Global and environmental change is often addressed from physical and/or environmental sciences perspectives, ignoring the roles of human population. But in fact, population and human behavior are major sources of physical, environment and societal changes. A comprehensive understanding of the society and global change requires a thorough understanding of population characteristics and dynamics.

This course draws on knowledge from several core areas of General Education: social science (involving economics, geography, and demography); natural science (relations to the natural environment); global understanding (providing a background of the world’s condition). The course also involves the use of Geographic Information System (GIS), an Information Technology tool, and quantitative reasoning.

What to Expect? (Learning objectives) The course will review basic demographic concepts. A major purpose of this course is to provide students an understanding of the spatial dimension of population and its relationship to natural resources, environment and various aspects of the society. This understanding can serve as the foundation of analyzing not only population issues but almost all societal problems. The course will discuss both concepts (analytic) and facts (descriptive). Students are expected to learn concepts and models related to population growth, dynamics, and distribution, and acquire tools/methods to analyze population issues. These tools and methods include measurements, statistics, models, theories, and maps. Some of these tools and methods will be implemented in software programs, including spreadsheets and GIS/mapping packages. Students will acquire skills to use relevant tools to analyze population and societal issues with appropriate data. Students with no prior experience in GIS are expected to watch the training video entitled “Up and Running with ArcGIS” in Lynda.com. Additional hands-on tutorials information will be provided later.

Outcome: After finishing this course, students are expected to have a better appreciation of global and local population issues. The students are also expected to develop a basic understanding of major population-demographic concepts, theories, models, and methods, both spatial and aspatial, in analyzing population. Therefore, students will be evaluated by how much they comprehend these bodies of knowledge in terms of their definitions, how they can be applied and interpreted.

Prerequisites: 30 hours, completion of, or concurrent enrollment in, all university general education courses, or permission of instructor. This course satisfies the synthesis requirement of the general education.

Assessment methods:
2 small projects 20 (not equally weighted)
2 in-class tests 30
Final exam 15
Report/Paper 25 in total (due on December 8)
  Content (15); English (5); Presentation (5)
Participation 10
Total: 100 points

The grades are “curved”. The “average grade” will be a C+ or B-. The best students will receive an A, regardless of how high or low his/her total scores may be. Students may fail if their total scores are “significantly” lower than the rest of the class.
* 10% of the score for each day will be deducted if assignments are late.
* All materials submitted to meet the evaluation criteria should be completed in accordance with the student Honor Code (University Catalog). Also no “double dipping” of term paper/report is allowed unless permissions are given by involved instructors.

Incomplete will be handled strictly according to the University policy. Make-up tests are not given unless under unusual circumstances such as serious illness. Proof (documentation) is necessary to be eligible for make-up tests.

Major Topics:
1. Introduction
   Population Geography, related disciplines, and Purposes (Intro)
2. Importance of Population Geography (Ch. 11)
   Environment and Food Supply
3. World Population and Population Growth: History and Theories (Ch. 1, 11)
   Demographic Equation, rates, modeling population growth
   Demographic Transition Model
   Three major periods of population growth
   US Population Change - Baby Boomers
   Demographic measures and doubling time
Test #1
4. Data Sources, Internet and Library Resources, Census Geography (Ch. 2)
   Types of data
   Sources of data, especially Census and Census Geography (US)
5. ?? [Introduction to GIS]
6. Population Composition/Population Characteristics (Ch. 3)
   Age and Sex Structure
   Sex Ratio, Dependency Ratio
   Race and Ethnicity
   Introduction to Excel (if necessary)
   • Project 1: Population Statistics and Population Pyramid
7. Spatial Distribution (Ch. 3 and 9)
   Distribution Global Scale: Size and Growth
   Urban-Rural Geography
Measures of Population Distribution
(Dot map, Dissimilarity Index/Hoover, Pop Center)
- Population Density
- Location Quotient
- Project 2: Population Distribution

Test #2
8. Fertility (Ch. 4)
9. Mortality (Ch. 5)
10. Dynamics of Population Change:
    - Residential Mobility
    - Internal Migration (Ch. 6)
    - International Migration (Ch. 7)

Report/Paper:
To partially meet the synthesis requirement, students are required to submit a report/paper, describing the population characteristics of a chosen country. Each student should use the Wikis tool in the course website to announce to the class the country of your choice to research and write about. Countries taken cannot be used by another student (“first-come, first-serve”). However, prior to the sign up, students should conduct preliminary research, exploring if sufficient data and information for the particular country is available. The report should include the minimum the following sections:
- Geographical and political settings of the chosen country
- Who are the people? Demographic characteristics
- Where are the people? Their spatial distributions
- Relevant and significant historical development related to the population
- Major population issues in the country (all issues are related to population, but some are more population-oriented and more important than others)
- References: use a format adopted by a major academic journal (*Annals of the AAG; The Professional Geographer,* etc.) consistently throughout the report/paper

This is a research paper/report. Sources of information, including statistics, should be provided (as citations, references or footnotes). Beware of the definition of plagiarism and not to claim the credits that you do not deserve. The report/paper should have 2800 to 3000 words (please provide a word count), plus references, tables and figures/maps. It should be in double-spaced, single-sized, 12 point in Times Roman or a similar font, and submitted both through the Blackboard to *Turnitin* and in hardcopy. The paper is due on December 8 in class. Earlier submissions will be appreciated.

Presentation:
At the end of the semester (starting either on November 29 or December 1), each student should give a concise 10 minutes or less presentation of the report/paper to meet the verbal communication requirement of a synthesis course. The presentation should be well structured and organized, highlighting major or unique population characteristics or issues of the chosen country.

*The instructor reserves the right to modify this syllabus, but will notify students about the change.*