



### Basic Course Information

Semester:	<b>Winter 2024</b>	Instructor Name:	<b>Dr. Patrick S. Pauley</b>
Course Title & #:	<b>ENVS/AG 110</b>	Email:	<b>Patrick.pauley@imperial.edu</b>
CRN #:	<b>15014/15015</b>	Webpage (optional):	<b>N/A</b>
Classroom:	<b>Online (CANVAS)</b>	Office #:	<b>Online (Email)</b>
Class Dates:	<b>January 2, 2024 – February 2, 2024</b>	Office Hours:	<b>N/A</b>
Class Days:	<b>N/A (Online)</b>	Office Phone #:	<b>(760) 355 - 6363</b>
Class Times:	<b>N/A (Online)</b>	Emergency Contact:	
Units:	<b>3</b>	Class Format:	

### 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 AG 110) (CSU, UC)

### Course Prerequisite(s) and/or Corequisite(s)

None

### Student Learning Outcomes

Discuss the growing human population and the related demand for resources (water, power, soil, hunger, etc.) and the impact that it places on agriculture.

### Course Objectives

Upon satisfactory completion of the course, students with a grade of “C” or better 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, deserts, agriculture) and the efforts of effectively manage and conserve them.
5. Describe the hydrological cycle and identify ways that humans negatively impact it. 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 bodies of water such as the New, Colorado 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 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 pest control and fertilizer use; the environmental impacts in air, water and soil 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 had 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**

Environmental; The Science Behind the Stories, by Jay Withgott & Matthew Laposata – ISBN 978-0- 13-448599-7

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

#### **Exams:**

There will be five (5) exams covering chapters assigned. The power points have already been uploaded.

#### **Assignments:**

In addition, there will two (2) papers. Green New Deal and Pandora's Promise. I also have one (1) separate discussion for Green New Deal.

#### **Discussions:**

I also will be doing weekly discussions. I do expect you to participate in these discussion boards. Discussions are an important component of many online classes. They replicate in-class (face-to-face) discussions, so they can be fertile ground for exploratory learning. They can also be fertile ground for self-assessment. When students are directed to consciously compare their ideas or their participation with other participants in the class, they may be able to adjust their participation (both quantity and quality) to meet the bar set by other students. A total of five (5) discussions will take place online over the course of the semester.

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

Class grading will be based on points accumulated in the following ways.

- Five (5) Exams Covering Chapters Assigned - 100 points each
- One (1) Green New Deal Discussion Board – 100 points
- Two (2) papers – Pandora's Promise & Green New Deal. (I would like the paper to be typed, double spaced, font to be Helvetica or Ariel and 12pt) - 100 points each
- Weekly Class Participation (5 weeks) – 25 points each



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\* Exams may include true/false, multiple choice and short answer questions. Missed quizzes and exams must be cleared with the professor to be made-up. Asking to make-up missed quizzes or exams is your responsibility and needs to be for a reasonable excuse. You have all day from 12:00AM to 11:59PM to take Exams/Quizzes. This is 24 hours so plan accordingly.

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

## Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

## Course Policies

### 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
- Documented student interaction with class postings, such as weekly discussions.
- 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.**

### What is online 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 (!!!!)].

## Other Course Information

None

## IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

## Anticipated Class Schedule/Calendar

This schedule will be reviewed to include dates for the tests, assignments, and due dates. As the human experience is impacting the environment in positive and negative manners, and as the fifth IVC institutional learning outcome is global awareness this course will include human world events as part of the discussion. You will be expected to be aware of current world events and able to engage in discussion relevant to this fact. Amendments will be communicated in class and/or in canvas.

<b>Date or Week</b>	<b>Activity, Assignment, and/or Topic</b>	<b>Pages/ Due Dates/Tests</b>
<b>Week 1</b> January 2 – 5	<b>Module 0:</b> Syllabus & Introduction <b>Module 1 (Week 1):</b> Chapter 1- Science and Sustainability: An Introduction to Environmental Science & Chapter 2 – Earth’s Physical Systems: Matter, Energy, and Geology	Chapters 1 & 2: <b>Pages 2 – 45</b> Exam 1: Chapters 1 & 2: <b>Jan 5</b> Discussion: About You – <b>Jan 5</b> Student Self- Evaluation – <b>Jan 5</b>
<b>Week 2</b> January 8 -12	<b>Module 2 (Week 2):</b> Chapter 9 - Making Agriculture Sustainable, Chapter 10 - The Underpinnings of Agriculture & Pandora’s Promise Question	Chapters 9 & 10: <b>Pages 208 - 267</b> Exam 2: Chapters 9 & 10: <b>Jan 12</b> Discussion: Environmental Issues – <b>Jan 12</b> Assignment: Pandora’s Promise Question – <b>Jan 12</b> Student Self- Evaluation – <b>Jan 12</b>
<b>Week 3</b> January 16 - 19	<b>Module 3 (Week 3):</b> Chapter 6 - Ethics, Economics, and Sustainable Development, Chapter 7 - Environmental Policy: Making Decisions and Solving Problem & Pandora’s Promise	Chapters 6 & 7: <b>Pages 130 - 183</b> Exam 3: Chapters 6 & 7: <b>Jan 19</b> Discussion: Plastics – <b>Jan 19</b> Assignment: Pandora’s Promise – <b>Jan 19</b> Student Self- Evaluation – <b>Jan 19</b>
<b>Week 4</b> January 22 - 26	<b>Module 4 (Week 4):</b> Chapter 19 – Fossil Fuels: Sources, Uses, Impacts, and Conservation & Chapter 21 - New Renewable Energy Alternatives	Chapter 19: <b>Pages 514 - 547</b> Chapter 21: <b>Pages 576 - 604</b> Exam 4: Chapters 19 & 21: <b>Jan 26</b> Discussion: Raw Sewage – <b>Jan 26</b> Assignment: Pandora’s Promise – <b>Jan 26</b> Student Self- Evaluation – <b>Jan 26</b>
<b>Week 5</b> January 29 – February 2	<b>Module 5 (Week 5):</b> Chapter 8 – Human Population, Chapter 12 - Forests, Forest Management, and Protected Areas, Green New Deal & Green New Deal Discussion	Chapter 8: <b>Pages 184 – 207</b> Chapter 12: <b>Pages 300 - 329</b> Final Exam: Chapters 8 & 12 – <b>Feb 2</b> Discussion: It’s Closing Time – <b>Feb 2</b> Discussion: Green New Deal – <b>Feb 2</b> Assignment: Green New Deal – <b>Feb 2</b> Student Self-Evaluation – <b>Feb 2</b>

**\*\*\*Subject to change without prior notice\*\*\***