

Syllabus: Environmental Science 110

ENVS 110 CRN 20280

AG 110 CRN 20279

Imperial Valley College, Spring 2013



Instructor: Renée Owens

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Office hours: Tuesday and Thursday 3:00 PM

As an adjunct I do not have an office or regular hours, therefore you must contact me by email or after class to make an appointment.

Class Schedule: Tuesday and Thursday 1:30 – 2:55 PM Room 2734

This Syllabus is available on the online IVC Blackboard program available to all students.

Course Description: This 3.0 credit course provides the student with an overview of the relationship between humans and the natural environment. The class will focus on basic concepts of science and ecosystem theory as related to the environment; human impacts on the air, water, and land; environmental problems faced by humans that have regional and global consequences, and some of the proposed solutions.

Course Objectives: Students should develop enhanced knowledge, understanding, awareness, and appreciation for ecosystems and biodiversity. Ideally students will develop a personal environmental ethic and envision their role and responsibility in ensuring a sustainable future for their communities, including all living things represented within that community.

Students will learn and develop critical thinking and problem solving skills that will enable them to creatively contribute to a sustainable culture with a positive quality of life for all involved. Students will gain skills in information research, written, and oral communications. Students will gain knowledge in ecological challenges and sustainable technologies, and will learn how to reduce their ecological footprint. Students will learn to identify some local native plant and animal species and understand their roles in ecosystems. Students will learn and understand what consumptive and non-consumptive 'ecosystem services' are, and how such services contribute to the quality of our lives and communities. Toward these ends class activities, tests, and homework are required components of this course.

Required Text: Pearson Learning Solutions, 2011. *The Pearson Custom Library for Environmental Science*, Imperial Valley College, Environmental Science. (This textbook is a custom compilation of Chapters from two Texts: (1) *Environmental Science: Toward a Sustainable Future*, 11th Edition, Richard T Wright and Dorothy E. Boorse, 2011, Pearson Education Inc.; and (2) *Essential Environment: The Science Behind the Stories*, 3rd Edition, Jay Withgott and Scott Brennan, 2009, Pearson Education Inc.) Students may buy and/or rent their books directly from the bookstore website at www.efollett.com.

Supplemental Readings: Additional readings will supplement the text as provided by the instructor.

General Expectations:

- Students must comply with all rules and regulations included in the Standard of Student Conduct in the Imperial Valley College General Catalog.
- In my classroom I teach with the assumption that as a college student you are an adult, which means that I will treat you with the respect and maturity I maintain for all adults, and therefore I expect you to do the same

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with me. It is your responsibility to conduct yourself as a mature, professional adult fully responsible for your actions; additionally each student is expected to do work which is excellent quality for her or him as an individual. The student is ultimately responsible for the outcome of her or his learning experience.

- In group project(s), each student is expected to do their fair share of the work. If you are having issues with this, please see me for advice and/or intervention.
- **During class, all cell phones, computers, MP3s, and other electronic items must be put away and have the ring tone, vibrator, or alarm, completely turned off. Students may not wear a blue-tooth or similar device during class. You must put such items away in your bag or purse and put them on the floor during class time You WILL be asked to leave class and will be marked absent from class for infraction of this rule.**
- Electronic items may not be used during group field trips or outside-of-class activities, except for photography or emergencies.
- If you feel you need to use a laptop to take notes because you have a learning challenge or disability, please speak to me to make a request for such. If you do not have a documented disability (see Disability information, below), I will consider the request and decide whether or not permission is warranted. If you are found to be using the laptop for games, Facebook, or in any way abusing this privilege, your permission to use it in class will be revoked.
- **Students have the right to experience a positive learning environment, and your instructor has the right to teach without unnecessary distraction. Repeatedly talking to other students during lectures, using cell phones, arriving late and leaving early, or walking in and out of the class while it is in session is rude, disruptive, unprofessional and will not be tolerated.**
- To preserve a productive learning environment, students who disrupt or interfere with a class may be sent out of the room and told to meet with the Dean of Student Affairs and Campus Disciplinary Officer before returning to continue with class. The Dean will follow disciplinary procedures as outlined in the General Catalog. If you have an emergency, such as illness, please leave quietly and explain to me later what happened. If you walk in and out of class without any apparent urgent reason, you will be marked absent for the day and you will not be allowed to make up a pop-quiz if you missed it this way.
- Students will prepare a large name 'tag' that they will bring to EVERY class and display for each class.

