

**Ed 448: Environmental Education
Winter 2000
Chaminade University**

Instructors:

Laura Duffy Office Hours: By appointment Phone: Work: 842-8312 (7 am - 3 pm)

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Location/Hours: Henry Hall 225 & 227 /5:45- 8:45 pm

I. Course Description

Chronological and topical approaches to showing the history of our planet and its inhabitants; interdisciplinary studies relate zoological, botanical, geological, and cultural studies to the history of humanity and ecological issues surrounding that history.

II. Rationale

This intensive course will provide a solid foundation in environmental education and the scientific method. Although alot is known, there is still much to discover, especially how species interact within complex ecosystems. Complicated environmental problems often defy easy answers and quick solutions. Instructing students about the environment is a global imperative since this generation has a responsibility as no other. There is a real urgency to learn all we can before the environment is harmed beyond the point where informed decisions could prevent irreparable damage. Humankind has the unique capacity to destroy or preserve entire ecosystems and other species in great numbers. However, our time to act conservatively is at a minimum. Educators must teach global awareness and ecological principles. Their students can then learn stewardship and responsibility to all living creatures and environments and be filled with confidence in effecting a positive change on this unique planet called Earth.

III. Course Objectives

The student will:

1. Develop a balanced approach to the diverse study of the environment.
2. Understand and demonstrate the scientific method effectively.
3. Acquire the science background to analyze many of the issues concerning our environment.
4. Improve thinking and decision making skills and the methodologies needed to transmit these skills to students.
5. Be able to write a paper utilizing current references with the appropriate format, including parenthetical references within the text.
6. Create an organized portfolio of course work and supplemental environmental materials which will be useful to the student's future teaching goals.
7. Share a book in an oral presentation that reflects the student's environmental philosophy and is appropriate for the student's future teaching level.
8. Present a cohesive, integrated lesson on an ecosystem.

IV. Course Materials

1. Meyers, N. (ed). (1993). Gaia: An Atlas of Planet Management. New York: Doubleday.
2. Large three ring binder with dividers

V. Course Format

The first part of the course will be presented by the instructors and will focus on the uniqueness of our planet, types of pollution, lab techniques and research methods. Environmental science activities, suitable for the classroom, will be presented throughout the course. A model for the ecosystem project will also be presented. Subsequent classes will be conducted primarily in group discussion seminar format with participants taking turns acting as discussion or class activity facilitators.

VI. Administrative Requirements

1. **Attendance:** Punctuality and regular attendance is expected of all students and has a significant impact on the course grade. Students receive points for attendance and participation in class activities and exercises which can not be attained in any other way. Two absences result in a report to the Academic Dean and to the Registrar and the issuance of a deficiency notice. Missing three classes will result in a grade no higher than 70 % (C).
2. **Incompletes:** Because of the extensive laboratory and participatory nature of the Ed 448 class, an incomplete designation will be considered only if the student has completed at least 75% of the course requirements. It is the student's responsibility to request an incomplete. This request must be written and received by the instructor prior to the last week of instruction and should clearly state why an incomplete is unavoidable.

VII: Academic Requirements

All assignments will be discussed in detail in class prior to the due date. In addition, all assignments will be modeled by the instructor.

Attendance and participation 20%

Every class will include activities which must be completed and organized in the binder. The binder will be checked several times during the course.

Oral presentations 30%

1. Small groups of students will present a short (15 minutes) summary of one or more of the main concepts within an assigned chapter of the required text. Each student must also submit an evaluation, of themselves and each member, after the presentation.
2. Each student will find and share with the class a book which reflects the student's environmental philosophy. This book can be appropriate for the future teaching level of the student. A short oral summary (5- 10 minutes) is acceptable or the entire book can be read to the class, if time permits.

Environmental science activity 10%

Each student will conduct a short activity (5-10 minutes) to demonstrate an environmental science concept. The activity should be appropriate to the student's future teaching level. A handout, modeling the scientific method, describing the activity and including references must be prepared for each member of the class.

