DEMOGRAPHY AND ECOLOGY

Course Objectives:
This course is the graduate level introduction to the fields of social demography and human ecology with a survey of major issues, theories, and research exemplars. For sociology graduate students who plan to take the certification examination in demography and ecology, you should also consider three additional courses: Soc 430 (Urbanism and Urbanization), Soc 431 (Fertility and Mortality), and Soc 433 (Research Methods in Demography). There are also important population-related courses offered in Geography, Anthropology and Economics.

The aim of this course is to help you acquire a basic "literacy" of the leading ideas and research directions in the field of population studies. Although this course is intensive, we will cover only a small fraction of important topics in the field. Our primary focus is on the traditional core subjects of demographic transition theory and research on fertility, mortality, migration, and urbanization. Except for a brief overview of data collection methods (censuses and vital statistics), there is little attention on demographic methods in this course.

Our class meetings will be a mix of lectures and discussion. It is always a good idea to read the assignments for each day before coming to class. This will help you to understand my presentations and also to participate in discussions. In class, I will try to explain the logic and details of the required readings and will occasionally review the content from suggested readings. We will also spend a fair amount of class time studying and interpreting tables. The ability to read and discuss tables from published research will be one your most important acquired skills for your research career. Your comments and questions are always welcome, both in class and after class.

Course Readings:

The required readings for the course consist of significant articles and book chapters from the research literature. Many readings are older “classics,” but there are also a fair number of recent studies. Most of the readings were originally published in the three major journals in the field: *Demography*, *Population Studies*, and *Population and Development Review*. Regular reading of these three journals is essential for those who wish to advance in the field. The supplementary readings are included here for your future reference. You are not expected to read them for this course, but I may draw from the supplementary readings in my lectures.

The required course readings are available online through the University of Washington Library electronic reserves. You can locate them by going to the Library Home Page [http://www.lib.washington.edu/](http://www.lib.washington.edu/) and clicking on course reserves. From this page, you can search by instructor (Hirschman) or course (soc 513). Both will take you to a listing of course readings arranged in alphabetical order by author’s last name. You will have to be careful because there are often several readings by the same author for different weeks of the term. You can download the articles and print them, if you wish. There is also a set of the required course readings “on reserve” in the CSDE library (which can be borrowed for an hour to photocopy).

Many of required course readings and supplementary readings are also available from JSTOR ([http://www.jstor.org](http://www.jstor.org)).

**Exams and Required Assignments:**

There will be two take-home examinations. The midterm exam will be distributed on February 5 and is due on February 10. The final exam is cumulative over the term and will be distributed on the last day of class, March 12 and will be due at the scheduled time for the class, which is 2:30 pm on March 17.

Students must also write two essays: either book reviews or a review essay on a specific topic. Each essay should be about 5 (double-spaced) pages and should critically review a book or an important research question. A list of suggested books and ideas for review essays will be distributed in class. The first essay is due in class on February 26 and the second on March 12. The final course grade will be a weighted average of the mid-term (20%), final exam (50%), and the two reviews (15% each).
Class Topics and Reading Assignments

JANUARY 6 The World Population Situation

Read:

January 8 Demography as a Field of Study

Read:

Suggested Readings and References on the Fundamentals of Demographic Science

January 13 Sources of Demographic Data: Censuses, Vital Statistics, and Surveys

Read:
JANUARY 15

Problems of Coverage, Errors, and Uncertainty in Demographic Data

Read:

Suggested Reading and References on Demographic Data and Measurement
Gillian Stevens. 1999. A century of U.S. Censuses and the language characteristics of
of Race in the U.S. Census: Glimpses in the Future." *Demography* 37: 381-393

**January 20**  NO CLASS: MLK HOLIDAY

**January 22**  **Demographic Transition Theory: Classical and Contemporary Statements**

**Read:**
Population Index 29(October): 345-366.
John C. Caldwell. 1976. Toward a restatement of modern demographic theory. Population and

**Suggested Reading on Demographic Theories**
465.
51:1997, 63-74
Chris Wilson and Pauline Airey. 1999. How can a homeostatic perspective enhance demographic

