Dr. Ahrar – Biology 100, Course syllabus,

Fall 2018 – CRN = 10031

Semester	Fall 2018	Instructor Name	Mohammad Ahrar
Course Title & #	Biology 100	Email	Mohammad.ahrar@imperial.edu
CRN #	10031	Webpage	
Room	2717	Office	Room 2717
Class Dates	Aug. 13 to Dec. 8, 2018	Office Hours	7 – 8 am
Class Days	Lecture; Fridays 8:00 am to 11:10 Labs: Fridays 11:20 pm to 2:30 pm	Office Phone #	Dept. # 760-355-6155
Units	4 Units	Office contact for emergency	Biology Department Secretary 760-355-6155

Course Description;

This is a comprehensive, general biology course for non-majors. Covering the areas of life from the molecular to the organismal level of both plants and animals. Special emphasis is put on cell division, photosynthesis, and plant and human biology within appropriate areas of study. Evolution of species and interaction of organisms within the environment is also included. This course is also appropriate for general education as well as nursing, pre-professional, and higher level biological studies. The course includes laboratory components.

Student learning outcomes:

Upon course completion, with a grade of "C" or better, the successful student will have acquired new skills, knowledge, and/or attitudes as demonstrated by being 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)

Course Objectives;

Upon satisfactory completion of the course, students with a grade of "C" or better 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 subcellular components for the cell including their structure and function
4. Explain the light and dark 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.

Textbooks & Other Resources or Links

Lecture Textbook: Biology Concepts and investigations (3rd edition) by Marielle Hoefnagels – **SBN:** 9781308487663
Publisher: McGraw-Hill

Laboratory Manual Principles of Biological Science BIOL100 Lab Manual ISBN 0077701631. The lab manual is custom made for this college, and available at the IVC bookstore as a single packet together with the textbook.

Course Requirements and Instructional Methods

Lab duties and assignments: There will be lab assignments and lab reports in each lab session. The lab reports are due at the end of each lab session. Note; I expect my students to be very careful with lab equipment, adopt safety issues at all time, clean tools and the working area and return all items to their place before leaving the lab. It is highly recommended that review the lab experiment prior to coming to the lab. Most lab experiments will be a team work and all members of the group must actively participate in experiments.
Extra credit; There may be extra homework which allows students to gain information about different aspects of biology beyond the class activities. Completed assignment can receive up to 10 points.

Group presentation; Students will be teamed up, in group of 4 students per group. Each team will be assigned a topic related to biology. Team members should work together and coordinate the research about a subject and be prepared for a 20-minutes presentation to the class. Date of presentation will be discussed in the third lab session.

Tests; There will be 3 quizzes, one midterm and one final exam. The class and lab schedule and test dates are listed in the last page in this syllabus.

Missed tests and lab assignments; any missed quiz, exam or lab assignment will not be allowed to retake. In case of emergencies or excused situations (with written documentation), a quiz or a test may be taken, but there will be 20% deductions from any retake test. ***Any missed lab assignment cannot be retaken and receives no point.***

Course Grading Based on Course Objectives

Total of 3 quizzes, each 50 points .....150 points
Total of 12 Lab reports or assignments (5 points each) ..... 60 points
Midterm Exam (100 points) ..... 100 points
Final Exam (100 points)..... 100 points
Field trip report ..... 25 points
Group presentation..... 35 points

Total Points..... 470 points

Grade point calculation = Total points earned divided by 470 x 100 Example; if your total earned points is 410, your grade point will be calculated as (410 : 470 X 100 which will equal 87.2 % = B grade.

Grading scale: >90% = A, 80% - 89% = B, 70% - 79% = C, 60% - 69% = D, <60% = F

Quizzes and exams will cover material from lectures, class discussions, group presentations, lab assignments and materials from CD-ROM or video clips. A variety of testing methods will be employed, including but not limited to: true/false, multiple choice, essay, and short answers.

