### Antelope Valley College Biology 101 - General Biology Spring 2011

Character and Persistence

Instructor: Dr. Bassam Michael Salameh (Dr. S)

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Office: T300G

Office Hours: Wednesdays 4:00 – 6:30 pm and Thursdays 2 – 5:00 pm Others by appointment.

Course Number: BIOL 101

Course Units: 4.0

Course Hours: 6.0

Lecture: Tuesdays and Thursdays 11:00 am - 12:20 pm

Course prerequisites: Eligibility for College level Reading and English 101 or satisfactory

completion of English 101

**Textbook:** Johnson & Losos, The Living World, 6<sup>th</sup> Edition 2010

Lab Manual: Check Bookstore

**Course Description:** A General education non-major biology course designed to acquaint the student with the nature of science, the unity of life processes, the diversity of living things, the interdependence of organisms in the biosphere, the mechanisms that have shaped life on earth, and with the humans as biological entities.

Course Objectives: Upon completion of this course successfully, students should be able to:

- 1. Demonstrate an understanding of the nature, applications, and limitations of scientific inquiry.
- 2. Describe features common to all living things.
- 3. Recognize and account for differences in organisms based on their structure and function.
- Recount the taxonomic hierarchy into which all organisms are placed, and describe the general bases upon which the hierarchy is organized; apply these ideas to a variety of taxonomic groups.
- 5. Describe ecological roles of organisms and provide examples of organisms that exhibit these roles.
- Understand evolution as a major theme of biology and recount the evidence for biological evolution; describe the central mechanisms of evolution including mutation, altered embryological development, and natural selection.
- 7. Demonstrate an understanding of DNA as genetic material and the principles of heredity; apply ideas to problems in biotechnology, medicine, and agriculture.
- 8. Demonstrate knowledge of essential molecular biological mechanisms including photosynthesis, cellular respiration, protein synthesis, and the control of gene expression.
- 9. Apply biological concepts to the description and solution of problems in the real world.
- 10. Become familiar with the names and uses of common laboratory equipments, and procedures.
- 11. Practice the scientific method by conducting laboratory experiments, carrying them to completion, interpreting the results, and writing appropriate reports.
- 12. Demonstrate an understanding of several major organ systems of the human body; compare human systems with analogous or homologous systems of other organisms.

Attendance & Participation: Attendance is expected in every class and lab meeting. It is very important for students to attend class to be successful in this course. However, I do understand that things happen and if you must miss a class, I'd ask that you let me know ahead of time when possible (in person, via phone or email). In the event of an absence, I strongly encourage you to contact a classmate to obtain missed materials.

The first two days of class are important; therefore missing any one of these two days means the student might be dropped from the class.

There will be no talking to other students during lecture; if you have a question, please raise your hand and ask me.

## Students that are disruptive will be asked to leave and in some cases dropped from the class if their behavior continues.

#### Very important to know:

Withdrawing from the course: **It is the responsibility of the student** to withdraw from the course. Please be aware of all deadlines to drop this course with a "W". (Semester calendar). Any student enrolled in the course after the final drop date will receive a grade "F" for the course.

## Please note: More than 2 absences from lecture/lab may cause you to be dropped from the course.

**Reasonable Accommodations:** If you have a legally protected disability under the ADA or the California discrimination law, and you believe you need reasonable accommodation to participate fully in this class, please make an appointment to see me during my private office hours to discuss your need, and bring documentation.

#### **Exams and Grading policy:**

There will be four midterm exams and one final examination, each worth 50 points. The lowest midterm exam score will be dropped. The final exam score cannot be dropped. Thus there are total of 200 exam points possible for the semester. Your final score in the class is based on your performance in both lecture (70%) and lab (30%).

Exams will be based on lecture material, which may coincide with your labs sometimes. The use of dictionaries or calculators during the exam will not be permitted. Bring with you Scantron form# 882 to class on exam day, as well as 2 pencils, and an eraser. Do not rely on others to give you any. **If you leave class during an exam, you may not return to finish that exam.** 

Grade	Percent points
Α	90 - 100
В	80 - 89
С	70 - 79
D	50 - 69
F	< 50

**Make-up Exam Policy:** If you miss an exam for any reason, this is the exam grade that will be dropped. Other missed exam due to documented illness or other justified reasons may be made up. If you know in advance that you must miss an exam, see me and bring <u>documentation</u> to support your anticipated absence. If you miss an exam unexpectedly because of last minute illness or an accident contact me (ASAP) when you return to campus (or by phone if you will be away for some time) with <u>documentation</u> of your situation. There is no make-up for the final. The final exam grade may not be dropped. If you do not show up to the final, you receive an automatic "F" in the course.

