

DEMOGRAPHY (DEM)

Demography (DEM) Courses

DEM 5013. Demographic Methods of Analysis. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. Examines basic materials and methods used in demography, including methods for measuring levels and rates of population change, fertility, mortality, migration (both domestic and international), distribution, and composition. Emphasis on cohort and period patterns of change, methods of standardization, and life table methods and population projection methods. (Same as DEM 7013. Credit cannot be earned for both DEM 5013 and DEM 7013.) Course Fee: STSP \$9.

DEM 5033. Mortality. (3-0) 3 Credit Hours.

Prerequisite: DEM 5113 or consent of instructor. Theoretical and demographic empirical analysis of current and historical issues concerning epidemiological/health transition, demographic and socioeconomic differentials in health and mortality, infant and child mortality, status of women and health, environment and health, demographic change and nutrition, health care systems, and health planning policies in the United States and in other developed and developing countries. Explores advanced sources of demographic data, measures, and methods of analyses used to analyze the levels and changes in these processes used in applied demographic settings. (Same as DEM 7033. Credit cannot be earned for both DEM 5033 and DEM 7033.) Course Fee: STSP \$9.

DEM 5043. Migration. (3-0) 3 Credit Hours.

Prerequisite: DEM 5113 or consent of instructor. Examines patterns, trends and consequences of migration and immigration in the United States and other parts of the world. Explores historical and current theoretical perspectives on migration, analysis of historical, current and projected patterns of migration in the United States and other parts of the world, and examines effects of migration on other demographic, economic, social, and political factors in the United States and elsewhere. (Same as DEM 7043. Credit cannot be earned for both DEM 5043 and DEM 7043.) Course Fee: STSP \$9.

DEM 5083. Fertility. (3-0) 3 Credit Hours.

Prerequisite: DEM 5113 or consent of instructor. Theoretical and empirical overview of major issues and methodological approaches in the demographic study of human fertility in developing and developed countries. Explores advanced sources of demographic data, measures, and demographic methods of analyses used to analyze the levels and changes in these processes used in applied settings. (Same as DEM 7083. Credit cannot be earned for both DEM 5083 and DEM 7083.) Course Fee: STSP \$9.

DEM 5093. GIS for Population Science. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. This course is designed to give graduate students interested in population science and policy fields a hands-on introduction to the use of Geographic Information Systems (GIS). The course will cover geographic data types, spatial data creation and management, exploratory spatial analysis, and basics of geospatial modeling. At the close of the course, students are expected to be able to: create and modify geographic data, perform GIS visualization of spatial data, use database software to manage geographic data and perform descriptive analysis of spatial data using industry-standard GIS software. (Same as DEM 7093. Credit cannot be earned for both DEM 5093 and DEM 7093.) Course Fee: STSP \$9.

DEM 5113. Social Demography and Community Trends. (3-0) 3 Credit Hours.

This seminar is a survey of the major themes in demographic research. It will focus on the causes and consequences of demographic change and world population problems and policies, and we will explore the major theoretical perspectives focusing on the interrelationship of social and environmental causes of population change and the dynamics of human populations. (Same as DEM 7113. Credit cannot be earned for both DEM 5113 and DEM 7113.) Course Fee: STSP \$9.

DEM 5213. Introduction to Population Data. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. The purpose of this course is to introduce students to demographic data and how to use them effectively. Students will use statistical software to learn how to read-in raw data, make data modifications relative to research goals, assess data quality, and conduct basic descriptive statistics. The course will also teach students how to make use of data codebooks and request the use of restricted data. Course Fee: STSP \$9.

DEM 5273. Statistics for Demographic Data I. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. This course covers two main areas of statistical analysis. First, techniques for the description of univariate and bivariate distributions are covered, including summary statistics, confidence intervals, correlations, graphical exploratory methods and hypothesis testing for two and more groups. Also covered is the analysis of categorical data, including analysis of contingency tables and measures of association for categorical data. Secondly, ordinary least squares regression analysis and analysis of variance procedures and their diagnostics are covered. All methods are complemented by the application to demographic survey data sets and instruction in the Linux environment using either SAS, STATA or R statistical programming languages. (Same as DEM 7273. Credit cannot be earned for both DEM 5273 and DEM 7273.) Course Fee: STSP \$9.

