ENVIRONMENTAL STUDIES 1

Introduction to Environmental Studies

TUE: 5:30PM-9:20PM | **E S -001. 61** | **CALL #20317**
Instructor: Jana Clark | **FALL Quarter '12** | 4.0 Units

De Anza College, Division of Biological, Health & Environmental Sciences
Environmental Studies Department
KIRSCH CENTER FOR ENVIRONMENTAL STUDIES (KCES)

DESCRIPTION

This class is an interdisciplinary study of the use of the earth's natural resources by human civilizations, past and present, and the role that economics, ethics, law, history, politics, culture and gender have played in resource use and distribution. **This class fulfills general education requirements**!

INSTRUCTOR INFORMATION: Jana Clark

Office Hours Held: Tuesday 4:30-5:30, & by appointment.
Office Location: KC 213
E-mail Address: **clarkjana@fhda.edu**

REQUIREMENTS

Be prepared to:

1. **Attend all classes – besides being required – it is interactive and fun!**
2. Complete all reading, in-class and homework assignments in the required texts.
3. Complete and turn in an Environmental Action Plan and a Lecture Journal as assigned.
4. Complete a mandatory field trip outside of class time.
5. Prepare a team presentation on an environmental topic.
6. Pass assessment and the final team assessment.
7. Enjoy learning about this fantastic planet & meeting other students!

OBJECTIVES

After completing this course you should be able to:

1. Help save this great planet!
2. Examine environmental studies as a newly emerging field of study and its relation to the scientific field and other disciplines.
3. Assess and apply environmental and ecological concepts to modern life and a technologically based society.
4. Assess and explore the career opportunities in the environmental studies field.
5. Analyze the history of human use and exploitation of the earth's natural resources.
6. Examine the relationship between resource degradation and the changing role of humans in society.
7. Compare and contrast the history of land use ethics in Western versus non-Western cultures.
8. Explore the impact of the industrial revolution and other technological advances on the human relationship with nature.
9. Evaluate the effects of the conservation movement in the United States.
10. Assess the political system within the United States and its relationship to environmental degradation.
11. Analyze how ethics, politics and the current economic system within the United States have influenced environmental policies and regulation.
12. Assess the relationship between environmental degradation and the cycle of poverty.

13. Examine and describe the world's natural resources including air (the atmosphere), water (the hydrosphere), soil (the lithosphere) and species (the biosphere).
14. Assess and debate the current state of the world's natural resources and the impacts on human populations.
15. Analyze and explore possible solutions to the current state of the world's resources.

COURSE MATERIALS

1. Withgott, Jay, and Scott R. Brennan. *Environment: the Science behind the Stories*. San Francisco: Pearson Benjamin Cummings, 2010.
2. Phillips, J. & K. Sullivan, **New** *ES 1 Student Packet*, 2012/2013 ed.

COMPLETE THE WRITTEN ASSIGNMENTS

1. **Homework Assignments:** There are three homework assignments from your textbook readings handed out in class. The due dates for each assignment are listed in your lecture schedule. These 3 assignments are worth a total of 60 points!
2. **Student Action Plan:** Each student will develop a Personal Environmental/Sustainability Action Plan for work or home. See pages 139-140 in student packet! PLEASE DO NOT PUT IN JOURNAL - turn in on separate paper - you will not receive credit if it is written in your journal. Your Action Plan will go into the ES 1 Student Action Plan Binder archive in the Kirsch Center! This is worth 25 points! Due Dec 4.
3. **Class session entries**: You are required to keep a weekly journal! Your journal entries will be checked at the end of the quarter. Participation + journal =150 points! Due Dec 4.
4. **Group presentation – Renewable Energy Or Environmental Law topic** (50 points)
5. **One class mandatory field trip (select ONLY one of the following 3 options):**
   - **Santa Teresa County Park Field Trip is on Tuesday Oct 16 (5:30pm-7:30 pm) OR**
   - **Self-guided field trip to Muir National Historic Site, Martinez (get information from the SRC (upstairs at Kirsch Center) OR**
   - **Nondriver worksheet to be completed at the SRC (go to SRC upstairs at Kirsch Center)**
6. Extra Credit Opportunities: (Students may do a maximum of 20 points extra credit)
7. Alcohol and drugs are not allowed during class including field trips.