**January 27**  **Introduction to Mortality and the Human Life Span**

**Read:**
S. Jay Olshansky, Bruce Carnes, and Jacob Brody. 2002. A Biodemographic Interpretation of the

January 29  **Mortality Trends in Historical Perspective**

**Read:**

February 3  **Health and Mortality Patterns in Developed Countries.**

**Read:**

February 5  **Health and Mortality Patterns in Developing Countries.**

**Read:**
Suggested Readings and References on Mortality:
MIDTERM EXAM DISTRIBUTED ON FEBRUARY 5 AND DUE ON FEBRUARY 10
WILL COVER COURSE MATERIALS UP AND INCLUDING FEBRUARY 5

February 10  Sociobiological Models of Fertility

Read:

February 12  Fertility Transitions: Past and Present

Read:

February 17  NO CLASS: PRESIDENTS DAY

February 19  The Future of Fertility in Industrial Societies

Read:

Suggested Readings and References on Fertility


February 24  Fertility Trends in Developing Countries

Read:


February 26  The Impact of Family Planning and Public Policy on Fertility

Read:


Supplementary Reading on Fertility and Population Policy in Developing Countries:

March 3: Marriage and Family Change in Industrial Societies

Read:
Required Reading:
March 5: Marriage and Family Change in Developing Countries

Read:

Suggested Reading and References on Marriage and Family:
March 10  The Urban and Metropolitan Revolutions in Human History

Read:

March 12  Migration and Cities in Developing Counties

Read:

Suggested Readings and References on Migration and Urbanization:
Douglas S. Massey. 1988. Economic development and international migration in comparative
Ellis, Mark and Richard Wright (1999) “The Industrial Division of Labor among Immigrants and Internal Migrants to the Los Angeles Economy”. International Migration Review 33: 26-54

Final exam will be distributed on the last day of class and will be due at 2:30 on Monday, March 17.
Week 1: Basic Concepts and Measures

3/1 Introduction

4/2 Rates and ratios

Read: Preston, Heuveline and Guillot, Chapter 1


Assignment #1: Growth. Due April 7

Week 2: Age Specific Rates and Probabilities

4/7 Standardization and decomposition

4/9 The Lexis Diagram

Read: Preston et al., chapter 2.


Assignment #2: Standardization. Due April 14

Week 3: The Life Table

4/14 Life table construction

4/16 Interpreting the life table
Read:  Preston et al., chapter 3


**Assignment #3: Life Table. Due April 21**

**Week 4: Fertility and Reproduction**

4/21  Period fertility rates

4/23  Reproduction

Read:  Preston et al., chapter 5


**Assignment #4: Fertility. Due April 28**

**Week 5: Midterm and PAA**

4/28  *Midterm quiz*

4/30  *No class—PAA meetings*

Read: Preston et al., chapter 6.


**Week 6: The Stable Population Model**

5/5  *Projections and forecasts (with a demonstration)*

5/7  *Stable population relationships*

Preston et al., chapter 7


**Week 7: More on Stable Populations**
5/12  Growth momentum and uses of stable populations

5/14  Model stable populations and model life tables

Read: Preston et al., chapter 9 part 1


Assignment #5: Stable Populations and Model Life Tables. Due May 22

Week 8: Modeling Age Patterns of Vital Events

5/19  Age patterns of marital fertility

5/21  Modeling infant mortality (special session)

Read: Preston et al., chapter 9 parts 2 and 3


Week 9: Methods for Evaluating Data Quality
5/26  No class—Memorial Day Holiday

5/28  Demographic analysis, Deming procedures, uses of intercensal survival

Read: Preston et al., chapter 10


Assignment #6: Data Evaluation. Due June 3

Week 10:

6/2  Migration and Segregation, OR: ________________

6/4  Review: The Demography General Examination

Read: Preston et al., chapter 11, part 1


COURSE SYLLABUS FOR:

Sociology 431

Fertility and Mortality

Spring Quarter 2003

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ESSENTIAL INFORMATION

Instructor ................................................ Stewart Tolnay
Meeting Time ............................................. 3:00 - 4:20, Tuesdays and Thursdays
Classroom ................................................... Parrington 213
Office .......................................................... 106J Savery
Office Hours ............................................ To be announced
Telephone Number ....................................... (206) 685-2284 (Office)
Email Address ............................................... tolnay@u.washington.edu
Course Webpage ............................................ http://courses.washington.edu/setclass/

(206) 782-5868 (Home)