DEM 5283. Statistics for Demographic Data II. (3-0) 3 Credit Hours.

Prerequisite: DEM 5273 or consent of instructor. This course represents an in-depth coverage of the general linear model framework, including multivariable regression analysis, logistic and Poisson regression and multilevel modeling. Model fit, model comparison and regression diagnostics for each method are covered. In addition to these topics, students are introduced to techniques for dealing with missing data including multiple imputation. All methods are complemented by the application to demographic survey data sets and instruction in the Linux environment using both the SAS and R/S-plus statistical programming languages. (Same as DEM 7283. Credit cannot be earned for both DEM 5283 and DEM 7283.) Course Fee: STSP \$9.

DEM 6383. Capstone. (3-0) 3 Credit Hours.

Prerequisite: Completion of 21 semester credit hours of Required Courses. This course is designed to prepare students to write a final exit paper that serves as the comprehensive exam for completion of the MS program. It covers topics including but not limited to: Demographic Data, Research Methods, Quantitative Analysis, Demographic Processes, Health, and/or Inequality. The grade report for the course is either "CR" (satisfactory performance on the final exit paper) or "NC" (unsatisfactory performance on the final exit paper). Course Fee: STSP \$9.

DEM 7013. Demographic Methods of Analysis. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. Examines basic materials and methods used in demography, including methods for measuring levels and rates of population change, fertility, mortality, migration (both domestic and international), distribution, and composition. Emphasis on cohort and period patterns of change, methods of standardization, and life table methods and population projection methods. (Formerly titled "Demographic Methods of Analysis I.") (Same as DEM 5013. Credit cannot be earned for both DEM 5013 and DEM 7013.) Course Fee: STSP \$9.

DEM 7023. Advanced Methods of Demographic Analysis. (3-0) 3 Credit Hours.

Prerequisite: DEM 7013 or consent of instructor. Examines use of advanced demographic and statistical methods of analysis of population and sample data, including simulating, adjusting, and smoothing; advanced survival analysis, methods of rate decomposition and standardization, population estimation, population projections and evaluations of each. Considers applications of demographic techniques in marketing, management and impact analyses in business and government. (Formerly titled "Demographic Methods of Analysis II.") Course Fee: STSP \$9.

DEM 7033. Mortality. (3-0) 3 Credit Hours.

Prerequisite: DEM 7113 or consent of instructor. Theoretical and demographic empirical analysis of current and historical issues concerning epidemiological/health transition, demographic and socioeconomic differentials in health and mortality, infant and child mortality, status of women and health, environment and health, demographic change and nutrition, health care systems, and health planning policies in the United States and in other developed and developing countries. Explores advanced sources of demographic data, measures, and methods of analyses used to analyze the levels and changes in these processes used in applied demographic settings. (Same as DEM 5033. Credit cannot be earned for both DEM 5033 and DEM 7033.) Course Fee: STSP \$9.

DEM 7043. Migration. (3-0) 3 Credit Hours.

Prerequisite: DEM 7113 or consent of instructor. Examines patterns, trends and consequences of migration and immigration in the United States and other parts of the world. Explores historical and current theoretical perspectives on migration, analysis of historical, current and projected patterns of migration in the United States and other parts of the world, and examines effects of migration on other demographic, economic, social, and political factors in the United States and elsewhere. (Same as DEM 5043. Credit cannot be earned for both DEM 5043 and DEM 7043.) Course Fee: STSP \$9.

DEM 7053. International Migration. (3-0) 3 Credit Hours.

