

SCHOOL OF PUBLIC HEALTH- UCD

The following courses, listed alphabetically by department, have been approved for graduate credit. Please see the Interdepartmental (IDPT) section for courses which are taught cooperatively by individual departments.

BIOSTATISTICS

BIOS 6601 Applied Biostatistics I

3.0 cr.

J. Barnette (Spring, Summer, Fall)

Applied biostatistical methods including: descriptive and statistical inference; odds ratio and relative risk, probability theory, parameter estimation, tests for comparing statistics of two or more groups, correlation and linear regression and overviews of: multiple and logistic regression.

BIOS 6602 Applied Biostatistics II

3.0 cr.

S. MaWhinney (Spring) Prereq: BIOS 6601.

A continuation of BIOS 6601 extending the basic principles of descriptive and inferential statistics to modeling more complex relationships using linear regression, logistic regression, Poisson regression, and Cox regression. The statistical package SAS is used extensively.

BIOS 6603 Biostatistics Lab - SAS

1.0 cr.

D. Lezotte (Spring, Summer, Fall) Prereq/Coreq: BIOS 6601 or equivalent. Restriction: No credit toward degree if 6603/6604/6605 have been taken previously.

This course will emphasize statistical analysis and data interpretation through use of the SAS statistical computing package. Instruction will be provided through laboratory exercises and interactive demonstrations.

BIOS 6604 Biostatistics Lab - SPSS

1.0 cr.

D. Lezotte (Spring, Summer, Fall) Prereq/Coreq: BIOS 6601 or equivalent. Restriction: No credit toward degree if 6603/6604/6605 have been taken previously.

This course will emphasize statistical analysis and data interpretation through use of the SPSS statistical computing package. Instruction will be provided through laboratory exercises and interactive demonstrations.

BIOS 6605 Biostatistics Lab - Excel

1.0 cr.

D. Lezotte (Spring, Summer, Fall) Prereq/Coreq: BIOS 6601 or equivalent. Restriction: No credit toward degree if 6603/6604/6605 have been taken previously.

This course will emphasize statistical analysis and data interpretation through use of Microsoft Excel. Instruction will be provided through laboratory exercises and interactive demonstrations.

BIOS 6606 Statistics for the Basic Sciences

3.0 cr.

D. Everett (Fall) Restrictions: Enrollment in UCD-AMC graduate program or permission of the instructor.

This course provides an overview of fundamental concepts in statistics such as hypothesis testing and estimation, and it provides an overview of statistical methods (for example, regression and analysis of variance) that apply to many areas of science.

BIOS 6611 Biostatistical Methods I

3.0 cr.

A. Baron (Fall) Prereq: Differential calculus.

This is a first course in applied statistics covering elementary probability, descriptive, parametric and non-parametric methods for one and two sample estimation/testing and some common simple cases of the univariate general linear model. The statistical package SAS used extensively.

BIOS 6612 Biostatistical Methods II

3.0 cr.

S MaWhinney (Spring) Prereq: BIOS 6611.

This is a continuation of BIOS 6611 covering univariate linear modeling and emphasizing multiple regression and analysis of variance. Logistic regression and methods for correlated data are also covered. Matrix algebra and the statistical package SAS will be used.

BIOS 6621 Statistical Consulting

1.0 cr.

G. Grunwald (Spring, Fall) Coreq: BIOS 6611 and consent of instructor/program director.

Students will gain experience with statistical consulting and common statistical problems and techniques encountered in consulting through a combination of real examples and consultations with investigators. Under faculty supervision, advanced students will work on consulting projects with investigators.

BIOS 6623 Advanced Data Analysis

3.0 cr.

T. Fingerlin & N. Carlson (Spring) Prereq: BIOS 6601 and BIOS 6602 or BIOS 6611 and BIOS 6612 or permission of instructor.

This course teaches the students how to be effective collaborators. Students will learn to modify project hypotheses to be statistical hypotheses. The students will identify and perform the appropriate data analyses and communicate their analyses both verbally and in writing.

BIOS 6631 Statistical Theory I

3.0 cr.

D. Glueck (Fall) Prereq: Differential and integral calculus.

This course presents an introductory coverage of the theory of discrete and continuous random variables and applications to statistical problems. Topics include probability theory, transformations and expectations, common families of distributions, multiple random variables, and properties of a random sample.

BIOS 6632 Statistical Theory II

3.0 cr.

S. MaWhinney (Spring) Prereq: BIOS 6631

This course covers theoretical and applied fundamentals of statistical inference. The course is a continuation of BIOS 6631. The primary topics include point estimation, hypothesis testing, interval estimation and asymptotic methods.

BIOS 6643 Analysis of Longitudinal Data

3.0 cr.

M. Strand (Fall) Prereq: BIOS 6632 and BIOS 6612 or permission of instructor.

Theory and application of models appropriate for clustered and longitudinal data are studied. Models for different types of outcome variables (e.g., normal, Poisson, binomial) are covered, with an emphasis on linear mixed models for normal outcomes.

BIOS 6646 Survival Analysis

2.0 cr.

A. Barón (Spring) Prereq: BIOS 6611 and BIOS 6631 Coreq: BIOS 6612 and BIOS 6632

This course covers the analysis of time-to-event data with applications to biology, medicine, and public health. Nonparametric methods for group comparisons and semi-parametric regression models will be emphasized. Parametric methods and distribution theory for survival analysis will also be included.

BIOS 6648 Design of Clinical Trials

2.0 cr.

J. Kittelson (Fall) Prereq: BIOS 6611 or BIOS 6601.

The design and conduct of human intervention trials. Specific topics include: specifying the research question, study endpoints, study populations, study treatments, sample size evaluation, and choice of control groups. Common trial designs and issues in trial monitoring are described.

BIOS 6651 Masters Research Paper

1.0-6.0 cr.

S. MaWhinney (Spring, Summer, Fall)

M.S. research paper is completed under this course.

BIOS 6670 Special Topics- Biostatistics.

1.0-3.0 cr.

D. Lezotte (Spring, Summer, Fall).

Special interest areas of current biostatistics research and practice are presented and analyzed. The course format is lecture and discussion or seminar. Check the CSPH Website for offerings and topics for this course each semester.

BIOS 6680 SAS Database Design/Mgt

2.0-3.0 cr.

J. Bondy (Fall)

Course introduces students to how SAS can be used to manipulate data and prepare it for analysis: inputting, recoding, reformatting, subsetting, merging data, and simple reports and SAS Macros. Principles and implementation of database design will also be discussed

BIOS 6840 Independent Study for MPH-Biostatistics

1.0-3.0 cr.

D. Lezotte (Spring, Summer, Fall) Restrictions: Open only to MPH students.

Faculty directed independent study for MPH students in topics related to biostatistics.

BIOS 6841 Independent Study for MS-Biostatistics

1.0-3.0 cr.

.S. MaWhinney (Spring, Summer, Fall) Course Restrictions: Open only to MS students or Permission of Instructor.

Resources of the department are available to those MS students who elect to carry out research in chosen topics related to biostatistics.. A faculty member will provide guidance throughout the project.

BIOS 6950 Masters Thesis-Biostatistics

1.0-6.0 cr.

.S. MaWhinney (Spring, Summer, Fall)

Biostatistics Master thesis work is completed under this course.

BIOS 7010 Latent Variable Methods

3.0 cr.

N. Whitesell - (Fall) Prereq: BIOS 6601, BIOS 6602 or equivalent. Crosslisted: CBHS 7010. Restriction: Enrollment in the DrPH program or permission of the instructor.

Covers latent variable statistical techniques commonly used in behavioral sciences research – including scale development, factor analysis, and structural equation modeling, and introduces advanced latent modeling techniques. Students will analyze data using statistical software, interpret results and write summaries of findings.

