topics is presented above, I will define more specific lecture topics based on our progress. We will not cover everything in every textbook chapter related to these topics. You can look at the related chapters to get a preview of the broad topics, and more specific readings will be posted on the class webpage a few days before each lecture.

The class **webpage** is: www.bio.utexas.edu/courses/stuart/class.html

Course Description: This is an introductory biology class designed to prepare you for future classes as well as serving as an introduction to scientific thought and ideas. This semester we will study inheritance, evolution, physiology, and ecology. We will look at general concepts from the textbook, but then at more in-depth information from contemporary scientific journals. This will allow us to see how general information is used to make new discoveries. I hope this will lead to a dynamic and useful learning experience. The drawback is that there will not always be an easy source of information outside of class. The job of a scientist is to explore the unknown. By combining material from the textbook and from other sources you can begin to develop a sense for how science works, how it fails, what we know, and what the next steps might be.

Lecture: MWF 11am-noon in WEL 2.122. Most of the test material will come from information presented in lecture and the articles we study. Instead of asking you to regurgitate what we look at in lecture, I want you to be able to use that information to come up with new information. I recommend that you take good notes and/or record the lectures. The easiest way to learn and perform well in my class is to attend the lectures and discussion sessions. A few days before each lecture, I will post on the class webpage relevant textbook sections and/or articles that we will be covering.

Discussion Sessions: The discussion sessions serve as an opportunity to review the information presented in class and to ask questions in a small class setting. At each discussion session there will be a short quiz that will allow you to test your mastery of the material prior to taking the exams. Discussions are not mandatory, but students who attend and participate in discussion sessions will be awarded up to 2 points to their final course grade. You may attend whichever discussion session per week that best suits your schedule. The discussion times are:

M 9-10am in RAS 211A
M 10-11am in RAS 211A
T 9-10am in SZB 422
T 10-11am in SZB 422

Discussions will start 1/25 or 26.

Grading and Exams: I find that much of the time grades discourage learning. I have designed the assignments in this class to encourage you to learn and participate in class. I hope that the assignments will serve to help you learn and provide useful feedback on your progress.

The semester will be graded on a maximum of 100 points earned from exams with up to 5 bonus points.

There will be five exams, four mid-terms and a cumulative final. The mid-term exams will be in class on 2/10, 3/8, 4/7, and 4/28. Each 50 minute mid-term exam will include only the information presented since the previous exam. The final exam will be cumulative. Each test will be equally weighted, but the final exam can replace a previous exam grade thereby potentially being worth 40% of your grade. If you miss an exam, contact Stuart as soon as possible. ***The exams will be short answer and essay.** There will be no multiple-choice questions.*

My teaching and testing style emphasizes the ability to understand and use the information presented in class; therefore, at each exam you will be allowed to bring ONE 8.5 X 11 inch sheet of paper with whatever information you want written on it.

In this way I want to minimize your dependence on memorization and encourage you to think critically about biology. Since you are bringing notes to the exam, the questions will not ask you to repeat what was taught in class. Instead, I will ask you to demonstrate your understanding of class material by applying what you learned. Being able to apply information that you only recently learned takes considerable effort and significant studying. See the webpage for sample test questions from previous semesters. Answer keys for this semester's exams will be posted one week after the exam.

Bonus points can be received for attending discussion sections, up to 2 points. Also, three bonus assignments consisting of short papers will be posted on the class webpage throughout the semester. Each bonus assignment can be worth up to 1 point. Collectively you can earn up to 5 bonus points that will be added to your exam grade.

Textbook: The textbook is not required. Questions on the exams will be based on material from lecture. Lectures will use information from "Biology" 8th ed. ©2008 by Campbell *et al.* and supplement it with articles from current scientific journals. I will post my lecture slides on the webpage after class. Handouts and links to articles will be available on the webpage: www.bio.utexas.edu/courses/stuart/class.html.