Attendance

- A student who fails to attend the first meeting of a class (or does not complete the first mandatory activity of an online class) will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the **student's responsibility** to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absence exceed the number of hours the class is scheduled to meet per week may be dropped. Officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class unless otherwise directed by the instructor. Consider**:** specifics for your class/program
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.
- Talks and discussion**;** is not tolerated during lectures. Talking is a disturbance to your instructor and to other students in the class. I ask my students to avoid any site talks, using cell phones or computer, during the lectures. Discussions and exchanging ideas with classmates during lab experiments is OK. Disciplinary procedures will be followed as outlined in the General Catalog.

Academic Honesty

- Plagiarism is to take and present as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to correctly 'cite a source', you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question.
- Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination

or on an assignment ;(c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment, (e) use of a commercial term paper service

Additional Help – Discretionary Section and Language

- Canvas support center: Imperial Valley College has switched from Blackboard to Canvas.
- Power point presentations, class materials, assignments, and grades can be posted on Canvas and be accessible to the students to use.
- Learning Labs: There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Learning Services (library). Please speak to the instructor about labs unique to your specific program
- Library Services: There is more to our library than just books. You have access to tutors in the learning center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313 if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see http://www.imperial.edu/students/student-health-center/. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

Emergency situations: The College Nurse is available Monday through Friday, 7:30 a.m. to 4:00 p.m. at extension 310. Cell Phone number for nurse assistance is (760) 337-0300. If unable to reach the nurse, dial "0" and notify switchboard of medical emergency. In critical situation dial "911"

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762

Information Literacy

Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/

Anticipated Class Schedule / Calendar Fall 2018, is listed below (subject to change)

Week	DATE	Biology 100- 10031-Lecture schedule, Spring 201	Lab schedule, Spring 2017
1	Friday 8/17/2018	Ch. 1 Scientific study of life (Gage 2), Ch. 23 Animal tissue & organ system	Lab 1, (Exp. 2.1 Metric system- page 7) Exp. 25.1 (pages 353-365)
2	8/24/2018	Ch. 2 The Chemistry of life	Lab Exp. 3.1, 3.2, 3.3, 3.4- Chemical composition of cell.
3	8/31/2018	Ch. 15 Evolution of microbial life	Lab Exp. 2.3, 2.4, 2. 5 - Microscopy Exam 1 (Ch. 1, 23, 2 + lab exp. 2, 25, 3)
4	9/7/2018	Ch. 3 Cells	Lab Exp. 4.3, 4.4, 4.5 - Cell structure and function
5	9/14/2018	Ch. 4 The energy of life	Lab Ex. 5.1, 5.2, 5.3,5.4, Enzymes
6	9/21/2018	Ch. 5 Photosynthesis	Lab Exp. 6.2 - photosynthesis Exam 2 (Ch. 15, 3, 4 + Lab exp. 2, 4, 5)
7	9/28/2018	Ch. 6 How cells release energy	Exp. 7.2 Cellular respiration
8	10/5/2019	Ch. 8 DNA Replication and cell division Ch. 9 Sexual reproduction and Meiosis	Lab Exp. 8.1 Mitosis Handout-Meiosis
9	10/12/2018	Ch. 27 The Circulatory /Respiratory system	Lab Exp. 27 and 29 Fetal pig dissection
10	10/19/2018	Ch. 28 Regulating temperature, Nutrients	Midterm Exam (Ch. 5,6,9,30,27 + Lab experiments from lab 1 till now)
11	10/26/2018	Ch. 24 The nervous system and the senses	Lab Exp. 31 Senses – Cow eye Dissection
12	11/2/2018	Field trip	San Diego Zoo.
13	11/9/2018	Ch. 21 Plant form and function Ch. 13 Evidence of Evolution	Lab Exp. 18- Seed plants
14	11/16/2018	Ch. 10 Patterns of Inheritance	Lab Exp. 10- Mendelian Genetics Test 3 (Ch. 28,24,21,13 + Exp. 31, 18
15	11/23/2018	Holiday	

16	11/30/2018	**Ch. 7- DNA Structure- Gene function** **Ch. 19 Communities and Ecosystems-p 378**	**Lab Exp. 11 Human genetics** **Lab Exp. 34- Ecosystem**
17	12/7/2018	**Final Exam includes, chapters since midterm;** **(Ch. 28,24,21,13,10,7, 19)**	**Lab section of the exam includes the lab Experiments Since midterm.**

THINGS YOU MUST DO: 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.