BIOS 7670 Advanced Special Topics - Biostatistics

1.0-3.0 cr.

S. MaWhinney (Spring, Summer, Fall)

Advanced special interest areas of current biostatistics research and practice are presented. The course format is lecture and discussion or seminar. Check the CSPH Website for offerings and topics for this course each semester.

BIOS 7731 Advanced Mathematical Statistics I

3.0 cr.

K. Kechris (Fall) Prereq: BIOS 6631 and BIOS 6632 or equivalent.

This course will provide the framework for understanding the formal concepts, models and assumptions in statistical theory. Topics include random variables, parameter estimation, measures of performance, hypothesis testing and asymptotic approximations.

BIOS 7732 Advanced Mathematical Statistics II

3.0 cr.

J. Kittelson (Spring) Prereq: BIOS 7731 or equivalent.

The foundations of the theory of point estimation. A basic introduction to measure-theoretic probability, integration, and convergence. Large sample theory, interval estimation, and efficient likelihood estimation.

BIOS 7899 Independent Study for PhD-Biostatistics

1.0-4.0 cr.

S. MaWhinney (Spring, Summer, Fall) Restrictions: PhD student or permission of Instructor.

This course is for the PhD student who wishes to pursue one or more topics in depth. These topics may involve biostatistical material or biological material necessary to the student's biostatistical work. Supervision by a full-time faculty member is necessary.

BIOS 8990 Doctoral Dissertation

1-10 cr.

S. MaWhinney (Spring, Summer, Fall)

PhD dissertation work is completed under this course.

CBHS 6610 Social and Behavioral Factors and Health

3.0 cr.

A.. Levinson & K.. Albright– (Spring, Summer, Fall)

Considers social, behavioral, and cultural factors that affect the health of individuals and populations, and contribute to health disparities. Development, implementation and evaluation of programs and policies to promote and sustain healthy environments and lifestyles are examined. Online in summer.

CBHS 6611 Foundations Health Behavior

3.0 cr.

J. Leiferman – (Spring, Fall) Prereq: CBHS 6610

Course will cover basic theories, concepts, models from a range of social/behavioral disciplines used in public health research and practice. Applications of theoretical frameworks in specifying multiple targets and levels of intervention to public health research will be addressed.

CBHS 6612 Methods-Research and Evaluation

3.0 cr.

B. Risendal, Y. Kellar-Guenther, & L. Crane – (Spring, Fall) Prereq: BIOS 6601

Covers social science research methods, including qualitative/quantitative research designs, data collection and program evaluation (needs assessment, process, outcome), to assess effectiveness of public health programs. (EPID 6630 recommended prior to this course.)

CBHS 6613 Program Planning and Implementation

3.0 cr.

E. Belansky & L. Crane – (Spring, Fall) Prereq: CBHS 6610 and CBHS 6611

Course examines planning and implementation process with specific focus on health promotion programs. Students will learn about: using results of needs assessments; specifying program objectives; using behavior change theory and evidence-based strategies; developing program, evaluation, adoption, implementation & sustainability plans.

CBHS 6620 Survey Research

2.0 cr.

L. Crane – (Fall) Restrictions: Offered in odd years.

Course examines survey research methodology, including face-to-face, telephone, mail and internet surveys. Includes: methods of data collection; developing and ordering questions; formatting; reliability and validity; sampling; implementation; maximizing response rate; data issues; survey ethics and reporting.

CBHS 6622 Qualitative Research Methods

3.0 cr.

This course is designed to teach graduate students how and when to use a variety of qualitative methods in public health research. Students will gain experience and skills in designing, implementing, analyzing, and writing up the results of qualitative research.

CBHS 6624 Community Health Assessment

3.0 cr.

J. Baxter & H. Wolf – (Spring) Prereq: EPID 6630, CBHS 6610

Course teaches how to assess the social, cultural, economic, physical and environmental components of population health. Students use national/local demographic and health data. Includes working with community clients and off-campus community-based fieldwork.

CBHS 6626 Public Health and Aging

2.0 cr.

L. Bryant – (Spring) Restrictions: Offered even years.

Introduces students to 1) factors across the social-ecological spectrum that will affect population patterns of health, disease, and risk factors in older adults; and 2) appropriate responses by public health, aging services and the research community.

CBHS 6628 Tech-based health Promotion

2.0 cr.

This course will introduce students to health promotion programs delivered using computers, the internet and mobile phones. Students will learn strategies for designing, implementing and evaluating technology-based programs and will develop a technology-based health promotion program as a class project.

CBHS 6670 Special Topics in Public Health - Community Behavioral Health 1.0-3.0 cr.

L. Crane – (Spring, Summer, Fall).

Special interest areas of current community and behavioral health research and practice are presented and analyzed. The course format is lecture and discussion or seminar. Check the CSPH Website for offerings and topics for this course each semester.

CBHS 6840 Independent Study- Community Behavioral Health 1.0-3.0 cr.

L. Crane - (Fall) Restriction: Permission of instructor required.

Faculty directed independent study in topics related to community and behavioral health.

CBHS 7010 Latent Variable Methods 3.0 cr.

N. Whitesell - (Fall) Prereq: BIOS 6601, BIOS 6602 or equivalent. Crosslisted: BIOS 7010. Restriction: Enrollment in the DrPH program or permission of the instructor.

Covers latent variable statistical techniques commonly used in behavioral sciences research – including scale development, factor analysis, and structural equation modeling, and introduces advanced latent modeling techniques. Students will analyze data using statistical software, interpret results and write summaries of findings.

CBHS 7670 CBH Advanced Seminar 3.0 cr. Prereq:

L. Crane - (Spring) Restrictions: Enrollment in DrPH or permission of instructor. CBHS 6610, 6611, 6612, 6613, 6620 or equivalent, permission of instructor.

This doctoral level course will address theory and practice at a level beyond that covered in CBH Master's level courses. Students will acquire advanced skills in developing, testing, and applying health behavior theory and methods to public health problems.

ENVIRONMENTAL HEALTH AND OCCUPATIONAL HEALTH

EHOH 6614 Occupational and Environmental Health 3.0 cr.

J. Adgate & L. Newman- (Fall Spring) Prereq: EPID 6630

Presents an overview of information needed to assess the relationship between the environment, workplace and health. Topics include facets of industrial hygiene, air and water pollution, radiation monitoring, toxicology studies, clinical occupational medicine, and biologic monitoring.

EHOH 6616 Environmental & Occupational Toxicology 3.0 cr.

R. Witter – (Spring) Prereq: Undergraduate Biology & Chemistry Coreq: EHOH 6614; EPID 6630

Presents an overview of information needed to assess the relationship between the environment, workplace and health. Topics include facets of industrial hygiene, air and water pollution, radiation monitoring, toxicology studies, clinical occupational medicine and biologic monitoring.

EHOH 6617 Environmental & Occupational Exposure Assessment 2.0 cr.

J. Martyny – (Spring) Prereq: EHOH 6614 Coreq: EPID 6630

Course will provide the methodologies by which environmental hazards can be anticipated, recognized, evaluated and controlled. Methodologies to determine the degree of hazard and personal protection will be covered. Practical experience will be provided by field trips and labs.

EHOH 6618 Environmental Health Policy and Practice 2.0 cr.

J. Litt – (Spring) Prereq: EHOH 6614

Examine the environmental policy-making and planning and regulatory and non-regulatory approaches to controlling environmental hazards. A wide variety of topics will be introduced with cross-disciplinary perspectives ranging from water and air to the built environment and climate change.

EHOH 6619 Environmental Exposures & Health Effects 3.0 cr.

J. Martyny, C. Rose, & G. Plumlee – (Fall) Prereq: EHOH 6614 Coreq: EPID 6630

This course integrates earth sciences, exposure sciences and biological sciences to understand conditions and circumstances of recent env/occ exposure events, the methods to assess exposures; and related health impacts. Case studies and laboratory exercises are used to guide instruction

EHOH 6620 Risk Analysis & Decision Making

3.0 cr.