Prerequisite: DEM 7113 or consent of instructor. Examines the determinants and consequences of international migration from theoretical and empirical perspectives. Explores impacts on the migrants themselves and the countries of origin and destination. Specific issues include global competition for skilled labor, the concept of 'replacement migration', and the role of the state in creating and regulating international population movements. Examines public policy implications of the volume and composition of migration for origin and destination countries. Course Fee: STSP \$9.

DEM 7063. Applied Demography in Policy Settings. (3-0) 3 Credit Hours.

Prerequisites: DEM 7013, DEM 7023, and DEM 7113, or consent of instructor; student must have a minimum of 30 credit hours in the Applied Demography doctoral program. Examines the roles, duties and implications of being an applied demographer in private- and public-sector policy settings, including required professional skills and knowledge. Provides practical case-study based experience in applying demographic knowledge and methods to such areas of applied analysis as marketing research, site location analysis, impact analyses, advertising analyses, program evaluation, short-term and long-term planning, and similar areas of policy development. Emphasis on interactive and team-based case-study analyses resulting in written reports, and findings presented to governmental or private-sector decision makers. Course Fee: STSP \$9.

DEM 7073. Disparities in Health and Health Care. (3-0) 3 Credit Hours.

Prerequisites: DEM 7013 and DEM 7113 or consent of instructor. Overview of current and historical trends and differentials of health, health care access, and health care delivery systems among different racial/ethnic, socioeconomic, and residence area groups in the United States and elsewhere. Examines differentials in the types and rates of incidence and occurrence of alternative forms of disease and disorders, and access to physicians, hospitals and forms of treatment across demographic and socioeconomic groups. Data and methods for assessing such disparities are reviewed and alternative policy options for decreasing such disparities are discussed. Course Fee: STSP \$9.

DEM 7083. Fertility. (3-0) 3 Credit Hours.

Prerequisite: DEM 7113 or consent of instructor. Theoretical and empirical overview of major issues and methodological approaches in the demographic study of human fertility in developing and developed countries. Explores advanced sources of demographic data, measures, and demographic methods of analyses used to analyze the levels and changes in these processes used in applied settings. (Same as DEM 5083. Credit cannot be earned for both DEM 5083 and DEM 7083.) Course Fee: STSP \$9.

DEM 7093. GIS for Population Science. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. This course is designed to give graduate students interested in population science and policy fields a hands-on introduction to the use of Geographic Information Systems (GIS). The course will cover geographic data types, spatial data creation and management, exploratory spatial analysis, and basics of geospatial modeling. At the close of the course, students are expected to be able to: create and modify geographic data, perform GIS visualization of spatial data, use database software to manage geographic data and perform descriptive analysis of spatial data using industry-standard GIS software. (Same as DEM 5093. Credit cannot be earned for both DEM 5093 and DEM 7093.) Course Fee: STSP \$9.

DEM 7113. Social Demography and Community Trends. (3-0) 3 Credit Hours.

This seminar is a survey of the major themes in demographic research. It will focus on the causes and consequences of demographic change and world population problems and policies, and we will explore the major theoretical perspectives focusing on the interrelationship of social and environmental causes of population change and the dynamics of human populations. (Same as DEM 5113. Credit cannot be earned for both DEM 5113 and DEM 7113.) Course Fee: STSP \$9.

DEM 7123. Applied Demography in Education. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. Objectives for this course are focused upon development of an understanding of demographic issues in the field of education and skills in the application of demographic methods and techniques in this area. Topics will include issues of population dynamics related to school enrollment and completion and application of demographic techniques relevant for education related topics. Course Fee: STSP \$9.

DEM 7153. Applied Demography in Public Health. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. Course work and readings will provide overview of demographic methods applied to examination of issues in the area of public health. A range of public health and epidemiologic topics will be reviewed in relation to issues related to demography and demographic methods. Assignments will provide students with opportunities to examine key issues in public health and explore specific topics of public health relevance. Course Fee: STSP \$9.

