

ENV 150 Introduction to Environmental Studies

Course Syllabus

Semester/Year: Spring 2021

Units: 4.0

Instructor: Michael Kunz

Office Hours: MO 11:30-1:30, TU & TH 2:00-4:00
or by appointment

Office Location: Zoom or other remote technology

Phone number: 559-453-2045 (messages only)

Email: mkunz@fresno.edu

Length: 16 weeks (Jan 11 – May 6)

Schedule:

Lectures TU/TH 7:45am – 9:00am

Field trips & service projects TBA

Room: Online by Zoom or other
technology

Course Description

An interdisciplinary study of the relationships between people and their environment. The use of natural resources, environmental degradation and human population are examined from ecological, social and religious perspectives.

Student Learning Objectives

1. Demonstrate understanding of natural and human systems that relate to the environment.
2. Effectively communicate information related to the environment in written form.
3. Critically evaluate an environmental issue using one of the following themes/concepts: sustainability; costs & benefits; shalom (signature assignment)
4. Engage in experiences that support the FPU values of wisdom, community and service.
5. Articulate ways of living that “lead toward a perceptive and creative relationship with God, humanity, and the natural world” (FPU Idea Statement), and implement some of these in practice.

Required Resources

- *Environment: The Science Behind the Stories 6e* (2017) (earlier editions acceptable). Withgott and Laposata. ISBN-13: 978-0134204888. Pearson.
- Internet access to class websites at <http://fpubio.com/kunz/Courses/envstudies/> and the Fresno Pacific University Moodle website.

COURSE OVERVIEW

This is a course about environmental issues. These issues can be personal (Do I recycle?) or global (Are we altering the global climate?). They are often complex (How can we address issues of global poverty amidst consumerism and affluence?), and controversial (Should we preserve species or jobs?). One of the primary goals of this course is to provide tools to analyze and understand environmental issues. This is an interdisciplinary course, because to investigate these issues, we must use the tools of many disciplines, including ecology, ethics, economics, and politics. We will use disciplinary tools to address important topics such as water use, air pollution, energy resources, agriculture, consumerism, human poverty & population, climate change, and preservation of biodiversity & natural ecosystems.

While knowledge and understanding are the traditional goals of most higher education institutions, in a Christian context this is insufficient. The motto of FPU (roughly translated from Latin) is “wisdom, faithfulness, and service.” Thus a second goal of this course is to encourage transformed lives that “lead toward a perceptive and creative relationship with God, humanity, and the natural world” (FPU Idea statement).

The scope of environmental studies is immense and overwhelming. Four major themes will be used to provide focus for course. Students will be expected to relate the following themes to each of the environmental issues covered in the course:

- **Sustainability**
- **Costs and Benefits**
- **Natural and human systems**
- **Shalom**

A variety of classroom activities will be used in the course, including readings, lectures, discussions, videos, written papers, and examinations. A research project and a classroom presentation are also required. This course is awarded four units of credit. Three hours per week are given to the traditional classroom setting. A course regarding the environment would be incomplete without first-hand experience of nature. The fourth required “hour” is devoted to experiences outside of class that may consist of field trips, service projects, nature journaling, or other optional activities directly related to environmental issues. Choice of research paper topic, field trip, service project and video/lectures are arranged during the first week of classes.

My philosophy of education views active participation as an essential feature for developing both cognitive and affective outcomes. This is a fancy way of saying that actively engaging in a subject affects both how well you understand the subject, and how you feel about the subject. Therefore, participation in classroom discussion, experiencing natural environments, and actively serving creation are all essential features of this course.

ASSIGNMENTS, TESTS & GRADING POLICIES

Course grades will be based upon performance on the following items:

<i>Item</i>	<i>Point Value</i>
3 regular exams @ 100 points each	300
Final exam	150
3 Out-of-classroom experiences & papers @ 50 points each	150
Research Paper	50
PowerPoint recorded presentation	50
Lecture participation	50
Short responses	50
Total	800

The final grade will be assigned according to the following percentages of possible points:

<i>Letter Grade</i>	<i>Percent</i>	<i>Points</i>
A	92.5 – 100	740-800
A-	90.0 – 92.4	720-739
B+	87.5 – 89.9	700-719
B	82.5 – 87.4	660-699
B-	80.0 – 82.4	640-659
C+	77.5 – 79.9	620-639
C	72.5 – 77.4	580-619
C-	70.0 – 72.4	560-579
D+	67.5 – 69.9	520-559
D	62.5 – 67.4	500-519
D -	60.0 – 62.4	480-499
F	0 – 59.9	0-479
UW	Attended little or not at all	

If you believe any grade to be in error, please discuss it with me. If you are not satisfied with our discussion, you make take your concern to the dean of this school. Contact me, your program director, or your advisor if you feel like you need help with this course.