COURSE DESCRIPTION AND OBJECTIVES

This course offers an in-depth examination of two key demographic processes: fertility and mortality. It approaches these topics from a “demographic transition” perspective. We begin by considering the long-term, historical trends in fertility and mortality and how they have been explained and interpreted by Demographic Transition Theory. Because the balance of fertility and mortality determines the pace at which populations grow (or shrink) through “natural increase” (or “natural decrease”) we also consider briefly how their shifting levels have contributed to trends in population growth. Our examination of fertility and mortality will be divided into five sub-sections. We first consider basic concepts and measurement techniques that are required to understand variations in fertility or mortality levels and trends. Next, we examine the most common theoretical perspectives that have been used to explain those variations. Third, we survey the evidence regarding historical transitions in mortality and fertility, especially as they occurred in Europe and the United States. Fourth, we shift our attention to ongoing transitions in the less developed countries of the world. Finally, we investigate a variety of issues related to fertility and mortality in post-transition societies. The last section of the course will consider linkages between these two important demographic processes.

Our approach to the study of fertility and mortality will be primarily a sociological one. However, demographic processes are influenced by a very wide variety of factors, and they have far reaching implications for populations and societies. Therefore, our sociological journey will frequently be supplemented by information and perspectives from other disciplines, for example: anthropology, economics, history, geography, and psychology. The principal objective of this course is to familiarize students with the core issues and questions that drive social science research on fertility and mortality. A secondary objective is to prepare students for advanced, more specialized, study within both of these areas.
I expect students to bring a wide variety of backgrounds to this class. I will assume that students have completed a general course in population studies or demography, either at the graduate or undergraduate level. However, I will also give short introductions to each section of the course in an effort to refresh memories, or to fill important gaps.

**COURSE ORGANIZATION**

During most class sessions I will lecture for all, or most, of the time period. However, students are expected to complete the required readings beforehand, and to be prepared to raise questions or contribute to a discussion of the relevant material. Despite the primarily lecture format for the course, I would like to maintain an informal atmosphere in which students feel comfortable asking questions or making comments at any time. There will be a website for the course (see above) which I will use to post announcements, handouts, and other course-related materials.

**COURSE REQUIREMENTS**

Students are required to complete four basic requirements for this course: (1) a class project; (2) a midterm exam; (3) a final exam, and (4) at least two sets of out-of-class exercises.

**EXAMINATIONS**

A written midterm and final examination will be required of all students. The midterm examination will cover all material through the completion of the “Fertility Section” of the course. The final examination will concentrate most heavily on material covered during the second half of the course. Both examinations will be completed outside of class. Specific instructions regarding the final examination will be distributed in class and posted on the course webpage.

**CLASS PROJECT**

Each student is required to satisfactorily complete a course project. All students may select from the following three types of projects:

1. **Research Paper.** You may write a research paper that uses appropriate data to address some issue related to fertility or mortality. The research paper should be in the style of a journal article, and follow the style requirements of either the *American Sociological Review* or *Demography*. This option is best suited to graduate students, or more advanced undergraduates, who already have an idea for a research project that is appropriate for this course.

2. **Research Proposal.** You may write a research proposal that describes a planned project that will analyze data to address some fertility- or mortality-related issue. The proposal should follow the general format requirements of the National Science Foundation, which can be found at the NSF website (http://www.nsf.gov/start.htm).

3. **Literature Review.** You may review the literature concerned with a particular fertility- or mortality-related issue. The review should follow the style requirements of either the *American Sociological Review* or *Demography*. It should include the following:
   - an in-depth discussion of the research topic and of previous work in the area,
   - identification of the most important questions remaining to be answered,
suggestions for how those important questions might be approached.

a complete bibliography listing the journal articles and books you consulted in preparing your literature review.

Undergraduate students may also choose the following option for their term project.

1. Country Profiles. You may prepare an in-depth country profile that describes the current patterns of mortality and fertility, as well as trends during the last few decades, in two different countries. The current levels and recent trends for fertility and mortality within your chosen countries must also be linked to important social, economic, and cultural conditions that exist (or have existed) within the countries. The comparative dimension to this type of project is important, so you should select your focus countries carefully.

Students are strongly encouraged to consult with me before deciding upon the type of project they will complete. Completed term projects must be turned in by 5:00 p.m. of the last day of class (June 6th).

DEMOGRAPHIC EXERCISES

During the quarter, students will be required to complete a set of demographic exercises. Generally, these will consist of computational exercises, such as calculating fertility or mortality rates.