J. Adgate (fall) Prereq: BIOS 6601 or equivalent

A general survey of risk analysis and risk-based decision making covering the basic components of risk assessment, communication, and management and how they are applied in various fields.

EHOH 6621 GIS for Public Health Research & Practice

3.0 cr.

D. Thomas – (Summer)

This course will expose students to the fundamentals of Health Geographic Information Systems (GIS), including hands-on software experience, across a variety of application areas in the health sciences, particularly focusing on integrating GIS technologies appropriately into research design and practice.

EHOH 6670 Special Topics-Environmental & Occupational Health

1.0-3.0 cr.

J. Litt – (Spring, Summer, Fall)

Special interest areas of current environmental and occupational research and practice are presented and analyzed. The course format is lecture and discussion or seminar. Check the CSPH Website for offerings and topics for this course each semester.

EHOH 6710 Disasters, Climate Chng & Hlth

3.0 cr.

(Spring)

This course provides a review of the impacts of all types of disasters and climate change on human health, using a broad framework of preparedness, mitigation, response, recovery, with an emphasis on vulnerability and adaptation. Crosslisted GEOG 5710.

EHOH 6840 Independent Study-Environmental & Occupational Health

1.0-3.0 cr.

J. Litt – (Spring, Summer, Fall)

Faculty directed independent study in topics related to environmental and occupational health.

EPIDEMIOLOGY

EPID 6622 Cancer Prevention and Control

2.0 cr.

T. Byers – (Summer) Prereq: EHOH 6614, EPID 6630

Course provides overview of preventable cancers, epidemiology and contributing factors. Phases of cancer control research and appropriate methodologies are discussed. Basic principles of intervention development are reviewed. Psychosocial issues related to cancer are discussed. Students research topic related to course.

EPID 6624 Public Health Surveillance

2.0 cr.

A. Shupe – (Spring) Restriction: Offered odd years.

Course focuses on characteristics, development, uses and evaluation of major public health surveillance systems. History, goals, public health authority, analysis, interpretation, dissemination and privacy issues are covered. Key surveillance systems (communicable diseases, vital statistics, injury, cancer) are explored.

EPID 6626 Research Methods in Epidemiology

3.0 cr.

D. Lezotte – (Spring) Prereq: BIOS 6601, BIOS 6680, EPID 6630

Principles, concepts and methods for conducting ethical, valid and scientifically correct observational studies in epidemiological research are the focus of this class. Lectures and practical experience reinforce hypothesis formulation, study design, data collection and management, analysis and publication strategies.

EPID 6629 Clinical Epidemiology

2.0 cr.

M. Sontag, & J. Hokanson – (Fall) Coreq: EPID 6630 Restriction: Offered even years.

Course provides an overview of the design, conduct, and appraisal of clinical research. Topics include study design, issues in randomized trials, bias, measurement error, assessment of diagnostic and screening tests, measurement of health-outcomes, meta-analysis and use of questionnaires.

EPID 6630 Epidemiology

3.0 cr.

D. Dabelea & R. Hamman – (Spring, Fall)

Introduction to approaches/methods used in describing the natural history of disease in the community and for locating clues to causes of disease and analytical epidemiology used in the study of disease etiology and critical review of the public health literature.

EPID 6631 Analytical Epidemiology

3.0 cr.

J. Hokanson – (Fall) Prereq: EPID 6630, BIOS 6601 Coreq: BIOS 6602

Course emphasizes analytical foundations of epidemiology and its application to etiologic studies and public health practice. Topics include determining rates of disease occurrence, assessing exposure disease relationships, stratified analysis, measurement error and sampling. Final project requires analysis/interpretation of epidemiologic data.

EPID 6632 UCD Advanced Epidemiology

3.0 cr.

J. Marshall - (Spring) Prereq: EPID 6630, EPID 6631, BIOS 6601

This is an advanced course on epidemiologic methods designed to improve the student's ability to conduct and interpret observational epidemiologic studies.

EPID 6635 Epidemiology of Communicable Diseases

3.0 cr.

C. Nyquist - (Spring) Prereq: EPID 6630.

This course considers the epidemiology of selected communicable diseases. Methods for their prevention and control, and assessment of these methods will be treated primarily through case studies.

EPID 6636 Chronic Disease Epidemiology

3.0 cr.

J. Lowery - (Fall) Prereq: EPID 6630 Restriction: Offered odd years.

The major chronic diseases of Western countries will be reviewed including heart disease, cancer, stroke, diabetes, neurological diseases, and selected other conditions. Factual information about epidemiology of these diseases will be provided with the discussion of methodological issues which arise.

EPID 6637 Injury Epidemiology and Control

2.0 cr.

C. DiGuiseppi - (Summer) Prereq: EPID 6630 or permission of Instructor. Restrictions: Offered even years.

Students will learn the major causes of and risk factors for injuries and violence, identify and use key data sources to characterize injury problems, develop and evaluate injury control and prevention strategies, critically analyze literature and explore injury related research options.

EPID 6638 Cardiovascular Epidemiology

1.0 cr.

J. Hokanson - (Fall) Prereq: EPID 6630. Restriction: Offered even years.

Course provides practical introduction to current concepts, research methods, unanswered questions in epidemiology of coronary artery disease, stroke/peripheral artery disease. It prepares students for independent work in academic/nonacademic settings in the area of cardiovascular disease surveillance, etiology, and outcome research.

EPID 6639 Genetic Epidemiology

2.0 cr.

J. Norris – (Fall) Prereq: EPID 6630, BIOS 6601 Restriction: Offered even years.

This course reviews basic genetic principles and teaches epidemiologic methods employed in the investigation of the genetic susceptibility to chronic disease.

EPID 6646 Introduction to Systematic Reviews

1.0 cr.

C. DiGuiseppi - (Fall) Prereq: EPID 6630, or permission of instructor. Restriction: Offered odd years

Introduces methods of conducting systematic reviews to identify the best available evidence about health and public health interventions. Topics will include the design and implementation of reviews, publication bias, search strategies, meta-analysis and reporting results through the Cochrane library.

EPID 6651 Masters Research Paper **1.0-6.0 cr.**
(Spring)

Masters research paper in epidemiology is completed under this course.

EPID 6670 Special Topics-Epidemiology **1.0-3.0 cr.**

M. Sontag - (Spring, Summer, Fall) Restrictions: Permission of instructor.

Special interest areas of current epidemiology research and practice are presented and analyzed. The course format is lecture and discussion or seminar. Check the CSPH Website for offerings and topics for this course each semester.

EPID 6840 Independent Study- Epidemiology **1.0-3.0 cr.**

M. Sontag - (Spring, Summer, Fall) Restrictions: Permission of Instructor.

Faculty directed independent study in topics related to epidemiology.

EPID 6950 Independent Study- Epidemiology **1.0-6.0 cr.**

Epidemiology thesis work is completed under this course.

EPID 7615 Pharmacoepidemiology **2.0 cr.**

R. Valuck - (Fall) Prereq: EPID 6630: 2 course biostatistics series (BIOS 6601-6602 or BIOS 6611-6612) Restrictions: Offered odd years, NA for 2 credit section.

This course builds upon fundamental concepts and methods of epidemiology, applied to the study of pharmaceuticals. Topics include: the FDA approval process, mechanisms of adverse drug effects, methods and data systems for studying drug-effect relationships, and evaluating published pharmacoepidemiology studies.

EPID 7911 Epidemiologic Field Methods **1.0-4.0 cr.**

D. Dabelea - (Spring, Summer, Fall). Prereq. EPID 6626, EPID 6630, EPID 6631, EPID 6632, BIOS 6611, BIOS 6612. Course Restrictions: Enrollment in Epidemiology PhD Program or permission of Instructor.

