

UM SPH Fall Courses

BIOSTAT503

Introduction to Biostatistics

Fall term

4 Credit Hour(s)

Instructor(s): Staff; Mukherjee, Bhramar

Offered every year

Prerequisites: Elementary algebra

Fundamental statistical concepts related to the practice of public health: descriptive statistics; probability; sampling; statistical distributions; estimation; hypothesis testing; chi-square tests; simple and multiple linear regression; one-way ANOVA. Use of computer in statistical analysis.

BIOSTAT553

Applied Biostatistics

Fall term

4 Credit Hour(s)

Instructor(s): Kalbfleisch, Jack

Prerequisites: Calculus

Fundamental statistical concepts related to the practice of public health: descriptive statistics; probability; sampling; statistical distributions; estimation; hypothesis testing; chi-square tests; simple and multiple linear regression; one-way ANOVA. . Taught at a more advanced mathematical level than Biostat 503. Use of the computer in statistical analysis.

BIOSTAT560

Statistical Methods in Epidemiology

Fall term

4 Credit Hour(s)

Instructor(s): Tsodikov, Alexander

Prerequisites: Biostat 523, EPID 503 or EPID 601

Statistical methods commonly used in environmental epidemiology. Emphasis on choosing appropriate statistical methods and subsequent interpretation. Topics include probability, measures of association and risk, sample size calculations, SMR and PMR analysis, logical regression and survival analysis.

BIOSTAT578

Practical Projects

Fall term

1-4 Credit Hour(s)

Instructor(s): Staff

Prerequisites: NONE

Practical projects in consultation and statistical analysis of data in research studies with health investigators. Course requirements include an approved practical work experience related to Biostatistics in consultation with a faculty advisor. May be elected more than once. Enrollment limited to Biostatistics majors with at least two full terms of prior registration.

BIOSTAT600

Introduction to Biostatistics

Fall term

1 Credit Hour(s)

Instructor(s): Kim, Sinae; Welch, Kathy

Prerequisites: Admission to a degree program in Biostatistics

The purpose of this course is to review basic applied statistical concepts and tools and to introduce the SPH computer network and statistical software.

BIOSTAT601

Probability and Distribution Theory

Fall term

4 Credit Hour(s)

Instructor(s): Qin, Zhaohui; Staff

Prerequisites: Three terms of calculus

Fundamental probability and distribution theory needed for statistical inference. Probability, discrete and continuous distributions, expectation, generating functions, limit theorems, transformations, sampling theory.

BIOSTAT605

Intro to SAS Statistical Programming

Fall term

1 Credit Hour(s)

Instructor(s): Staff

Prerequisites: One course in introductory statistics; Co-requisite Biostat 601 or equivalent or Perm. Instr

This course provides incoming master's students in biostatistics with basic experience in SAS programming for data set creation and manipulation, an introduction to SAS macros, and SAS matrix manipulation.

BIOSTAT610

Readings in Biostatistics

Fall term

1-4 Credit Hour(s)

Instructor(s): Staff

Prerequisites: One of Biostat 503, Biostat 524, Biostat 553 or Biostat 601/Biostat 602

Independent study in a special topic under the guidance of a faculty member. May be elected more than once. Enrollment is limited to biostatistics majors.

BIOSTAT615

Statistical Computing

Fall term

3 Credit Hour(s)

Instructor(s): Abecasis, Goncalo

Prerequisites: Biostat 601 or Perm. Instr.

A survey of key algorithms for statistical computing and its applications in Biostatistics. The course will cover fundamental computational techniques for dynamic programming, sorting, and searching, as well as statistical methods for random number generation, numerical integration, function optimization, Markov-Chain Monte Carlo, and the E-M algorithm. Enables students to understand numerical results produced by a computer and to implement their own statistical methods.

BIOSTAT617

Theory and Methods of Sample Design (Soc 717 and Stat 580 and SurvMeth 617)

Fall term

3 Credit Hour(s)

Instructor(s): Lepkowski, James M

Prerequisites: Three or more courses in statistics, and preferably a course in methods of survey sampling

Theory underlying sample designs and estimation procedures commonly used in survey practice.

This course is cross-listed with Stats 580 Soc 717 SurvMeth617 in the Rackham department.

BIOSTAT619

Clinical Trials

Fall term

2 Credit Hour(s)

Instructor(s): Braun, Thomas

Prerequisites: Biostatistics 601 or equivalent or Perm. Instr. One course Introductory Statistics

This course is designed for individuals with a strong quantitative background that are interested in the scientific, policy, design and management aspects of clinical trials. Topics include types of clinical research, bias and random error, study design, ethics, treatment allocation, randomization and stratification quality control, power and sample size, group sequential monitoring, crossover designs and meta-analysis.

BIOSTAT630

Statistical Methods in Biological Assay

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Biostat 650 and Co-requisite Biostat 651 or Perm. Instr.

Logic of biological assay; dosage response curves; quantitative and quantal responses; parallel line and slope-ratio assays; simplified estimators; sequential assays; problem of design.

BIOSTAT642

Introduction to Functional MRI

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

This course presents the basic skills to design and analyze functional magnetic resonance imaging (fMRI) experiments. We start by reviewing the basic Matlab and Unix skills necessary to manipulate image data. Next we introduce the principles of MRI and the nature of the Blood Oxygenation Level Dependent (BOLD) effect, including artifacts that corrupt the BOLD signal. We cover blocked and event-related designs, and how to optimize statistical power of design. We cover subject safety.

BIOSTAT645

Time Series Analysis with Biomedical Applications

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Biostat 602, Biostat 650 or Perm. Instr

Introduction to statistical time series analysis with an emphasis on frequency domain (spectral) methods and their applications to biomedical problems. Topics include autocorrelation, stationarity, autoregressive and moving average processes, power spectra, periodograms, spectral estimation, linear filters, complex demodulation, autoregressive integrated moving average (ARIMA) models, cross-correlation, cross-spectra, coherence, time and frequency domain linear regression. The methods will be illustrated in applications to various areas of public health and medical research such as environmental health, electrophysiology, and endocrinology.

BIOSTAT650

Applied Statistics I: Linear Regression

Fall term

4 Credit Hour(s)

Instructor(s): Kim, Sinae

Prerequisites: BIOSTAT601

Graphical methods, simple and multiple linear regression; simple, partial and multiple correlation; estimation; hypothesis testing, model building and diagnosis; introduction to nonparametric regression; introduction to smoothing methods (e.g., lowess) The course will include applications to real data.

BIOSTAT652

Design of Experiments

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Biostat 651

Planning of experiments, use of contrasts in analysis of complete and incomplete block designs. A unified approach to analysis of designs through use of eigen-values and eigenvectors of the association matrix. A-D-E optimality criteria factorial experiments; efficiency of a design, confounding, fractional replication, response-surface designs, rotability criterion, mixture designs, analysis of two-way designs, analysis when blocks are random, applications in biological and biomedical problems.

BIOSTAT675

Survival Time Analysis

Fall term

3 Credit Hour(s)

Instructor(s): Murray, Susan

Prerequisites: Biostat 602 and Biostat 650

Concepts and methods for analyzing survival time data obtained from following individuals until occurrence of an event or their loss to follow-up. Survival time models, clinical life tables, survival distributions, mathematical and graphical methods for evaluating goodness of fit, comparison of treatment groups, regression models, proportional hazards models, censoring mechanisms.

BIOSTAT695

Analysis of Categorical Data

Fall term

3 Credit Hour(s)

Instructor(s): Song, Peter Xuekun

Prerequisites: Biostat 602 and Biostat 660

Regression models for the analysis of categorical data: logistic, probit and complementary log-log models for binomial random variables; log-linear models for cross-classifications of counts; regression models for Poisson rates; and multinomial response models for both nominal and ordinal responses. Model specification and interpretation are emphasized, and model criticism, model selection, and statistical inference are cast within the framework of likelihood based inference.

BIOSTAT803

Biostatistics in Cancer Seminar

Fall term

1 Credit Hour(s)

Instructor(s): Taylor, Jeremy

Prerequisites: Perm. Instr.