COURSE GRADING

Final grades for the course will be based on each student's performance on the three graded course requirements. These three components of the final grade will be weighted as follows:

Class Project.................................35%
Midterm Exam...............................30%
Final Exam.................................30%
Exercises.................................5%

TOPIC OUTLINE AND ASSIGNED READINGS

Below is the planned itinerary for the course, along with the readings required within each of the course’s subsections. My intention is to complete Sections I and II before the midterm examination and Sections III and IV after the midterm and before the end of the quarter. Of course, we may need to modify this itinerary as the quarter progresses. In some cases it will be more efficient to read the items in a different order than is presented below. When that is true I will let you know.

I. OVERVIEW: THEORY OF THE DEMOGRAPHIC TRANSITION


II. HUMAN FERTILITY

A. Basic concepts and measurement


B. Theoretical approaches to the study of fertility and fertility change


A. Fertility in transition: Europe and the U.S.


Tolnay, Stewart E. 1996. “Structural Change and Fertility Change in the South, 1910 to 1940.” *Social Science Quarterly* 77(3):559-576.

**B. Fertility in transition: contemporary less developed world.**


**C. Fertility in post-transition settings**


**III. HUMAN MORTALITY**

**A. Basic concepts and measurement**

*Population Handbook*. Chapters 5 and 6

**B. Theoretical approaches to the study of mortality and mortality change**


C. Morality in transition: Europe and the U.S.


D. Morality in transition: contemporary less developed world


E. Mortality in post-transition settings


IV. **FERTILITY - MORTALITY LINKAGES**


This course is a graduate-level introduction to the human ecology literature in sociology. Human ecology has a long and venerable tradition in sociology, with both broad and narrow definitions.

As a broad approach, human ecology has primarily concentrated on the study of aggregate characteristics of social organization for spatially defined communities, such as cities and nations. As a narrow approach, human ecology has emphasized the study of territorial distributions, primarily urbanization (its causes and consequences) and population movement (migration and mobility). While appreciating the broad approach, I have decided to follow more the narrow definition. The limited number of class sections leads me to believe that we would be more successful in doing a few things well than a number of things in a superficial manner. In addition, the narrow definition lets students use this course as a preparation for the demography-ecology Ph.d. exam.

I plan to spend two class sessions on each of the ten topics, with the rough dates indicated. The first class session on each topic will involve lecturing by me. The second session will involve a more general discussion, with students and the instructor reporting on assigned articles from the below reading list. All the articles will be assigned so that one member of the class is the primary reporter and discussion leader. There is no general text for the course, but rather I will try to integrate the material through lectures and discussions. I will sell (at cost) collections of the readings or sell computer disks with copies of the readings.

Grades in the course will be based on four exercises. There will be two non-overlapping exams in the middle and at the end of the course. Each will be worth 30 percent of the grade. The nature of these exams will be resolved by discussion between teacher and students, within the framework of "guided democracy" (teacher has final say). Hopefully, some form of take-home essay will be involved. In addition, there will be a paper, worth 30 percent of the grade. In general, I would like to see each student do one
of the following: actually do a research paper (there are plenty of data around), prepare a research proposal, review literature on topics in the general area. I envision the paper to be 10-15 pages, somewhat less than a master's thesis but more than nothing. The nature of the paper should be decided at an early conference between teacher and student. The other 10 percent of the grade will be based on my assessment of the quality of each student’s review of the articles for class discussion.

My office hours for the quarter are: Tuesday and Thursday, 1:00-2:30. I am also willing to meet at most other times I am in my office (113 Savery) or by appointment. As an officially retired prof, I do not anticipate being on the campus Monday through Friday. Email is also a great way to communicate with me.

The dates for the various sections are tentative, but I do not expect to stray wildly. Essentially, I plan to spend a week on each of the ten topics.

I. General Overviews of Human Ecology (Jan. 6 and 8)

II. World Urbanization (Jan. 13 and 15)


III. Systems of Cities (Jan. 20 and 22)


IV. Community Studies (Jan. 27 and 29)


V. The Modern Metropolis (Feb. 3 and 5)


VI. Black-White Residential Patterns in Cities (Feb. 10 and 12)


VII. Community Attachment in the Metropolis (Feb. 17 and 19)

VIII. Residential Mobility (Feb. 24 and 26)
Landale, Nancy and Avery M. Guest. 1985. "Constraints, Satis-
faction and Residential Mobility: Speare's Model Reconsidered.

IX. Internal Migration (March 2 and March 4)

X. International Migration (March 9 and 11)