Ph.D. students have the opportunity to work with faculty on current epidemiologic projects to develop skills in field research, proposal writing, budget development, staff hiring and training, protocol and instrument development and implementation, and specific methods topics.

EPID 7912 Developing a Research Grant **3 cr.**

D. Dabelea, T. Fingerlin – (Spring) Prereq: EPID 6626, EPID 6630, EPID 6631, EPID 6632, BIOS 6611, BIOS 6612 Restrictions: Enrollment in Epidemiology PhD Program or Permission of the instructor.

Course instructs students how to prepare quality, successful, research grant applications. It offers students an opportunity to familiarize themselves with the grant writing and review process, enhance critical thinking skills, formulate hypothesis and interpret results, improve quality of scientific writing.

EPID 7915 Analytic Methods in Epidemiology **1.0-4.0 cr.**

D. Dabelea – (Spring, Summer, Fall) Prereq: EPID 6626, EPID 6630, EPID 6631, EPID 6632, BIOS 6611, BIOS 6612. Course Restrictions: Enrollment in Epidemiology PhD Program or Permission of the instructor.

Advanced treatment of techniques in the analysis of epidemiological studies, including longitudinal, time-dependent, survival data, causality, missing data, etc. Students will analyze data sets currently on file using contemporary epidemiological methods.

EPID 8990 Doctoral Thesis- Epidemiology **1.0-10.0 cr.**

D. Dabelea - (Spring, Summer, Fall) Restriction: Permission of Instructor.

Doctoral thesis work in Epidemiology

HEALTH SYSTEMS MANAGEMENT AND POLICY

HSMP 6603 Health Systems and Management **3.0 cr.**

A. Atherly - (Fall, Spring, Summer)

Students are introduced to basic components of current health care system and basic economic principles as applied to selected aspects of the health care system.

HSMP 6604 Health Care Economics

3.0 cr.

D. Milne - (Fall)

This course focuses on health care financing and economic issues. A microeconomics framework, including issues of supply, demand, market structure, market failure, price and output are discussed as they apply to the health sector.

HSMP 6605 Health Policy

3.0 cr.

E. Morrato - (Spring) Prereq: HSMP 6603.

The focus of this course will be the analysis of important US health policy issues, such as access, cost and quality. Analytic concepts, approaches and frameworks will be used to explore specific health policy issues.

HSMP 6606 Public Health Administration

3.0 cr.

S. Miller - (Fall) Prereq: HSMP 6603.

Course designed to present technical, policy and administrative issues within context of operational activities of community and public health agencies. Introduction to basic management skills is included.

HSMP 6607 Current Legal Issues in Health Care

2.0 cr.

M. Jewel - (Spring)

This course presents and discusses contemporary public health and health care administration legal issues in the United States.

HSMP 6608 Ethical & Legal Issues in Public Health

2.0 cr.

P. O'Rourke- (Fall)

Course explores ethical/legal dimensions of various topics of concern in areas of public health, health policy, epidemiology. Topics: health care reform, medical indigence, screening/genetic screening, epidemiological research, QUALYS and health outcomes research, public health/individual rights, public health in developing countries.

HSMP 6609 Cost Benefit & Effectiveness in Health

3.0 cr.

H. Fang - (Spring) Prereq: HSMP 6603 and HSMP 6604 or permission of instructor.

This is an introductory course on the theory, methods and application of economic evaluation in health context.

HSMP 6610 Health Care Financial Management

3.0 cr.

R. Lindrooth - (Spring, Fall) Prereq: HSMP 6603, HSMP 6604

This course provides students with a basic understanding of financial decision making including the time value of money, budgeting and financial management and other topics.

HSMP 6612 Principles of Healthcare Management

2.0 cr.

(Spring) Prereq: HSMP 6603.

This course will provide students with a basic understanding of financial decision making, including the time value of money, budgeting and financial management and other topics.

HSMP 6615 Global Health Policy and Economy

3.0 cr.

S. Rifkin - (Summer)

Students should be able to identify the major actors in global health policy and their roles; discuss the major policy issues and their importance in shaping global health' and apply the above analysis to specific examples.

HSMP 6617 Methods in Health Services Research I

3.0 cr.

H. Fang- (Spring) Prereq: BIOS 6601

Course provides an overview of the discipline of health services research (HSR).

HSMP 6625 Methods in Health Services Research II

3.0 cr.

R. Lindrooth- (Fall) Prereq: HSMP 6617

This course provides an overview of research methods in health services. This class is designed for individuals who have completed HSMP 6617.

HSMP 6670 Special Topics-Health Systems, Management, Policy **1.0-3.0 cr.**

L. Bryant– (Spring, Summer, Fall)

Special interest areas of current health systems, management, and policy research and practice are presented and analyzed. The course format is lecture and discussion or seminar. Check the CSPH Website for offerings and topics for this course each semester.

HSMP 6840 Independent Study-Health Systems, Management, Policy **1.0-3.0 cr.**

L. Bryant– (Spring, Summer, Fall)

Faculty directed independent study in topics related to health systems, management and policy.

HSMP 8990 Doctoral Thesis - Health Systems Management and Policy **1.0-10.0 cr.**

Doctoral thesis work in Health Systems Management and Policy.

PUBLIC HEALTH - GENERAL

PUBH 6600 Foundations in Public Health **2.0 cr.**

D. Givray & J. Gascoigne - (Spring, Summer, Fall)

This course examines the historical and conceptual bases of public health, the key issues and problems faced by the public health system, and the tools available for the protection and enhancement of the public's health.

PUBH 6601 A History of Public Health **1.0 cr.**

M. Johnson - (Spring)

This course provides a broad overview of public health history and the political, economic, medical, legal and ethical factors that have shaped the environment in which the public health care professional of today must function.

PUBH 6605 Health Equity **2.0 cr.**

A. Sauaia - (Fall) Prereq: EPID 6630 or EPID 6626 or Permission of Instructor

Course addresses disparities in racial and ethnic minorities, women, children, elderly, low-income, low literacy, disabled, GLBTI by studying the institutionalized, personally mediated and internalized causes. Potential solutions and challenges encountered in the quest for health equity will be discussed.

PUBH 6606 MPH Practicum **2.0 cr.**

J. Gascoigne - (Spring, Summer, Fall) Prereq: BIOS 6601, CBHS 6610, EHOH 6614, EPID 6630, HSMP 6603, PUBH 6600 OR Permission of the Instructor. Restrictions: Only open to MPH students.

All MPH concentrations require students to successfully complete a practicum in which the student demonstrates competencies and integrates knowledge. It is intended to enrich student's experience by providing an opportunity to apply theory and skills in a public health setting.

PUBH 6619 Public Health in the Global Community **3.0 cr.**

K. Kennedy - (Summer, Spring) Restriction: Permission of the instructor required for non-degree/non-certificate students.

This course is a study of population health issues around the world. It enables students to (1) assess the current health status of a country and (2) understand and critically appraise the magnitude and likely causes of various health-related conditions.

PUBH 6620 Geographic Perspective on Global Hlth **1.0 cr.**

D. Thomas - (Summer) Restriction: Permission of the instructor required for non-degree/non-certificate students.

This course will review geographic concepts and tools taking a regional, holistic approach to understanding the world's peoples, places and processes in order to lay a foundation for an improved knowledge of global health.

PUBH 6624 Nutrition in Global Community **2.0 cr.**

S. Johnson & N. Krebs - (Fall) Restriction: Permission of the instructor required for non-degree/non-certificate students.

Course provides information and opportunities for discussion regarding fundamentals of nutrition and historical and present-day issues related to global nutrition. Agencies that address nutrition issues domestically and globally, including philosophies, missions and strategies employed by these will be presented.

