WE '01

COURSE: **BI 101-General Biology (Lecture)**
TIME: 1645-1850 M & W (Jan. 8, - Mar. 21, 2001)
INSTRUCTOR: Dr. **Alan Ohta,**
email: ohta@i-one.com
OFFICE HRS: 1545 -1645 M or by appointment
TEXT: Biology Life on Earth, **5th ed. by Teresa & Gerald Audesirk, Prentice Hall, 199911996.**

COURSE DESCRIPTION: This course is designed to introduce the Biological Sciences. Thus we will begin with the structure and function of the cell, the basic unit of all life. To be followed by the basis of heredity also common to all life forms. Finally we will investigate how all organisms change & adapt in order to survive.

OBJECTIVES:

1. **to provide a sound background of biological systems (function & structure).**
2. **to promote an appreciation for the complexity of living organisms.**
3. **to promote critical thinking in applying concepts.**
4. **to promote an appreciation for all organisms & their common bonds to one another.**

LECTURES:

1. **Lecture topics and text assignments are listed in the course outline.**
2. **Examination dates are also listed in the course outline.**
3. **The instructor reserves the right to add, omit, or change the materials as he sees fit.**

EXAMS, QUIZZES & GRADES:

1. **All exams & quizzes are "open book & notes" & will consist of short essay questions. You will be graded on your ability not only to answer the question (some can be answered in several ways), but also in how effectively you can defend your answer/position using your knowledge of the subject & applying what you learned through the use of appropriate facts/examples. Thus all questions asking for your opinion or position, whether stated or not have an implied "Why?" or "How?" question attached.**
2. **Grades will be based on the following system & scale:**

Grade Scale:	
90% & above	= A
80 - 89%	= B
65-79%	= C
50-64%	=D
49% & below	= F

Grading System:	
Quizzes	30%
Mid Term	30%
Final	40%

COURSE OUTLINE:

01/08/2001	Introduction to Life (Chap. 1)
01/10	Atom, Molecules, & Life (Chap. 2)
01/15	Holiday: Martin Luther King, Jr. Day
01/17	Biological Molecules (Chap. 3)
01/22	Energy Flow in Cells (Chap. 4)
01/24	Cell Membrane Structure & Function (Chap. 5)
01/29	Cell Structure & Function (Chap. 6)
01/31	Photosynthesis (Chap. 7)
02/05	Glycolysis & Cellular Respiration (Chap. 8)
02/07	Midterm Exam
02/12	DNA (Chap. 9)
02/14	Gene Expression & Regulation (Chap. 10)
02/19	Holiday: President's Day
02/21	Cellular Reproduction (Chap. 11)
02/26	Patterns of Inheritance (Chap. 12)
02/28	Patterns of Inheritance (con't)
03/05	Biotechnology (Chap. 13)
03/12	Principles of Evolution (Chap. 14 & 15)
03/14	Principles of Evolution (con't)
03/19	Origin of Species (Chap. 16 & 17)
03/21	Final Exam

COURSE: BI 1011-General Biology Lab
TIME: 1905-2110 M & W (Jan. 8, - Mar. 21, 2001)
INSTRUCTOR: Dr. Alan Ohta
email: ohta@i-one.com
OFFICE HRS: 1545 - 1645 M or by appointment

COURSE DESCRIPTION: The lab class for this course is designed to aide in your understanding of the function and interaction of the cell and its components. The way in which cells pass their information to other cells as well as to the next generation of cells will be investigated. Finally how organisms change from one generation to the next will be addressed.

OBJECTIVES:

1. To obtain practical knowledge of concepts and structures discussed in the lecture.
2. To promote scientific thinking and inquiry.
3. To enhance powers of observation and to be more scientifically observant.
4. To increase appreciation for the natural environment.

ASSIGNMENTS:
All lab exercises will require a written report using the format provided by the instructor. These reports will be due as announced by the instructor.

LABS:

1. Laboratory topics and assignments are listed in the course outline.
2. Examination dates are also listed in the course outline.
3. The instructor reserves the right to add, omit, or change the materials as he sees fit.

EXAMS, QUIZZES & GRADES:

1. All exams & quizzes are "open book & notes" & will consist of short essay questions. You will be grades on your ability not only to answer the question (some can be answered in several ways), but also in how effectively you can defend your answer/position using your knowledge of the subject & applying what you learned through the use of appropriate facts/examples. Thus all questions asking for your opinion or position, whether stated or not have an implied "Why?" or "How?" question attached.
2. Grades will be based on the following system & scale:

Grade Scale:		Grading System:	
90% & above	= A	Labs	75%
80 - 89%	= B	Final	25%
65-79%	= C		
50-64%	=D		
49% & below	= F		

COURSE OUTLINE:

01/08/2001	Introduction
01/10	Scientific Method
01/15	Holiday: Martin Luther King, Jr. Day
01117	Metrics
01/22	Microscope Use
01/24	+Biological Molecules
01/29	+Enzymes
01/31	+Osmosis
02105	+[1]Photosynthesis
02/07	Cell Structure & Function (Plants)
02/10	*Field Trip to Lyon Aboretum
02/14	Cell Structure & Function (Animals)
02/19	Holiday: President's Day
02/21	Cell Respiration & Fermentation
02/26	Cell Division (Mitosis)
02/28	Cell Division (Meiosis)
03/05	Mendelian Genetics & Evolution
03/07	Human Genetics
03/10	* Field Trip Hanauma Bay
03/14	Final Exam
03/19	Time off from field trip

+ **These labs will be combined (2 labs/session) and held at Chaminade on dates and times to be announced**
*** These are Saturday field trips.**