Final Grades:

Point Breakdown:

Final Team Assessment	100
Homework 1–3	60
Student Action Plan	25
Lecture activities (Journal)	150
Field Trip	50
Group presentation	50
Total Points	435 points

Grading Scale:

A	88 – 100%
B	78 – 87%
C	68 – 77%
D	55 – 67%
F	54% & below

Resources available to Students:

1. Environmental Studies Department website http://www.EnvironmentalStudies.deanza.fhda.edu for program & class information
2. **ES 95** - Intro to Environmental Careers (1 unit); **ES 65, 66, 67 & 68 - Environmental Stewardship series, ES 2 - Humans, the Environment & Sustainability** (GE/4 units); **ES 3 - Imagery of the Environment, ES 69-79** - Energy Management courses (9 – 1 unit modules)! **ESCI 1 and ESCI 1L** or **ESCI 19 Environmental Biology** or **ESCI 20**

(Biodiversity) fulfills GE lab science requirement! ***Join us at the Kirsch Center for Environmental Studies!***

3. **Consider our degree and certificate programs including:**
    - **Energy Management & Climate Policy**
    - **Environmental Stewardship – Wildlife Corridor Technician Program – ES 65, 66, ESCI 50, 52, 53, 54, 55 and 57**
    - **Biodiversity/Ecosystems Specialist**
    - **Environmental Compliance & Pollution Prevention (ES 6, 61A, 61B Environmental Law)**
    - **Or, if you prefer, Seminar courses along 37th parallel for units! Environmental education . . . on the cutting-edge!**

ES 1 Student Learning Outcomes:
#1 Assess (apply) the criteria necessary to be successful in the Environmental Studies class.
#2 Demonstrate a coherent understanding of the relationships between human use and exploitation of natural resources, environmental and ecological concepts and possible solutions and sustainable practices.

"There are a lot of things in life that are worth the pain. Being a leader is one of them."
Ronald Heifetz (author, Leadership Without Easy Answers, 1994)

"There are two spiritual dangers in not owning a farm. One is the danger of supposing that breakfast comes from the grocery, and the other that heat comes from the furnace."
Aldo Leopold, A Sand County Almanac

"Introduction to Environmental Studies" Assignment Schedule Fall '12

Week: **ASSIGNMENT DUE DATES!**	**This Week's Topics**	**Text Chapters and Pages to Read**	**Assignment & reading checklist!**
Week 1: Sept 25 ***Tour Cheeseman Environmental* Study *Area (ESA), Kirsch Center*** ***Fill Out fieldtrip permission slip!***	Humans and the Earth/History Environmental Issues, Causes & **Sustainability – Kirsch Center & Green Building** What is **Environmental Studies**? What is **Environmental Science**? Careers & Our **Environment**	-Review course syllabus & Withgott/Brennan reading list below. -pp. iii-xiii = Environmental Studies and Kirsch Center For Environmental Studies mission statement, our four degrees and certificates, etc.	Tape yellow treasure hunt worksheet into Journal #1
Week 2: Oct 2	Human History: Agricultural->Industrial -> **Environmental Revolutions** Native Americans and the Land Video: The Way West U.S. Environmental History Champions of the Land	**Ch. 1**: -pp. 1-8 (Our Island Earth), -pp. 8-9 (Nature of Environmental Science) -pp. 10-15 (Nature of Science-critical thinking, scientific method), -pp. 15-20 (Sustainability)	
Week 3: Oct 9 **Week 4: Oct 16 Fieldtrip: meet at Santa Teresa County Park 5:30-7:30** **Homework #1 Due Oct 16**	**Hetch-Hetchy Debate** Video: The Wilderness Idea 3 types of **Natural Resources** **Earth's Life Support Systems** **Nature's Services** **WASSEEM** Learning from Nature Developing an Action Plan 3 categories of federal lands Arctic Wildlife **Refuge** Debate Video: Oil on Ice	**Various Chapter Pages**: -pp. 57-62, 68-69, App. D (Evolution) -pp. 52, 55, 71-73 (Biodiversity) -pp. 138-140 (Worldviews), -pp. 225-227 (Agricultural societies, industrialized agriculture) **Ch. 6**: -pp. 142-146 (Ethics, leaders) **Ch. 12**: -pp. 319 (Fig. 12.7) (Forest maps)	
Week 5: Oct 23 **Week 6: Oct 30**	Parks, Forests & Refuges Endangered **Species** National **Parks** National **Forests** Wildlife **Refuges** U.S. **Wilderness** System Marine Sanctuaries Environmental **Ethics** 101 The Land Ethic (Leopold) **Toxics** Video: Love Canal (**Superfund**)	**Ch. 6**: -pp. 142-146 **Ch. 1**: -pp. on Natural Resources **Ch. 12**: -pp. 314-322 (Forests) -pp. 326-340 (Public Lands, Climate Change) **Ch. 19**: -pp. 529-531, 542-543, 555 (Arctic National Wildlife Refuge)	
Week 7: Nov 6 **Homework #2 Due Nov 6** **Week 8: Nov 13**	Environment and **Politics** Environmental Justice Climate Change & Politics **Economics**, Environment & Sustainability	**Ch. 6**: -pp. 136-146 (worldviews, ethics, ecofeminism, environmental justice) **Ch. 22**: -pp. 639 (Love Canal)	

