INTRODUCTION TO DEMOGRAPHIC METHODS: Sociology M213A
Fall 2004
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Office Hours: Wednesdays 9:15-11:15 and by appointment

OVERVIEW: This course introduces students to the methods and models used to investigate population change, fertility, mortality, marriage, divorce, and migration. It will also illustrate the application of demographic techniques to other aspects of the social world, such as labor force behavior and educational attainment. The course will emphasize both the logic underlying demographic techniques and the application of the techniques to real data. The course consists of lectures, problem sets, a midterm, and a final. The problem sets are designed to help students learn to apply demographic methods and are essential to comprehending the material covered in this course.

READINGS AND OTHER MATERIALS: The primary textbook for this class is *Demography: Measuring and Modeling Population Processes*, by Samuel H. Preston, Patrick Heuveline, and Michel Guillot (Blackwell Publishers, 2001). The syllabus also lists additional readings that demonstrate the application of methods to a wide range of substantive topics. Most of the papers on the list are available from JSTOR (type www.jstor.org from a UCLA computer, or from your Bruin online connection). If the paper is from the journal *Demography* and was published after 1999, go to the e-journals section within the “Information Services” section of the web page of the California Center for Population Research (www.ccpr.ucla.edu). Other papers are available through links on the class web page. Many of the readings outside of the textbook are for your reference; I do not expect you to read all of them during the course of this semester. Required readings are marked with an asterisk. Readings marked with two asterisks are required and will be available from me. We will discuss the marked papers, so please read them and think about questions or comments to make during discussion... it's more interesting when you all participate! You will probably want to use a spreadsheet package such as excel to complete the problem sets.

PREREQUISITES: There are no graduate-level prerequisites for this course. Familiarity with basic concepts of calculus such as integrals and derivatives is helpful, as is some knowledge of statistics. I will not expect you to do calculus in this course, but quite a few demographic relationships will be explained with reference to calculus. It is very helpful to have a basic grasp of calculus notation.

GRADING: The final course grade will be based on performance on the following:

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<thead>
<tr>
<th>Assignment</th>
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<td>Midterm exam</td>
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<td>Homework and class participation</td>
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KEY DATES:
LECTURE SCHEDULE AND READINGS:

September 30  Overview, Basic Concepts and Measures
                      *Preston, Chapter 1.
                      Lee, Ronald. 2001. “Demography Abandons its Core.” (see List of Links on
                      class web page).
                      Ryder, Norman B. 1965. “The Cohort as a Concept in the Study of Social

October 5, 7  Age-specific Rates and Probabilities, Decomposition and the Lexis Diagram
                      *Preston, Chapter 2
                      *Smith, Herbert L., S. Philip Morgan, and Tanya Koropeckyj-Cox. 1996. “A
                      Decomposition of Trends in the Nonmarital Fertility Ratios of Blacks and
                      1974-75 Famine on Infant and Child Mortality in a Rural Area of
                      Kitigawa, Evelyn M. 1964. “Standardized Comparisons in Population
                      Research.” *Demography* 1: 296-325.
                      Asian American Populations based on Medicare and Social Security Data.”
                      Kitigawa, Evelyn M. 1955. “Components of a Difference between Two Rates.”
                      Decomposing Change in Life Expectancy: A Bouquet of Formulas in Honor of
                      Nathan Keyfitz’s 90th Birthday.” *Demography* 40(2): 201-216.

October 12, 14, 19  The Life Table: Single Decrement Processes, Model Life Tables
                      *Preston, Chapter 3
                      296: 10 May 2002. pp. 1029-1031. (see List of Links on class web page)
                      * Hirschman, C., S. Preston, and V. Loi. 1995. “Vietnamese Casualties During
                      Mathers, C. C. Murray, A. Lopez, J. Salomon, and R. Sadana. “Global Patterns
                      of Health Expectancy in the Year 2000.” Chapter 17 in *Determining Health
                      Kannisto, Vaino, Jens Lauritsen, A. Roger Thatcher, and James W. Vaupel.
                      1994. “Reductions in Mortality at Advanced Ages: Several Decades of
                      793-810.
                      Mortality.” *Journal of the American Statistical Association*. 87(419): pp. 659-
                      671.
October 21  The Life Table: Multiple Decrement Processes  
*Preston, Chapter 4  

October 26  Increment-Decrement Life Tables  
*Preston, Chapter 12, pp. 256-266.  

October 28  Survival Analysis  
Available on class web site list of links.


November 2  MIDTERM

November 4, 9, 16  Union Formation and Fertility  
*Preston, Chapter 5.


**November 18**  
**Population Projections**  
*Preston, Chapter 6*


**November 23**  
**Contraception**


**Nov 30, Dec2**  
**The Stable Population Model**
*Preston, Chapter 7*


**December 7**  
**Migration**


December 9

Errors in Data and Adjustments for Them

*Preston, Chapter 10

*Hueveline, Patrick. 1998. “Between one and three million’: Towards the
     Demographic Reconstruction of a Decade of Cambodian History (1970-9).”

“Evaluation of population census data through demographic analysis.” Gabriel
     B. Fosu. Symposium on Global Review of 2000 Round of Population and
     Housing Censuses: Mid-Decade Assessment and Future Prospects.
     Statistics Division. Department of Economic and Social Affairs. United
     Nations Secretariat. New York, 7-10 August 2001. see class website for
     link.

     Analysis as a Method for Evaluating Census Coverage in the United States.”

     Much do we Count? Interpretation and Error-Making in the Decennial

Merli, M. Giovanna and Adrian E. Raftery. 2000. “Are Births Underreported in
     Rural China? Manipulation of Statistical Records in Response to China’s

Upchurch, Dawn, Lee A. Lillard, Carol Aneshensel, and Nicole Fang Li.
     “Inconsistencies in Reporting the Occurrence and Timing of First Intercourse
     among Adolescents.” Forthcoming in Journal of Sex Research.