

Survey of Biology
BIO 101
Fall 2009

Instructor: Amaya Garcia Costas
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Office hours: Science 131
Wed. 10:00-11:00
Thur. 10:00-11:00
Or by appointment

Hours: 11:40-12:40 at COE 427

Textbook: Biology: Concepts and Connections, 6th ed. by Campbell et al.

Course description:

This course is designed to introduce non-biologists to the exciting world of biology. Biology encompasses a variety of fields from molecular and cellular biology to ecology and evolution of species. In this course we will survey a broad range of these topics with the hope that you will both become “biology-literate” (you are able to understand and discuss a wide variety of biological issues) and increase your appreciation and respect for the biological world.

Course requirements:

The major challenge of this course is the large amount of material we will be covering. We are going to study over 200 years of scientific discoveries in the short period of 15 weeks! You will not be able to just “swing” it and cram it all in the week before the exams. **I highly recommend you develop a weekly schedule for studying biology.** The following are strategies that will help you do well in this course:

*Attendance is essential to this course. We will be covering material that may not be in the textbook and it will be easier for you to understand concepts if you have actually heard them.

*Reading the assigned readings prior to the lectures and coming prepared to class are also essential. A lot of the material will be new to you and it will help if you come to class with a “prepared mind.”

*Going over your notes and rereading the text after lecture will ensure that you learn the material. It is often helpful to copy and organize your notes from class after lecture.

*Online resources are available through your textbook as well as through other sites. Take advantage of them!

Grading:

There will be FOUR EXAMS and FOUR QUIZZES throughout the course. There is also ONE COMPREHENSIVE FINAL and there will be POINTS FOR ATTENDANCE.

The exams are worth 100 points each. I will drop the lowest score from these exams for your final grade, but YOU MUST TAKE ALL FOUR OF THE EXAMS. The quizzes are worth 25 points each. The final exam is worth 100 points. Anyone with a perfect attendance for an exam period will receive 5 bonus points on that exam. If you miss one day you will receive 3 bonus points.

LECTURE TOPICS

TEXTBOOK READING

INTRODUCTION

Chapter 1, Chapter 15

CELL BIOLOGY

Chemistry

Chapter 3, 4

Cells

EXAM 1

CELL METABOLISM

Introduction to membranes and energetics

Chapter 5

Cellular respiration

Chapter 6

Photosynthesis

Chapter 7

CELL GROWTH

Chapter 8

Cell cycle

Mitosis

Meiosis

GENETICS

Chapter 9

Mendelian Genetics

EXAM 2

Molecular Genetics

Chapter 10,11

Biotechnology

Chapter 12

EVOLUTION

Chapter 13,14

EXAM 3

BIODIVERSITY

Taxonomy

Chapter 15

Virology

Chapter 10

Bacteria, Archaea

Chapter 16

Protists

Chapter 16

Fungi and Plants

Chapter 17

Animals

Chapter 18, 19

EXAM 4

ECOLOGY

Sections from chapters 34-38

FINAL: Monday, December 14, 12:00-1:50

This schedule is tentative and I reserve the right to make any changes I deem necessary throughout the course. Exams will be announced a week in advance and cannot be rescheduled. Quizzes will be announced a day in advance.

Classroom Etiquette: Please, respect your classmates' right to learn. No social talking or cell phones during lecture.

Academic Honesty: All students are expected to adhere to the highest standards of academic honesty and to refrain from any actions that are dishonorable or unethical. In all exams, papers, labs, etc. you are expected to turn in your own work entirely. Cheating or aiding another in cheating in any manner will result in a grade of "F" for the class.

Students with disabilities, whether physical, learning or psychological, who believe that they may need accommodations in this class are encouraged to contact Disability Support Services (DSS) as soon as possible to ensure that such accommodations are implemented in a timely fashion. Please meet with DSS staff to verify your eligibility for any classroom accommodations and for academic assistance related to your disability. DSS is located in the Academic Support Center and may be reached at 657-2283.