Adding/ Dropping: If you add the class, you must do so before the IVC deadline. If you are given an add code it is YOUR responsibility to access your WebSTAR account and add the class using the authorization code as soon as possible. If you stop coming to class, it is highly recommended that you drop yourself (using WebSTAR) because I WILL NOT DO IT FOR YOU; it is your responsibility to complete a drop request if you are withdrawing from the class. If you do not complete a withdraw / drop request, even though you have stopped coming to class, you will receive an "F" for the class.

Assignments: It is your responsibility to seek help with study skills, reading, or writing. Although I do not detract points for every grammatical error, I do expect you to write at the standard first year college level. **If you have trouble with writing in general or English as a second language, it is your responsibility to have someone proof-read your grammar for written homework assignments.** (See Writing and Language labs, below).

Attendance: If you miss any class activities it is your responsibility to find out what you have missed, and how you can get caught up. **In accordance with IVC policy, a student who is absent for two classes with no excuse can be dropped from the class with no warning.** You are responsible for getting the missed material from another student, so whether or not you miss a class it is a good idea to make some friends who are also in this class. Students who miss the first day of class will automatically be dropped. I will not accept excuses for missing class that do not involve a serious emergency, injury, or an illness. If you miss class, ask another student what you missed, do not email me for that information.

Tardiness and early departure: Students who arrive after class has begun may be marked absent. If you arrive late, it is your responsibility to inform me at the end of class that you were present. Two tardies / early departures count as one absence.

Cheating and Plagiarism: IVC expects honesty and integrity from all students. A student found to have cheated on any assignment or plagiarized will receive a zero for the assignment and sent to the Disciplinary Officer. A second

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occurrence of cheating or plagiarism may result in dismissal from class and expulsion from IVC as outlined in the General Catalog.

Email: Your IVC email address will be the primary email address used to contact faculty and students studying at Imperial Valley College (this includes all financial contacts). Students will be required to use this account for class, and are expected to check their email on a frequent and consistent basis in order to stay current with class-related and other college-related communications. Students have the responsibility to recognize that certain communications may be time-critical. **Students should not rely on any courtesy email forwarding or other means to ensure they are receiving important IVC information. You should become accustomed to checking this email account at least once a day while a student at IVC.** If for some reason a normally scheduled class is cancelled, you may be notified via email.

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 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 reducing 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.

In most assignments, lectures, and activities, multiple objectives will be included, rather than covering each objective in a distinct lesson. **This is due to the fact that environmental science is based on studying interconnected systems and on learning to think in a holistic way, i.e., "global awareness".**

Class Grading: Your final grade in the class will be based on points received for the following:

Individual Class Participation (5 points)

Homework Assignments (ex: My Footprint Survey, worth 10 to 30 points depending on the assignment)

Class Project (100 points)

Quizzes (5 quizzes each worth 20 points), Mid Term Exam (100 points), Final Exam (100 points)

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Extra Credit (2 points to *final* score, per assignment, maximum 3 allowed.)

A: 90 - 100% B: 80 – 89 % C: 70 – 79 % D: 65 – 69 % F: Below 65%

As assignments are given I will tell you how many points they count for towards your total score. I do not give letter grades on individual assignments, your letter grade is calculated at the end of the semester. It is up to each student to calculate the equivalent letter grade if you wish, according to this formula:

Your points, divided by total points possible, times 100 = your percentage. Then apply your percentage to the letter scale above. For example: If a quiz is worth 15 points and you receive 11 points on it, you divide 11 points by 15 points possible X 100 = 73% = C letter grade.

You are expected to keep track of your own progress in the course as the semester progresses, using the formula above for all your assignments. Make sure you keep all your assignments in order to do this (and to review the material for exams).

Homework Assignments: Readings from the text and supplements will help you understand the lectures and activities better and help prepare you for the exams. You will also be expected to prepare outside of class for any class project, writing, and research assignments. Assignments will be given as semester proceeds, along with due dates. **Reading the Chapters and additional assigned reading before coming to class is ESSENTIAL for passing with a “C” or above.**

Quizzes and Exams: Anything presented may be included: lectures, readings, class activities, films, etc. Exams will usually include essay questions geared to test your critical thinking skills in respect to class topics. Exam dates will be announced in class. THERE ARE NO MAKE-UP EXAMS AND LATE ASSIGNMENTS WILL USUALLY NOT BE ACCEPTED EXCEPT WHEN PRE-ARRANGED. The only exception is if you have a serious health issue or accident. If you anticipate missing an exam or important due date, be sure and discuss it with me prior to the exam date or due date.

