Basic Course Information

Semester:	**Fall 2017**	Instructor Name:	**Dr. Steven Crum**
Course Title & #:	**Principles of Biological Sciences - Biol 100**	Email:	**steven.crum@imperial.edu**
CRN #:	**11232**	Webpage (optional):	**NA**
Classroom:	**2717**	Office #:	**2789.1**
Class Dates:	**August 14 to December 6**	Office Hours:	**MTWR 11:10 am to 12:10 pm or by appointment**
Class Days:	**Monday and Wednesday**	Office Phone #:	**760-355-6438**
Class Times:	2:00 to 5:10 pm	Emergency Contact:	**steven.crum@imperial.edu**
Units:	4		

Course Description

A comprehensive one semester general biology course for non-majors. Includes life from the molecular to the organismic level of both plants and animals and their interactions within the environment. Special emphasis is put on human biology within appropriate areas of study. Appropriate for general education as well as nursing, pre-professional, and higher level biology courses. Includes laboratory component. (CSU, UC)

Course Prerequisite(s) and/or Corequisite(s): Math 90 or 91

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. respond to critical thinking applications of biological scenarios. (ILO2)
2. attend and arrive on time for class and lab meetings. (ILO3)
3. communicate ideas in biology clearly. (ILO1)
4. perform lab activities properly and correctly analyze lab data. (ILO1, ILO2)

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 subcellular components of 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

- *Biology*, Biol 100 Imperial Valley College IBSN: 9781308485652
- *Lab Manual*, Biol 100 Imperial Valley College ISBN: 9781308487557

Course Requirements and Instructional Methods

Students will learn to use a microscope to identify various organisms and their parts. They will be able to describe various cellular processes such as photosynthesis, aerobic cellular respiration, enzymatic reactions, mitosis, and meiosis. Students will acquire a general knowledge of genetics and how genetic information is passed to offspring. Students will learn about the origin of life on Earth and how organisms underwent adaptation and evolution to give rise to life as we know it today. Students will learn the functions of the major systems of the human body, and some ways that these systems work cooperatively to maintain critical life functions.

Exams: The course will include four non-cumulative lecture exams, one non-cumulative lab exam, one cumulative lecture final, and one cumulative lab final.

In-class assignments and mini-quizzes: All lecture sections include in-class assignments and or mini-quizzes. While you will not be graded on attendance, you will be graded on these in-class activities. These activities provide you with low-stakes opportunities to assess your knowledge and study skills in the course.

Labs assignment: There will be 14 labs throughout the quarter. At the end of each class you are responsible for turning in a completed lab worksheet worth eight points each.

Lab mini-quizzes: At the beginning of each lab there will be two question quizzes that are 2 points each. One question will cover material from the previous week's lab and the other will cover the lab introduction of the current week's lab. There will be no lab mini-quiz for the first week lab. The mini-quiz grade will be added to your lab assignment grade (8 points for lab assignment + 2 points for mini-quiz = 10 points total)

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

The last day to drop the course is 11/4

Course Grading Based on Course Objectives

Lecture Exams	4 x 25 points	100 points
Lecture Final	1 x 50 points	50 points
Lab Exam	1 x 15 points	15 points
Lab Final	1 x 25 points	25 points
In-class assignments/mini-quizzes	14 x 2 points	28 points
Labs	14 x 10 points	140 points
Total:		**358 points**

Grades are assigned using the following percentage cutoffs:

A ≥ 90%; B ≥ 80%; C ≥ 70%; D ≥ 60%; F < 60%

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 absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at 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.
- 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 by the instructor.
- 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.

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting 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 "cite a source" correctly, 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 that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing 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 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) using a commercial term paper service.

Additional Student Services

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **CANVAS Learning Management System.** Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas follow the "Canvas" link under the "Home" menu on Imperial.edu. A 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your Campus Map for the Math Lab; Reading, Writing & Language Labs; and the Study Skills Center.
- **Library Services**. There is more to our library than just books. You have access to tutors in the Study Skills 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. Please contact them 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.

- **Student Health Center**. A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC Student Health Center at 760-355-6128 in Room 1536 for more information.
- **Mental Health Counseling Services**. Short-term individual, couples, family, and group therapy are provided to currently enrolled students. Contact the IVC Mental Health Counseling Services at 760-355-6196 in Room 2109 for more information.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC General Catalog.

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC Library Department provides numerous Information Literacy Tutorials to assist students in this endeavor.

Anticipated Class Schedule/Calendar

Week	Lecture date	Lecture topic	Readings	Laboratory date	Laboratory topic
1	8/14	Intro to Biology	Ch. 1	8/16	Lab Intro and Safety (Lab 1)
2	8/21	Chemistry of Life	Ch. 2	8/23	Chemical Composition of Cells (Lab 3)
3	8/28	Cell Structure and Function	Ch. 3, 4	8/30	Metric and Microscopy (Lab 2)
4	9/4	**Holiday no Lecture**		9/6	Cell Structure and Function (Lab 4)
5	9/11	**Exam I** and Cell Energy and Enzymes and Photosynthesis	Ch. 4, 5	9/13	Photosynthesis (Lab 6)
6	9/18	Photosynthesis and Cellular Respiration Continued	Ch. 5, 6	9/20	Enzymes (Lab 5)
7	9/25	DNA Structure and Technology	Ch. 7, 8, 11	9/27	Cellular Respiration (Lab 7)
8	10/2	**Exam II** Mitosis and Meiosis	Ch. 8, 9	10/4	DNA Biology and Technology (Lab 12)
9	10/9	Animal Anatomy and Physiology	Ch. 23	10/11	Fetal Pig Dissection (Lab 27-29)
10	10/16	Genetics	Ch. 10	10/18	Fetal Pig Dissection Continued and **Lab Exam**
11	10/23	**Exam III** and Animal Behavior	Ch. 24	10/25	Senses (Lab 31)
12	10/30	Plant Evolution and Diversity	Ch. 12, 13,14, 16, 21, 22	11/1	Seed Plants (Lab 18)
13	11/6	Animal Evolution and Diversity	Ch. 12, 13,14, 17	11/8	Human Genetics: ABO Blood Typing (Lab 10, 11)
14	11/13	**Exam IV** and Population and Community Ecology	Ch. 18, 19	11/15	Ecosystems (Lab 34)
		Thanksgiving Break 11/20-25			
15	11/27	Ecosystem and Conservation Ecology	Ch. 19, 20	11/29	**Lab Final Exam**
16	12/4	**Lecture Final Exam**		12/6	

*****Tentative, subject to change without prior notice*****