

Syllabus EVR 4415 Population and Environment
Spring 2008 MW 5:00-6:15 PM
Classroom: GC 278 A

Instructor: Jim Riach riachj@fiu.edu

Office hours:

Wednesday, 12:00 - 1:00 PM

Thursday, 12:30 - 2:30 PM

Location: ECS 335

Course Description:

The course is a study of the human population and the relationship between environmental conditions and changing human population dynamics. Students are introduced to recent patterns of human population dynamics, their consequences to ecological and global environmental systems, and subsequent uneven effects on the quality of life of diverse populations. To better understand how we arrived at this current status, students will study the origins of the human species and investigate how traits specific to humans enabled their eventual increased abundance and distribution throughout the planet. Students will also study how key historical events led to major demographic transitions across time. Case studies of ancient societies that either collapsed or continue to thrive will be analyzed to better understand the complexity of factors mitigating the relationships between population, environment, and well-being. Finally, in light of the projections of future changes in population growth and environmental conditions, students study recent approaches to developing a more sustainable and equitable quality of life for present and future generations around the world.

Course Objectives:

After successfully completing this course, students will be able to:

- Identify and explain current concerns regarding human population dynamics and environmental change
- Define basic concepts in demography and population ecology
- Explain the relationship between the environment and key biological, cognitive, and socio-cultural evolutionary developments among humans
- Explain how multiple factors influence the effects of human population size on the environment
- Explain how multiple environmental factors affect human population size and quality of life
- Identify social, cultural, ecological, and technological alternatives for reducing the threats of human population growth and environmental degradation

CE6:

This is a web-assisted course. All students will be assigned a CE6 account for online access to the course, which **will contain ALL reading materials**, lecture supplements, professor e-mail access, assignment submission tools, and suggested links.

Grading:

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|------------------------|-----|
| In-Class Participation | 10% |
| Exam I | 20% |
| Exam II | 20% |
| Homework | 10% |
| Project | 30% |

In class participation

All students are expected to be prepared to discuss issues related to lecture topics in class. To receive participation credit, students must actively participate in these discussions.

Exams

There will be two take home exams given during the semester. The exams will be posted on CE 6 and students will be given one week to complete and submit their completed exam on CE 6. No extensions will be granted.

Homework

Throughout the semester students will be assigned several simple practical assignments that must be completed and results presented in class. The assignments and their deadlines will be discussed in class.

Project

All students must complete a project related to population-environment issues. Students will work in pairs to complete the project, which will include a paper component and a public presentation. This project will be in the form of a proposal. The proposal can identify a strategy to address issues related to population-environment problems or it can be a proposal to carry out research on significant population-environment issues. Details about the requirements for the project will be presented to students in class. The deadline to submit the topic for the project is 1/21. The deadline for the written proposal is the last day of regular classes (4/15). Drafts will be accepted for review prior to the deadline.

Grades are based on the following percentages

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|-------------------|-------------------|-------------------|
| A = 94-100 | A- = 90-93 | B+ = 87-89 |
| B = 83-86 | B- = 80-82 | C+ = 77-79 |
| C = 73-76 | C- = 70-72 | D+ = 67-69 |
| D = 63-66 | D- = 60-62 | F = 0-59 |

Readings and Course Schedule

I. Overview

Week 1 (1/5, 1/7): Introduction, why we need to study the relation between population and environment

Catton, William R. Jr. - *The Tragic Story of Human Success*

American Association for the Advancement of Science (AAAS) - *The Scale of Our Presence*

Brown, Lester R. - *Entering a New World*

Week 2 (1/12, 1/14): Population and population-environment theories and trends

Southwick, Charles H. - *Population Ecology; Human Population*

Barbara Sundberg Baudot - *Dimensions of the Population-Environment Equation*

*Supplemental Optional readings: AAAS - *Theory of Population-Environment Links; Population and Consumption Trends; Natural Resources and Waste; Status of Ecosystems*

II. Human Traits that Affect Population and Environment

Week 3 (MLK B'Day, 1/21): Compared to our closest relatives

Waal, Franz B.M. - *Apes in the Family*

1/21 Deadline to submit idea for project.

Week 4 (1/26, 1/28): Sex and violence

Waal, Franz B.M. - *Sex; Violence*

Week 5 (2/2): Kindness and spirituality

Waal, Franz B.M. - *Kindness*

Harrod, James B. - *Chimp Spirit Database*

Week 5 (2/4): Environment and evolution of human culture

Catton, William R. Jr. - *Nature and the Nature of Man*

Boyden, Stephen - *The Biology of Culture; Humans in Their Natural Habitat*

Week 6 (2/9, 2/11): Innate emotions and learned values influencing human-environment relations

Edward O. Wilson - *Biophilia and the Conservation Ethic*

Sewid-Smith, Daisy - *Aboriginal Spirituality, Population, and the Environment*

Week 7 (2/16, 2/18): Religion and population-environment relations

Keller, Catherine - *A Christian Response to the Population Apocalypse*

Klostermeier, Klaus K. - *Hinduism, Population, and the Environment*

EXAM I assigned 2/16 due 2/23

III. Population Growth and Biodiversity Loss

Week 8 (2/23, 2/25): Causes, scale, and consequences of biodiversity loss

Mckee, Jeffrey K. - *Genesis of a Crisis; Germs of Existence*

Chivian, Eric – *Biodiversity: Its Importance to Human Health Ch. 1, 5, and Ch. 6*

IV. Case Studies

Week 9 (3/2, 3/4): Failed population-environment relations

Diamond, Jared - *Twilight at Easter; Malthus in Africa: Rwanda's Genocide*

Week 10 (3/9, 3/11): Successful population-environment relations

Diamond, Jared - *Opposite Path to Success*

Sponsel, Leslie, E. and Poranee Natadecha-Sponsel - *Illuminating Darkness: The Monk-Cave-Bat-Ecosystem Complex in Thailand*

Week 11 (3/16-3/21): Spring Break

V. Preparing for the Future

Week 12 (3/23, 3/25): Population growth and conservation efforts in biodiversity hotspots

Family Health International - *Population Health and Environment White Paper*

Exam II assigned 3/25 due 4/1

Week 13 (3/30, 4/1): Population growth and working towards sustainability in urban areas

Brown, Lester R. – *Designing Cities for People*

Various case study examples of cities responding to population-environment problems

VI. Student Projects

Week 14 (4/6, 4/8): Student projects

Week 15 (4/13, 4/15): Student projects

4/15 Deadline to submit written component of project