	Ecological vs conventional views of economic activity **Natural capital** Sustaining Biodiversity ***Student Presentations***	**Ch. 6**: -pp. 144-146 (environmental justice) **Ch. 7**: -pp. 166-185 (Environmental Policy, Law)	
Week 9: Nov 20 **Homework #3 Due Nov 20** **Week 10: Nov 27** **Journals due Mon Dec 4 at the end of lecture! All journal make-ups must be completed at SRC before Dec 4.**	**Nonrenewable Energy Sources** (Oil, Natural Gas, Coal, Nuclear) Nuclear Power and U.S. National Security **Renewable Energy Sources** (Energy Efficiency, Designing Buildings to Save Energy, Renewable Solar Energy to provide Heat and Electricity) **Climate Change & Energy Policy** History of Oil The Environmental & Wise-Use Movements Environmental Activism ***Student Presentations***	**Ch. 7**: -pp. 185-192 (Science, Environmental Policy) **Ch. 21**: -pp. 589-613 (New Renewable Energy Alternatives: solar, wind, geothermal, hydrogen) **Ch. 18**: -pp. 512-525 (Global Climate Change) **Ch. 6**: -pp. 146-163 (Economics) -pp. 3,121-122,148-149,156-161 (Ecosystem Services) **Ch. 8** -pp. 196-205, 211-220 (Human Population) **Ch. 15** -pp. 418-428 (Fresh Water-solutions to depletion) **Ch. 17** -pp. 471-476, 486-490 (Clean Air Act and Air Pollution)	
Week 11: Dec 4 **Journals due Dec 4 at the end of lecture!** **Student Action Plans due Dec 4. Turn in separately – do not put in journal! (Instructions in ES 1 student packet pgs 139-140)** **NO LATE WORK WILL BE ACCEPTED AFTER CLASS ON DEC 4.**	Building a **Sustainable Society** in the 21st Century Sustainable Studies & lifestyles ***Student Presentations*** **ALL CLASS WORK IS DUE BY DEC 4. NO EXCEPTIONS.**	**Ch. 22, 23**: -pp. 616-622, 625-640 (Waste) -pp. 643-644, 648, 650-653, 658-661 (Minerals and Mining) **Ch. 19, 20**: -pp. 528-530, 533-537, 542-543, 550-557, 561-564, 568-569, 570-573, 576-586 (Fossil Fuels, Their Impacts, Energy Conservation, Conventional Energy Alternatives) **Ch. 13, 24**: -pp. 343-366 (Creating Livable and Sustainable Cities) -pp. 664-687 (Sustainable Cities) -www.greenfacts.org/ecosystems/	
Final Class: Dec 11: 6:15-8:15 **Final Team Assessment**	**Final Team Assessment (In-class presentation)**		