LECTURE PARTICIPATION: Credit (50 points) is awarded for consistent attendance, participation, and contribution to class lecture discussion.

- The usual lecture format will be synchronous Zoom class sessions. The normal expectation of student participants is to join muted with Zoom video on; unmute yourself to speak.
- I will usually lecture from PowerPoint slides; these will be posted in .pdf format for reference. Films or video clips may also be presented during lectures.
- Occasional lectures may be presented asynchronously (e.g. a voiced PowerPoint presentation or other modality). I will inform the class by email ahead of time if a lecture will be presented asynchronously.

- I will **NOT** normally record Zoom class sessions. Individual students may record the lectures, but must obtain instructor permission **BEFORE** doing so the class may be informed of this (as per federal privacy regulations).
- Zoom breakout groups will be used regularly to discuss material, followed by whole-class discussion.
- While assignment of participation credit is somewhat subjective, I will use the following criteria: A = regular, punctual attendance and frequent, thoughtful, voluntary contributions to class discussion at appropriate opportunities. B = less regular, punctual attendance or less contribution to class discussion. C = irregular attendance, frequent unpunctual attendance, or little contribution to class discussion. D = poor attendance and little contribution to class discussion.

SHORT RESPONSES: Credit (approximately 50 points total) will be awarded for short written responses on topics assigned in class.

- During any lecture, I may give a short assignment related to a lecture, reading or online experience.
- The assignment will be posted to Moodle and, following completion of the assignment, a short Moodle student journal response must be posted before 7:00am the date of the assignment. Responses may form the basis for class discussion.
- Credit for an individual responses will be awarded up to 5 points each.

TESTS cover material from lectures, readings and assignments.

- On the day of the exam, you must attend the class Zoom meeting as usual with your video camera on and your microphone muted. The private chat feature will be disabled.
- Exams will be administered using the Moodle Quiz function. Each exam will consist of several separate parts that must be completed during the regular class period.
- Online exams are open-book and open-note, but receiving any assistance from other persons or entities is a violation of the FPU academic integrity policy.
- Different versions of the exam may be randomly distributed to members of the class, though the same syllabus content will be used to construct all exams.
- **You must notify me 24 hours beforehand if you cannot take an exam at the scheduled time!** If I am notified in advance with an acceptable excuse, the exam may be made up on an alternate date I specify. I may administer the make-up exam in a different format for those taking the exam late.

OUT-OF-CLASS EXPERIENCES: (three experiences credited 50 points each). This course is a 4-unit course. The fourth unit consists of experiences engaged outside of class lecture hours. The experiences consist of the following: (1) a day field excursion to a natural location of environmental significance (approximately 8 hours duration); (2) a service project with a local environmental organization (a minimum of three hours of service), (3) journal of observations of an outdoor location (8 separate observations done over several weeks or months). These experiences must be done during the semester (i.e. you cannot use an experience completed before the semester began).

- Suggested experiences are provided at the <http://fpubio.com/kunz/Courses/envstudies/> class web site. Read through the options and requirements for each. You may also propose an alternative experience not listed by me.

- **You must select which experiences you plan on doing and the dates you plan to do them by Saturday, January 16.** Enter your plan on the Moodle journal response assignment. If you propose an experience not suggested by me (i.e. a trip to a different location or service with an organization not listed), I must approve your choice before you do it.
- Within **two weeks** of completing your experience, you must submit a paper analyzing and reflecting on the experience. The paper must be **uploaded to the proper Moodle Assignments page**. The first experience paper must be submitted by the end of mid-semester break, the second paper before the last week of regular class, and the third before the beginning of finals week.
- The paper must be submitted in Word (.docx) format. If you use different editing software, use your program's "save as" function. The purpose of the paper is to examine how **one of the course themes** relates to the experience. Include the theme by which you want your paper evaluated in the title of the paper. Each paper typically should include: 1) a description of the experience (for service projects, including the name of the person in charge); 2) background research into some environmental significance of the location, organization, or subjects observed; (3) relationship of the experience to course readings and other experiences (text or supplementary reading); (4) insightful discussion of how the course theme can be used to analyze and understand issues related to the experience, and/or how the experience deepens your understanding of the course theme (this should constitute a significant part of the paper); 4) your conclusion on the experience as a whole; (5) a minimum of three pictures taken documenting your experience, including at least one that documents your presence.
- The minimum length of the paper is 750 words (excluding references). A minimum of two references must be cited using CSE or APA style. Contact the Academic Success Center for assistance if you need help formatting or composing your paper.
- Papers will be graded on general essay quality, relationship to course themes and content, and depth of insight into environmental issues (in particular, have you demonstrated how the chosen theme helps us understand environmental issues more deeply?). The rubric for the paper is given below.

