

Basic Course Information

Semester:	Fall 2025	Instructor Name:	Dr. Patrick S Pauley
Course Title & #:	ENVS/AG 110	Email:	patrick.pauley@imperial.edu
CRN #:	10003/10004 10005/10006 10468/10469 10525/10526	Webpage (optional):	N/A
Classroom:	Online (CANVAS)	Office #:	Online (Email)
Class Dates:	August 11, 2025 – December 6, 2025	Office Hours:	Monday – Thursday 7AM-8AM (Email)
Class Days:	N/A (Online)	Office Phone #:	(760)355-6363
Class Times:	N/A (Online)	Emergency Contact:	
Units:	3	Class Format/Modality:	Asynchronous Online

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)

N/A

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 seven (7) exams covering chapters assigned. The power points have already been uploaded.

Assignments:

In addition, there will three (3) papers. Fed-Up, Green New Deal and Pandora's Promise. I also have one (1) separate discussion for Green New Deal. There is also one (1) big class assignment that is called Disease & The Environment.

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 sixteen (16) 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.

- Seven (7) Exams Covering Chapters Assigned - 100 points each
- One (1) Student Learning Outcome (SLO) Quiz – 20 points

- One (1) Green New Deal Discussion Board – 100 points
- Three (3) papers – Fed-up, 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
- One (1) Disease & The Environment (I would like the paper to be typed, double spaced, font to be Helvetica or Ariel and 12pt) - 200 points
- Weekly Class Participation (16 weeks) – 25 points each

* 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.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through **DSPS**, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

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

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.

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.

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 August 11 - 15	Module 0: Orientation Module 1 (Week 1): Chapter 1 - Science and Sustainability: An Introduction to Environmental Science	Chapter 1: Pages 2 - 19 Discussion: About You – August 15 Assignment: Update Your Canvas Profile – August 15 Self-Check Quiz – August 15 Student Self-Evaluation – August 15
Week 2 August 18 - 22	Module 2 (Week 2): Chapter 2 – Earth's Physical Systems: Matter, Energy, and Geology	Chapter 2: Pages 19 – 45 Exam 1: Chapters 1 & 2 – August 22 Discussion: Environmental Issues– August 22 Student Self-Evaluation – August 22
Week 3 August 25 – August 29	Module 3 (Week 3): Chapter 9 - The Underpinnings of Agriculture	Chapter 9: Pages 208 – 233 Discussion: Food Waste – August 29 Student Self-Evaluation – August 29
Week 4 September 2 - 5	Module 4 (Week 4): Chapter 10 - Making Agriculture Sustainable	Chapter 10: Pages 233 - 267 Exam 2: Chapters 9 & 10 – September 5 Discussion: GMOs – September 5 Student Self-Evaluation – September 5
Week 5 September 8 - 12	Module 5 (Week 5): Chapter 6 - Ethics, Economics, and Sustainable Development	Chapter 6: Pages 130 – 157 Discussion: Raw Sewage – September 12 Student Self-Evaluation – September 12
Week 6 September 15 - 19	Module 6 (Week 6): Chapter 7 - Environmental Policy: Making Decisions and Solving Problems & Pandora's Promise Question	Chapter 7: Pages 158 – 183 Exam 3: Chapters 6 & 7 – September 19 Discussion: Water Taxation – September 19



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Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
		Student Self-Evaluation – September 19 Assignment: Pandora's Promise Question – September 19
Week 7 September 22 - 26	Module 7 (Week 7): Pandora's Promise	Assignment: Pandora's Promise – September 26 Discussion: Nuclear Energy – September 26 Student Self-Evaluation – September 26
Week 8 September 29 – October 3	Module 8 (Week 8): Chapter 19 – Fossil Fuels: Sources, Uses, Impacts, and Conservation	Chapter 19: Pages 514 – 547 Discussion: Niland Geyser – October 3 Student Self-Evaluation – October 3
Week 9 October 6 - 10	Module 9 (Week 9): Chapter 21 - New Renewable Energy Alternatives	Chapters 21: Pages 576 – 603 Exam 4: Chapters 19 & 21 – October 10 Discussion: Fracking – October 10 Student Self-Evaluation – October 10
Week 10 October 13 - 17	Module 10 (Week 10): Fed Up – Part 1	SLO Quiz – October 17 Discussion: Healthy Eating – October 17 Student Self-Evaluation – October 17
Week 11 October 20 – 24	Module 11 (Week 11): Fed Up – Part 2	Assignment: Fed Up – October 24 Discussion: Exercise – October 24 Student Self-Evaluation – October 24
Week 12 October 27 – October 31	Module 12 (Week 12): Chapter 8 - Human Population	Chapter 8: Pages 184 – 207 Exam 5: Chapter 8 – October 31 Discussion: Human Species – October 31 Student Self-Evaluation – October 31
Week 13 November 3 - 7	Module 13 (Week 13): Green New Deal	Discussion: Green New Deal – November 7 Assignment: Green New Deal – November 7 Discussion: Lithium Mining – November 7 Student Self-Evaluation – November 7
Week 14 November 10 - 14	Module 14 (Week 14): Chapter 12 - Forests, Forest Management, and Protected Areas	Chapter 12: Pages 300 – 329 Exam 6: Chapter 12 – November 14 Discussion: Forest Fires – November 14 Student Self-Evaluation – November 14
Week 15 November 17 – 21	Module 15 (Week 15): Chapter 13 - The Urban Environment - Creating Sustainable Cities and Disease & The Environment	Chapter 13: Pages 330 – 351 Assignment: Disease & The Environment – November 21 Discussion: Plastics – November 21 Student Self-Evaluation – November 21
NO SCHOOL November 24 - 28	NO SCHOOL	
Week 16 December 1 - 5	Module 16 (Week 16): Chapter 20 - Conventional Energy Alternatives	Chapter 20: Pages 548 – 575 Final Exam: Chapters 13 & 20 – December 5 Discussion: It's Closing Time... – December 5 Student Self-Evaluation – December 5

Subject to change without prior notice