PUBH 6626 International Travel and Health **1.0 cr.**

C. Wilson - (Spring, Fall) Restriction: Permission of the instructor required for non-degree/non-certificate students.

This course addresses personal and public health issues and risks characteristic of international travel. Topics include pre-travel preparation; common health risks of travel; preventive health, safety and security measures; emergency management of common health problems; and management of group health.

PUBH 6651 MPH Research Paper **1.0-4.0 cr.**

J. Barnette - (Spring, Summer, Fall) Prereq: BIOS 6601, CBHS 6610, EHOH 6614, HSMP 6603, EPID 6630, PUBH 6600 OR permission of Instructor..

Independent research project resulting in a publishable paper. All projects will involve the analysis of primary or secondary data.

PUBH 6670 Special Topics-Public Health **1.0-3.0cr.**

J. Barnette - (Spring, Summer, Fall)

Special interest areas of current public health research and practice are presented and analyzed. The course format is lecture and discussion or seminar. Check the CSPH Website for offerings and topics for this course each semester.

PUBH 6840 Independent Study-Public Health **1.0-3.0cr.**

J. Barnette - (Spring, Summer, Fall)

Faculty directed independent study in topics related to public health.

PUBH 6842 DrPH Seminar **1.0 cr.**

This doctoral level course will address theory and practice at a level beyond that covered in Master's level courses. Students will acquire advanced skills in developing, testing, and applying theory and methods to public health problems. Restrictions: Enrollment in DrPH or permission of instructor.

PUBH 6955 MPH Capstone Project **1.0-2.0cr.**

J. Barnette - (Spring, Summer, Fall) Prereq: BIOS 6601, CBHS 6610, EHOH 6614, EPID 6630, HSMP 6603, or permission of Instructor.

Final MPH Capstone project is completed under this course.

PUBH 6956 Continued MPH Studies **1.0 cr.**

Prereq: PUBH 6651 or PUBH 6955 and permission of instructor. Restriction: Cannot be used for credit for meeting MPH degree requirements.

Continuation of MPH study experience.

SCHOOL OF PUBLIC HEALTH- UNC

COMMUNITY HEALTH

CHBH 5000 Stress Management **3.0 cr.**

(Spring, Summer, Fall)

A holistic approach to stress management, with cognitive and theoretical knowledge

CHBH 5050 Health Communication and the Media **3.0 cr.**

(Spring, Summer, Fall)

Focuses on the design, production, evaluation and acquisition of appropriate media and materials for health education/promotion programs.

CHBH 5080 UNC- Special Topics **3.0 cr.**
(Spring, Summer, Fall)

This course will be a forum to discuss important topics related to community and behavioral health. Such topic areas can include: preparation for field work in culturally diverse communities, historical trauma and health and others. Topics offered will change by semester, see specific schedule.

CHBH 5090 Seminar in Health Behavior **3.0 cr.**
(Fall)

Review theories of behavior and behavior change as they relate to current health issues. Health behavior change models will be examined and applied.

CHBH 5100 International Health: Cross Cultural Comparisons **3.0 cr.**
(Spring, Summer, Fall)

This class explores the multi-cultural aspects of health and international comparisons of various health indicators. Students will examine specific health problems, and the nature of health care delivery worldwide.

CHBH 5300 Seminars in Health Promotion Strategies **3.0 cr.**
(Spring) Prereq: CHBH 5090 or consent of instructor.

Examines the effectiveness of a wide range of strategies used in health promotion/disease prevention programs. Current literature/programs are presented and reviewed.

CHBH 5400 Principles of Health Program Management **3.0 cr.**
(Fall)

Prepares students to assume a supervisory role in the management of health and human services programs. Course covers planning, decision-making, organization, budgeting, marketing, human resource management, leadership.

CHBH 5500 Environmental Health **3.0 cr.**
(Spring)

Investigate and discuss the relationships of environmental health problems to human health and welfare. Include sources of these problems, their recognition and control and current research studies.

CHBH 6100 Program Planning and Evaluation **3.0 cr.**
(Fall) Prereq: CHBH 5300 or consent of instructor.

Theories and practices of program planning and evaluation including needs assessment, planning approaches, selection of strategies, data collection and analysis, evaluation design, program implementation and utilization of evaluation data.

CHBH 6200 UNC Epidemiology **3.0 cr.**
(Fall) Prereq: SRMS 6170.

Epidemiological principles analyzed with an emphasis on selected topical issues, infectious and chronic/degenerative diseases, research design and analysis. Practical applications of statistical and epidemiological methods.

CHBH 6220 Independent Study **1.0—4.0 cr.**
(Spring, Summer, Fall)

Individualized investigation under the direct supervision of a faculty member. Minimum of 37.5 clock hours required per credit hour. Repeatable. Maximum concurrent enrollment is two times. Restrictions: Instructor consent.

CHBH 6250 Public Health Administration and Policy **3.0 cr.**
(Spring)

Analyze the organization and administration of public health agencies at national, state and local levels. Major public health problems, including administrative and policy decisions regarding their resolution will be included.

CHBH 6860 MPH Masters Project

2.0 cr.

(Spring, Summer, Fall) Prerequisites: CHBH 6930 or concurrent. Restrictions: Consent of Instructor.

Independent project in which student demonstrates public health competencies. Includes public presentation of project.

CHBH 6920 Graduate Internship

3.0 cr.–6.0

(Spring, Summer, Fall) Prerequisites: CHBH 6100. Restrictions: Consent of Instructor.

Supervised experience at a health agency, that allows the student to put into practice knowledge and skills learned in the classroom.

CHBH 6930 UNC MPH Practicum

2.0 cr.

(Spring, Summer, Fall) Prerequisites: PUBH 6600 Restrictions: Minimum 18 core courses and consent of instructor.

MPH students must successfully demonstrate competencies and integrate knowledge. Through this practicum, theory and skills will be applied in a public health setting.

CHBH 6990 UNC Thesis

1.0 cr.–6.0

(Spring, Summer, Fall) Restrictions: Consent of Instructor.

Optional supervised research project for Master of Public Health candidates in Health Education. Content to be jointly determined by student and sponsoring professor.

GERONTOLOGY

GERO 5550 Grant Development and Administration

3.0 cr.

(Spring)

Overview of proposal planning and grant development process. Application of skills in identifying funding options, program planning, proposal writing, budgeting and establishing controls for grant administration.

HUMAN REHABILITATIVE SERVICES

HRSS 6100 Interpretation and Evaluation of Behavioral Research

3.0 cr.

(Spring, Fall)

Understanding of applications of appropriate statistical techniques and necessary skills for interpretation and evaluation of research in human services. Emphasizes basic concepts, design and utilization of behavioral research

STATISTICS AND RESEARCH METHODS

SRMS 6000 Introduction to Graduate Research

3.0 cr.

(Spring, Summer, Fall)

Principles of research, design and analysis. Read and critique published research. Required of all first year graduate students except in those departments with substitutes. Taught every semester.

SRMS 6170 Biostatistics and Health Data Analysis

3.0 cr.

(Summer)

Students will gain an understanding of biostatistical methods. This course enables students to develop the skills and knowledge necessary to manage and analyze health care and biomedical data.

SCHOOL OF PUBLIC HEALTH- CSU

AGRICULTURE

AGRI 5000 Adv Issues in Agriculture **3.0 cr.**
(Fall)
Scientific, technical, cultural and social issues facing agriculture, and their interrelationships.

AGRI 5460 Principles of Coop Extension **3.0 cr.**
L (Spring, Summer, Fall)
Traditional and contemporary delivery systems of Cooperative Extension emphasizing structures of non-formal education

AGRI 5470 Delivery of Co-operative Extension Programs **4.0 cr.**
(Spring)
Methods, techniques, and procedures in planning, implementation, and deliver of Cooperative Extension programs. Prereq: Written consent of instructor.

