Instructor: Jim Riach riachj@fiu.edu
Office hours:
MW: 1-3 PM
TuTh: 2:30-5 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 human evolutionary theories
- 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:
In-Class Participation 15%
Exam I 20%
Exam II 20%
Homework 15%
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. Yes, you must speak in class.

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 for action** to address issues related to population-environment problems OR it can be a proposal to **carry out research** on significant population-environment issues **without taking any action** on the 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 9/16. The deadline for the written proposal is the last day of regular classes (12/2). Drafts will be accepted for review prior to the deadline. Students must make an appointment to meet with the professor at least once during the semester to discuss their projects.

**Grades** are based on the following percentages

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**Readings and Course Schedule**

**I. Overview**

**Week 1** (8/24, 8/26): 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*

**Week 2** (8/31, 9/2): Population and population-environment theories and trends
Southwick, Charles H. – *Population Ecology; Human Population*

**Week 3** (9/7, 9/9): Evolutionary theories
Carey, Gregory - *The Five Forces behind Human Evolution*

**Week 4** (9/14, 9/16): Human evolution
Penn, Dustin J. - *The Evolutionary Roots of Our Environmental Problems: Toward a Darwinian Ecology*

9/16 Deadline to submit idea for project.

**II. Human Traits that Affect Population and Environment**

**Week 5** (9/21, 9/23): Compared to our closest relatives
Waal, Franz B.M. - *Apes in the Family*

**Week 6** (9/28, 9/30): Sex and violence
Waal, Franz B.M. - *Sex; Violence*

**Week 7** (10/5, 10/7): Kindness
Waal, Franz B.M. - *Kindness*

**Week 8** (10/12, 10/14): Innate emotions and learned values influencing human-environment relations
Edward O. Wilson - *Biophilia and the Conservation Ethic*

**Week 9** (10/19): Population growth and biodiversity loss
McKee - *Genesis of a Crisis; Germs of Existence*

10/21: EXAM I

**IV. Case Studies**

**Week 10** (10/26, 10/28): Failed population-environment relations
Diamond, Jared - *Twilight at Easter*
Week 11 (11/2, 11/4): 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*

**V. Preparing for the Future**

Week 12 (11/9): 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
Family Planning

Week 13 (11/16): Exam II

**VI. Student Projects**

Week 13 (11/18): Student projects
Week 14 (11/23): Student projects
Week 15 (11/30, 12/2): Student projects

**12/2 Deadline to submit written component of project**

Week 16 (12/7, 12/9): Final’s Week – No Classes