DEM 7173. Applied Demography in Urban and Regional Planning. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. Urban and regional planning is strongly dependent on information generated from applied demography. This course will review the field of urban and regional planning with particular reference to the use of demographic information. Elements of the course will emphasize learning and applying traditional and innovative approaches to estimating and projecting population for small areas with particular reference to issues of geography and land use patterns. Course Fee: STSP \$9.

DEM 7183. Social and Economic Impact Assessment. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. The purpose of this course is to provide students with an understanding of the requirements of, methodologies for, and issues in, socioeconomic impact assessment and to provide practical, working experience with socioeconomic impact assessment techniques. Course Fee: STSP \$9.

DEM 7223. Event History Analysis. (3-0) 3 Credit Hours.

Prerequisites: DEM 7013, DEM 7023, and DEM 7273 or consent of instructor. This course covers event history analysis for events such as unemployment spans, birth intervals, years of healthy life lived, and other codependent demographic events. Further, this course will provide a survey of demographic analytical methods for empirically explaining variation in timing of demographic events. This course will use SAS, R or STATA software. (Formerly titled "Advanced Methods for Life Table Analysis.") Course Fee: STSP \$9.

DEM 7243. General Research Methods for Demographers. (3-0) 3 Credit Hours.

Prerequisites: DEM 7013 and DEM 7113 or consent of instructor. Examines key aspects of research methodology and provides an understanding and overview of practical and theoretical methods used to include sampling, interviewing, questionnaire and survey construction, and methods of analysis. The course will examine alternative research perspectives used in writing major publishable articles, and a dissertation in demography. Course Fee: STSP \$9.

DEM 7253. Survey Methods for Demographers. (3-0) 3 Credit Hours.

Prerequisite: DEM 7243 or consent of instructor. This course examines the use of survey methodology and the research process, with special attention given to survey instruments as they relate to demographic research. Topics to be covered include a general overview of large demographic surveys, modes of data collection, questionnaire design, reliability and validity, sampling, and analysis incorporating survey designs for various large-scale demographic surveys. Special attention will be given to data collected by the U.S. Bureau of the Census. Statistical software applications will be used as they relate to demographic survey instruments. (Formerly titled "General Research Methods for Demographers II.") Course Fee: STSP \$9.

DEM 7263. Spatial Demography. (3-0) 3 Credit Hours.

Prerequisite: DEM 7093 or consent of instructor. This course will give an in-depth coverage of spatial demographic processes including models of migration, multiregional population growth, and spatial dependence in vital rates. The course will include a brief introduction to Geographic Information Systems, availability of spatial data and construction of geodatabases for population studies. The course will have a large analytical component with topics to include global and local spatial autocorrelation, analysis of spatial point patterns, neighborhood statistics and spatial regression analysis. Emphasis is placed on usage of computer software for the analysis of population data. Course Fee: STSP \$9.

DEM 7273. Statistics for Demographic Data I. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. This course covers two main areas of statistical analysis. First, techniques for the description of univariate and bivariate distributions are covered, including summary statistics, confidence intervals, correlations, graphical exploratory methods and hypothesis testing for two and more groups. Also covered is the analysis of categorical data, including analysis of contingency tables and measures of association for categorical data. Secondly, ordinary least squares regression analysis and analysis of variance procedures and their diagnostics are covered. All methods are complemented by the application to demographic survey data sets and instruction in the Linux environment using either SAS, STATA or R statistical programming languages. (Formerly titled "Univariate and Categorical Statistical Analysis for Demographic Data.") (Same as DEM 5273. Credit cannot be earned for both DEM 5273 and DEM 7273.) Course Fee: STSP \$9.

DEM 7283. Statistics for Demographic Data II. (3-0) 3 Credit Hours.