The purpose of this class is to describe biostatistical research that is occurring in collaboration with cancer researchers, and to provide exposure to the field of cancer research. Activities include seminars on statistical methods in cancer; presentations of cancer research; presentations of articles from statistical literature; discussion of cancer clinical trial protocols and grant proposals; and visits to research laboratories. Students formally in the training program are expected to enroll in this course every semester. The course is open to students not participating in the training grant. It is open to both PhD and Masters students.

BIOSTAT815

Advanced Topics in Computational Statistics

Fall term

3 Credit Hour(s)

Instructor(s): Abecasis, Goncalo

Prerequisites: Biostat 601, Biostat 602 and Biostat 625 or equiv and proficiency in Fortran or C

Modern numerical analysis for statisticians. Combination of theory and practical computational examples illustrating the current trends in numerical analysis relevant to probability and statistics. Topics choose from numerical linear algebra, optimization theory, quadrature methods, splines, and Markov chains. Emphasis on newer techniques such as quasi-random methods of integration, the EM algorithm and its variants, and hidden Markov chains. Applications as time permits to areas such as genetic and medical imaging.

BIOSTAT820

Readings in Biostatistics

Fall term

1-4 Credit Hour(s)

Instructor(s): Staff

Students assigned special topics for literature study under guidance of individual faculty members. May be elected more than once. Enrollment limited to biostatistics majors.

BIOSTAT830

Advanced Topics in Biostatistics

Fall term

1-4 Credit Hour(s)

Instructor(s): Nan, Bin

Advanced training in biostatistical methods primarily for doctoral students. Format will include lectures, readings, presentations and discussions in an area of special interest to students and faculty, such as stopping rules and interim analysis in clinical trials, conditional and unconditional inference and ancillarity, or nonparametric regression.

BIOSTAT840

Advanced Topics in Data Analysis

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Biostat 650 and Biostat 651

Alternate methods of data analysis useful when data do not fulfill unusual assumptions of statistical tests. Using articles from the literature, students learn methods of data analysis more robust than usual methods and how to choose among them. Focuses on comparison of groups, ANOVA and regression.

BIOSTAT851

Linear Statistical Models (Stat 642)

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Biostat 602 and Biostat 651 or Perm. Instr.

Theory of multivariate normal distribution, distribution of quadratic forms, Cochran's theorem, Gauss-Markov theorem, general linear hypothesis, experimental design models, Wishart distribution.

BIOSTAT855

Regression Models in Complex Sample Design Settings (JPSM/MPSM 895)

Fall term

3 Credit Hour(s)

Instructor(s): Elliot, Michael

Prerequisites: BIOSTAT617, BIOSTAT650, BIOSTAT651, or instructor permission

This course examines a range of statistical regression analysis techniques for modeling survey data, and presents methods to compensate for design features for complex sample survey data. Course topics include likelihood estimation and testing; application of likelihood methods to linear and generalized linear models, including logistic, probit, generalized (multinomial) logit, Poisson, and negative binomial models; time-to-event (survival analysis) models; regression models for longitudinal data; and propensity score and Bayesian regression modeling.

This course is cross-listed with MPSM 895 in the Michigan Program for Survey Methodology/Institute for Social Research department.

BIOSTAT866

Advanced Topics in Genetic Modeling

Fall term

3 Credit Hour(s)

Instructor(s): Zoellner, Sebastian

Not offered 2008-2009

Prerequisites: Biostat 601, Biostat 602, Biostat 666 or Perm. Instr.

Advanced topics in quantitative genetics with emphasis on models for gene mapping, pedigree analysis, reconstruction of evolutionary trees, and molecular genetics experiments, computational mathematics, and statistical techniques such as Chen-Stein Poisson approximations, hidden Markov chains, and the EM algorithm introduced as needed.

BIOSTAT880

Statistical Analysis With Missing Data

Fall term

3 Credit Hour(s)

Instructor(s): Little, Roderick

Not offered 2008-2009

Prerequisites: Biostat 602 and 651, and at least one of Biostat 690, Biostat 851, Biostat 890, or Biostat 895 or Perm Inst.

Statistical analysis of data sets with missing values. Pros and cons of standard methods such as complete-case analysis, imputation. Likelihood-based inference for common statistical problems, including regression, repeated-measures analysis, and contingency table analysis. Stochastic censoring models for nonrandom nonresponse. Computational tools include the EM algorithm, the Gibbs sampler, and multiple imputation.

BIOSTAT895

Analysis of Multivariate Categorical Data

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Biostat 651 and Biostat 695 or Perm. Instr.

Probability models for two-way tables; multi-factor, multi-response framework; product multinomial distribution theory; Taylor series estimates of variance, weighted least squares and Wald statistics; constraint equations; models for characterizing interactions; step-wise variable selection; factorial designs with multinomial responses; repeated measurement experiments; log-linear models; paired-choice and bioassay experiments; life-table models.

BIOSTAT990

Dissertation/Pre-Candidacy

Fall term

1-8 Credit Hour(s)

Instructor(s): Staff

Prerequisites: (1-8 Full term, 1-4 Half term)

Election for dissertation work by doctoral student not yet admitted to status as a candidate.

BIOSTAT995

Dissertation Research for Doctorate in Philosophy

Fall term

1-8 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Admission to Doctoral Program(1-8 Full term, 1-4 Half term)

Election for dissertation work by doctoral student who has been admitted to status as a candidate.

EHS500

Principles of Environmental Health Sciences

Fall term

2 Credit Hour(s)

Instructor(s): Hu, Howard

Prerequisites: Seniors with Perm. Instr.

This course provides a broad overview of some of the most important and current challenges to human health from environmental and occupational risk factors while teaching the basic knowledge and multi-disciplinary skills used to assess, control, and prevent them. We will address specific threats, such as outdoor and indoor air pollution, toxic metals, pesticides, radiation and occupational stressors; analyze impacts on specific diseases and injuries, such as cardiovascular disease, asthma, cancer, musculoskeletal injuries and impaired child development;; and introduce emerging threats, such as the hormone-mimicing potential of plastic chemicals and the impact of global climate change on heat-related mortality and shifting patterns of infectious disease. Emphasis will also be given to understanding the worsening environmental health impacts of industrialization on developing countries, the effects of globalization, such as the growing movement of hazardous industries, products, and wastes across borders. and the rise of the environmental justice movement. The course fulfills the MPH core competency in environmental health and is also open to students in LSA and other UM graduate schools. A basic understanding (high school level) of human biology and chemistry is recommended.

EHS503

Law and Policy in Environmental Health

Fall term

2 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

This course is intended to familiarize students with the laws governing the administrative process by which science is translated into science policy by government in the form of regulations in the areas of environmental health, occupational health and toxicology. The course also illustrates the process by which costs are compared to benefits in choosing the final science policy. Case studies in the form of appellate and Supreme Court opinions are used to illustrate risk-cost-benefit evaluation, the law's use of science, and other topics in law and policy. Syllabus cases illustrate environmental health policy in the areas of hazardous chemicals, clean air, clean water, drinking water, radioactive waste, occupational health, new drug approval, and food additives. The course is also intended to demonstrate how judges analyze issues in areas involving scientific information, that is, to illustrate legal reasoning.

EHS506

Principles of Toxicology

Fall term

2 Credit Hour(s)

Instructor(s): Loch Caruso, Rita

Prerequisites: Biology, Organic Chemistry, Grad Standing or Perm. Instr.

Principles underlying the chemical, physiological and anatomical basis of toxicity. Dose-response relationships, toxicokinetics, and biotransformation, mechanisms of cellular injury and death, organ system toxicity, developmental toxicology, genotoxicity and toxicogenomics, and chemical carcinogenesis. Principles will be illustrated where appropriate with specific examples of toxicity from environmental contaminants and pharmaceutical agents.

EHS507

Principles of Exposure Assessment

Fall term

2 Credit Hour(s)

Instructor(s): Robins, Thomas

Prerequisites: BIOS 503, EPID 503, EPID 601, EHS 505 (concurrent enrollment is acceptable) or Perm. Instr.

