Biology 11 **Fall 2013** **City College of San Francisco**

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Course Description: Biology 11 is an introductory level lecture and laboratory course covering the major fundamental concepts required for understanding biological processes, organismal structure and function, and an introduction to the principles of biotechnology. CSU/UC

Prerequisites and standards of student behavior are carefully detailed in the City College General Catalog. You are responsible for adhering to all of them. **If you find that you unfortunately have to drop the class, you are responsible for the paperwork, and making sure you are no longer enrolled. IF A CELL PHONE RINGS DURING CLASS ONE POINT WILL BE DEDUCTED FROM EVERYONE'S QUIZ GRADE. REMIND YOUR COLLEAGUES TO TURN OFF THEIR PHONES!!!!**

Students at City College of San Francisco have the right to an environment in which there is freedom to learn. The College believes that each student has an earnest purpose and that he/she will adhere to acceptable standards of peronal conduct. We believe students deserve a safe, civil and respectful environment that will enable them to reach their full potential. To this end we expect students to assist us in this mission. Promptly report any concerns or observations you have to your instructor or appropriate authorities. We value your assistance and take your concerns seriously. We will treat such matters as confidential to the fullest possible extent.

Student Learning Outcomes: 1) Students will be able to identify the major categories of biochemical reactions in both eukaryotic and prokaryotic cells, 2) Describe the general principles of genetics, DNA replication, transcription, translation and biotechnology, 3) Identify the domains and kingdoms and relate them to the patterns of evolution, natural selection and speciation, 4) Become competent in the use of the scientific method.

Quizzes: Quizzes will be given at the beginning of a class meeting during the first 15 minutes. Some of the questions in the quizzes may be seen again on the final or midterms. If you are late this will be deducted from the time on your quiz, for example if you are 10 minutes late you will only have 5 minutes left to take your quiz, if you are 15 minutes late you will receive a zero for that quiz. Also the quizzes are where most of the extra credit is for the class.

Grading policy:
Minimum A 90%
Minimum B 80%
Minimum C 70%
Minimum D 60%

Evaluation:
Midterm 25%
Quizzes 15%
Lab 40%
Final 20%

Final examination: The final examination for the lecture will be held:
Thursday Dec 19th : 8am-10am.

Required Laboratory Materials: These are materials you will need to buy at the start of the course because you will be using them throughout the semester:

1. A drawing pencil with moderately hard lead (2H or No. 3) for preliminary sketching of laboratory drawings.
2. A pen with a fine point and **permanent** ink, preferably black, for answering essay and fill-in questions in quizzes and examinations.

Attendance: Attendance is **not** optional. The **maximum** allowable numbers of absences are as follows: **6 hours or two class meetings**

Written assignments: All written assignments done outside of class must be done on a word processor. If you do not have a computer at home use one of the computers at the Mission campus or in the computer rooms on the Ocean Avenue campus. There are staff people available to help you use the computer. If you are late on the day your assignment is due there will be a 10% deduction in your grade for that assignment.

Rules for the final examination:

1. You must bring **two pens**, **two #2 pencils,** and a **good eraser** (not the one on the end of your pencil) to each exam.
2. Scan-Tron multiple choice answer sheets must be marked with a number 2 pencil.
3. **Ink** must be used on essays and fill in the blank questions.
4. No talking is allowed in the exam, except to the instructor.
5. Looking at another student's paper is strictly prohibited, and not useful since there will be multiple versions of the exam.
6. Do not cover your face with your paper.
7. You must cover your answers as much as possible to prevent another student from reading over your shoulder.
8. All written or printed materials that are not part of the examination must be completely out of sight.
9. You may not use a foreign language dictionary or other reference during an exam. You may ask your instructor to explain any term or phrase in the exam that is not clear to you. However, if you ask for information you were expected to learn for the examination, you will be told: "You are supposed to know that."
10. Once you start an exam, you must stay in the exam room until you finish. There will be no bathroom breaks, so plan accordingly.
11. If you observe someone cheating in an examination, you are expected to report that person to the instructor.
12. Students **must** take the exams on the scheduled dates. There will be **no make up exams**.

Textbook: Essential Biology with Physiology 3rd edition by Neil Campbell et. al. (Benjamin Cummings, ISBN 0-321-65954-0). The textbook used in previous semester is also acceptable (*Biology: Concepts and Connections,* 5th ed. by N. Campbell)

Lecture Schedule and Reading Assignments: (tentative subject to change)

Week	Topic	Reading Assignment Essential Biology	Reading Assignment Concepts and Connections
Aug. 20	Introduction; Scientific Method/ Chemistry	Chapter 1/ Chapter 2 and 3	Chapter 1/ Chapter 2 and 3
Aug. 27	Cell Structure and Function Membrane Structure and Function	Chapter 4 and Pages 83-87	Chapter 4 and Pages 79-85
Sept. 3	Cell division	Chapter 8	Chapter 8
Sept. 10	Natural selection	Chapter 1 and 14	Chapter 1 and 14
Sept. 17	HOLIDAY No class		
Sept. 24	Genetics Population Genetics	Chapter 9 Chapter 13	Chapter 9 Chapter 13
Oct. 1	**Midterm I** Intro DNA	Chapter 10	Chapter 10
Oct. 8	DNA and Protein	Chapter 10	Chapter 10
Oct. 15	Energy and Photosynthesis	Chapter 6 Chapter 7	Chapter 6 Chapter 7
Oct. 22	Systematics Viruses, bacteria, and protista	Chapter 14 Pages 285-289 Chapter 10 Pages 188-194 Chapter 15	Chapter 15 Pages 200-205; Chapter 16
Oct. 29	Fungi The Plant Kingdom	Chapter 16	Chapter 17
Nov. 5	The Animal Kingdom	Chapter 17	Chapter 18
Nov. 12	Nutrient procurement Animals Movement of Materials (Cardiovascular system) in Animals and Plants	Chapter 22 Chapter 23 Chapter 29 Pages 626-632	Chapter 21 Chapter 23 Pg.628-635; 647-651
Nov. 19	**Midterm II** How we breathe	Chapter 23	Chapter 22
Nov. 26	Homeostasis & Hormones	Chapter 21 Chapter 25	Chapter 26 pg. 425
Dec. 3	Waste removal; our urinary system Ecology	Chapter 21 Chapters 18-20	Chapter 25 Chapter 37 and 38
Dec. 10	Biotech	Chapters 11 and 12	Chapters 11 and 12
Dec. 17	Final		

Laboratory Schedule: (tentative subject to change)

Week	Date	Lab
1	**8/15**	**Intro to lab and lecture—safety/ Introduction; Scientific Method/ Chemistry (lecture)**
2	**8/22**	**Molecules**
3	**8/29**	**Microscope and slides**
4	**9/5**	**Osmosis and Diffusion**
5	**9/12**	**Cell division**
6	**9/19**	**Genetics problems**
7	**9/26**	**Population genetics**
8	**10/3**	**Graphing and pH**
9	**10/10**	**Fermentation**
10	**10/17**	**Plants and photosynethesis**
11	**10/24**	**DNA I and spooling**
12	**10/31**	**DNA II**
13	**11/7**	**DNA III**
14	**11/14**	**Animals**
15	**11/21**	**Systems**
16	**11/28**	**Thanksgiving**
17	**12/5**	**Senses**