RESEARCH PAPER: you must research an environmental issue or topic and write a paper on the topic and present your topic to the class. The list of topic choices is found on the web page.

- You must choose **three topics** (ranked 1st, 2nd & 3rd) from the list **by Saturday, January 16. Submit your choice requests to the Moodle journal assignment. Include names of any partners you plan to work with.**
- I will assign topics and post presentation dates by the end of the third week of class.
- You may work in groups of 2 or 3 students to research and present your topic, but each student must submit a separate paper that has been individually written.
- The paper must be written in APA or CSE style, minimum of 1500 words of text (excluding references), with a minimum of 5 academic sources; other sources may be used to supplement these. Inquire at the Academic Success Center if you wish assistance in formatting your paper.
- Topics must use one of the course themes as an organizing and interpretive framework and should examine the topic in greater depth than the course textbook. The chosen theme must be included in the title so I know which theme to use for evaluation.
- The paper must be **uploaded to the proper Moodle Assignments page** the date of the exam to which it relates.

- 50 points are awarded for the paper. The rubric for evaluation of the paper is found below.

CLASS PRESENTATION: (50 points credit)

- Presentations are to be based upon the research topic chosen from the list of topics on the <http://fpubio.com/kunz/Courses/envstudies/> web site and assigned by the professor. Date of class presentation will be based upon the topic chosen.
- Presentations must be in the form of a PowerPoint slide presentation **posted to the appropriate page of Moodle** for your classmates to see. In lieu of presenting in front of the class, use the PowerPoint voice over function to record your presentation. Due to file size constraints, your presentation should be only 8 minutes (7—9 minutes) in length. Points will be deducted for presentations that do not adhere the time length guidelines.
- You may present individually or in groups of 2 or 3 students. Everyone in the group should contribute to the oral interpretation of the presentation.
- Credit (50 points) is awarded based upon content, oral presentation skill, and visual presentation quality. The grading rubric is posted on the fpubio.com course web page.

SIGNATURE ASSIGNMENT:

The research paper constitutes the signature assignment for this course. The research paper and the out-of-class experience papers will also be evaluated using the following rubric:

	WRITTEN EXPRESSION & MECHANICS	CONTENT DEPTH	CONTEXT AND RELEVANCE	CRITICAL EVALUATION
4 (excellent)	The organization of the paper is logical and apparent. Paragraphs have a clear focus. Sentence structure is varied and interesting. Grammatical errors are minimal or not present. The assignment was carefully written, revised and edited. APA format was followed correctly.	The paper moves well beyond what is covered in an introductory textbook. All essential aspects of the topic are addressed, and appropriate references, facts, examples, quotes, etc. are used to support main points.	Demonstrates strong understanding of relevant environmental systems/principles by making appropriate connections to other course material. It is clear how the topic fits within the broader field of environmental studies. The connections show evidence of significant thought and reflection on the topic.	A theme/concept is applied to critically analyze and evaluate the topic. The theme is developed in depth, with thoughtful, varied and unexpected applications. The analysis is thoughtful, logical and carefully-argued. Proper conclusions are drawn from the facts presented.
3 (good)	There is a clear organization to the paper, but there may be slight deficiencies in paragraph focus, logical progression, sentence structure, grammar or other errors. Editing and revisions were undertaken, but not carefully enough to catch all deficiencies. APA format was applied correctly with only minor deviations.	All essential aspects of the topic are addressed at a level consistent with an introductory text. Main points are clear, but specific references, examples, quotes or facts may be fewer or less reliable.	Demonstrates adequate understanding of relevant environmental systems/principles by reference to other course material, and these connections show an understanding of how the topic fits within the field of environmental studies. However, the connections do not show evidence of deeper reflection.	A theme/concept is used to analyze or evaluate the issue, but the analysis does not demonstrate thoughtful or deeper understanding of the theme, or not all significant aspects are carefully considered. The paper generally draws appropriate conclusions.
2 (fair)	There are modest gaps in organization, paragraph focus, sentence structure, grammar, etc. The paper	All parts of the topic or question are addressed, but the paper is superficial or contains	Some evidence is given that other relevant environmental course material has been	The paper evaluates the issue using a theme/concept, but the analysis is superficial.

	shows evidence of superficial revision and editing. APA format was attempted, but perhaps not correctly followed.	some inaccuracies. Main points are made, but are not well-supported by sufficient references, examples, quotes or facts.	considered and understood while writing the paper, but the connections are superficial or their relevance is not clear.	The conclusions drawn are not carefully argued or supported.
1 (poor)	The paper appears unorganized, quickly written, incorrectly cited, or not revised. Serious errors remain in the work.	The paper does not address all aspects of the question or topic. Irrelevant material may be included. Relevant material is inadequate, unreliable or inaccurate.	Few connections are made to other course material. It is not clear how the topic fits within the broader field of environmental studies.	The theme/concept may be mentioned, but it is not used to critically evaluate the issue, or conclusions drawn are not supported by the facts presented.

