

<b>Basic Course Information</b>			
Semester:	Fall 2019	Instructor Name:	Dr. Michael Kanyi
Course No. & Title	AG/ENVS 110 Environmental Science	Email:	michael.kanyi@imperial.edu
CRN #:	10007 & 10008	Webpage (optional):	
Classroom:	2731	Office #:	3114/2731
Semester Dates:	August 19, 2019 – Dec 14, 2019	Office Hours:	MW 12:45pm - 1:45pm TR 10:15am - 11:15am
Class Days	Tuesday & Thursday	Office Phone #:	760-355-5717
Class Times:	TR 4:20pm – 5:45 pm	Emergency Contact:	Tisha Nelson Economic & Workforce Development (760) 355-6361/ (760) 355-6161
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*. Belmont: Cengage. ISBN-13: 978-0-538-73560-5
- Withgott, Jay H., Laposata, Matthew (2019). *Environment: The Science Behind the Stories* (7th ed). Pearson. ISBN: 978-0134145

#### 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, quizzes, and tests. As part of critical approach to problem solving, students will research and make presentations on emerging issues in our ever-changing environment. **Participation in classroom discussions is highly encouraged and will have an impact on the final grade.** Critical thinking approach to solving agricultural economic issues at the regional, state, national and global level will be emphasized.

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.

### Course Grading Based on Course Objectives

Students are advised to acquaint themselves with all 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.

#### *Random Quizzes*

There will be several random quizzes that will be administered during certain lessons. These quizzes will be in any format convenient with the subject matter of the lesson. The quizzes will be worth 5 points and will involve tasks such as definitions, explanation, description, presentations, among others.

#### *Individual Research Paper and Presentation*

There will be one research paper (100 points). Specific details about this paper, including due date will be announced in class.

#### *Tests*

There will be two mid-term tests and a comprehensive final test. Tests may include true/false, short answer, multiple choice, and short essay questions. All students are advised to strictly adhere to the dates and times for the tests which will be communicated. There will be no make-up tests.

#### *Distribution of grading points*

- Research Paper and Presentation 100 points
- Quizzes and participation 50 points
- Mid-term tests (2) 200 points
- Final Exam 100 points

Final score will be calculated out of a possible 450 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 absence 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 LMS.** Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas, use this link: [Canvas Student Login](#). The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. Additionally, 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 using 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 counseling services are available for currently enrolled students. Services are provided in a confidential, supportive, and culturally sensitive environment. Please contact the IVC Mental Health Counseling Services at 760-355-6310 or in the building 1536 for appointments or more information.

### **Veteran's Center**

The mission of the [IVC Military and Veteran Success Center](#) is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. The Center is located in Building 600 (Office 624), telephone 760-355-6141.

### **Extended Opportunity Program and Services (EOPS)**

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population.

Also, under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, [lourdes.mercado@imperial.edu](mailto:lourdes.mercado@imperial.edu).

EOPS provides additional support and services that may identify with one of the following experiences:

- Current and former foster youth students that were in the foster care system at any point in their lives
- Students experiencing homelessness
- Formerly incarcerated students

To apply for EOPS and for additional information on EOPS services, please contact Alexis Ayala, 760-355-5713, [alexis.ayala@imperial.edu](mailto:alexis.ayala@imperial.edu).

### **Student Equity Program**

- The Student Equity Program strives to improve Imperial Valley College's success outcomes, particularly for students who have been historically underrepresented and underserved. The college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students' access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.
- The Student Equity Program also houses IVC's Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.

### **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**

<b>Book Modules</b>	<b>Module Topics</b>	<b>Reference book pages</b>
1	Introduction to Environmental science and sustainability	1 - 30
2	Population growth	31 - 54
3	Urbanization	55 - 83
4	Food resources	83 - 114
<b>Test 1</b>	<b>Test 1</b>	<b>Test 1</b>
5 & 6	Energy efficiency; renewable energy, nonrenewable energy	115 - 174
7	Mineral resources	175 - 200
8	Natural selection, succession, evolution, and extinction	201 - 224
9	Land degradation	225 – 260
10 & 11	Water resources and water pollution	261 - 318
12	Air pollution	319 - 348
<b>Test 2</b>	<b>Test 2</b>	<b>Test 2</b>
13	Climate change	349 - 380
14 & 15	Wastes and environmental health hazards	381 - 439
<b>Final Test</b>	<b>Compressive Final Test</b>	<b>Final Test</b>

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

*\*\* This schedule will be reviewed in class to include dates for the tests, assignments, and due dates. Amendments will be communicated in class and/or in canvas.*