Prerequisite: DEM 7273 or consent of instructor. This course represents an in-depth coverage of the general linear model framework, including multivariable regression analysis, logistic and Poisson regression and multilevel modeling. Model fit, model comparison and regression diagnostics for each method are covered. In addition to these topics, students are introduced to techniques for dealing with missing data including multiple imputation. All methods are complemented by the application to demographic survey data sets and instruction in the Linux environment using both the SAS and R/S-plus statistical programming languages. (Formerly titled "Multivariate Statistical Analysis for Demographic Data.") (Same as DEM 5283. Credit cannot be earned for both DEM 5283 and DEM 7283.) Course Fee: STSP \$9.

DEM 7413. Demography of Inequality and Poverty. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. This seminar provides an overview of poverty in the United States from a comparative perspective. It addresses the determinants of poverty, with special attention given to different demographic groups, such as single women with children, race and ethnic minorities, and urban and rural residence. Among the topics to be discussed include the differences between the European and U.S. approach to measuring poverty; the relationship between welfare policies, population growth, and economic development; race and welfare; and the 1996 welfare reform in the United States and its consequences to date. Much emphasis will be given to poverty-abatement strategies. (Formerly titled "Demographic Perspectives on Poverty.") Course Fee: STSP \$9.

DEM 7423. Demography of the Labor Force and Labor Markets. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. This course introduces students to the study of demographics characteristics of the labor force and of labor markets. It addresses such major social and economic trends as the increased labor force participation of women, the integration of formerly disenfranchised groups into white-collar occupations, and the emergence of a service society. Literature that can help explain these trends will come from gender studies, race and ethnicity, and post-industrialization, in addition to demographic research. Other topics to be discussed cover the study of occupational upgrading; employment, unemployment, and underemployment; regional shifts in employment; the work family relationship; and the role of social policy regarding work, family, and fertility. Course Fee: STSP \$9.

DEM 7433. Demography of Race and Ethnicity. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. This course is designed to introduce students to the study of the demography of racial and ethnic groups in the United States with some attention to other parts of the world. Using theoretical perspectives drawn from the demographic and race and ethnic literatures, the course will examine demographic, social, and economic variations among major racial and ethnic groups. The course is divided into a series of broad topics covering the study of the demography of racial and ethnic groups including an overview of the construction of race and ethnicity; theoretical perspectives; the foundations of inequality; data and methodological issues; the three population processes (fertility, mortality, and migration); intermarriage and multiracial and pan-ethnic identities; marriage, family, and household arrangements; and labor market and socioeconomic outcomes. Course Fee: STSP \$9.

DEM 7443. Demography of Adolescence and the Transition to Adulthood. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. Demographers have long considered adolescence and early adulthood as a critical period when significant life choices are made. Important milestones overlap during these years as young people leave school, begin work, form romantic relationships, become independent from parents and begin forming their own families. This seminar explores the different factors that define the timing and progression of this transition and explores demographic and policy implications across different social and cultural contexts. It also highlights the relevance of the life course for the understanding of demographic processes. Course Fee: STSP \$9.

DEM 7453. Sexual and Reproductive Health. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. The purpose of this course is to introduce students to a number of sexual and reproductive health issues nationally and internationally. The course content will emphasize demographic, social, economic, behavioral, and political factors that affect family planning, reproductive health, fertility, parenthood, and pregnancy/birth outcomes. Emergent sources of data for sexual and reproductive health issues will be discussed. Course Fee: STSP \$9.

DEM 7463. Family Demography. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. This seminar will examine changes in family behaviors and household relationships from a socio-demographic perspective. Specific topics include union formation and dissolution, childbearing, parenthood, intergenerational relationships, and the intersection of gender, work, and family. Although this course will focus primarily on post-World War II United States, some attention will also be given to recent family changes in other industrialized nations and in the developing world. Demographic data sources pertaining to families and households will be discussed. Course Fee: STSP \$9.

DEM 7473. Applied Hierarchical Modeling. (3-0) 3 Credit Hours.

