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**	**Grasshop0pers 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.