

Basic Course Information

Semester	Fall 2014	Instructor Name	Dr. Andrew Chien
Course Title & #	Principles of Biological Sciences- Biology 100	Email	andrew.chien@imperial.edu
CRN #	10311	Webpage (optional)	
Room	2713	Office	2778
Class Dates	8/18/14-12/11/14	Office Hours	Monday:4:40-5:40pm Tuesday:8:05-8:35am,4:40-5:10pm Wednesday:4:40-5:40pm Thursday:11:45-12;45am
Class Days	Monday,Wednesday	Office Phone #	(760)355-5755.
Class Times	1:30-4:40pm	Office contact if student will be out or emergency	Silvia Murray 760-355-6201 Ofelia Duarte 760-355-6155
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 and UC credit limited. See a counselor).

Student Learning Outcomes

Upon course completion, with a 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 will be able to:

1. Identify the basic characteristics of all living things.
2. Name the 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 relation to the entire organism.
6. Demonstrate knowledge of the structure and function of DNA and RNA.
7. Explain protein synthesis and cite 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 interrelation 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....

1. **Hoefnagels, M. (2013). Biology: The Essentials (1st e) New York, NY McGraw-Hill. ISBN:0077701615**
2. **Mader, Sylvia S. (2013).Laboratory Manuel to accompany Biology 11 th edition. Custom Edition.New York, NY McGraw-Hill. ISBN:0077701631**

Course Requirements and Instructional Methods

There will be 7 labs not counting the pig dissections. Lab work to be turned in one week after completion. In labs students will learn chemical compositions of life, the metric systems and use of microscopes, cell organelles, plant photosynthesis, cellular respiration, sense organs, and human genetics Three 25 points quiz's covering the labs will be given. Two highest scored will count for 50 points. Students will learn dissection techniques and gross anatomy of a mammal using a fetal pig., A lab practical (50 points) will test knowledge of mammalian anatomy based upon the pig. Three 100 points exams will be given with each covering two lecture chapters. Top 2 will count for 200 points. All students have to write a research paper with topics to be determined between each student and the professor. The paper must be at least 10 pages of text and at least 3 sources cited. The paper is worth 100 points and must be turned in hard copy form one week before finals. This semester research paper must be in my hands by 5 pm December 4. Final exam is comprehensive and worth 100 points. **There will be no make up quizzes or exams.** The pigs will be disposed after the lab practical and therefore absolutely no make up for the pig test.

Course Grading Based on Course Objectives

2 hour exams-----	200 points
2 quiz's -----	50
6 lab works -----	60
1 lab practical exam (pig test) ----	50
1 research paper -----	100
1 final exam -----	100
 Total points	<hr/> 560 points

Grading – no curves.	504-560	A
	448-503	B
	392-447	C
	336-391	D
	0- 335	F

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.
- Students are not allowed to pick up their belongings and leave the class without permission from the professor. Permission to leave early must be requested and approved before class begins or real time request and approval from the instructor. Leaving early without approval is the most disruptive actions in class and will be dealt with severely..
- Last day to drop with “W” is Nov 8, 2014.

Classroom Etiquette

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor. Having these devices during exam times could result in forfeiting the exam.
- 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.
- No talking during class!. First instances will result in me moving the talkers to other seats. Further non-compliances will be dealt with more severely.
- Keep Lab Work Area Clean.!!! No body parts in the sink!. After labs you cannot leave until after I have inspected your area and released you..

Academic Honesty

- 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 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) using a commercial term paper service.

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

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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.

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 helping 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

Tentative Class Schedule; Subject to modification.

Date or Week	Lectures (Tuesday)	Laboratory (Thursday)
Week 1 August 18,20	Chap 1. Intro. To Life on Earth	Open-lecture
Week 2 August 25,27.	Chap 2. Atoms, Molecules of Life	Lab 3. Chemical Compositions of Life
Week 3 September 3	Chap 2. Continue	Lab 2. Metric & Microscopy. 2-1,2-2,2-3
Week 4 Sep 8,10	Chap 27. Circulation	Lab 4. Cell structures & Functions. 4.3
Week 5. Sept. 15,17	Chap. 27. continue	Lab 6. Photosynthesis 6.2, 6.3
Week 6 Sep. 22,24	Chap. 25. Nutrition & Digestion	Open-lecture
Week 7 Sep 29,Oct 1	Chap 25 continue	Lab 7. Cellular respiration
Week 8 Oct 6,8	Chap. 35. Animal Reproduction	Lab 26,27. Pig Dissection
Week 9. Oct 13,15	Chap 35. continue	Lab 26,27 Pig Dissection
Week 10 Oct 20,22	Chap 33. Nervous System & Senses	Lab Practical Pig Exam

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Week 11 Oct 27,29	Chap 33. Continue	Lab 30. Senses
Week 12 Nov 3,5	Chap 12. Patterns of Inheritance	Chap 12. Lecture
Week 13. Nov 10,12	Chap 14. Principals of Evolution	Lab 10. Human Genetics
Week 14. Nov 17,19	Chap 14. continue	Chap 14. Lecture
Week 15. Dec 1,3	Chap 15. How Organisms Evolve	Review. Presentations
Week 16. Dec 8,10	Review	Final Exam