

UNIVERSITY OF COLORADO
BOULDER, COLORADO

GRADUATE PROGRAM IN DEMOGRAPHY

General Description
and
Courses of Study

January 2009

Because courses, faculty, and departmental regulations change over time, students should check with their department graduate secretary for the most up-to-date information regarding degree requirements.

THE GRADUATE PROGRAM IN DEMOGRAPHY

Growing global economic interdependence, increasing competition for scarce resources, and widening disparities in material welfare have made future population growth an unavoidable issue in national and international affairs. Rapid population growth has important social, economic, and political consequences. So does population decline and aging. Both affect levels of public health and welfare and the quality of the environment in which people live.

Social concern with population processes arises when the demographic acts of individuals affect the welfare of others and produce a sharp divergence between the sum of individual preferences and social well-being. In such instances, population processes properly become the subject of public debate and the object of public policy.

Many of the determinants and consequences of population growth and change are poorly understood; yet they are central elements in the development of policies with a demographic component. People are the clients whose welfare public policy is supposed to improve; they also are a primary resource used in the production of goods and services that lead to higher levels of welfare; and they consume resources that might be more productively used elsewhere.

The search for scientific explanations of why particular population conditions arise, why they change in the ways that they do, and with what individual and societal consequences, motivates the new graduate program in demography at the University of Colorado, Boulder. The program focuses on such topics as urban growth patterns, population redistribution, reproductive behavior, household and family structure, population and health, patterns of labor force participation, life table analysis, active life expectancy, and population policy.

THE GRADUATE PROGRAM IN DEMOGRAPHY AT THE UNIVERSITY OF COLORADO

The College of Arts and Sciences at the University of Colorado at Boulder offers opportunities for interdisciplinary study of population processes and issued through its interdepartmental Graduate Program in Demography. The Program does not try to reflect any single view of what demography is or what demographers do; it seeks instead to prepare students for a wide variety of professional, academic, and research roles in public and private organizations concerned with population issues and problems at the international, national, state, and local levels. The Program draws its strengths from its interdisciplinary-interdepartmental character and from its focus on population policy analysis.

All degrees are awarded through departments; therefore graduate students wishing to major in demography must enroll in one of the participating social science departments and must also satisfy the particular admission and degree requirements of that department (see Figures 1 and 2 and the Appendix for the requirements of the various departments). Students in the program elect demography as their major and take a common set of core courses that focus on demographic theory, methods, and problems. In addition, all such students develop a competence in at least one field of specialization.

Sample M.A. Curriculum in Economics (with a Major in Demography)

Required Economics Core Courses (6 hours)

Econ. 6070 – Applied Micro Theory
Econ. 6080 – Applied Macro Theory
Econ. 6818 – Introduction to Econometrics

Required Demography Core Courses (9 hours)

Econ. 8666 – Economic Demography
Econ. 6732 – Formal Population Geography
Soc. 5012 – Population Issues, Problems, and Policies

Field of Specialization: Family Demography

Electives

Thesis (4 hours)

Sample M.A. Curriculum in Geography (with a Major in Demography)

Required Geography Core Courses (6 hours)

Geog. 5161 – History and Nature of Physical Geography
Geog. 5152 – History and nature of Human Geography

Required Demography Core Courses (6 hours)

Econ. 8666 – Economic Demography
Geog. 6732 – Formal Population Geography
Soc. 5012 – Population Issues, Problems, and Politics

Field of Specialization: Spatial Demography (6 hours min.)

Geog. 6180 – Seminar: Spatial Demography
Electives

Thesis (6 hours)

Sample M.A. Curriculum in Sociology (with a Major in Demography)

Required Demography Core Courses (9 hours)

Econ. 8666 – Economic Demography
Geog. 6732 – Formal Population Geography
Soc. 5012 – Population Issues, Problems, and Politics

Figure 1. Sample M.A. Curricula

Economics

1. Economics Core	21 units
2. Two Fields	12 units
3. Electives	<u>9 units</u>
	42 units

Geography

1. Geography Core	6 units (Geog. 5161, 5152)
2. Three Fields	
3. Electives	<u>24 units</u>
	30 units

Sociology

1. Sociology Core	15 units (Soc. 5001, 5011, 5021, 5031, 5052)
2. Three Fields	
3. Electives	<u>30 units</u>
	45 units

Demography (Ph.D. in Economics, Geography, or Sociology, or in another department, such as Anthropology, Biology, or Psychology, on a case-by-case basis)

Departmental Core	6 to 21 units
Field #1: Demography Core	9 units
Field #2: Field of Demographic Specialization	6 to 12 units
Additional Departmental Field and/or Electives	<u>9 to 15 units</u>
	30 to 45 units