This course is designed to provide the knowledge and skills necessary to assess exposure to environmental agents. Topics include the selection of study populations; the conditions under which people or other target species could be exposed; identification and quantification of exposure pathways; the design of exposure assessment strategies; integration of exposure and population information; and the evaluation of historical (exposure reconstruction), current and prospective exposures. The course focuses on occupational and environmental settings and includes chemical, biological (bacteria, fungi, pathogen) and physical agents that may be air-, water-, food- or vector-borne.

EHS513

Pathologic Basis of Disease

Fall term

3 Credit Hour(s)

Instructor(s): Philbert, Martin

This course will examine the major pathological processes of humans and mammals elicited by chemical, biological and physical entities of interest to practitioners of Public Health. Specifically, the pathophysiological mechanisms of disease will be examined with a view to understanding the cellular, biochemical and molecular processes that cover injury, degeneration and regeneration.

EHS547

Food Science

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Organic Chemistry

An examination of food composition and the chemical and physical changes that result from food processing. Discussion of foods as complex systems containing a wide variety of chemicals including nutrients, phytochemicals, functional ingredients, natural or transferred toxins and additives. Discussion of changes in chemicals with different types of food preservation. Consideration of health risks associated with dietary exposure to selected nutrients and other chemicals. Exploration of the role of sensory analysis related to food acceptance. Overview of important regulations related to the content of food products.

EHS550

Introduction to Occupational and Environmental Health

Fall term

3 Credit Hour(s)

Instructor(s): Vincent, James

Prerequisites: Grad Status or Senior Standing

Discussion of the basic concepts of occupational and environmental hygiene; recognition and evaluation of chemical, physical and biological hazards; the human environment; control hierarchies, strategies and technologies; personal protection; criteria and standards; the international dimension; and ethical issues. The course provides basic underpinnings of the nature of theory and practice in occupational and environmental hygiene, and thus provides a structural framework for thinking about the field, identifying linkages between disciplines and specialties, and providing a platform for more advanced study in the individual areas listed. The course is offered as a three-credit course in both the regular term and in the OJ/OC format.

EHS570

Water Quality Management

Fall term

3 Credit Hour(s)

Instructor(s): Xi, Chuanwu

Principles of science and engineering used in the evaluation and control of water quality. Includes current legislation, types of pollution, sources and nature of pollution, introduction to water quality management practices, water supply and treatment, hydrologic concepts, effects of waste discharge on receiving waters, lake management, and water quality criteria and standards.

EHS572

Environmental Impact Assessment (NRE 514)

Fall term

2 Credit Hour(s)

Instructor(s): Batterman, Stuart

Prerequisites: EHS 574, Grad Status

A comprehensive framework for predicting and evaluating environmental impacts is presented. The course emphasizes the theory, application, integration and evaluation of models simulating transport and fate of contaminants in air, surface and ground water, and soil. Case studies and computer exercises demonstrate contemporary exposure and health risk assessment problems.

This course is cross-listed with NRE514 in the NRE department.

EHS574

Environmental Chemistry

Fall term

3 Credit Hour(s)

Instructor(s): Nriagu, Jerome

Prerequisites: College Chemistry including Organic Chemistry and Calculus

Environmental chemistry of the atmosphere, hydrosphere, geosphere and soils. Review of physical and chemical hazards and sources, distribution, transformations, routes to man of environmental contaminants. Human exposure assessment procedures and applications in health risk analysis programs.

EHS575

Population-Environmental Dynamics (SNRE 545)

Fall term

3 Credit Hour(s)

Instructor(s): Staff

This course examines the dynamics of the relationship between human populations and the global environment with a focus upon critical time periods in the evolution of societies. Population-environment dynamics are visualized as a family of transitions occurring across many sectors of society. Transitions examined include forestry, agriculture, demography, epidemiology, toxicity (air and water pollution, solid waste), urbanization, energy, transportation, and education.

EHS578

Practical Projects

Fall term

1-4 Credit Hour(s)

Instructor(s): Staff

Prerequisites: None

Practical Projects in the application of theory and principles of Environmental Health Sciences in public health settings. Course requirements include an approved practical work experience related to Environmental Health Sciences in consultation with a faculty advisor. May be elected more than once. Enrollment limited to Environmental Health Sciences majors with at least two full terms of prior registration.

EHS579

Environmental Risk Communication (SNRE 551)

Fall term

1 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Graduate Standing or Perm. Instr.

This course provides a brief introduction to environmental risk assessment and management and then focuses on environmental risk communication. With the help of case studies, students evaluate existing risk communication practices and formulate ways to change these practices such that they will lead to improved environmental risk decisions.

EHS580

Conservation of Biological Diversity (SNRE 517)

Fall term

4 Credit Hour(s)

Instructor(s): Staff

Prerequisites: General Ecology (Bio 381), Grad Status or Perm. Instr.

Overview of historic and present-day causes of species extinction, and of biological principles central to species conservation and sustainable management of ecosystems.

EHS583

Radiation Biology

Fall term

3 Credit Hour(s)

Instructor(s): Ljungman, Mats

Prerequisites: Biology

Integration of current knowledge about radiation effects processes on mammals, with particular emphasis on mechanisms of radiogenic cancer. Quantitative evaluation of relations between characteristics of various radiation exposures and somatic and genetic effects in humans. Radiation protection and therapeutic measures. Lectures and a student research paper.

EHS586

Introductory Seminar in Environmental Health Sciences

Fall term

1 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Grad Standing

An overview of research and practice in the field of environmental health sciences. This weekly seminar is designed to introduce entering students to EHS faculty, to highlight topical issues, and to provide a common forum for EHS students. EHS faculty will introduce their specialty areas and present short seminars on their research. Approximately once per month (coinciding with OJ/OC weekends), outside speakers will present seminars addressing crosscutting issues in the environmental health sciences. The seminar is required for all first-year students.

EHS588

Environmental Law (SNRE 475)

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Introduces students to Environmental Law and the impact of the legal process on decisions that affect the environment. Topics include common law tort actions, toxic tort actions, statutory controls of pollution and other environmentally harmful activities. Additional areas include administrative agency structure and performance, Constitutional rights to environmental quality and more.

EHS600

Professional Perspectives in Environmental Health

Fall term

2 Credit Hour(s)

Instructor(s): Jolliet, Olivier

Prerequisites: Grad Status, Completion of approved internship, research or practical experience

This project-oriented course provides the student the opportunity to integrate academic principles, practical skills and concepts in environmental health as related to the broader scope of public health. Students will carry out a 2 credit hour applied group project, having to synthesize their acquired knowledge from different courses and subplans to address real world problems. Students will provide oral presentation (intermediary and final) and written reports on the conducted project. This culminating capstone course will be elected during the professional students last fall term in residence.

EHS620

Mechanisms of Endocrine Toxicology and Hormone Metabolism

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Grad Status, Biochemistry, Physiology

Analysis and integration of scientific information to enhance understanding of molecular and cellular mechanisms of endocrine toxicity. Emphasis is on student discussion of theoretical and practical aspects of mechanistic studies based on assigned reading from the scientific literature.

EHS622

Mechanisms of Developmental Toxicology

Fall term

2 Credit Hour(s)

Instructor(s): Harris, Craig

Prerequisites: Grad Status, Biochem 515 or equiv

Integration and analysis of scientific information to enhance understanding and elucidate biochemical and molecular mechanisms in developmental toxicology. Course emphasis is on student discussions of the theoretical and practical aspects of embryology as related to biochemical, physiological and molecular mechanisms of embryotoxicity based on readings from the scientific literature.

EHS623

Mechanisms of Reproductive Toxicology

Fall term

2 Credit Hour(s)

Instructor(s): Loch Caruso, Rita

Prerequisites: Grad Status, Biochemistry, Physiology

Analysis and integration of scientific information to enhance understanding of molecular and cellular mechanisms of reproductive toxicity. Emphasis is on student discussion of theoretical and practical aspects of mechanistic studies based on assigned reading from the scientific literature.