AGRI 6340 Animal Production Systems **3.0 cr.**
(Spring, Fall)
Developing animal management systems for a variety of animal species in a forage-based environment.

AGRI 6370 Und Policy & Emerging Issues **3.0 cr.**
(Spring, Fall)
Origination, purpose and effects of policy on land-based enterprises; policy effects on management decisions.

ANIMAL SCIENCES

ANEQ 5480 Issues in Manure Management **1.0 cr.**
(Fall) Prereq: CHEM 100
Manure management practices maximizing benefits to soils and crops while minimizing hazards to air and water quality and complying with regulation.

ANEQ 5670 HAACP Meat Safety **2.0 cr.**
(Spring)
Control of health problems in meat products through hazard analysis critical control point (HAACP) and total quality management (TQM) practices. Prereq: ANEQ 460.

ANEQ 6600 Topics in Meat Safety **1.0 cr.**
(Fall)
Topics of current concern in meat safety.

ANEQ 6760 Molecular Approach to Food Safety **3.0 cr.**
(Spring)
Molecular subtyping, tracking, and control; molecular ecology and evolution of food-borne pathogens; molecular pathogenesis of food-borne diseases. Prereq: MIP 300 and MIP 301 or MIP 334 and MIP 335.

ANTHROPOLOGY

ANTP 5400 Medical Anthropology **3.0 cr.**
(Spring)
Cultural and biocultural approaches to health, illness, and the body; theory and application in medical anthropology. Prereq: Graduate standing.

ANTP 5470 Mind, Medicine and Culture **4.0 cr.**
(Spring)

Cultural-psychological influences on health and healing; mind-body medicine; complementary and alternative medicine; Indigenous and spiritual healing. Prereq: Graduate standing.

ANTP 5710 Anthropology and Global Health **3.0 cr.**
(Fall)

Global health concerns and problems including poverty, urbanization, malnutrition, diet, war and refugees, climate, and environment

ANTP 6950 Independent Study: Anthropology **1.0—18 cr.**
(Spring, Summer, Fall)

Independent Study: Anthropology. Prerequisite: Graduate Standing.

EDUCATION RESEARCH METHODS

EDRM 7010 Applied Linear Models **3.0 cr.**
(Spring) Prereq: EDRM 606

General Linear model applications in educational research emphasizing conceptual understanding and characteristics of non-experimental designs

EDRM 7030 Application of Longitudinal Data Analysis **3.0 cr.**
(Fall)

Methods and empirical applications of individual growth modeling and discrete-time event history analysis in educational research.

ENVIRONMENTAL AND RADIOLOGICAL HEALTH SCIENCES

ERHS 5020 Fundamentals of Toxicology **3.0 cr.**
(Fall)

Fundamental principles of toxicology; dose-response, organ targets, toxic agents.

ERHS 5200 Environmental and Occupational Health **3.0 cr.**
(Fall)

Issues in environmental and occupational health sciences in the context of public health and regulatory concerns.

ERHS 5260 Industrial Hygiene **3.0 cr.**
(Fall) Prereq: CHEM 245 or CHEM 341 or CHEM 345; ERHS 520 or concurrent registration; PH 110 or PH 121

Theory and application of industrial hygiene principles to management of the occupational environment.

ERHS 5270 Industrial Hygiene Laboratory **1.0 cr.**
(Fall)

Industrial hygiene field monitoring equipment and techniques.

ERHS 5300 Radiology Physics and Dosimetry I **3.0 cr.**
(Fall) Prereq: MATH 155 or MATH 160; PH 122

Theory and detection of ionizing radiation; measurement and calculation of exposure and dose.

ERHS 5320 Epidemiologic Methods **3.0 cr.**
(Fall) Prereq: STAT 307

Method of epidemiologic investigation and study design. Applications to disease control with literature examples.

ERHS 5360 Advanced Occupational Health **3.0 cr.**
(Spring)

Advanced topics in occupational health emphasizing contemporary issues, topics, trends, and problems in the field of industrial hygiene. Prereq: ERHS 446 or ERHS 526.

ERHS 5400 Principles of Ergonomics **3.0 cr.**
(Fall)

Theory and practice of ergonomics.

ERHS 5420 Biostatistics for Qual Data **3.0 cr.**

L (Fall) Prereq: STAT 301 or STAT 307

Statistical analysis of categorical data obtained in epidemiology, toxicology, occupational health, and clinical settings.

ERHS 5440 Bios Methods for Quan Data **3.0 cr.**

(Spring)

Regression and analysis of variance methods applied to both observational studies and designed experiments in the biological sciences. Prereq: STAT 301 or STAT 307.

ERHS 5490 Environmental Health Risk Assessment **3.0 cr.**

(Spring)

Environmental contamination and health effects of chemicals using risk assessment, management and communication approaches. Prereq: ERHS 446 or ERHS 5020 or ERHS 5320.

ERHS 5500 Principals Radiation Biology **5.0 cr.**

(Spring)

Dose-response relationships; physical, chemical, and biological modification of radiation damage; radiation oncology; radiation genetics and oncogenesis. Prereq: ERHS 300 or ERHS 530.

ERHS 5610 Radiation in Public Health **2.0 cr.**

(Spring, Fall) Prereq: ERHS 3000 or ERHS 530

Dose-response relationships; physical, chemical, and biological modification of radiation damage; radiation oncology; radiation genetics and oncogenesis.

ERHS 6300 Radiology Physics and Dosimetry II **3.0 cr.**

(Spring)

Calculations and measurement techniques for dosimetry shielding and protection from ionizing radiations. Prereq: ERHS 530.

ERHS 6360 Industrial Hygiene Control Methods **3.0 cr.**

(Spring)

Controlling occupational exposures to chemical agents, emphasizing local exhaust ventilation; personal protective devices. Prereq: ERHS 526; ERHS 536 or concurrent registration.

ERHS 6400 Advanced Epidemiology **3.0 cr.**

(Spring)

In-depth exploration of advanced epidemiologic methods. Prereq: ERHS 532.

ERHS 6420 Appl Logistic Regression **3.0 cr.**

(Spring)

Basic and advanced concepts of logistic regression with focus on practical applications in epidemiology using SAS. Prereq: ERHS 532; ERHS 542.

ERHS 6560 Occupational Noise Control **3.0 cr.**

(Fall) Prereq: ERHS 5270

Measurement and control of industrial or environmental noise emphasizing practical solutions.

ERHS 6580 Environmental/Occupational Epidemiology **3.0 cr.**

(Spring)

Epidemiologic analyses of effects of exposure to environmental and occupational health hazards.
Prereq: ERHS 5320.

ERHS 6930 Research Seminar – Epidemiology **1.0 cr.**
(Spring, Fall)

Presentation of student research and discussion of publications from scientific literature.

ERHS 6931 Research Seminar – Industrial Hygiene **1.0 cr.**
(Spring, Fall)

Presentation of student research and discussion of publications from scientific literature.

ERHS 6932 Research Seminar – Toxicology **1.0 cr.**
(Spring, Fall)

Presentation of student research and discussion of publications from scientific literature.

ERHS 6933 Research Seminar – Health Physics **1.0 cr.**
(Spring, Fall)

Presentation of student research and discussion of publications from scientific literature.

ERHS 6950 Independent Study – Epidemiology **1.0-5.0 cr.**
(Spring, Summer, Fall)

Specialized study in epidemiology under supervision of faculty.

ERHS 6951 Independent Study – Environmental, Occupational Health **1.0-5.0 cr.**
(Spring, Summer, Fall)

Specialized study in environmental and occupational health under supervision of faculty.

ERHS 6980 MPH Capstone Project **1.0-6.0 cr.**
(Spring, Summer, Fall)

Capstone project for Master of Public Health students.