Figure 2. Ph.D. Course Requirements (exclusive of Dissertation Credit Hours)

FACULTY RELEVANT TO THE GRADUATE PROGRAM IN DEMOGRAPHY: AREAS OF SPECIALIZATION

Michael Greenwood, Professor of Economics and Director of the Center for Economic Analysis – migration, urban, and regional economics

Robert Hackenberg, Professor of Anthropology – urbanization and modernization, health care, anthropological demography

Spenser Havlick, Professor of Environmental Design – urban planning, population and the environment

Gary McClelland, Professor of Psychology – fertility decision-making, psychometrics

Robert McNown, Professor of Economics and Assistant Director of Research, IBS – time series modeling, econometrics

Fred Pampel, Associate, Assistant or Professor of Sociology

Elizabeth Peters, Assistant Professor of Economics – economic demography, economics of the family, labor economics

Andrei Rogers, Professor of Geography and Director of the Research Program on Population Processes, IBS – spatial demography, urbanization, population aging

Richard Rogers, Assistant Professor of Sociology and Assistant Director of Training, IBS – gerontological demography, mortality and morbidity, medical sociology

Charles Southwick, Professor of Biology – population biology, animal ecology

Charles Becker, Adjunct Associate Professor of Economics and Director of the Economics Institute – economic development, urbanization, mathematical economics

A distinctive feature of the UC-Boulder graduate program in demography is its interdisciplinary character and its emphasis on research training through direct faculty-student interaction and involvement in research projects being carried out within the Research Program on Population Processes of the Institute of Behavioral Science. Students work under the close supervision of a faculty member and develop both substantive knowledge and research skills relevant to their specializations.

THE DEMOGRAPHY CURRICULUM

The demography program at UC-Boulder offers both an M.A. and a Ph.D. curriculum. The former can be completed after three semesters of study. The latter generally will require an additional three semesters of course work prior to the initiation of work on the dissertation. (Students transferring graduate credits into the program from another institution should count on at least two years of residence before starting work on the dissertation.)

Students who have passed all of the requirements in the participating social science department of their choice, and who also have satisfied the requirements of the graduate program in demography, will be awarded the graduate degree through their department, with a major in demography.

The educational program in demography is conducted under the general supervision of the Faculty Group in Demography, a committee reporting to the Dean of the College of Arts and Sciences. Requirements for admission to the program are those prescribed for admission to the Graduate School and to the social science departments that are associated with the program. In addition to required coursework, students pursuing a major in demography must pass normal departmentally administered examinations, in which the demography core curriculum and the demographic field of specialization will be treated as field examinations in the department's graduate program. The requirements that are specific to the student's chosen department are given in the Appendix.

The M.A. Degree

General Requirements. All grades offered for a degree must average at least 3.0, and every student in the demography program must satisfactorily complete the following three core courses, which focus on demographic theories, methods, and policies, respectively:

- Econ. 8666 – Economic Demography
- Geog. 6732 – Formal Population Geography
- Soc. 5012 – Population Issues, Problems, and Policies

Each student must also complete at least two courses that define a field of specialization and demonstrate a basic competence in quantitative methods by passing the program's special examination on quantitative methods, or by satisfactorily completing a sequence of courses drawn from a list approved by the Faculty Group in Demography.

Field of Specialization. A field of specialization consists of at least two related courses focusing on a topic that has been approved by the Faculty Group in Demography. The list of currently approved topics includes: family demography, gerontological demography, and spatial demography.

Advisory Committee. Each student must have an Advisory Committee whose responsibility it will be to guide the student in program planning and thesis research, and to conduct the Final Examination. This committee must have at least three members, two of whom must be members of the participating department's faculty, and one of whom must be drawn from the Core Faculty in Demography. All members of the committee must have Graduate Faculty status.

The Ph.D. Degree

General Requirements. The Ph.D. degree is not conferred merely upon the satisfactory completion of a course of study. The candidate must also demonstrate proficiency in the broad subject of demography, be able to critically evaluate work in this field, show an ability to carry out independent research, and make an original contribution of significance to the advancement of knowledge in this field of study.

All grades offered for a degree must average at least 3.0, and every student in the demography program must satisfactorily complete the following three core courses, which focus on demographic theories, methods, and policies, respectively:

- Econ. 8666 – Economic Demography
- Geog. 6732 – Formal Population Geography
- Soc. 5012 – Population Issues, Problems, and Policies

In addition to required coursework, students pursuing a Ph.D. degree must pass departmental preliminary and comprehensive examinations (including the two field exams in demography) and a dissertation defense. Students normally declare two or three fields of specialization in their department, one of which will be the demography core and another a field of specialization in demography.

