

Basic Course Information

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| Semester: | Spring 2022 online | Instructor Name: | Dr. Michael Kanyi |
| Course No. & Title | AG/ENVS 110 Environmental Science | Email: | michael.kanyi@imperial.edu |
| CRN #: | 20006/20007 | Webpage (optional): | |
| Classroom: | | Office | 3114 |
| Semester Dates: | Feb. 14, 2022 – June 10, 2022 | Office hours: Virtual; email, pronto, text canvas, zoom | MTWR 1:00a.m. - 2:00pm. |
| Class Days: | Online | Office Phone #: | (760)355-5717 |
| Class Times: | Online | Emergency Contact: | Tisha Nelson Economic & Workforce Development (760) 355- 6361/ (760) 355-6161 |
| Units: | 3 | Class Format | Asynchronous |

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, UofA)

Course Prerequisite(s) --

None

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. 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

Measurable course objectives and minimum standards for grade of "C."

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

Reference Textbook

Miller; G. T. & Spoolman, S. E. (2019) *Environmental Science* (16th ed.) Cengage ISBN-13: 978-1-337-56961-3

The following textbooks are also valuable references

Withgott, Jay H., Laposata, Matthew (2019). *Environment: The Science behind the Stories* (7th ed). Pearson. ISBN: 978-0134145

Myers, N. & Spoolman, S. E. (2014). *Environmental Issues & Solutions: a modular approach*. Belmont: Cengage. ISBN-13: 978-0-538-73560-5

Note: This course will use various open/online educational resources (OERs).

Course Requirements and Instructional Methods

Learning activities for this class will include, but not limited to, instructor's guided discussions in canvas, lecture notes posted in canvas, instructional YouTube videos, simulated virtual experiments/activities, outside/field practical experience, assignments, quizzes, and tests. **Effective participation in all course activities (discussion in canvas) is highly encouraged and will impact 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 (mainly f2f): 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. This is an online course, and the mode of instruction is asynchronous. You are therefore advised to dedicate ample time for the daily instructional activities and assignments.

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.

Tests

There will be a **weekly module quizzes/test** and a **final comprehensive test that will cover all the modules**. Test questions may include true/false, multiple choice, matching, and short answer questions. All students are advised to strictly adhere to the dates and times for the tests which will be communicated. Late submission of assignments must be communicated to the professor before the due date to avoid loss of points. **There will be no make-up tests.**

Distribution of grading points

- Discussion 15%
- Research paper & Assignments 15%
- Quizzes and mid-term 30%
- Comprehensive Final Test 40%

Final grade will be calculated out of the possible total of

100%. Grading Legend

- 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 this class will be dropped by the instructor as of the first official meeting. 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.

What does it mean to "attend" an online class?

Attendance is critical to student success and for IVC to use federal aid funds. Acceptable indications of attendance are:

- Student submission of an academic assignment
- Student submission of an exam
- Student participation in an instructor-led Zoom conference
- Documented student interaction with class postings, such as an interactive tutorial or computer-assisted instruction via modules
- A posting by the student showing the student's participation in an assignment created by the instructor.
- A posting by the student in a discussion forum showing the student's participation in an online discussion about academic matters.
- An email from the student or other documentation showing that the student has initiated contact with a faculty member to ask a question about an academic subject studied in the course.

Logging onto Canvas alone is NOT adequate to demonstrate academic attendance by the student.

Classroom Etiquette (in f2f and/or online classes)

- **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; children are not allowed.

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.

Taking and using the words, work, or ideas of others and ⁴presenting any of these as your own work

isplagiarism. This applies to all work generated by another, whether it be oral, written, or artistic work. Plagiarism may either be deliberate or unintentional.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. CANVAS LMS. Canvas is Imperial Valley College's 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.

[For help, resources, services, and an explanation of policies, click this link](#) or click the heart icon in Canvas.

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.

| Tentative Anticipated Class Schedule | | |
|--|--|-----------------------|
| Module | Topics, activities | Week/ Date |
| Orientation Module | Orientation Module | 2/14 |
| Module 1 -Chapter 1 | Introduction to Environmental Science <ul style="list-style-type: none"> • Global and Local Challenges • Sustainability and Stewardship | 2/14 |
| Module 2 -Chapter 2 | Scientific Method, Matter, Energy, and Systems | 2/21 |
| Module 3 -Chapter 3 | Ecosystems <ul style="list-style-type: none"> • Biogeochemical Cycles | 2/28 |
| Module 4 -Chapter 4 | Biodiversity and Evolution | 3/7 |
| Module 5 -Chapter 5 | Species Interactions, Adaptation, Ecological Succession, Population Control, Natural Selection, and Population Equilibrium | 3/14 |
| Module 6 -Chapter 6 | Human Population and Urbanization <ul style="list-style-type: none"> • Trends, data • Challenges | 3/21 |
| Module 7 -Chapters 7,8, & 9 | Climate and Biodiversity Conservation, Sustaining Biodiversity <ul style="list-style-type: none"> • Saving Species and Ecosystems • Desertification | 3/28 |
| Module 8 -Chapter 10 | Food Production (agriculture) and the Environment | 4/4 |
| Module 9 -Chapter 11 | Water Resources (Natural Resources) and Water Pollution <ul style="list-style-type: none"> • Fresh water sources -Colorado, Alamo • Ogallala Aquifer • Salton Sea • Water Politics | 4/11 |
| Spring Break | Spring Break | 4/18 |
| Module 10 -Chapter 12 | Geology and Nonrenewable Mineral Resources (Natural Resources) | 4/25 |
| Module 11 -Chapter 13 | Energy Resources (Natural Resources) | 5/2 |
| Module 12 | Renewable and Non-Renewable Resources (Natural Resources) | 5/9 |
| Module 13 & 14 - Chapters 14 & 15 | Environmental Hazards, Air Pollution, Greenhouse Gases, Climate Change, and Ozone Depletion | 5/16 |
| Module 15 & 16 -Chapters 16 & 17 | Solid and Hazardous Wastes and Management, Environmental Economics, Politics, and Worldviews | 5/23 |
| Module 17 | Economics and Public Policy <ul style="list-style-type: none"> • Federal and State Regulations, agencies, cost-benefit analysis • Environmental and Human Health | 5/30 |
| Assignment/Term Paper | Assignment/Term Paper | 6/6 |
| Final Exam | Final Comprehensive Test (All Modules) | |

Miller, G. T. & Spoolman, S. E. (2019). *Environmental Science* (16th ed.) Cengage ISBN- 13: 978-1-337-56961-3

This syllabus is subject to change without notice

This syllabus is very tentative, you're therefore advised to follow the instructions provided at the beginning of each weekly module.