ERHS 7260 Aerosols and Occupational Health **3.0 cr.**
(Fall) Prereq: PH 141

Properties and behavior of industrial aerosols, emphasizing measurement and control of dust related to disease.

ETHNIC STUDIES

ETHS 6950 Independent Study-Ethnic Studies **1.0-18.0 cr.**
(Spring, Summer, Fall)

Independent study in ethnic studies.

ETHS 5100 Ethnicity, Race & Health Disp **3.0 cr.**

Health status of ethnic / racial populations; cultural dimensions that underlie health and health disparities.

FOOD SCIENCE AND HUMAN NUTRITION

FSHN 5000 Food System/Nutrition/Food Security **2.0 cr.**
(Fall) Prereq: FSHN 350

Global and local food systems and their potential influence on nutrition and food security.

FSHN 5200 Advanced Medical Nutrition Therapy **3.0 cr.**
(Summer) Prereq: FSHN 5500 or 5510

Role of nutrition in etiology and treatment of selected disorders.

FSHN 5250 Nutrition Education, Theory and Practice **2.0 cr.**

(Fall) Prereq: FSHN 350. Restriction: Instructor permission if not in Public Nutrition focus area.
Examination of current theories, skills, and models used in nutrition education programs as preparation for research and practice.

FSHN 5500 Advanced Nutritional Science I **3.0 cr**

(Spring)

Protein, vitamin, mineral metabolism: human studies, animal models. Prereq: BC 351 or BC 403: FSHN 350.

FSHN 5510 Advanced Nutritional Science II **3.0 cr.**

(Fall) Prereq: BC 351 or BC 403; FSHN 350. Restriction: Instructor permission if not in Public Nutrition focus area.

Carbohydrate, lipid, energy metabolism; human studies, animal models.

FSHN 6200 Community Nutrition Plan and Evaluation **3.0 cr.**

(Spring)

Community nutrition assessment; nutrition program planning and evaluation; nutrition policy analysis. Prereq: FSHN 350.

FSHN 6400 Selected Topics in Nutritional Epidemiology **2.0 cr.**

(Fall) Prereq: FSHN 350; STAT 301 or STAT 307/ERHS 307.

Overview of topics in nutritional epidemiology; study design, interpretation of findings, linkage of data to action.

FSHN 6501 Human Nutrition-Carbohydrates/Lipids/Energy **2.0 cr.**

(Fall) Prereq: FSHN 350 Restriction: Instructor permission if not in Public Nutrition focus area.

Appraisal of literature on human nutritional status.

FSHN 6600 Women's Issues in Lifecycle: Nutrition **2.0 cr.**

(Spring)

Current nutritional issues related to selected stages of the lifecycle compared to normal adult nutritional needs. Prereq: FSHN 459.

FSHN 6610 International Nutrition **2.0 cr.**

(Fall) Prereq: FSHN 350 Restriction: Instructor permission if not in Public Nutrition focus area.

Roles of technological programs and international agencies in meeting nutritional needs.

FSHN 6750 Regulation of Energy Intake **3.0 cr.**

(Spring)

Central and peripheral mechanisms controlling energy intake with emphasis on humans. Current theories, experimental approaches, and new research. Prereq: FSHN 350.

FSHN 6950 Independent Study – Food Science **1.0-18.0 cr.**

(Spring, Summer, Fall) Restrictions: Instructor permission if not in Public Health Nutrition focus area.
Specialized study in food science under supervision of Faculty.

FSHN 6951 Independent Study – Nutrition **1.0-18.0 cr.**

(Spring, Summer, Fall) Restrictions: Instructor permission if not in Public Health Nutrition focus area.
Specialized study in food science under supervision of Faculty.

FOOD TECHNOLOGY

FTEC 5720 Food Biotechnology

2.0 cr.

(Spring)

Interrelationships among microorganisms, food processing methods, advances in biotechnology and food quality, spoilage, shelf-life and safety.

FTEC 5740 Current Issues in Food Safety

2.0 cr.

(Spring)

Current food safety issues from field to table; microbiological, consumer, processing and agricultural issues.

THERESHOULDBEATAGHERE

FWLD 5650 Human Wildlife Conflict

3.0 cr.

(Spring)

Methods for resolving conflicts caused by wildlife; integrating animal behavior, population dynamics, and human dimensions into solutions.

HUMAN DEVELOPMENT AND FAMILY STUDIES

HDFS 5920 Grant Writing-Human Services

3.0 cr.

(Fall) Prereq: STAT 201

Writing grant proposals that support client services or for research.

HDFS 6000 Advanced Study Program Planning and Evaluation

3.0 cr.

(Spring)

Program planning and evaluation.

HDFS 6100 Risk and Resilience

3.0 cr.

(Spring)

Risk and resilience processes in human development. Prereq: 6 credits in behavioral sciences.

HEALTH AND EXERCISE SCIENCE

(Spring)

Theory and practice of exercise testing and prescription in apparently healthy and diseased populations. Prereq: HES 403.

HESC 5450 Evolutionary Basis Human Health/Fitness

3.0 cr.

(Spring)

Evolutionary basis for human health and fitness based upon dietary and exercise patterns for pre-agricultural humans. Prereq: HES 403; FSHN 350.

HESC 5560 Wellness & Health Promotion

3.0 cr.

(Fall)

Discussion of theory and application of health promotion in various settings.

- HESC 5600 Exercise and Nutrition** **3.0 cr.**
(Spring)
Interaction of nutrition and physical fitness in exercise performance and promotion of health.
Prereq: FSHN 350; HES 403; 2 credits of biochemistry.
- HESC 6000 Data Analysis & Research Design** **3.0 cr.**
(Fall) Prereq: One course in statistics. Restriction: Instructor permission if not in Health and Exercise Science focus area.
Methods of research applied to health and exercise science including quantitative techniques of analysis and research design.
- HESC 6030 Advanced Topics in Exercise Physiology** **3.0 cr.**
(Fall) Restriction: Instructor permission if not in Health and Exercise Science focus area.
Advanced principles of theoretical and applied exercise physiology at molecular, cellular and systemic levels.
- HESC 6100 Exercise Bioenergetics** **3.0 cr.**
(Fall) Prereq: BC 351 or FSHN 350; HES 403. Restriction: Instructor permission if not in Health and Exercise Science focus area.
Biology of energy transfer reactions related to human locomotion and exercise performance in both healthy individuals and disease states.
- HESC 6450 Epidemiology of Health and Physical Activity** **3.0 cr.**
(Spring)
Foundation in chronic disease epidemiology that will enable students to evaluate the current epidemiologic literature. Prereq: HES 600.
- HESC 6560 Comprehensive Stress Management** **3.0 cr.**
(Spring, Summer, Fall)
Relationship between stress and illness emphasizing methods to impact its detrimental effects.
- HESC 6861 Practicum in Wellness Management** **1.0-3.0 cr.**
(Spring, Summer, Fall)
Practicum requirement for Health and Exercise Science students.
- HESC 6920 Seminar-Health/Exercise Science** **1.0 cr.**
(Spring, Fall) Restriction: Instructor permission if not in Health and Exercise Science focus area.
Consideration of graduate education in health and exercise science.
- HESC 6950 Independent Study - Health** **1.0-18.0cr.**
(Spring, Summer, Fall) Restriction: Instructor permission if not in Health and Exercise Science focus area.
Independent study in health.
- HESC 6951 Independent Study – Exercise Science** **1.0-18.0cr.**
(Spring, Summer, Fall) Restriction: Instructor permission if not in Health and Exercise Science focus area.
Independent study in exercise science.
- HESC 6961 Group Study – Health** **1.0-18.0cr.**
(Spring, Summer, Fall) Restriction: Instructor permission if not in Health and Exercise Science focus area.
Group study in health.
- HESC 7100 Exercise in Disease Prevention** **3.0 cr.**
(Fall) Prereq: HES 403; HES 520 Restriction: Instructor permission if not in Health and Exercise Science focus area.
Biology of energy transfer reactions related to human locomotion and exercise performance in both healthy individuals and disease states.