Field of Specialization. A field of specialization consists of at least two related courses focusing on a topic that has been approved by the Faculty Group in Demography. The list of currently approved topics includes: family demography, gerontological demography, and spatial demography.

Advisory Committee. As with the M.A. degree program, each student must have an Advisory Committee with at least one member drawn from the Core Faculty in Demography. However, in the case of the Ph.D. degree program, the Committee must have a total of five members.

THE RESEARCH PROGRAM ON POPULATION PROCESSES

The Population Program is one of four research programs located in the Institute of Behavioral Science at the University of Colorado, Boulder, Directed by Professor Andrei Rogers of the Department of Geography and drawing on faculty from a number of social science departments, the program is currently engaged in research on migration and spatial population distribution; mortality and morbidity; urbanization and development; population aging and elderly migration; mathematical and statistical demography; family and household demography; the role of amenities in regional growth; and changing household composition and occupancy patterns.

The Population Program sponsors both a Colloquium and a Working Paper Series which focus on the research being carried out by the faculty, as well as serving as a forum for the work of visitors to the Program. A Population Reading Room, with a modest collection of books, journals, and working papers is available for student and faculty use. The Program's Demographic Data Center houses a large collection of demographic computer software and data, personal computers, and telephone linkups to the university's VAX mainframe computer.

COURSES RELEVANT TO THE GRADUATE PROGRAM IN DEMOGRAPHY

Department of Anthropology

7000 Seminar on Current Research Topics: Population Seminar in Family Reconstitution

Department of Economics

5252 Urban Economics
5535 Natural Resource Economics
5574 Economic Development: Theory and Problems
5784 Policies of Economic Development
6818 Econometrics
8252 Urban and Regional Economics: Theory and Methods
8666 Economic Demography
8676 Seminar: Labor Economics I
8686 Seminar: Labor Economics II
8262 Topics in Urban and Regional Economics
8774 Economic Planning and Development
8784 Economic Development Theory
8784 Energy and Economic Development

Department of Environmental, Population, and Organismic Biology

5270 Population Genetics
6200 Seminar in Population Biology

Department of Geography

5013 Introduction to Quantitative Methods in Human Geography
5292 Migration, Urbanization, and Development (cross-listed with Economics)
5622 Urban Geography
5642 Seminar: Urban Geography
5732 Population Geography
6732 Formal Population Geography: Analysis and Forecasting

Department of Psychology

5112 Concepts in Behavioral Genetics
7102 Seminar in Behavioral Genetics

Department of Sociology

5052 Research Practicum in Demographic Methods
5012 Population Issues, Problems, and Policies
5022 Population Studies: Fertility and Mortality
5032 Population Studies: Migration and Distribution

Core Course Abstracts

Economics 8666 – Economic Demography

This course investigates the economic determinants of demographic behavior in developing and developed countries. The determinants of population change involve fertility, mortality, marriage, and migration. In the first part of the course the issues covered will include investment in children; the interaction of fertility with female labor supply; investments in health; the demographic transition and interaction between fertility and mortality rates in developing countries; the rise in the divorce rate and its impact on family and household structure; and migration responses to development and to changes in industrial structure. The second half of the course focuses on the economic consequences of population change. Population growth or decline may have an impact on economic growth, allocation of resources, and income distribution. Changes in the rate of population growth also affect the age structure of the population which, in turn, has important consequences for the demand for education, labor market outcomes for entering workers, and the demand for and financing of social security.

Geography 6372 – Formal Population Geography: Analysis and Forecasting

This course focuses on methods for describing, interpreting, and projecting the spatial dynamics of human populations disaggregated by age and such state categories as different marital and labor force statuses. Students learn how to manipulate demographic data in ways that illuminate patterns of population growth and change. Fertility, mortality, marriage and divorce, migration and labor force participation and the principal demographic processes that are examined and their impacts on population growth rates, spatial distributions, and age-status compositions are studied. Demographic data from a number of countries are used for illustrative purposes.

Sociology 5012 – Population Issues, Problems, and Policies

This seminar is an introduction to demography. Contemporary perspectives are developed with attention to theoretical and empirical substance. The course presents various theories, discusses unusual phenomena, and examines recent controversies, within the demographic context. The course covers the basic areas of demography (fertility, migration, and mortality) while considering such questions as whether family planning or economic development reduces fertility, whether changes in abortion legislation increases infant mortality, and whether the elderly, children, or youth in the United States are better off now than they were 50 years ago. Moreover, the course endeavors to link the study of demography to other disciplines.