

50-377/577: POPULATION AND ENVIRONMENT

Spring 2013

Class sessions: Tuesday & Thursday (11:30 AM – 1:00 PM) in Sage 4218

Instructor: Kazimierz J. Zaniewski; Office: **Sage 4465**; Telephone: **424-7112**; E-mail: zaniewsk@uwosh.edu

Office Hours: Monday (10:20-11:20 AM); Tuesday (9:40-11:10 AM; 1:20-2:50 PM); Wednesday (10:20-11:20 AM; 1:50-2:50 PM); Thursday (9:40-11:10 AM); other hours by appointment.

Readings: Harrison, Paul and Fred Pearce. (2000) *AAAS Atlas of Population and Environment*. Berkeley, CA: University of California Press. [<http://atlas.aaas.org>]

Hunter, Laurie. (2000) *The Environmental Implications of Population Dynamics*. Santa Monica, CA: RAND. [http://www.rand.org/pubs/monograph_reports/MR1191]

Markham, Victoria D. (2006) *U.S. National Report on Population and Environment*. New Canaan, CT: Center for Environment and Population. [http://www.cepnet.org/documents/USNatlReptFinal_000.pdf]

Panayotou, Theodore (2000). "Population and Environment." Center for International Development at Harvard University: CID Working Paper No. 54. [<http://www.cid.harvard.edu/cidwp/054.htm>]

These and additional readings, listed at the end of the syllabus, are also available in D2L.

COURSE GOALS AND OBJECTIVES

Population and Environment is an upper-level course that examines the relationship between population and environment, especially the importance of demographic change in shaping the natural environment, theoretical perspectives used in the analysis of the population-environment relationship, forces that influence this relationship (technology, institutions, and culture), and how population dynamics affect various aspects of environmental change, particularly climate, land-use (vegetation), water and energy resources, and selected ecosystems (mountains, deserts, polar regions). Most topics will be studied from historical and global perspectives with comparisons of population-environmental links in various parts of the world and those in the United States.

The course is intended to acquaint the students with the main ideas and supporting facts about the relationship between population and natural environment that a person with college degree might reasonably be expected to know. It is also intended to encourage development of an understanding of the increasingly interdependent and interconnected world and the relationship between the actions of individual countries, corporations or groups of people and the impact they have on the physical environment at the local, regional and global scale. Another goal is to instill in students a desire to maintain an interest in population-environmental links after they have completed the course.

This course is also intended to develop students' skills in using verbal, quantitative, and symbolic data in the form of maps, text, graphs, tables, and diagrams; ability to explore demographic and environmental topics at scales ranging from local to global; and skills in writing and statistics, such that their training aids in the development of personal and social competence and prepares the student to be a contributing member of society.

It is also expected that students, after completing the course, will value, appreciate, and be interested in the population and environmental issues; value the potential for using gained knowledge and skills in seeking solutions to local, regional, national, and global population and environmental problems; value the concern that our use of the globe will influence the quality of environment and human habitat for future generations; and value and be willing to use acquired knowledge and skills adequately and responsibly in private, professional, and public life. The above course goals and objectives are consistent with university, college, and department of geography assessment plans.

Course Outline			
Date	Major Topic	Specific Topic	Readings
January 29 (Tu)	Introduction	Introduction to the Course	
January 31 (Th)		Basic Concepts	Harrison (21-34), Panayotou (1-15, 45-52), Pebley (1998)
February 5 (Tu)		Resources on Population and Environment	PRB (1999), Markham (9-19)
February 7 (Th)	Historical Perspectives and Theories of Population-Environment Relationship	History of World Population Growth	Takacs-Santa (2004)
February 12 (Tu)		Demographic Transition Model	
February 14 (Th)		Theories of Malthus and Boserup	Harrison (7-11), McGuinness (1999), Papayotou (1-15, 45-52)
February 19 (Tu)		Neo-Malthusian and Marxist Perspectives	Harrison (7-11), McGuinness (1999), Papayotou (1-15, 45-52)
February 21 (Th)		Other Theories of Population and Environment	Hunter (35-45), Jolly (1993)
February 26 (Tu)		Review Session	
February 28 (Th)	EXAM 1		
March 5 (Tu)	Geographic Perspectives	Population Distribution and Environment	Harrison (12-20), Hunter (7-33), Small/Cohen (2004)
March 7 (Th)		Population Migrations and Environment	Bates (2002), Small/Naumann (2001), Hugo (1996)
March 12 (Tu)		World Urbanization Trends	Benneh (1994)
March 14 (Th)	Food Production	Food Production (Farming and Fishing)	Hunter (60-68), Hopfenberg (2001), Markham (39-42)
March 26 (Tu)		Malnutrition and Famines	Hunter (60-68), Hopfenberg (2001), Markham (39-42)
March 28 (Th)	Vegetation and Water Resources	Population and Forests	Harrison (63-66, 83-86, 127-130), Markham (20-30), Panayotou (15-30)
April 2 (Tu)		Population and Water Resources	Harrison (63-66, 83-86, 127-130), Markham (20-30), Panayotou (15-30)
April 4 (Th)		Review Session	
April 9 (Tu)	EXAM 2		
April 11 (Th)	Climate Change, Resources and Conflict	Population and Global Warming	Harrison (95-106), Hunter (49-60), Markham (47-50), Panayotou (30-35)
April 16 (Tu)		Non-Renewable Energy Resources	Harrison (47-54), Campbell (2002), Markham (43-46)
April 18 (Th)		Renewable Energy Resources	Harrison (47-54), Campbell (2002), Markham (43-46)
April 23 (Tu)		Environmental Scarcity and Conflicts	Homer-Dixon (1994)
April 25 (Th)	Population Policies	Population Growth Policies	Anderson (2004)
April 30 (Tu)		Population Migration Policies	Bates (2002)
May 2 (Th)	Environment and Health	Diseases and epidemics	Lampthey (2006)
May 7 (Tu)		Review Session	
May 9 (Th)	EXAM 3		