EHS630

Principles of Nutritional Science

Fall term

4 Credit Hour(s)

Instructor(s): Gong, Tzy-Wen L

Prerequisites: Biochemistry

Integration of biochemical and physiological principles of nutrient utilization, nutrient interactions, and the control and regulation of metabolic processes in humans.

EHS636

Clinical Nutrition

Fall term

2 Credit Hour(s)

Instructor(s): Han-Markey, Theresa

Prerequisites: EHS 630

Study of clinical nutrition skills with an emphasis on disease pathophysiology and current intervention approaches. Basic nutritional approaches for management of various gastrointestinal diseases such as reflux, ulcer, inflammatory bowel and diverticular disease, rationale, and evidence for efficacy will be taught. Current controversies are briefly introduced. Clinical nutrition screening, assessment, use of clinical laboratory data, and physical assessment are also introduced. Nutritional therapy in various diseases incorporates case study instructional modules. Diseases covered include malnutrition, starvation, metabolic stress, gastrointestinal, cardiovascular, and neoplasm.

EHS640

Nutritional Assessment

Fall term

3 Credit Hour(s)

Instructor(s): Cole, Suzanne

Prerequisites: EHS 630, Nutrition Science

Didactic and laboratory presentation of anthropometric, biochemical, dietary and physical activity methods for determining nutritional status across all ages of the life cycle. Students will have the opportunity to identify, plan, and implement a simple nutritional assessment research project, with subsequent data management, analysis and interpretation.

EHS642

Community Nutrition

Fall term

3 Credit Hour(s)

Instructor(s): Cole, Suzanne

Prerequisites: EHS 630

An analysis of community programs with primary attention on goals, objectives, implementation and evaluation. Individuals work on a problem in the area of food assistance or nutrition education programs is carried out under the tutorial guidance of an appropriate staff member. Regular conferences are arranged to measure progress and a report is prepared.

EHS645

Nutrition Education: Theory and Practice

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Grad Status

This advanced course in nutrition education combines both research and practice. The course will address: 1) theories from education, human development, psychology, and communications that guide nutrition education research and practice, 2) theoretical and pragmatic issues in the development and implementation of nutrition education programs, and 3) methods and techniques used to evaluate nutrition education programs.

EHS651

International Environmental Management System Standards (Bus School & SNRE)

Fall term

2 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Grad Status or Perm. Instr.

This course provides a comprehensive framework for the understanding of international management standards as applied to environmental and occupational health, with a focus on the rapid globalization of the regulatory environment in response to international trade. Topics will be the International Standards Organization (ISO) 9000 series standards for production system quality management, the ISO 10000 series standards for quality management auditing, the ISO 14000 series standards for environmental management and environmental system auditing, and the proposed standards for occupational health and safety management systems. Auditing methods will be a primary focus of this course.

EHS652

Evaluation of Chemical Hazards

Fall term

3-4 Credit Hour(s)

Instructor(s): Zellers, Edward

Prerequisites: Previous or concurrent enrollment in biostatistics course

Concepts and techniques related to the evaluation of occupational exposures to gases, vapors, and aerosols. Emphasis on operating mechanisms and practical aspects of industrial hygiene air-monitoring equipment, characterizing exposure distributions, and developing sampling strategies. Lectures, laboratory exercises, demonstrations, problems, technical reports, and reading. Primarily for students in occupational health and safety.

EHS656

Research Methods in Occupational Health

Fall term

3 Credit Hour(s)

Instructor(s): Robins, Thomas

Not offered 2008-2009

This course provides an integrated approach to occupational health research design and methodology. Topics include: research problem formulation; choice of study design; source of data; data analysis and strategies; SMR and PMR studies; healthy worker effect; case-control studies of occupational cancer; occupational pulmonary and neurology morbidity studies.

EHS658

Physical Hazards

Fall term

1 Credit Hour(s)

Instructor(s): Meeker, John

Prerequisites: Graduate Standing or Perm. Instr.

Lectures, discussions, demonstrations on the health effects, measurements methods, regulations, and control technologies related to physical health hazards encountered in occupational settings, including temperature extremes, noise, vibration, and lasers and other forms of non-ionizing radiation (rf, microwave, IR, visible, and UV).

EHS672

Life cycle assessment: Human health and environmental impacts

Fall term

3 Credit Hour(s)

Instructor(s): Jolliet, Olivier

Prerequisites: None

This 3-hour course describes how consumption and products affect environmental risks and impacts on human health and on ecosystems. Based on a life cycle approach, this course will first provide an overview of the impacts generated by consumers and by the students themselves. How to carry out Life Cycle Assessment (LCA) of products and services will then be presented. For the Life Cycle Impact Assessment phase, a special focus will be given to the characterization of comparative risks of toxic substances on human health and ecosystems. This leads to discussion of the potentials and limitations of LCA compared to other assessment tools such as risk assessment and environmental impact assessment. Practical case studies will be taken from multiple consumption domains, from agriculture and food production up to electronic services.

EHS687

Air Quality Seminar

Fall term

1 Credit Hour(s)

Instructor(s): Keeler, Gerald

Prerequisites: Perm. Instr.

Advanced topics in air quality control and research will be presented by leading experts in the field and by students. Sample areas to be covered include urban air pollution, health effects of air pollutants, tropospheric ozone, acid deposition, global warming, indoor air quality, the Clean Air Act, hazardous pollutant deposition, global transport, and air-surface exchange of pollutants. The course will also emphasize current topics in the field that are of importance to policy makers and regulators. The course is offered both Fall and Winter terms and may be taken more than one.

EHS688

Topics in Environmental Health Sciences

Fall term

1 Credit Hour(s)

Instructor(s): Hu, Howard

Seminars in contemporary environmental health topics and issues. Presentations by noted authorities from industry, labor organizations, governments, and academia.

EHS697

Readings

Fall term

1-3 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm. Instr

Supervised study/review of a selected topic in environmental health, occupational health, nutrition and/or toxicology. May be elected more than once for a maximum of six credits.

EHS698

Research

Fall term

1-6 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm. Instr.

Original research investigation of a special topic in environmental health, occupational health, nutrition and/or toxicology. May be elected more than once for a maximum of six credits.

EHS699

Master's Thesis

Fall term

1 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm of Thesis Advisor

This course shall be elected by students enrolled in Masters degree programs that require a formal written thesis as a condition of program completion. The thesis shall be defended in front of the students thesis committee. The course grade will reflect the students accomplishments relative to the thesis and its defense. The course is to be elected only once.

EHS728

Current Topics in Toxicology

Fall term

1 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Research presentations at the advanced level focused on mechanisms of toxicity. May be elected more than once

EHS757

Occupational Health Aspects of Industrial Processes

Fall term

2 Credit Hour(s)

Instructor(s): Vincent, James

Not offered 2008-2009

Prerequisites: EHS 550 or equiv and Perm. Instr.

Observation and discussion of selected industrial processes, potential hazards, and controls. Potential hazards include chemical, physical, biological, and ergonomic. Emphasis on application and integration of different aspects of occupational health management. Field trips to various industrial plants. Guest lectures and student-lead discussions. Intended for second-year Industrial Hygiene and Occupational Medicine students.

EHS869

Doctoral Seminar in Occupational and Environmental Health

Fall term

1 Credit Hour(s)

Instructor(s): Loch Caruso, Rita

Prerequisites: EHS Doctoral Student Status

Integrative discussions of dissertation research projects, presentation of research findings, in-depth literature reviews/critiques, and manuscript reviews in occupational and environmental health.

EHS899

Advanced Research

Fall term

1-6 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm. Instr.

Original investigations of a specific topic in environmental health, occupational health, nutrition and/or toxicology. Designed for doctoral students performing research prior to passing their qualifying exam. May be elected more than once.

EHS990

Dissertation/Pre-Candidacy

Fall term

1-8 Credit Hour(s)

Instructor(s): Staff

Election for dissertation work by doctoral students not yet admitted to status as candidate.

EHS995

Dissertation Research for Doctorate in Philosophy

Fall term

8 Credit Hour(s)

Instructor(s): Staff

Election for dissertation work by doctoral students who have been admitted to status as candidate.

