

Charlotte Murray

Class Syllabus --- Biol. 100 --- Class Code 10216 --- 4 Units --- Tuesday & Thursday 6:30 to 9:40

Fall 2013 --- Schedule subject to tweaking ☺

Lec Date	Chapters	Lab Date	Subject & Page Numbers
Aug 20	1-- Sci. Study of Life, 2 – Chem. of Life	Aug 22	Roots & Shoots pp 229-239
Aug 27	2-- Continued & 3—Cells	Aug 29	Leaves & Flower Parts pp 239-243
Sept 3	8-- DNA Rep. and Cell Division, 9 Sexual Reproduction and Mitosis pg 154-160	Sept 5	Mitosis and Lab Quiz pp 57-62
Sept 10	4 – The Energy of Life 5-- Photosynthesis	Sept 12	LAB EXAM
Sept 17	5 –Continued, 6 -- How cells Release Energy	Sept 19	Algae pp 171-181
Sept 24	LECTURE EXAM CHAP. 1-6, 8 and part of 9	Sept 26	Protozoa pp 185-193
Oct 1	9 – Sexual Reproduction & Meiosis pg 160-169 10 – Patterns of Inheritance	Oct 3	Cnidarians pp291, 293-297 Platyhelminthes pp303-310
Oct 8	10—Cont, 12 – Forces of Evolutionary Change	Oct 10	Annelida pp 325-333
Oct 15	13 – Evidence of Evolution	Oct 17	LAB EXAM
Oct 22	14—Speciation and Extinction	Oct 24	Crayfish pp 335-336 & 341-344
Oct 29	LECTURE EXAM part of 9 and 10, 12, 13,14	Oct 31	Grasshoppers pp 346-350
Nov 5	7 – Viruses etc. 125-133	Nov 7	Starfish pp 351-354
Nov 12	15 -- Evolution & Diversity of Microbial life 16 – Evolution & Diversity of Plants	Nov 14	Amphioxus pp 359-360 & Frog 393-396, 405-406
Nov 19	17- Evolution and Diversity of Animals	Nov 21	Thanksgiving Break
Nov 26	17 Continued	Nov 28	LAB FINAL
Dec 3	LECTURE FINAL: Chapters 7, 15, 16, & 17	Dec 5	No Class

HOME PHONE 760-357-2865 -- Call me when you need to but not before 7:30 a.m. or after 10:00 p.m.

E-mail: charlotte.murray@imperial.edu

TEXTS: Lecture: Biology, The Essentials: Marielle Hoefinagels

Lab: Laboratory Outlines in Biology VI: Peter Abramoff, & Robert G. Thomson

**** Bring colored pencils for the Lab. work

IF YOU WANT OUT OF THIS CLASS YOU MUST DROP YOURSELVES !!!! Failure to do so may mean a grade of "F"

Exams: Lecture exams are a combination of multiple choice, true false, short answer and essay questions.

Lecture Exams 3 @ 150-200 points each = 450-600 points (includes Final)

Lab exams 3 @ 80 points each = 240 points

Quizzes ± 10 @ 12-45 points each = 200 points → Approx 1000 points possible

Final grade is calculated as a percentage of the highest score in the class:

- 90% 100% is an "A"
- 80%-89% a "B"
- 70% - 79% a "C"
- 60% - 69% a "D"
- 59% and below an "F"

If a student is absent on a day when a lecture quiz or exam is given they must make-up that quiz or exam at the next meeting unless other arrangements are made.

Lab exams and the quiz cannot be made up because it takes several hours to set them up.

THINGS YOU MUST DO:

1. Purchase a pair of safety glasses. They can be purchased at the book store for about \$5.00. We will need them when we start to do the dissection.
2. Go to web site: <http://forms.imperial.edu/machform/view.php?id=24> and complete the form for the lab safety information as required by the department. * Failure to complete the form may affect your grade.

There are no extra credit papers or work available, you need to learn what I want you to learn.

1. You may record the class
2. NO cell phone on during class --- TURN THEM OFF OR TO VIBRATE!!!!
3. During exams and quizzes --- cell phones must be put away.
4. Be on time
5. No talking in class while I am teaching or you may be told to leave the class.
6. Any student with a documented disability, who may need educational accommodation, should notify me and the Disabled Student Programs and Services office (Room 2117 – 760-355-63120) as soon as possible.
7. Any student caught cheating or helping another student to cheat will be given a zero on the exam and may be reported to the administration for further action.
8. Important dates: Last day to Drop; Nov. 9, 2013
9. November 1, deadline to Petition for Graduation

Course Description: *Prerequisite: Math 091 or Math 090.* This course is a comprehensive one semester general biology course, designed to provide students with an overview and understanding of the biology and taxonomy of organisms in all five Kingdoms. The class will focus on genetics, evolution, and species diversity.

My Course Objectives: Students will learn to use a microscope to identify various species of algae, protozoa, plants and animals. They will be able to describe various cellular processes like photosynthesis, aerobic cellular respiration, enzymatic reactions, mitosis, and meiosis. Students will acquire a general knowledge of genetics and how genetic information is passed on to offspring. Students will learn about the likely origin of life on Earth and how the original species underwent adaptation and evolution to give rise to life as we know it today. Students will be presented with a general review of all five Kingdoms with the greatest focus on eight animal phyla. The students will understand how over time phyla acquired characteristics that made them more advanced than those phyla without these characteristics.

STUDENT LEARNING OUTCOMES (SLOs)

INSTITUTIONAL STUDENT LEARNING OUTCOMES:

Students who complete a degree or certificate at Imperial Valley College will demonstrate competency in these five areas: communication skills, critical thinking skills, personal responsibility, information literacy, and global awareness.

COURSE STUDENT LEARNING OUTCOMES:

Students who complete Biology 100 with a grade of “C” or better will be able to:

1. Demonstrate an understanding of the steps of the scientific method. (ILO2)
2. Communicate an understanding of the various patterns of inheritance of genetic traits. (ILO1, ILO2)
3. Explain how the processes of natural selection influence evolution. (ILO1, ILO2)
4. Perform lab activities properly, and correctly analyze lab data. (ILO1, ILO2)

IVC COURSE OBJECTIVES

Upon satisfactory completion of the course, students will be able to:

1. Identify the basic characteristics of all living things.
2. Name basic chemical aspects that pertain to life and the concept of homeostasis.
3. Describe the sub-cellular components of the cell including their structure and function.
4. Explain the light and carbon reactions of photosynthesis.
5. Explain cellular respiration and its relations to the entire organism.
6. Demonstrate knowledge of the structure and function of DNA and RNA.
7. Explain protein synthesis and site the central dogma of cell biology.
8. Compare and contrast the fundamentals of asexual and sexual reproduction.
9. Define ecology and the overall impact of ecology to conditions in the environment.
10. Solve problems in general genetics and in human genetics and relate advances in genetics to social responsibility of geneticists.
11. Identify and relate the functions of the major systems of the human body; the interrelationship among body systems and nature of disease.
12. Classify organisms in the kingdoms of plants and animals, discuss their evolutions and their relationships.