INTERNATIONAL EDUCATION

IE00 6790 International Development Seminar **3.0 cr.**
(Spring)
Advanced International Development.

IE00 6920 International Development Seminar **3.0 cr.**
(Fall)
Exploration of contemporary issues in international development from interdisciplinary perspectives.

JOURNALISM AND TECHNICAL COMMUNICATION

JTCM 5000 Communication Research & Evaluation Methods **4.0 cr.**
(Fall)
Theory and applied communication research and evaluation methodologies for assessing and improving communication in technological environments.

JTCM 5010 Processes & Effects of Communication **4.0 cr.**
(Fall) Prereq: JTCM 5000
Examination of communication theory including communicator credibility, messages, channels, audiences and information, behavior and attitude change.

JTCM 6140 Public Communication Campaigns **3.0 cr.**
(Fall) Prereq: JTCM 5010
Conceptual, methodological issues and decisions underpinning determination of communication campaign effects, planning, implementation and evaluation.

JTCM 6300 Health Communication **3.0 cr.**
(Fall) Prereq: JTCM 5010
Role of health communication in public health programs and campaigns.

JTCM 6300 Telecommunications **3.0 cr.**
(Spring)
Theory and application of telecommunication in information age. Prereq: JTCM 5010.

JTCM 6500 Public Relations Management **3.0 cr.**
(Spring)
Theoretical and practical management techniques for public relations campaigns including societal, ethical, and legal issues involved. Prereq: JTCM 5010.

JTCM 6600 Communication/Technology Transfer **3.0 cr.**
(Fall) Prereq: JTCM 5010
Communication's role in technology transfer as related to nature, process, and effects of technology transfer, knowledge dissemination, and utilization.

JTCM 6610 Information Design **3.0 cr.**
(Fall) Prereq: JTCM 5010
Theoretical and empirical review of creation, presentation storage, and distribution of information.

JTCM 6620 Comm Science/Technology **3.0 cr.**
(Spring)
Examination of theoretical and empirical studies concerning communication of science and technology subject matter. Prereq: JTCM 5010

JTCM 6950 Independent Study – Communication **1.0-3.0cr.**
(Spring, Summer, Fall)

Independent study in Journalism and Technical Communication.

MICROBIOLOGY IMMUNOLOGY AND PATHOLOGY

MIPO 5550 Principles & Mechanism of Disease

3.0 cr.

(Fall) Prereq: BMS 300; coursework in histology, physiology and anatomy. Restriction: Permission of instructor needed if prerequisites not met.

Principles of disease processes; emphasis on reactivity of the diseased cell, tissue, organ or organism.

NATURAL RESOURCES

NROO 5120 Spatial Statistical Modeling-Natural Resources

3.0 cr.

(Fall) Prereq: NR 322; NR323; STAT 301

Statistical techniques used to model natural and environmental resources; GIS, remote sensing, and spatial statistics.

PSYCHOLOGY

PSCY 5161 Public Health Practice – History

1.0 cr.

(Fall)

Understanding of the history and breadth of public health and the structure and process of public health practice.

PSCY 5162 Pub Health Prac-Competencies

1.0 cr.

(Spring)

Review and assessment of public health competencies, community collaboration, cultural competence, evidence-based practice and public health ethics. Prereq: Admission to MPH degree program.

PSCY 5163 Public Health Practice – Oversight

1.0-8.0cr.

(Spring, Summer, Fall)

Concurrent course with CSU public health practicum.

PSCY 5170 Perspectives in Global Health

3.0 cr.

(Spring)

Science, skills, and beliefs directed at the maintenance and improvement of health for all people.

PSCY 6430 Industrial and Organizational Psychology I

3.0 cr.

(Spring)

Integration of multiple perspectives for examining work organizations, roles, and relationships, and organizational entry and socialization.

PSCY 6860 Public Health Practicum

1.0-8.0cr.

(Spring, Summer, Fall)

Required CSU public health practicum.

PSCY 7922 Prev of Occup Injury & Illness

3.0 cr.

Understanding of the basic public health approach to the prevention and control of occupational illnesses and injuries.

PSCY 7923 Seminar in Public Health

3.0 cr.

Seminar course with special topics related to public health.

COMMUNICATION

SPCM 5320 Theory of Interpersonal Comm

3.0 cr.

Theories of communication in development, maintenance, and deterioration of friendship, couple, family, group, and business relationships.

SPCM 5340 Communication-Global Diversity

3.0 cr.

(Spring)

Ethnographic approach to communication issues and concerns in a global context.

SPCM 5380 Communicating in Health Clinics

3.0 cr.

(Spring)

Organizational, interpersonal, and intercultural dimensions of communicating in public health clinical settings.

SPCM 5390 Communication Theory

3.0 cr.

(Fall)

Examination of communication philosophies and perspectives; analysis of modern theories of face-to-face communication.

STATISTICS

STAS 5110 Design/Data Analysis Rsrch I

4.0 cr.

(Fall) Prereq: STAT 301 or STAT 307 or STAT 311 or STAT 315.

Statistical methods for experimenters and researchers emphasizing design and analysis of experiments.

STAS 5120 Design/Data Analysis II

4.0 cr.

(Spring)

Statistical methods for experimenters and researchers emphasizing design and analysis of experiments. Prereq: STAT 511

STAS 5200 Intro to Probability Theory

4.0 cr.

(Fall) Prereq: MATH 229; MATH 261; MATH 317

Probability, random variables, distributions, expectations, generating functions, limit theorems, convergence, random processes.

STAS 5230 Quantitative Spatial Analysis

3.0 cr.

(Spring)

Techniques in spatial analysis: point pattern analysis, spatial autocorrelation. Prereq: STAT 301 or STAT 307/ERHS 307.

STAS 5400 Data Analysis & Regression

3.0 cr.

(Fall)

Probability, random variables, distributions, expectations, generating functions, limit theorems, convergence, random processes. Prerequisite of six upper division statistics courses.

STAS 5600 App Multivariate Analys

3.0 cr.

(Fall, Spring)

Multivariate analysis of variance; principal components; factor analysis; discriminant analysis; cluster analysis. Prereq: STAT 301; STAT 307 or STAT 309.

CLINICAL SCIENCES

- VSCS 5330 Epidemiologic Infections Disease/Zoonosis** **3.0 cr.**
 (Spring) Epidemiologic features of infectious and parasitic diseases that have a major impact on community medicine.
- VSCS 5800 Global Vet Public Health** **1.0 cr.**
 (Spring) This discussion based course will cover the fundamentals of global veterinary public health including the interconnectedness of animal, human and environmental health and the student's role in the future of global PVH.
- VSCS 6480 Food Animal Production and Food Safety** **1.0 cr.**
 (Spring) Basic orientation to food animal production units, herd health concepts, and issues of food safety from preharvest through processing and distribution.
- VSCS 6620 Research Plan, Design and Analysis** **3.0 cr.**
 (Spring) Introductory biostatistics course required for MPH students.
- VSCS 7330 Advance Vet Epidemiology Research** **4.0 cr.**
 (Spring) Provides in-depth knowledge in epidemiological research as it specifically applies to health of animal populations. Prereq: ERHS 5320; VSCS 6620
- VSCS 7950 Ind Study – Epidemiology** **1.0-5.0crs.**
 (Spring, Summer, Fall) Specialized study in epidemiology under supervision of faculty.
- VSCS 7960 Group Study – Medicine** **1.0-18.0crs.**
 (Spring, Summer, Fall) Group study – contact department for topics in a given semester.