Disability Information: Any student with a disability who may need educational accommodations should notify the Disabled Student Programs and Services office as soon as possible, located in the Mel Wendrick Access Center, Building 2100, Room 2117, (760) 355-6312 or (760) 355-4174 (TDD). If you have a question about a disability in regards to my instruction, do not hesitate to speak to me about it after class, or schedule an appointment.

Computers, writing, research, and study skills assistance:

Business/General Computer Lab: A general computer lab is available for students in room 901 with basic services and applications, including Internet access.

Math Lab: The math lab has 44 computers with internet access and Microsoft Office software. The lab also includes: study rooms, computer tutorials, videos, mathematics software, reference books, and tutoring.

Writing Lab: The writing lab may be used by any IVC student who needs help with an essay or writing assignment. Students will be asked for an IVC ID card to check in the lab. Students may also use the computers or internet when space is available for class assignments.

Language Lab: The Language lab is available to all students enrolled in Foreign Language, English, or ESL classes. The lab offers an individual multimedia learning experience as a supplement to formal class instruction.

Study Skills Center: Josue Verduzco, (760) 355-6384. If your method of studying is not enabling you to get the grade you desire, talk to your instructor, and/or check out this Center.

Library: If you are unsure how to use the materials the library has to offer, ask a librarian for a tutorial of what resources available and how to use them.

Student Email: IVC students are expected to check their email on a frequent and consistent basis in order to stay current with college-related communications. Students have the responsibility to recognize that certain communications may be time-critical. Students should not rely on any courtesy email forwarding or other means to ensure they are receiving important IVC information! The best strategy is to get accustomed to checking this email account at least once a day while a student at IVC.

BLACKBOARD or My Faculty Website online: At times I will post articles, homework details, handouts, or additional lecture notes online so that students have access to them aside from hard copies. There may also be occasional

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announcements or other important information, **it is important to check the website daily, and before each class, to check for updates and recent additions.** <http://faculty.imperial.edu/renee.owens>
For assistance using BLACKBOARD, go to <http://ondemand.blackboard.com/students.htm>

Tentative Course Schedule (subject to changes and additions). Assignment DUE DATES will be given at the time of the homework or project assignment.

| Week | Dates | Topic | Reading Assignments Homework Assignments: TBA | Assignment Due Date |
|------|------------------|--|---|---------------------|
| 1 | 1/15 1/17 | Introduction to course Intro to Chapter 5 | Read Chapter 5: Water | |
| 2 | 1/22 1/24 | Chapter 5 Critical Thinking | Read Assignment: Critical Thinking Skills Read Chapter 1: Basic Needs of Living Things Read Chapter 2 : Wild Species and Biodiversity | |
| 3 | 1/29 1/31 | Chapter 1, 2 Chapter 2 | Read Chapter 6: Ecosystems | |
| 4 | 2/5 2/7 | Chapter 6 Chapter 6 | Read Chapter 3: Global Climate Change Assignment: Ecological Footprint | |
| 5 | 2/12 2/14 | Chapter 3 Chapter 3 | Read Chapter 7: Sustainable Communities and Lifestyles | |
| 6 | 2/19 2/21 | Chapter 7 Chapter 7 | Reduce Your Footprint Assignment | |
| 7 | 2/26 2/28 | Review Mid-Term Exam | Read Chapter 13: Soil, Agriculture, and the Future of Food | |
| 8 | 3/5 3/7 | Chapter 13 | Read Chapter 15: Environmental Health and Toxicology | |
| 9 | 3/12 3/14 | Chapter 15 | Read Chapter 16: Atmospheric Science and Air Pollution | |
| 10 | 3/19 3/21 | Chapter 16 Chapter 17 | Read Chapter 17: Nonrenewable Energy Sources | |
| 11 | 3/26 3/28 | Chapter 17 Chapter 4 | Read Chapter 4: Renewable Energy | |
| | 4/2 4/4 | Spring Break Spring Break | | |
| 12 | 4/9 4/11 | Chapter 4 Chapter 18 | Read Chapter 18 | |
| 13 | 4/16 4/18 | Class Projects Class Projects | | |
| 14 | 4/23 4/25 | Class Projects Class Projects | | |
| 15 | 4/30 5/2 | Class Projects Class Projects | | |
| 16 | 5/7 5/9 | Review FINAL EXAM | | |

→ This is a tentative schedule, details may change so be sure and write them down when notified! You will also be given additional reading, video, and other assignments from online sources/ handouts as the semester progresses, be sure and note the deadline (write in on the last column in the table) for each when given the assignment. ←

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