COURSE STRUCTURE AND CLASS ACTIVITIES

The entire course can be divided into three parts. The first part introduces students to selected concepts (e.g.: carrying capacity, ecological footprint, sustainable development); history of world population growth and its relationship to environmental change and economic development; theories about population-environment relationship, particularly the Malthusian, Boserupian and multiplicative theories. In the second part of the course, students will learn about the present world population distribution, composition and dynamics (particularly migration and urbanization) and its relationship to physical environment. The relationship between population growth and food supply (agriculture and fishing, malnutrition and famines), vegetation (forests) and water resources will also be covered in the second part of the course. The last part of the course will be devoted to the study of climate change (global warming) and its impact on human activities, production and consumption of energy resources (particularly fossil fuels), environmental security (conflicts), and population policies. Since there is a great difference of opinion among scholars or

politicians about the nature of population-environment relationship, students will be exposed to different points of view on this relationship.

Although lecture will be the dominant type of instruction, students will have an opportunity to participate in discussion and ask questions. At the end of each studied topic, students will be encouraged to present their views on the topic and the assigned readings. It is expected that through class discussion students will have an opportunity to participate more actively in their own education. At the same time, course content will be developed to a deeper and more enriched level through greater interaction and exchange of ideas.

ATTENDANCE POLICY

Students are expected to be present for each scheduled class session. The instructor may monitor attendance at some class sessions. In this course, reading assignments and lectures are intended to complement, not duplicate, one another. Therefore, it is very important that the student maintain a good attendance record. There are no excused absences unless the student presents a written statement explaining the circumstances leading to his/her absence in class. In all cases of absence, excused or otherwise, the student is responsible for completing missed work. Students may only attend courses/sections for which they are registered. It is the responsibility of the student to know the attendance policy of the instructor.

STUDENT REQUIREMENTS

Geography 377 is an upper-level undergraduate course that requires a student to have a sufficient academic preparation in the subject before being allowed to enroll in the course. Regular attendance and timely completion of assignments and projects are essential to successful performance in this course. Reading assignments should be read before the lecture on each topic. Without adequate preparation on the part of the student, some parts of the lecture may be unclear. Map reference is essential in any course in geography. The student should consult the map and make a habit of locating all the important places referred to in reading assignments, lectures, and discussions. Students with problems are encouraged to seek additional help from the instructor by visiting him during the assigned office hours.

Each student must also complete a term paper **project** (a written paper of about 2000 words) on a topic selected by the student and approved by the instructor. The main goal of the project is to involve the student in some original, creative work that is related to his/her own area of interest and, in this way, to develop competence and appreciation for research in geography. Another objective of the project is to demonstrate adequate research and communication (written and oral) skills and their proper reporting through a PowerPoint presentation. The project may examine a particular phenomenon (issue) in a selected country, region, or the entire world, or a set of population-environment issues in a selected country/sub-region. The student must submit a digital copy of the presentation. Additional information about the project will be provided in class. The **deadline** for completion of the project is April 25, 2013. Late submissions will receive fewer points (4% per day); projects submitted after May 2, 2013 or later will receive zero points.

In addition to the major term paper project, each student has to prepare five map analysis projects. Each project will be limited to analyzing a few maps and answering several questions. The map analysis projects will deal with the history of world population growth, world population distribution, food production, water resources, and renewable energy production. The instructor will also provide more information about these projects in class.

In preparing your projects, you must avoid **plagiarism**. Plagiarism means using another person's work without giving proper credit. You must give credit whenever you use (1) another persons' idea, opinion, or theory; (2) any fact, statistics, graphs, or drawings that are not common knowledge; or (3) quotations or paraphrase of another person's spoken or written words. Plagiarism devalues somebody's original work, and it is an academic dishonesty. Plagiarism also means taking a term paper or report that was prepared for one class and submitting it (or substantial parts of it) for credit in another class, without informing the instructor. Plagiarized projects will receive zero points. Additional disciplinary actions may be taken against the student accused of plagiarism.

