## **Basic Course Information**

|                   | Spring 2016                    | Instructor Name:   | Dr. Andrew Chien   |
|-------------------|--------------------------------|--------------------|--|
|                   | <b>Biol 100: Principles of</b> |                    |  |
| Course Title & #: | <b>Biological Science</b>      | Email:             | Andrew.chien@imperial.edu  |
|                   |                                | Webpage            |  |
| CRN #:            | 20027                          | (optional):        |  |
| Classroom:        | 2713                           | Office #:          | 2761   |
|                   |                                |                    | Monday:1-2pm;Tuesday<br>1110-1210 pm; Wednesday<br>1-2pm –Thursday: 11:10- |
| Class Dates:      | Feb 16 2016-June 10-2016       | Office Hours:      | 12:10pm  |
| Class Days:       | Tues Lecture,Thur Lab          | Office Phone #:    | 760-355-5755   |
| Class Times:      | 8-11:10 am                     | Emergency Contact: | Ofelia Duarte, SME<br>Secretary760-355-6155                                |
| Units:            | 4                              |                    |  |

## **Course Description**

A comprehensive one semester general biology course for non-majors. Include life from the molecules to 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.

#### **Student Learning Outcomes**

Upon completion, 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 process of natural selection influence evolution (ILO1, ILO2)
- 4. Perform lab activities properly, and correctly analyze lab data (ILO1, ILO2)
- 1. studentThe student will identify the basic characteristics of all living things
- 2. The student will name the basic chemical aspects that pertain to life and the concept of hemostasis
- 3. The student will describe the components of the cell including their structure and function
- 4. The student will explain the light and dark reactions of photosynthesis
- 5. The student will explain cellular respiration and its relations to the entire organism
- 6. The student will demonstrate knowledge of the structure and function of DNA and RNA
- 7. The student will explain protein synthesis and the central dogma of cell biology
- 8. The student will compare and contrast the fundamentals of asexual and sexual reproduction

- 9. The student will define ecology and the overall impact of ecology to conditions in the environment
- 10. The student will solve problems in general genetics and in human genetics and relate advances in genetics to social responsibility of geneticists
- 11. The student will identify and relate the functions of the major systems of the human body, the interrelationship among body systems and nature of disease.

#### **Textbooks & Other Resources or Links**

- 1. Textbook: Biology, the Essentials. By Marielle Hoefnagels. McGraw Hill. ISBN 007701615
- 2. Lab Manuel: Principles of Biological Science. Laboratory Manuel. Sylvia Mader.McGraw Hill ISBN 0077701631

### **Course Requirements and Instructional Methods**

This class includes both lectures and laboratory portions. In order to pass this class, students must participate in both portions of the class, including regular attendance and performing experiments.

<u>Out of Class Assignments</u>: 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 <u>and</u> two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

## **Course Grading Based on Course Objectives**

- 1. Three hour examinations plus a comprehensive final. Top two scores plus final exam for 300 points. These cover lecture materials. NO MAKE UP EXAM
- 2. Four quizzes (25 points each) covering lab materials. Top three scores for 75 points. NO MAKE UP QUIZZ
- 3. Six lab work (10 points each) to turn in the following week. 60 points total
- 4. A lab practical covering the fetal pig. Identification of the external and internal organs. 50 points.**NO MAKE UP**!!!!!!!!!
- 5. A extensive research paper (ten pages of text) of a subject with my approval. 100 points. Due June 2 **2016.** Late papers not accepted.

I do not grade on any curve. Your total points determine the letter grade. Total available points 585. 90% and above equals an A. 80-89% equals a B. 70-79% equals a C. 60-69% equals a D. 59% or lower is a F.

An incomplete grade will be assigned only after a written request by the student stating why the student cannot complete the course. The student must communicate with the professor to make arrangement to make up the deficiency.

#### 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. Any unexcused absences during the first two weeks of school will also be dropped from the 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 <u>General Catalog</u> 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.
- After the class commences the student are **not allowed to leave the class** for the day without prior permissions from me. This does not include normal bathroom breaks. If an emergency arises the student should approach me to get permission to leave. Unexcused walking out of the classroom will count as an absence .

## **Classroom Etiquette**

- <u>Electronic Devices</u>: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- <u>Food and Drink</u> 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.
- <u>Disruptive Students</u>: 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 <u>General Catalog</u>.
- <u>Children in the classroom</u>: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

# **Online Netiquette**

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

# Academic Honesty

## NO CHEATING ALLOWED

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.

- <u>Plagiarism</u> 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.
- <u>Cheating</u> 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 <u>General Catalog</u> 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.

- <u>Blackboard Support Site</u>. The Blackboard Support Site provides a variety of support channels available to students 24 hours per day.
- <u>Learning Services</u>. There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your <u>Campus Map</u> for the <u>Math Lab</u>; <u>Reading, Writing & Language Labs</u>; and the <u>Study Skills Center</u>.
- <u>Library Services</u>. There is more to our library than just books. You have access to tutors in the <u>Study Skills Center</u>, 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 <u>Disabled Student Programs and Services</u> (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.

• <u>Student Health Center</u>. A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District and El Centro Regional Center provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC <u>Student Health Center</u> at 760-355-6310 in Room 2109 for more information.

• <u>Mental Health Counseling Services</u>. Short-term individual, couples, family, and group therapy are provided to currently enrolled students. Contact the IVC <u>Mental Health Counseling Services</u> 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 <u>General Catalog</u>.