EPID460

Introduction to Bacterial Pathogenesis

Fall term

3 Credit Hour(s)

Instructor(s): Marrs, Carl F

Offered every year

Last offered Fall 07

Prerequisites: Introductory Microbiology and Biochemistry or Perm. Instr.

This course covers the basics of the biochemistry, molecular biology, and genetics of chemotaxis and flagella, pili and adhesins, extracellular proteases, bacterial toxins, invasion and intracellular growth, phase and antigenic variation, gene transfer, LPS, iron, M-proteins, capsules, chemotherapy, antibiotic resistance and global regulation of virulence elements.

EPID506

Health of Nations: Introduction to International Health

Fall term

3 Credit Hour(s)

Instructor(s): Monto, Arnold S

Offered every year

Last offered Fall 2007

Prerequisites: Grad Status

This course presents an overview of mortality and disease occurrence in terms of geographic, cultural, nutritional and environmental factors. Reviews health indicators such as infant mortality and economic factors associated with development. Discusses health problems of developing countries and describes programs and organizations involved in addressing them. This course is required for students in the International Health track in Epidemiology but can also be taken by non International Health students.

EPID511

Introduction to Public Health Genetics

Fall term

3 Credit Hour(s)

Instructor(s): Richards, Julia; Marrs, Carl F

Offered every year

Last offered Fall 2007

Prerequisites: Grad status or perm instructor

This course is designed for those interested in a basic understanding of human genetics who have had only a very limited exposure to biologic sciences. This course will cover the basics of genetics at both the molecular and population level. In addition to the basic science, some ethical, legal, and social implications of genetics research will be examined. Examples relevant to public health will be emphasized.

EPID513

Applications in Public Health Genetics

Fall term

1 Credit Hour(s)

Instructor(s): Kardia, Sharon

Last offered Fall 2006

A forum for discussing applications of public health genetics and for integrating recent developments in human genetics into the breadth of public health genetics. Topics will be inclusive, from genetics and molecular biology, to assessment, policy development, screening for genetic susceptibility, and ethical, legal, and social issues as they apply to delivery of public health genetics.

EPID514

Social Epidemiology

Fall term

3 Credit Hour(s)

Instructor(s): Kaplan, George

Last offered Fall 2007

Prerequisites: EPID 503 (or equiv), Biostat 503 (or equiv)

Considers the uses of epidemiology with emphasis on the social determinants of chronic diseases and premature mortality. Theoretical as well as methodological issues in conducting social epidemiology research are emphasized. Designed for graduate students who have prior familiarity with the basic principles and methods of epidemiologic research.

This course is cross-listed with HBHE 514 in the HBHE department.

EPID515

Genetics in Public Health

Fall term

3 Credit Hour(s)

Instructor(s): Kardia, Sharon

Last offered Winter 2008

Prerequisites: Perm. Instr. or two undergraduate genetic courses.

This course is designed for students with a background in biology or genetics that are interested in understanding genetics in public health. This course will provide an in depth examination of genetics in public health including newborn screening diseases and practices, fundamentals of population genetics, and the genetics of common chronic diseases.

EPID520

Immunologic and Cellular Basis for Disease

Fall term

3 Credit Hour(s)

Instructor(s): Rochford, Rosemary

Not offered 2008-2009

Prerequisites: Grad Status and Perm. Instr.

This course will examine the cellular and molecular basis of disease with an emphasis on the role of the immune system in the pathogenesis of both chronic and infectious disease. The course will cover techniques used in the study of pathogenesis, a review of fundamental immunology, and a discussion of the role of the immune system in the pathogenesis of both chronic and infectious disease. The course will include both lectures and discussion of current research articles relevant to the course content.

Designed for students with backgrounds in biology

EPID546

Advanced Virology

Fall term

2-6 Credit Hour(s)

Instructor(s): Staff

Prerequisites: EPID 543 and EPID 545

Advanced laboratory studies of viruses and virus diseases with emphasis upon the application of procedures to investigation. May be elected more than once.

EPID552

Epidemiology of Chronic Diseases

Fall term

3 Credit Hour(s)

Instructor(s): Sowers, MaryFran

Last offered Fall 2007

Prerequisites: EPID 600

This course uses a data-driven approach to assess the health status of populations, with students preparing and comparing health and demographic data collected from local health jurisdictions, the state of Michigan and the U.S. as a means of learning the Epidemiology of selected chronic diseases and conditions, e.g. heart disease, diabetes, cancer, and musculoskeletal diseases. Students are teamed with local public health practitioners who help provide the context for students to develop grants applications to address those chronic diseases which have been identified through the comparative data analysis as important and for which the student has learned the underlying biology and Epidemiology

EPID554

Introduction to Globalization and Health

Fall term

1 Credit Hour(s)

Instructor(s): Wilson, Mark L

Last offered Fall 2007

This course will comprise the initial lectures and discussion of Epid 555, and we are requesting that this material be separated into a new one-credit course to be offered at the beginning of MPH training. The material is introductory, and explores the diverse health impacts of economic, environmental, and cultural globalization. The transnational movement of people, technologies, capital, commodities, toxins, pathogens, ideologies and treatments are affecting people's well-being through many pathways. The changing nature of global power relations and the shifting purvey of international organizations have also had significant health implications. Introductory lectures and discussion of readings will explore various topics related to these issues.

EPID556

Introduction to Microcomputers for Epidemiologists

Fall term

1 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Introduction to computing skills for Epidemiologists: An introduction to important computer skills for Epidemiologists. Topics covered include basic SAS programming, Epi-Info, use of spreadsheets, and preparation of graphics.

EPID560

Mechanisms of Bacterial Pathogenesis

Fall term

3 Credit Hour(s)

Instructor(s): Marrs, Carl F

Offered every year

Last offered Fall 2007

Prerequisites: Grad Status and Intro Microbiology and Biochemistry or Perm. Instr.

Microbial structures and their relation to basic mechanisms of bacterial pathogenesis; structure, function, and genetics of bacterial toxins; and host resistance and immunity. Discussions of pathogenic organisms of major public health importance, diseases caused, and their epidemiology.

EPID562

Advanced Bacteriology Laboratory

Fall term

2-6 Credit Hour(s)

Instructor(s): Staff

Last offered Fall 2006

Prerequisites: EPID 560 and EPID 561 or Perm. Instr.I

Individual laboratory studies of selected topics on bacteria of public health importance. May be elected more than once.

EPID565

Research in Hospital and Molecular Epidemiology

Fall term

1-6 Credit Hour(s)

Instructor(s): Staff

Offered every year

Last offered Winter, 2008

Prerequisites: Perm. Instr.

Investigation of a selected problem planned and carried out by each student. Pertinent literature, investigational approaches, and progress in the investigations are discussed in seminars. May be taken more than once for up to six credits. Usually taken first for one credit. This is the Capstone Course for Hospital and Molecular Epidemiology Students.

EPID578

Practical Projects in Epidemiology

Fall term

1 Credit Hour(s)

Instructor(s): Staff

A period of elective (i.e., non-required) practical projects for international students in Epidemiology. Students work for at least eight weeks in an approved agency. Course requirements include this approved practical work experience related to the student's field of study plus prior and concurrent consultation with the student's faculty advisor. Restricted to Epidemiology majors with at least two full consecutive terms of enrollment.

EPID595

Foundations of Dental Public Health

Fall term

4 Credit Hour(s)

Instructor(s): Ismail, Amid

This course is the dental public health student's introduction to the discipline. It presents a social and historical context for dental public health, and provides a basis for the more detailed examination of other aspects of the discipline which are covered in other courses. Students will learn about the public agencies and professional organizations involved in dental public health activities, and will have the opportunity to compare and contrast the structure of public health dentistry in the U.S. with that in other countries. Recent activities, projects, and publications in dental public health will be discussed. Practitioners in dental public health need to be able to locate information efficiently, to appraise its value, and to use that information in writing and speaking. They need to be confident in their ability to write clearly and to speak assertively in public. This course aims to provide students with the necessary skills and knowledge needed to locate information, judge its quality, present critical summaries using written and oral communication. The course also allows students to develop confidence in their writing and public speaking. Students will prepare several written projects and oral presentations. The final project will involve the preparation of a mini systematic literature review of a topic chosen by the student, and an oral presentation based on this review.