The prerequisite for this course is one of the following: World Regional Geography (102), Human Geography (50-111), Population Geography (213), Seminar on Environmental Issues (37-101), or consent of the instructor. If you have not taken any of these classes, you should contact the instructor as early as possible.

EXAMS, PROJECTS AND GRADING POLICY

Three equally weighted exams are scheduled in this course. The exams are non-comprehensive and will cover material in the preceding unit of study. The examinations will consist of multiple choice, short answer, matching, and essay questions. If the student has a valid excuse for missing exam then taking a makeup is permitted. The valid excuse would include one of the following: serious illness, scheduled academic or varsity sports activities requiring your presence off campus, death or serious illness of immediate family member, court cases, and other similar circumstances (determined in advance, not after). However, the student must notify the instructor no later than the next class day to explain his/her absence and schedule a make-up exam. Failure to promptly and adequately explain the student's absence will result in receiving zero points from the missed exam.

The final grade in the course will be determined on the basis of the student's performance on the exams and quality of the project (content and presentation). The significance of each activity in assigning the final grade is shown below:

Activity	Maximum number of points for each activity	Total maximum number of points for each activity
Examinations (3)	50	150
Map Analysis Projects (5)	10	50
Term Paper Project	50	50
TOTAL	-	250

The following scale will be used in determining the final grade:

Grade	Points	Percentage
A	235-250	≥94
A-	225-234	≥90
B+	215-224	≥86
B	205-214	≥82
B-	195-204	≥78
C+	185-194	≥74
C	175-184	≥70
C-	165-174	≥66
D+	155-164	≥62
D	145-154	≥58
D-	135-144	≥54
F	0-134	<54

ADDITIONAL READINGS

Anderson, B. (2004). "Unintended Population Consequences of Policies," *Population and Environment* 25 (4): 377-390.

Bates, D. C. (2002). "Environmental Refugees? Classifying Human Migrations Caused by Environmental Change," *Population and Environment* 23 (5): 465-477.

Benneh, G. (1994). "Environment Consequences of Different Patterns of Urbanization," in *Population, Environment and Development*. New York, United Nations, pp. 159-165.

Campbell, C. J. (2002). "Petroleum and People," *Population and Environment* 24 (2): 193-207.

Foley, J. A. et al. (2005). "Global Consequences of Land Use," *Science* 309: July 22.

Goldewijk, K. K. (2005). "Three Centuries of Global Population Growth: A Spatial Referenced Population (Density) Database for 1700-2000," *Population and Environment* 26 (4): 343-367.

- Homer-Dixon, T. F. (1994). "Environmental Scarcities and Violent Conflict: Evidence from Cases," *International Security* 19 (1): 5-40.
- Hopfenberg, R. and D. Plumentel (2001). "Human Population Numbers as a Function of Food Supply," *Environment, Development and Sustainability* 3 (1): 1-15.
- Hugo, G. (1996). "Environmental Concerns and International Migration," *International Migration Review* 30(1): 105-131.
- Jolly, C. L. (1993). "Population Change, Land Use, and the Environment," *Reproductive Health Matters* 1 (1): 13-25.
- Lambin, E. F. & H. J. Geist (2003). "Regional Differences in Tropical Deforestation," *Environment* 45 (6): 22-36.
- Lamptey, P. R.; J. L. Johnson, and M. Khan (2006). "The Global Challenge of HIV and AIDS," *Population Bulletin* 61 (1): 1-24.
- McGuinness, M. (1999). "Population, Environmental Degradation, and Resource Availability: Resolving the Debate." <http://community.middlebury.edu/~horlache/popdev-k/Topics/Conferences/Environment/mcguinnessfp.html>
- Pebbley, A. R. (1998) "Demography and the Environment," *Demography* 35(4): 377-389.
- Pimental, D. and M. Pimental (2006). "Global Environmental Resources Versus World Population Growth," *Ecological Economics* 59: 195-198.
- Rahema, M. (2002). "A Different Look at the 'Population Problem,'" *Population and Environment* 24 (1): 97-104.
- Small, C. and J. E. Cohen (2004.) "Continental Physiography, Climate, and the Global Distribution of Human Population," *Current Anthropology* 45(2): 269-277.
- Small, C. and T. Naumann (2001). "The Global Distribution of Human Population and Recent Volcanism," *Environmental Hazards* 3: 93-100.
- Takacs-Santa, A. (2004). "The Major Transitions in the History of Human Transformation of the Biosphere," *Human Ecology Review* 11(1): 51-66.
- Population Reference Bureau (1999). "World Population: More than Just Numbers." [Available at <http://www.prb.org/Reports/1999/WorldPopulationMoreThanJustNumbersPDF941KB.aspx>]