Grades are to be assigned with the following minimum expectations:

- An “A” paper is excellent in all four categories of evaluation, or excellent in a minimum of three categories and good in one.
- A “B” paper is good in all four categories or, if fair in one, compensates with excellence in another.
- A “C” paper is fair in all four categories or, if poor in one, compensates with excellence in another.
- A “D” paper is fair in at least two categories.
- An “F” paper is poor in more than two categories.
- **No points will be awarded if the paper gives evidence of plagiarism.** Instances of plagiarism are reported to the Dean of Natural Sciences, with additional consequences for second offences. **It is your responsibility to know how to properly write and cite a research paper without plagiarizing.**

TENTATIVE COURSE SCHEDULE AND OUTLINE OF TOPICS

DATE	TOPIC	READINGS & ACTIVITIES
PART 1: INTRODUCTION & FOUNDATIONAL DISCIPLINARY PERSPECTIVES		
Jan 12	Introduction	Ch. 1
Jan 14	Economic foundations	Ch. 6 Environmental footprint Story of Stuff film
Jan 19	Ethical & religious foundations	Ch. 6 Lynn White
Jan 21	Political foundations	Ch.7
Jan 26	Ecological foundations	Chs. 2 & 5 Aldo Leopold
Jan 28	Ecological foundations (continued)	Chs. 3 & 4
Feb 2	Exam #1	
PART 2: ATMOSHERE AND ENERGY		
Feb 4	Atmospheric systems & air pollution	Ch. 17
Feb 9	Climate change	Ch. 18 Inconvenient Truth

		film
Feb 11	Climate change (continued)	
Feb 16	Fossil fuels	Ch. 19
Feb 18	Efficiency & conservation	Chs. 19 & 20
Feb 23	Emerging alternative fuels	Ch. 21;
Feb 25	Synthesis & conclusion	Wedge Stabilization Game
Mar 2	Exam #2	
PART 3: WATER & AGRICULTURE		
Mar 4	Food systems	Ch. 20 Food, Inc. film
Mar 8 – 12	MID-SEMESTER BREAK	
Mar 16	Local agriculture	Chs. 14 & 21 Michael Pollan
Mar 18	Sustainable alternatives	Wendell Berry
Mar 23	Water & agriculture	Ch. 15 Cadillac Desert v.3 film
Mar 25	Western water resources	
Mar 30	The San Joaquin River	Tales of the San Joaquin film
Apr 1	Exam #3	
PART 4: NATURAL ECOSYSTEMS & THE GLOBAL HUMAN CONDITION		
Apr 6	Population, poverty & wealth distribution	Ch. 8
Apr 8	Human economic development	Ch. 11
Apr 13	Global biodiversity	Journey of the Universe film
Apr 15	Forest ecosystems	Ch. 12
Apr 20	Parks and wilderness	National Parks film - Part 1: John Muir
Apr 22	EARTH DAY	
Apr 27	Parks and wilderness (continued)	National Parks film - Part 6; Edward Abbey
Apr 29	Conclusions, commitments, evaluation	The Lorax Shakertown Pledge
May 4	FINAL EXAM 9M – 11AM	

SUGGESTIONS FOR SUCCESS IN THIS COURSE

- The course website at <http://fpubio.com/kunz/Courses/envstudies/> offers information regarding expectations and, assignments. Please make use of this resource.
- Success in a course requires a realistic allocation of time for readings, assignments, and study. The accepted standard is 3 hours of time per unit per week of instruction. This is a 4 unit course offered over 14 weeks, so the expected amount of time devoted to the class should be $4 \times 3 \times 15 = 168$ hours. This is the amount of time expected for an **average** student with an **average** science background desiring an **average** grade. Students with

less aptitude or background or who desire a superior grade may need to devote more time. Students with exceptional aptitude or strong background may in some cases succeed with less time devoted to the course. The following table offers a summary overview of the typical time expected for this class:

<i>Assignment</i>	<i>Est. Time to complete (hours)</i>
28 lecture sessions @ 1.5 academic hours each + 2 hours final exam	47
3 out-of-class experiences (field & service) @ 5 – 8 hours each	18
Research paper and presentation preparation	24
Out-of-class experience paper presentation 3 @ 4 hours each	12
18 chapter assignments in Withgott text @ 2 hours each	36
10 supplemental online reading and activity assignments @ 1 hour each	10
4 exam preparation @ 6 hours each	24
TOTAL	168

UNIVERSITY POLICY SUMMARIES

Students are responsible for becoming familiar with the information presented in the Academic Catalog and for knowing and observing all policies and procedures related to their participation in the university community. A *University Policy Summary* may be found on the university website at <http://registrar.fpu.edu/catalog>