EPID600

Introduction to Epidemiology

Fall term

3 Credit Hour(s)

Instructor(s): Galea, Sandro

Last offered Fall 2007

This course consists of lectures and discussion sections, and student lecture attendance is just as important as their participation in the discussion sections for course success. Each student is expected to attend one 1.5 hour lecture a week and one 1.5 hour discussion sections a week. All lectures are given by the instructor. The discussion sections are organized into four sections, each run by a graduate student instructor (GSI). Discussion sections will have two functions. (A) They include discussions of lecture material from that week's lecture, and (B) they will review the solutions to the assignments from the previous week. This course will be divided into three primary sections. The first section will serve as an introduction to the basic principles of epidemiology and the measures used in epidemiology. The second section will discuss epidemiologic study design (include case-control, cohort studies) and analysis (including bias, confounding, effect modification) and the third section will cover special topics that are important to an introductory understanding of epidemiology (including outbreak investigations, clinical trials, screening, and the role of epidemiology in public health).

EPID601

Principles and Methods of Epidemiology

Fall term

4 Credit Hour(s)

Instructor(s): Morgenstern, Hal

Last offered Winter 2008

Prerequisites: Previous or concurrent enrollment in Biostat 523 or equiv; Epid 600 or 503 is recommended but not required

Epid 601 is a comprehensive course in the basic concepts, principles, and methods of population-based epidemiologic research, which serves as a foundation for subsequent courses in epidemiology, biomedical research, and quantitative methods. Class topics expand on those covered in Epid 600. Emphasis is given to study design, quantitative measures, statistical analysis, data quality, sources of bias, and causal inference. The general approach of this course is both theoretical and quantitative, focusing on the investigation of disease etiology and other causal relations in public health and medicine.

EPID604

Cardiovascular Disease Epidemiology

Fall term

3 Credit Hour(s)

Instructor(s): Lisabeth, Lynda

Prerequisites: Concurrent or previous enrollment in Epid 600; limited to 2nd year MPH and PhD students

Epid 604 is a 3-credit course designed to provide an overview of the major topics and issues in cardiovascular disease epidemiology including: 1) pathophysiology, 2) epidemiology of CVD (incidence, prevalence, mortality and morbidity) overall and in special populations, 3) major and putative risk factors for CVD including genetic, social and economic determinants, 4) methodologic issues in CVD research including surveillance and measures of CVD endpoints and relevant exposures, 5) major population-based studies of CVD in the US and globally, 6) primary and secondary CVD prevention, target groups for prevention, and community-based intervention studies, 7) treatment of CVD and major CVD trials, 8) CVD-related research occurring within the Department of Epidemiology.

EPID606

Advanced Infectious Disease Epidemiology

Fall term

3 Credit Hour(s)

Instructor(s): Koopman, James S

Last offered Fall 2007

Prerequisites: Epid 605

This second course in infectious disease epidemiology will further prepare students to practice infectious disease epidemiology in health departments, NGOs, and academic settings. It addresses the processes and mechanisms which make infectious disease epidemiology differ from non-infectious disease epidemiology with regard to risk assessment and control program implementation. Focus will be on how risk factors, contact patterns, transmission dynamics, and pathogen evolution determine endemic and epidemic levels of infection. This in turn will serve as a basis upon which to discuss how a) vaccination, b) hygiene and sanitation, c) vector control, d) alteration of contact patterns, and e) treatment programs should be organized to minimize endemic and epidemic infection levels.

EPID610

Epidemiology and Prevention of Oral Diseases

Fall term

4 Credit Hour(s)

Instructor(s): Taylor, George

Philosophy, principles, and methods of study in the epidemiology of oral conditions. Includes measurement techniques, risk factor identification, and disease distribution in populations. The scientific basis for procedures and programs to prevent oral diseases is examined, with emphasis on public health applications. Includes water fluoridation, other fluoride programs, pit-and-fissure sealant, diet, nutrition, oral hygiene, chemotherapeutics, and screening programs. Required for all students in dental public health.

EPID611

Administration in Dental Public Health

Fall term

4 Credit Hour(s)

Instructor(s): Ismail, Amid

The planning, operation, and evaluation of dental public health programs, including quality assurance, budgeting, and legislative issues. Students prepare a research proposal and develop skills in oral presentations. Required for all students in dental public health.

EPID612

Collection and Analysis of Dental Data

Fall term

4 Credit Hour(s)

Instructor(s): Ismail, Amid

Prerequisites: EPID 610 and Biostat 503

Conduct of a dental field survey and analysis of the data collected. Includes establishment of survey aims, survey organization, examination of subjects, processing and analysis of data, preparation and submission of report. Several otherwise free days are required for the field survey, which is usually conducted outside Ann Arbor. Both custom-written data-capture software and commercial statistical software are employed. Particular attention is paid to the special problems presented by dental data in analysis and interpretation. Extensive use of microcomputers is required. Required for all students in dental public health.

EPID613

Problem in Dental Public Health

Fall term

1-4 Credit Hour(s)

Instructor(s): Taylor, George; Ismail, Amid

Prerequisites: Perm. Instr.

Solutions to problems in dental public health can be pursued by students under the tutorial guidance of a faculty member. The problems can be in any aspect of research or administration. Students can also analyze data from existing research databases, and prepare reports intended for publication. Students meet regularly with the faculty supervisor to assess progress throughout the project. May be elected more than once

EPID615

Provision and Financing of Dental Care

Fall term

2 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Analysis of organizational arrangements and patterns for provision of dental care services. Methods of financing dental care. Types of dental personnel and social, economic, and political factors determining their supply and deployment. Emphasis on the United States with some reference to other countries.

EPID624

Readings in Epidemiology

Fall term

1-2 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm. Instr.

Review of literature on selected subjects under guidance of individual faculty members and through scheduled seminars at which reports are presented. May be elected more than once.

EPID651

Epidemiology and Public Health Management of Disasters

Fall term

2 Credit Hour(s)

Instructor(s): Dean, Sienko

Last offered Fall 2007

This course will offer students an overview of natural and man-made disasters as an issue in public health practice and social policy. It will use the foundation of epidemiological principles to develop skills relevant to disaster preparedness, planning, initial response and subsequent relief/recovery efforts. Issues to be examined through course activities include: the types of natural and man-made disaster events, their causes, physical and social impacts, and implications; the frequencies, magnitudes, and geographical/sociopolitical distributions of disaster events-along with the epidemiology of injury and disease in the aftermath of disaster; the potential impact of disasters upon community and public health infrastructures; methods to assess risk prior to and evaluate damage following disaster events; issues and considerations in disaster preparedness; interagency roles, responsibilities and coordination in disaster preparedness and management; the man-made disaster of complex emergency, and the health of displaced populations; and issues related to potential disasters from domestic and international terrorism. The course will also discuss contemporary issues such as the recent Tsunami in the South Pacific and the emerging concern about pandemic influenza.

EPID656

Applied Epidemiologic Data Analysis

Fall term

3 Credit Hour(s)

Instructor(s): Erdmann, Christine

Prerequisites: Epid 600 or Epid 601; concurrent/previous enrollment in Biostat 560; or permission of the instructor. This course is intended for second year MPH students in the Dept. of Epidemiology and students in the Occupational and Environmental Epid. program

Epid 656 is a one-semester practicum in epidemiologic data analysis designed to integrate and apply concepts learned in previous biostatistics and epidemiologic methods courses. Students learn practical skills to analyze and interpret epidemiologic data with continuous and dichotomous outcome variables through lectures and hands-on exercises. Students develop and execute a data analysis plan for their final project.

EPID658

Field Internship in Epidemiology II

Fall term

1 Credit Hour(s)

Instructor(s): Harlow, Sioban

Offered every year

Last offered Fall 2007

Prerequisites: INDI, Perm. Instr.