Ecosystem Project 40%

Each student will focus on an ecosystem or aspect of an ecosystem and present their project on the final class session. Educational application, appropriate for the student's future teaching area, is paramount. Therefore, the project should include at least one activity that the teacher finds interesting and will want to do in the classroom. Documentation, such as lesson plans and resources, which will be of use to the student in the future application of the project to his/her classroom should be included.

Ecosystem choices include, but are not limited to: 1. Forests (tropical, temperate, taiga) 2. Freshwater (lakes, wetlands, rivers, ponds, glacial, sea ice) 3. Marine (neritic, pelagic, benthic) 4. Grasslands 5. Desert 6. Tundra.

VIII. Evaluation

Grading Criteria for Ed 448

A90-100%

B80-89%

C70-79%

D 60 - 69

F 60 % and below

(rev 9/15) ENVIRONMENTAL EDUCATION SCHEDULE <i>Chaminade University</i>			
DATE	TODAY'S FOCUS	TODAY'S ACTIVITY	ASSIGNMENT(DUE AT NEXT CLASS SESSION)
9/8	*The Unlikely Planet *Global Imperative and the Importance of Teachers *Types of Pollution *Complete Pollution *Begin Ecosphere	Oil Spill Lab= 'No Greasy Kid's Stuff!' *Terrariums*Wynogratsky Column *Danger at the Beach	*Text pp 1-19, 76-83 *Bring in a 2 clear 500 ml soda bottles with caps *Bring in about 3 cups of soil *Bring in container for your terrarium and a few small plants *pp 84-93*Choose presentation topics and partners
9/15	'Example of Ecosystem Presentation	*What is an Ecosystem?' Journey 200 Patterns *Philosophy: Erica, Judith	o *pp 22-35
9/22	Land Potential	*Group Reading Presentation: Alan Mike, Denise, Erica* Report on Winogratsky Column *Philosophy: Jennifer, Tami, Wendy, Chrissie	*pp36-61
9/29	Land Crisis & Managing the Land'	*Group Reading Presentation: Wendy, Holly, Tami, Chrissie*Mining Presentation and Environmental for Peanuts Demo: Bioluminescence *Philosophy: Bobbie, Punahale, Cynthia	*96-123 *Effect of Acid Precipitation on Plants
10/6	Elemental Potential & Elements Crisis	*Group Reading Presentation: Loretta, Lucretia *Student Presentations: Environmental Activity *Philosophy: Peter, Skylar, Scott, Heather, Holly	
10/13	'Meet at Ho'omalula Park's Visitor Center 6:15-9:30 pm for Full Moon Plant Walk		*pp140-151
10/20	Evolutionary Potential :	*Group Reading Presentations: Peter, Skylar, Scott, Heather/Monica, Jocelyn, Jennifer, Rose. *Report on Winogratsky Column *Philosophy: Lucretia, Mike, Adam	"pp 152-167

10/27	Evolution in Crisis & Evolution in Management	*Group Reading Presentation: Punahale , Bobbie, Stacey, Cynthia *Philosophy: Monica, Lovella, Rose, Jocelyn	*pp170-175
11/3	Human Potential	Group Reading Presentation: Judith, Lovella, Chesha, Maria *Philosophy: Jocelyn	*pp176-193
11/10	Holiday		
11/17	Crisis: The Inability to Participate & -Managing Ourselves	: Group Reading Presentation: Jenn, Kim, Jenn *Philosophy: Jenn, Kim, Jenn	*pp194-229 *pp230-259
11/17	Civilization & Management	*Group Reading Presentation: : Adam, Bonnie, Rhonda Presentation *Philosophy: Bonnie	
11/24	Holiday		
12/2	Kualoa Aquaculture Site \$5.00 8:30-10:30(Optional Snorkeling : Field Trip 10:30 am-2:30pm \$15)	*Report on Winograsky Column *Philosophy:	*pp260-261
12/8	Ecosystem Project Presentations		
12/15	Ecosystem Project Presentations		