### **Information Literacy**

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

## Anticipated Class Schedule/Calendar

|   | ***Tentative, subject to ch |                                |         |  |  |  |  |
|---|-----------------------------|--------------------------------|---------|--|--|--|--|
| W | DATE                        | LECTURE (MONDAY / TUESDAY)     | DATE    | LABORATORY (WEDNESDAY / THURSDAY)            |  |  |  |
| К |                             |                                |         |  |  |  |  |
| 1 | Feb 16                      | CHAP 1. Intro to Life on Earth | Feb     | Open - lecture                               |  |  |  |
|   |                             |                                | 17/18   |  |  |  |  |
|   |                             |                                |         |  |  |  |  |
| 2 | Feb                         | CHAP 2. Atoms, Molecules of    | Feb     | Lab 3. Chemical Compositions of Life         |  |  |  |
|   | 22/23-                      | Life                           | 24/25   | 3.1,2,3,4,5                                  |  |  |  |
|   |                             |                                |         |  |  |  |  |
| 3 | Feb                         | CHAP. 2 continue               | Mar 2/3 | Lab 2. Metric & Microscopy – 2.1,3,4,5,      |  |  |  |
|   | 29/Ma                       |                                |         |  |  |  |  |
|   | 1                           |                                |         |  |  |  |  |
|   |                             |                                |         |  |  |  |  |
| 4 | Mar                         | CHAP 27. Circulation           | Mar     | Lab 4. Cell Structures & Functions – 4.3,5   |  |  |  |
|   | 7/8                         | (Sep 7, LABOR DAY)             | 9/10    |  |  |  |  |
| _ |                             |                                | Martel  |  |  |  |  |
| 5 | Mar                         | Chap. 27. continue             | Mar16/  | Lab 6. Photosynthesis.6.2 Elodea, Lamp       |  |  |  |
|   | 14/15                       |                                | 17      |  |  |  |  |
| 6 | Mar                         | CUAD 25 Nutrition & Dispetion  | Mar     | On an la sture                               |  |  |  |
| 6 | Mar                         | CHAP 25. Nutrition & Digestion | Mar     | Open - lecture                               |  |  |  |
|   | 21/22                       |                                | 23/24   |  |  |  |  |
| 7 | APR                         | CHAP 25 continue               | APR 6/7 | Lab 7. Cellular Respiration - Lap tops , DVD |  |  |  |
| / | 4/5                         | CHAP 23 continue               | APR 0/7 | #29  |  |  |  |
|   | 4/ 5                        |                                | l       |  |  |  |  |
| 8 | 11/12                       | CHAP 35. Animal Reproduction   | APR     | Lab 27,29. Pig Dissection                    |  |  |  |
| 0 | 11/12                       |                                | 13/14   |  |  |  |  |
|   |                             |                                | 13/14   |  |  |  |  |
|   |                             |                                |         |  |  |  |  |

| Imperial Valley College Course Syllabus – Click here to enter text. |
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| APR   | Chap 35. continue   | APR  | Lab 27,29   |
|-------|---|--|---|
| 18/19 |   | 20/21  |   |
|       |   |  |   |
| APR   | Chap. 33. Nervous System &  | APR  | Lab practical exam  |
| 25/26 | Senses  | 27/28  | ATTENTION: NO MAKE UP !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!   |
|       |   |  |   |
| MAY   | Chap 33. continue   | MAY  | Lab 31. Senses  |
| 2/3   |   | 4/5  |   |
|       |   |  |   |
| May   | CHAP 12. Patterns of Inheritance  | May  | Chap 12. Continue - lecture   |
| 9/10  |   | 11,12  | -   |
| ·     |   |  |   |
|       |   |  |   |
| May   | CHAP 14. Principals of Evolution  | May  | Lab 11. Human Genetics – ABO Blood  |
| 16/17 |   | 18/19  | Typing  |
|       |   |  |   |
| May   | Chap 14. continue   | May  | Lecture   |
| 23/24 |   | 25/26  |   |
|       |   |  |   |
| May   | Chap 15. How Organisms Evolve   | June   | Review – lecture  |
| 30/31 |   | 1/2  | LAST DAY TO TURN IN RESEARCH PAPER  |
| •     |   | -  |   |
|       |   |  |   |
| June  | Review  | June   | FINAL EXAMS   |
| 6/7   |   | 8/9  |   |
|       | APR<br>25/26<br>MAY<br>2/3<br>May<br>9/10<br>May<br>16/17<br>May<br>23/24<br>May<br>30/31 | 18/19.18/19.APR<br>25/26Chap. 33. Nervous System &<br>Senses25/26SensesMAY<br>2/3Chap 33. continue<br>2/3MAY<br>2/3Chap 13. continue<br>Amay<br>9/10May<br>9/10CHAP 12. Patterns of Inheritance<br>Patterns of Evolution<br>16/17May<br>16/17CHAP 14. Principals of Evolution<br>16/17May<br>23/24Chap 14. continue<br>Amay<br>23/24May<br>30/31Chap 15. How Organisms Evolve<br>Amay<br>30/31JuneReview | 18/19 20/21   APR Chap. 33. Nervous System & APR   25/26 Senses 27/28   Senses 27/28   MAY Chap 33. continue MAY   2/3 Chap 33. continue MAY   2/3 Chap 33. continue MAY   2/3 Chap 12. Patterns of Inheritance May   9/10 CHAP 12. Patterns of Evolution May   16/17 May May   16/17 Chap 14. Principals of Evolution May   18/19 May May   23/24 Chap 14. continue May   May Chap 15. How Organisms Evolve June   30/31 Review June |

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