Presentation, analysis and discussion of student field experience in Epidemiology. Students present a written abstract, visual presentation and oral report on an aspect of their internship experience at the departmental poster session. Students must also complete a confidential evaluation of their internship experience.

EPID659

Applications of Epidemiology

Fall term

2-4 Credit Hour(s)

Instructor(s): Staff

Offered every year

Prerequisites: EPID 601, EPID 655, Perm. Instr.

Application of epidemiological methods and concepts to analysis of data from epidemiological, clinical or laboratory studies. Introduction to independent research and scientific writing under faculty guidance. May be elected more than once for a total credit of not more than four hours. Course must be elected for a total of 4 credits; either elected for 2 credits each during 2 different terms or for 4 credits during a single term. This is the Capstone Course for General Epid and International Health Students.

EPID662

International Health Care Systems

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: Grad Status

This course examines the effects of government and private health services on the health status of populations in developing countries. Other issues analyzed include the politics of health services, their cost-effectiveness and how they are financed. Emphasis is placed on an interdisciplinary approach and on formal techniques of analysis, including the use of some basic statistical, epidemiological, economic and planning models. Prior election of EPID 666 is recommended.

EPID663

Health, Evidence, and Human Rights

Fall term

3 Credit Hour(s)

Instructor(s): Harlow, Sioban

Last offered Fall 2007

Prerequisites: Graduate Standing

This course will consider how population research can contribute to developing evidence relevant to advancing human rights. The ability to generate and interpret evidence is critical to addressing human rights abuses both in the courts and through the development of national and multilateral policies. Though evidence takes a number of forms and demands a variety of fields of expertise, the skills unique to public health and health research expand the scope of inquiry greatly. Human rights are not an individual phenomenon. They are held at a largely individual level, but in reality, be it in the form of collective claims or as a result of their fundamental interdependence and interrelation, human rights succeed or fail to be realized on a social level, and so also require examination at the population level in order to explicate the complexities that define human rights in the context of community systems. In this central respect, the research capacities of epidemiology and the health professions potentially play an important role in the field of health and human rights. This course will systematically examine how to frame population research priorities from a human rights perspective and how population research methodologies can be applied to human rights questions. Case studies of emerging research in the field will be used to develop a conceptual framework for applying health research methodologies to evidentiary issues in human rights.

EPID677

Epidemiology of Aging

Fall term

3 Credit Hour(s)

Instructor(s): Haan, Mary

Offered every year

Last offered Fall 2007

Prerequisites: EPID 600 OR EPID 503, BIOSTAT 503 or 553

This course will address the epidemiology of aging from a public health perspective with a specific focus on epidemiologic methods and their application to the study of function and disease in the elderly. These will include demography, biology of aging, models of aging, functional status, genetics of longevity, cognition and dementias, social factors, sensory changes. Group projects will involve small scale data collection on elderly individuals or analysis of existing data on aging. The project will emphasize understanding of some aspect of epidemiologic methods.

EPID680

Hospital Epidemiology

Fall term

2-3 Credit Hour(s)

Instructor(s): Yang, Zhenhua

Offered every year

Last offered Fall 2007

Prerequisites: Basic Epidemiology and Microbiology and Perm. Instr.

An integration of information from basic courses allows application of microbiologic, epidemiologic and statistical principles to problems of infections in hospitals. Surveillance, investigation and control of hospital infections described.

EPID802

Computer Simulation of Epidemiologic Processes

Fall term

3 Credit Hour(s)

Instructor(s): Koopman, James S

Offered every year

Last offered Fall 2007

Prerequisites: EPID 503 or EPID 601 or equiv and Perm. Instr.

This course deals with dynamics of disease in populations. The student learns how to construct simulations of disease processes in populations using deterministic, continuous state space, computer simulation software. Using these simulations the student learns how the parameters of causal models relate to epidemiological parameters and the statistics that are commonly calculated from epidemiological data. The simulation capabilities acquired are intended to improve the students ability to develop and evaluate causal models and explore the consequences of specific theories. Temporal and exposure group patterns in non-communicable disease are emphasized. An introduction to communicable disease transmission system analysis is also presented.

EPID803

Topics in Social Epidemiology and Population Health

Fall term

2 Credit Hour(s)

Instructor(s): Kaplan, George

Not offered 2008-2009

This is a proseminar designed for doctoral students from public health and other fields who are interested in social epidemiology. It is open to doctoral students in Epidemiology, other SPH departments, and other units in that order of priority. Enrollment will be limited to 20. Permission of instructor is required to enroll. The course focuses on a rotating selection of topics, with a different selection each year. The focus is on building bridges between biological and social approaches. Topics include, but are not limited to: socioeconomic status and health; community structure and function and health outcomes; life-course approaches to chronic disease; psychosocial factors in cardiovascular disease and cancer; the social epidemiology of the epidemiologic transition; gender, race and class; impact of catastrophic events on the health status of individuals and populations; social factors in aging and disability transitions; religion, spirituality and health; biological mechanisms underlying psychosocial associations with health outcomes; psychosocial factors in infectious disease; globalization and health, measurement of health inequalities, and issues given an expanded definition of social epidemiology. The course is taught as a seminar and includes substantial readings, student presentations, and visiting speakers. Evaluation is based on class participation, including presentations.

EPID804

Population Health and its Determinants

Fall term

2-3 Credit Hour(s)

Instructor(s): Kaplan, George

Last offered Fall 2007

Prerequisites: permission of instructor

This seminar, involving considerable reading, will introduce students to the emerging area of scholarship and research on the determinants of Population Health and its trends. The focus will be on patterns of health in populations seen from the integration of core findings on inequalities in health, race/ethnicity, community and spatial aspects of health, behavioral and psychosocial factors, lifecourse perspectives, stress biology, and policy/intervention. Thus the seminar will concentrate on multi-level approaches to important health issues. The course is open by permission of the instructors to participants in the Health and Society Scholars program, and advanced doctoral students in public health and other fields.

This course is cross-listed with SOC 595 in the LSA/Sociology department.

EPID805

Research Seminar in Social Epidemiology and Population Health

Fall term

1-2 Credit Hour(s)

Instructor(s): Kaplan, George

Offered every year

Last offered Fall 2007

Prerequisites: Consent of Instructor based on evidence of current research involvement in field

This course is designed for advanced MPH students and doctoral students who are currently conducting research in the area of social epidemiology/population health. It provides an ongoing venue for the discussion of research ideas, presentation of interim results, problem-solving necessary for the conduct of the research or the interpretation of results, and discussion of findings. Students are exposed to this process in the consideration of their own work, as well as that of post-doctoral and faculty researchers.

EPID813

Advanced seminar on public health and aging

Fall term

2 Credit Hour(s)

Instructor(s): Haan, Mary

Prerequisites: Doctoral standing at UM with training in research methods and statistics in relevant disciplines. Epid 677 is recommended.

This course will be a seminar for doctoral students at the University of Michigan who are interested in health and aging. Fellows/residents from geriatric medicine may also benefit from this course. The course will be most appropriate for students with a background in health, medicine, nursing, social work, psychology, sociology, behavioral sciences or a basic public health science. The course will address substantive areas in aging and health in the first term and methodological issues in geriatric research in the second term. It is also a training seminar for the T32 program in public health and aging.

EPID814

Topics in epidemiologic analysis

Fall term

3 Credit Hour(s)

Instructor(s): Diez-Roux, Ana

Offered every year

Last offered Fall 2007

Prerequisites: EPID601 BIOS560

This pilot course will focus on selected theoretical and methodologic issues related to the analysis of epidemiologic data with the purpose of drawing causal inference. The topics covered will include long-standing fundamental issues as well as new techniques or novel epidemiologic applications of methods used in other disciplines. The course will consist of 14 three hour sessions. Each session will include a brief didactic presentation of the key issues for the session by the instructor followed by a structured small group and class discussion of a selected reading or readings.

