

**Basic Course Information**

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|---------------------------------|--|---------------------|--|
| Semester:                       | Spring 2017  | Instructor Name:    | Dr. Michael Kanyi  |
| Course No. & Title              | AG/ENSC 110 Environmental Science  | Email:              | michael.kanyi@imperial.edu   |
| CRN #:                          | 20001,20002, 20009 & 20010   | Webpage (optional): |  |
| Classroom:                      | <b>a)</b> 2727 (CRN 20009 & 20010)<br><b>b)</b> 2731 (CRN 20001 & 20002) | Office #:           | 3114   |
| Semester Dates:                 | 02/13/2017 - 6/9/2017  | Office Hours:       | TR 12:50 PM – 1:50 PM<br>MW 4:30 PM – 5:30 PM                                |
| <b>a)</b> Class Days and Time:  | Tuesday 6:30PM – 9:40 PM<br>(CRN 20009 & 20010)                          | Office Phone #:     | 760-355-5717   |
| <b>b)</b> Class Days and Times: | Tuesday & Thursday 2:00 PM – 3:25 PM<br>(CRN 20001 & 20002)              | Emergency Contact:  | Frances Arce-Gomez<br>Industrial Technology Staff<br>Secretary 760 -355-6361 |
| Units:                          | 3  |                     |  |

**Course Description**

This course is designed to provide students with an overview and understanding of the relationships between human populations and the natural environment. The class will focus on basic concepts of science and ecosystem theory, human impacts on the biosphere, air, water, land, and environmental problems faced by the Imperial Valley that have regional and global consequences, and some of the proposed solutions. Field trips and activities may be included in this course. (Same as ENVS 110) (CSU, UC)

**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. Identify important issues in environmental science at the local, state, national or international level (such as air and water quality, species diversity, soil and land use etc) including the various causes, possible long term repercussions and possible solutions. (ILO1, ILO2, ILO3 & ILO4)
2. Identify traditional and alternative energy sources including advantages & disadvantages of each. (ILO2 & ILO4)
3. Discuss the growing human population and the related demand for resources (water, power, soil, hunger, etc.) and the impact that it places on agriculture. (ILO1, ILO2, ILO4 & ILO5)

**Course Objectives**

Upon satisfactory completion of the course, students will be able to:

1. describe the role of science, the use of the scientific method, the importance of stewardship, and the concept of sustainability in the environmental field. The student will also identify local and global environmental challenges.

2. recognize and describe the science, structure, function, dynamics, adaptations of and major threats to local and global ecosystems.
3. describe the environmental impacts of human population growth and material consumption nationally and internationally. The student will also identify some of the solutions that can address the population and consumption challenges.
4. describe the importance of protecting wildlife and habitats and conserving biodiversity. The student will identify endangered species found at the Salton Sea and local deserts and describe efforts to protect them. The student will also describe the characteristics of distinct local habitats (the Salton Sea and the deserts) and the efforts to effectively manage and conserve them.
5. describe the hydrological cycle and identify ways that humans negatively impact the cycle. The student will describe the quality of fresh water globally and identify major sources of water pollution. The student will apply these principles to local water bodies such as the New and Alamo Rivers and the Salton Sea. The student will also describe the political aspects of water allocations of the Colorado River and its impact on the Imperial Valley.
6. describe the state and federal laws and regulatory agencies that govern environmental concerns of air, water, land, human health, and chemical hazards. The student will also describe the use of cost-benefit analysis in the development of environmental policies.
7. identify common human health effects of environmental exposures. The student will recognize the steps involved in risk analysis, how risk perception affects individual and group decision making, and strategies for managing risks.
8. describe agricultural practices in the Imperial Valley with regard to the following concepts: soil characteristics; use of irrigation; the benefits and drawbacks of fertilizer use and pest control; the environmental impacts in air, soil, and water; and the economic impact regionally and nationally.
9. identify the major sources of air pollution locally and nationally. The student will recognize the benefits and environmental impacts of fossil fuels and describe alternatives to its use such as the development of solar, wind, and geothermal energy and the development of public transportation systems and alternative fuels for vehicles.
10. describe how materials are managed to minimize or eliminate environmental impacts. The student will identify the federal regulations governing the clean-up and handling of chemical and hazardous materials. The student will also describe the process of managing solid waste from source reduction to recycling.
11. identify solutions to local and global environmental problems. The student will also describe how politics, citizen involvement, and personal commitment can shape these solutions.

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

Myers, N. & Spoolman, S. E. (2014). Environmental Issues & Solutions A Modular Approach. CA: Cengage ISBN-13: 978-0-538-73560-5

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

Learning activities for this class will include, but not limited to, instructor's guided discussions, lectures, individual and group presentations, excursions, assignments and tests. Students participation in class learning activities is highly encouraged. As part of critical approach to problem solving, students will research and make presentations on emerging issues in our ever-changing environment.

### Course Grading Based on Course Objectives

Students are encouraged to acquaint themselves with the rules and regulations of Standards of Student Conduct outlined in the Imperial Valley College General Catalog. For writing assignments, it is expected that each student will demonstrate proficiency in the use of the English Language. Grammatical errors and writing that do not express ideas clearly will affect your grade.

#### ***Research Papers***

There will be research paper write-ups about an environmental issue of your choice. Specific details about this papers, including due dates will be announced in class. ***Class attendance and participation in academic and constructive discussions are highly encouraged.***

#### ***Group Work and Presentation***

The will be one group presentation (2-4 members in a group). Class time will be set for this task but students will might need some extra time outside the set class time to complete their work. Further instructions will be communicated in class. Again, ***class attendance and participation in academic and constructive discussions are highly encouraged.***

#### ***Exams***

Exams may include true/false, short answer, multiple choice, and short essay questions. Weighting for different assessments is provided below. All students are advised to adhere to the dates and times for the tests and presentations which will be communicated in class.

#### ***Distribution of grading points***

- Attendance and participation 100 points
- Presentations: group & individual work 100 points
- Two tests (@50 points) 100 points
- Final Exam 100 points

#### ***Grading***

Final score will be calculated out of a possible 400 points (100%). Final grade will be as follows:

- A= 100-90%
- B = 89-80%
- C = 79-70%
- D = 69-60%
- F =<59%

### 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](#).
- Children in the classroom: 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

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 Support Site.** The Canvas support site will be used along classroom work. Blackboard will not be used in this course.
- **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

| Topic Schedule | Chapter Topics<br><i>This schedule will be amended to include tests, assignments and due dates</i> |
|----------------|--|
| 1.             | Introduction and overview of the course syllabus   |
| 2.             | Environmental science and sustainability   |
| 3.             | Population growth and urbanization   |
| 4.             | Food resources   |
| 5.             | Energy efficiency; renewable energy, nonrenewable energy   |
| 6.             | Mineral resources  |
| 7.             | Natural selection, succession, evolution, and extinction   |
| 8.             | Land degradation   |
| 9.             | Water resources and water pollution  |
| 10.            | Air pollution  |
| 11.            | Climate change   |
| 12.            | Wastes and environmental health hazards  |

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