D '00

COURSE: BI 110 - People and Nature (Lecture)
TIME: 10:00-10:50 a.m. MWF (August 28 - Dec. 14, 2000)
INSTRUCTOR: Dr. Alan Ohta
email: ohta@i-one.com
OFFICE HOURS: Fri. 11:00 a.m. - 1:30 p.m.
TEXT: ***Environmental Science,*** 7th ed. (1999), G. Tyler Miller, Jr.
COURSE DESCRIPTION: This course is designed to introduce you to our relationship with the natural environment and the consequences of our actions/inaction in dealing with it. In order to do this we must look at not only the purely scientific aspects of our world but we must also incorporate man's social aspects as well. Thus we will be combing ideas and information from both the natural sciences (i.e., biology, geology, physics, chemistry, etc.) and the social sciences (i.e., economics, politics, ethics, etc.) to try to gain an understanding of man's present relationship with the environment, what historical events have brought us here and what we must accomplish to in sure our survival through the next millennium.

**OBJECTIVES:**

1. To gain some basic knowledge of the processes of our natural environment.
2. To increase awareness of the complex relationships among all living things and their non-living environment.
3. To examine man's past and present relationship with his environment and the possible affects of these relationships on our future.
4. To increase awareness of the environmental problems facing us today and to present some solutions to these problems.
5. To enhance your knowledge and awareness of our environmental problems to enable more informed political and economic decisions.

LECTURES:

1. Lecture topics and text assignments are listed in the course outline.
2. Examination dates are also listed in the course outline.
3. The instructor reserves the right to add, omit, or change the materials as he sees fit.

EXAMS, QUIZZES & GRADES:

1. All exams & quizzes are "open book & notes" & will consist of short essay questions. You will be graded on your ability not only to answer the question (some can be answered in several ways), but also in how effectively you can defend your answer/position using your knowledge of the subject & applying what you learned through the use of appropriate facts/examples. Thus all questions g for your opinion or position, whether stated or not have an implied "Why?" or "How?" question attached.
2. Grades will be based on ***the following system & scale:***

| Grade Scale: | | Grading System: | |
|---|---|---|---|
| 90% & above | = A | Quizzes | 30% |
| 80 - 89% | = B | Mid Term | 30% |
| 65-79% | = C | Final | 40°10 |
| 50-64% | = D | | |
| 49% & below | = F | | |

COURSE OUTLINE:

08/28/00 Course introduction
08/30 Introduction to Science (Chap. 3)
09/01 Matter & Energy

09/04 Holiday: Labor Day
09A Earth History
09/08 Evolution

09/11 Environmental Problems (Chap. 1)
09/13 Resources & Pollution
09/15 Cultures vs. Environment

09/18 Ecosystems (Chap. 4)
09/20 Chemical Cycles
09/22 Energy flow

09/25 Biomes (Chap 5)
09/27 Terrestrial
09/29 Aquatic

10/02 Resources: Water (Chap. 11)
10/04 Water Pollution & Solutions
10/06 Resources: Air (Chap. 9)

10/09 Holiday: Discover's Day
10/11 Air Pollution
10/13 Climate (Chap. 10)

10/16 Global Warming & Ozone Layer
10/18 Resources: Minerals (Chap. 12)
10/20 Midterm Exam

10/23 Resources: Soils
10/25 Resources: Foods (Chap. 14)
10/27 . Agriculture

10/30 Protecting Our Food (Chap. 15)
11/01 Toxicology & Risk Chap. 8)
11/03 Human Health

11/06 Solid Waste (Chap. 13)
11/08 Toxic & Hazardous Waste
11/10 Holiday: Veteran's Day

11/13 Nonrenewable Energy (Chap. 19)
11/15 Fossil Fuels
11/17 Radiation

11/20 Renewable Energy (Chap. 18)
11/22 Solutions
11/24 Holiday: Thanksgiving

11/27 Population Growth (Chap. 6)
11/29 Age Structure
12/01 Solutions

12/04 Politics & Economics (Chap. 7)
12/06 Environmental Solutions?
12/08 Course in Retrospect

12/14 Final Exam

COURSE: BI 110L - People and Nature (Lab)
TIME: 2:00-4:30 p.m.-Fri. (Sept. 1 - Dec. 8, 2000)
INSTRUCTOR: Dr. Alan Ohta
email: ohta@i-one.com
OFFICE HOURS: Fri. 11:00 a.m. - 1:30 p.m.

COURSE **DESCRIPTION:** The tab class for the course People and Nature is designed to show man's affect on the Hawaiian environment. Thus we will be learning some natural history of the Hawaiian Islands and will also go on field trips to places which show man's impact on paradise.

**OBJECTIVES:**

1. To increase awareness of the uniqueness of our local environment.
2. To observe man's impact on the Hawaiian environment.
3. To increase awareness of the environmental problems facing Hawaii today.
4. To observe some of the steps taken to protect the Hawaiian environment.
5. To increase appreciation for the natural environment.

ASSIGNMENTS:

1. All field trips will have a handout as a guide for the trip. These will be provided prior to the field trip and will be turned in on the class period following the field trip.
2. All lab exercises will require a written report using the format provided by the instructor. These reports will be due as announced by the instructor.

LABS:

1. Laboratory topics and assignments are listed in the course outline.
2. Examination dates are also listed in the course outline.
3. The instructor reserves the right to add, omit, or change the materials as he sees fit.

EXAMS, QUIZZES & GRADES:

1. All exams & quizzes are "open book & notes" & will consist of short essay questions. You will be graded on your ability not only to answer the question (some can be answered in several ways), but also in how **effectively** ***you*** can **defend** your answer/position **using** your **knowledge** of the subject **&** applying what you learned through the use of appropriate **facts/examples**. Thus **all** questions asking for your opinion or position, whether stated or not have an implied **"Why?"** or "How?" question attached.
2. Grades will be based on the following system **& scale**:

| Grade Scale: | | Grading System: | |
|---|---|---|---|
| **90%** & above | = A | Labs | 75% |
| **80 - 89%** | =13 | **Final** | 25% |
| 65-79% | = C | | |
| 50-64% | = D | | |
| 49% & below | = F | | |

COURSE OUTLINE:

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|---|---|
| 09/01/00 | Introduction: Hawaii's Natural History |
| 09/08 | Scientific Method |
| 09/15 | Hawaii's Problems |
| 09/22 | Field Trip: Board of Water Supply? |
| 09/29 | Water Usage & Conservation Lab |
| 10/06 | Field Trip: H-power & Waimanalo Landfill |
| 10/13 | Opala Collection & analysis |
| 10/20 | Field Trip: Sand Island Sewage Treatment Plant |
| 10/27 | Hawaii's energy problems & solutions |
| 11/03 | Foods Lab |
| 11/10 | Holiday: Veteran's Day |
| 11/17 | Field Trip: Pali Lookout (Man's Effect 4A the Environment |
| 11/24 | Holiday: Thanksgiving |
| 12/01 | Field Trip: Paiko Lagoon |
| 12/08 | Lab Final |