Prerequisite: DEM 7283 or consent of instructor. This course will immerse students in the area of hierarchical modeling. Hierarchical models are fast becoming ubiquitous in the social and behavioral sciences as the availability of longitudinal, geocoded-restricted and panel data sources become the norm. This class will apply techniques of Bayesian computation to hierarchical modeling with less emphasis on the theory of Bayesian analysis, and more on the practical side of its use. Topics will include linear and generalized linear mixed effects models, with special attention to structured random effect models, models for longitudinal data and the application of Bayesian computational techniques. Data examples will include the use of social and health survey data sources, and all students are expected to complete a project using the methods presented in class to their own research interests. Course Fee: STSP \$9.

DEM 7701. Professional Development Colloquium. (1-0) 1 Credit Hour.

Prerequisite: Consent of instructor. This is a professional development course focusing on the field of applied demography. Topics will vary by semester, and may include such things as grant writing, proposal preparation, peer-reviewed journal publication procedures, presentation development, demographic data sources and literature, grant funding sources, and job hunting. Other professional development topics will be addressed. May be repeated for credit when topics vary. Course Fee: STSP \$3.

DEM 7783. Internship in Applied Demography. (0-0) 3 Credit Hours.

Prerequisites: Consent of faculty advisor for internships and the Graduate Advisor of Record. Student must have a minimum of 40 semester credit hours in the Applied Demography doctoral program. Practical experience in a workplace setting approved by the faculty advisor for internships and the GAR in which classroom knowledge of demographic research, methods, processes, and implications are applied. No more than 3 hours will apply to the Doctoral degree. A research paper under the supervision of assigned faculty is required at the end of the internship. Course Fee: STSP \$9.

DEM 7801. Directed Research. (0-0) 1 Credit Hour.

Prerequisites: Consent of instructor and a minimum of 40 semester credit hours in the Applied Demography doctoral program. Directed individual reading, discussion, writing, and/or studies of selected topics in the field of demography. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours will apply to the Doctoral degree. Course Fee: STSP \$3.

DEM 7803. Directed Research. (0-0) 3 Credit Hours.

Prerequisites: Consent of instructor and a minimum of 40 semester credit hours in the Applied Demography doctoral program. Directed individual reading, discussion, writing, and/or studies of selected topics in the field of demography. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours will apply to the Doctoral degree. Course Fee: STSP \$9.

DEM 7811. Doctoral Research. (0-0) 1 Credit Hour.

Prerequisites: Permission of the Ph.D. Graduate Advisor of Record and dissertation director. Preparation and writing of dissertation proposal. May be repeated for credit, but not more than 6 hours will apply to the Doctoral degree. Course Fee: STSP \$3.

DEM 7813. Doctoral Research. (0-0) 3 Credit Hours.

Prerequisites: Permission of the Ph.D. Graduate Advisor of Record and dissertation director. Preparation and writing of dissertation proposal. May be repeated for credit, but not more than 6 hours will apply to the Doctoral degree. Course Fee: STSP \$9.

DEM 7816. Doctoral Research. (0-0) 6 Credit Hours.

Prerequisites: Permission of the Ph.D. Graduate Advisor of Record and dissertation director. Preparation and writing of dissertation proposal. May be repeated for credit, but not more than 6 hours will apply to the Doctoral degree. Course Fee: STSP \$18.

DEM 7903. Special Topics. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. May be repeated for credit when topics vary, but not more than 6 hours, regardless of discipline, will apply to the Doctoral degree in Applied Demography. Course Fee: STSP \$9.

DEM 7911. Doctoral Dissertation. (0-0) 1 Credit Hour.

Prerequisite: Admission to Candidacy for the Doctoral degree in Applied Demography. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Course Fee: STSP \$3.

DEM 7913. Doctoral Dissertation. (0-0) 3 Credit Hours.

Prerequisite: Admission to Candidacy for the Doctoral degree in Applied Demography. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Course Fee: STSP \$9.

DEM 7916. Doctoral Dissertation. (0-0) 6 Credit Hours.

Prerequisite: Admission to Candidacy for the Doctoral degree in Applied Demography. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Course Fee: STSP \$18.