#### Extra Credit: There are none, so please do not ask for this.

**Cell phones and other devices:** You may set your cell phone on vibrate if you must have it on for emergencies. However, you may not answer a call in class (or lab). Please leave the room to do so. No text messaging (receiving or sending) what-so-ever. No electronic entertainment devices may be used in class or lab. <u>ALL cell phones will be turned OFF during any exam, no exception for any student.</u> YOU WILL BE DISMISSED FOR CLASS DISRUPTION!

#### **Academic Violations:**

#### http://www.avc.edu/aboutavc/policies/code\_conduct.htm

These policies and procedures are reprinted from the AVC Board Policies, Section 6032. Includes, but is not limited to the following offenses:

Violation of the Academic Honesty Policy: Dishonesty, including but not limited to, cheating, or plagiarism. Plagiarism–from the Latin word for "kidnap"–involves using another's work without giving proper credit, whether done accidentally or on purpose. This includes not only words and ideas, but also graphs, artwork, music, maps, statistics, diagrams, scientific data, software, films, videos and the like.

Plagiarism is plagiarism whether the material is from published or unpublished sources. It does not matter whether ideas are stolen, bought, downloaded from the Internet, or written for the student by someone else-it is still plagiarism. Even if only bits and pieces of other sources are used, or outside sources reworded, they must still be cited.

To avoid problems, students should cite any source(s) and check with the instructor before submitting an assignment or project. Students are always responsible for any plagiarism in their work.

# An instructor who determines that a student has cheated or plagiarized has the right to give an "F" grade, or numerical equivalent, for the assignment or examination.

**General Advice:** Please come by my office to discuss any difficulties with the course material, before it is too late! Make an appointment; come during office hours, phone, or e-mail a message. You are also welcome in the office outside of office hours for questions, especially unknowns. I expect you to have read the material, or at least, be familiar with the topic prior to your visit. There are no "dumb questions"; if you feel too embarrassed to ask a question in class, come by my office. All are ignorant at birth; some remain ignorant by choice; others choose to learn. The choice is yours, and I am here to help.

#### Important Dates & Deadline

- 2/7 Spring 2011 semester begins
- 2/21 Washington's Day
- 3/\_\_\_ Deadline to drop without "W"
- 4/4-4/9 Spring Break
- 5/\_\_\_ Deadline to drop with "W"
- 5/30 Memorial Day
- 6/3 Spring 2011 semester ends

### **Tentative** Lecture Schedule

Week	Date	Lecture Topics	Chapters
1	2/8 - 2/10	T: Introduction	
		Th: Characteristics of Life, Scientific Method, Science of Biology	1
2	2/15 - 2/17	T: Evolution and Ecology	2
	2/15 - 2/17	Th: Chemistry of Life, Molecules of Life	3,4
3	2/22 – 2/24	T: Cells	5
		Th: Mitosis	9
4	3/1 –3/3	T: Exam 1	
		Th: Nomenclature	18
5	3/8 - 3/10	T: The First Single-celled Organisms	19
		Th: The Advent of Eukaryotes (Algae, Protists)	20
6	3/15 – 3/17	T: The Advent of Eukaryotes (Algae, Protists)	20
		Th: Fungi Invade the Land	21
7	3/22 – 3/24	T: Exam 2	
		Th: Evolution of Plants	22
g	2/22 2/24	T: Evolution of Plants	
8	3/29 – 3/31	Th: Evolution of Animal Phyla	25
	4/4 – 4/9	Spring Break	
9	4/12 - 4/14	T: Evolution of Animal Phyla	25
		Th: History of Vertebrates	26
10	4/19 - 4/21	T: Exam 3	
		Th: Energy and Life	6
11	4/26 - 4/28	T: Photosynthesis	7
		Th: Cell Respiration (Cell Respiration Handout)	8
12	5/3 – 5/5	T: Cell Respiration	8
		Th: Exam 4	
13	5/10 - 5/12	T: Meiosis	10
		Th: Foundations of Genetics	11
14	5/17 – 5/19	T: DNA: The Genetic Material	12
		Th: DNA: The Genetic Material, How Genes Work	12, 13
15	5/24 – 5/26	T: How Genes Work	13
		Th: Genetics Exercise Handout	
16	5/31 – 6/2	Final Exam	
	1	<b>d before coming to class.</b> You may be asked to "help" in lecture.	