EPID816

Tuberculosis: Pathogen, Host and Environment

Fall term

2 Credit Hour(s)

Instructor(s): Yang, Zhenhua

Last offered Fall 2006

Not offered 2008-2009

Prerequisites: EPID 605, 609 617 or any other infectious disease course.

Tuberculosis remains one of the deadliest diseases in the world. Social and operational factors, the growing AIDS epidemic, and increasing drug resistance have dramatically compounded the tuberculosis crisis. This course will review the history, epidemiology, biology, pathogenesis, and clinical management of tuberculosis. It will examine the current issues related to tuberculosis and discuss the complex mechanisms that contribute to the almost unparalleled impact of tuberculosis on global health in the past and present time, including the impact of the emergence of AIDS epidemics. Each session will include a one-hour didactic presentation of the specific topic for the session by the instructor followed by a structured class discussion of reading(s) relevant to the session-specific topics that address emerging methods. In the last session, the students will be asked to present their research proposals on an infectious disease of their primary interests using the concepts and methods learned in this class. While the focus of the lectures will be centered on tuberculosis, the discussions will address the application of general concepts in infectious disease.

EPID819

Epidemiology of Psychiatric Disorders

Fall term

3 Credit Hour(s)

Instructor(s): Galea, Sandro

Last offered Fall 2007

Prerequisites: Epid 601 or permission of instructor

This course offers an introduction to the epidemiology of mental health and mental illness. This course takes an explicit epidemiologic perspective and focuses on the study of the determinants of mental illness. A broad array of potential determinants will be discussed, including psychosocial, biologic, and genetic determinants. Students will learn about the epidemiology of specific diseases, but will also consider the methodologic challenges involved in the study of mental health and illness, the social consequences of mental illness, and the social and political contexts within which mental health and mental illness occur. This course will be divided into three primary sections. The first section will serve as an introduction to psychiatric epidemiology, considering the role of psychiatric epidemiology and the historic, political, and cultural context of mental illness. The second section will consider epidemiologic insights about some of the key psychiatric disorders, including affective, psychotic, anxiety, and substance use disorders. Each topic discussion will also consider the interrelationship between these disorders and the role of epidemiologic methods in studying these conditions. The third section will consider special topics in psychiatric epidemiology, including issues of Comorbidity, measurement (including case ascertainment and diagnostic methods), and issues that pertain to service delivery and its assessment.

EPID821

Interdisciplinary Doctoral Seminar in Global Health Research

Fall term

2 Credit Hour(s)

Instructor(s): Harlow, Sioban

Last offered Fall 2007

Prerequisites: Permission of the Instructor

The Interdisciplinary Doctoral Seminar in Global Health Research offers graduate students the opportunity to develop pre-dissertation proposals and dissertation prospectuses, together with their peers, in an interdisciplinary setting. Through critical readings and presentation and critique of dissertation research proposals, students will have an opportunity to develop their own research prospectus. Students will also develop a broader understanding of the role for multi-sectorial engagement in priority global health research. It is a required course for students receiving a UM-GHRT predissertation travel fellowship.

EPID822

Malaria and other important vector-borne diseases

Fall term

3 Credit Hour(s)

Instructor(s): Wilson, Mark L

Last offered Fall 2007

Prerequisites: Epid 602, Epid 605 or equivalent; EHS 513 or equivalent

Infectious agents transmitted by arthropod vectors produce an enormous disease burden worldwide, especially in underdeveloped countries. Malaria alone kills more than one million people each year, mostly children, and results in 42 million DALYs lost. This course is designed to investigate the epidemiology of malaria and other important vector-borne diseases that principally affect poor people living in tropical countries. The complex interactions influencing transmission dynamics, including immunologic, ecologic, economic and social factors are explored. Options for treatment, prevention and control involving vectors, parasites and human behavior are examined. Analysis also considers the role of other infections, including HIV, as altering transmission and disease. Class sessions will include a brief didactic presentation of the key issues for that topic followed by a structured discussion of selected readings.

EPID840

Current Issues in Oral Epidemiology

Fall term

2 Credit Hour(s)

Instructor(s): Ismail, Amid

Seminar for the detailed examination of current knowledge, etiologies, risk factors, methods of measurement, data collection procedures, quality of existing data, and further research needs in the epidemiology of oral conditions. Required for doctoral students in oral epidemiology.

EPID850

Psychosocial Factors in Mental Health and Illness(Soc 850/Psych 890)

Fall term

2 Credit Hour(s)

Instructor(s): Staff

Last offered Winter 2007

Prerequisites: Perm. Instr.

Selected advanced topics including problems of diagnosing psychopathology through community surveys, psychosocial predictors of mental illness, primary prevention and coping with undesirable life events. This seminar meets in conjunction with a training program, National Institute of Mental Health. May be elected more than once. (Follows in sequence with Soc 850/Psych 890; Soc 851/Psych 891; Soc 852/Psych 892; Soc 853/Psych 893.)

EPID880

The Epidemiological Links between Infection and Chronic Disease

Fall term

3 Credit Hour(s)

Instructor(s): Aiello, Allison

Last offered Fall 2007

Prerequisites: EPID 658 and EPID 605, 607, 609

Exploring the Link between Infection and Chronic Disease: Research Challenges and Pathways As early as the mid 19th century researchers were exploring the idea that chronic conditions, such as cancer, were caused by infectious organisms. During the epidemiological transition when the book on infectious diseases was thought to be closed and the concomitant increase in research on "life-style" factors began to flourish, a line was formed distinguishing chronic and infectious disease research agendas. This distinction has been dissolving as an increasing number of infections are being implicated in the multifactorial risk profiles of chronic health outcomes. Examples include the link between *Helicobacter pylori* infection and peptic ulcer disease, human papilloma virus and cervical cancer cases, and the growing body of research examining the link between infection and cardiovascular disease. The use of observational studies for assessing the relationship between infection and chronic health outcomes have been called into question since randomized clinical trials examining the effect of anti-infective treatments on incidence of chronic disease have shown equivocal results. The dynamic nature of the pathways by which infection may influence chronic disease has implications on the use of the randomized clinical trial as the "gold-standard" for assessing these links. It is evident that there are numerous methodological, sociological, and biological factors that must be considered when evaluating the epidemiological literature supporting a link between infection and chronic disease. Some examples of these issues include the need to: " Explore the role of co-factors and the influence of socioeconomic and other demographic determinants on the pathways between infection and chronic disease outcomes " Assess the type of damage that may be caused by a particular organism. For example, some organisms may act in a hit-and-run manner that triggers chronic disease processes well after the window of detection of the invading organism has passed " Measure and characterize latent and recurrent infections as well as immune response, since latent and recurrent infections may cause repeated damage over the lifecourse " Gather data on the interaction between co-infections or overall burden of infection with multiple pathogens " Detect new infectious organisms and devise methods for isolating organisms from tissue or serum Examples abound that demonstrate the complicated epidemiology concerning the link between infection and chronic conditions. Understanding the influences of demographic shifts, timing of infection and social processes can help elucidate these linkages. The association between *H. pylori* infection and stomach cancer illustrate these issues well: " Demographic shifts: There are strong disparities in the prevalence of stomach cancer between the US and lesser developed countries. In the US, the incidence in stomach cancer has dropped steadily since the 1900's but the incidence in lesser developed countries is still high. " Timing of infection: The disparity in cancer prevalence could be explained by age at infection, since *H.pylori* infection is likely to occur at younger ages among individuals living in lesser developed areas compared to the US. Therefore, individuals in lesser developed countries may be infected with *H. pylori* for a longer period of time, leading to higher levels of damage to the stomach. " Social processes: Studies have reported a stronger association between low socioeconomic position in childhood compared to adult socioeconomic position and incidence of stomach cancer in adulthood. It appears that socioeconomic determinants in childhood shape adult risk of stomach cancer, independent of adult socioeconomic status. Therefore, lifecourse socioeconomic processes influence the link between *H. pylori* infection and later life chronic disease outcomes.

EPID890

Doctoral Seminar in Epidemiology

Fall term

2 Credit Hour(s)

Instructor(s): Staff

Students will give a 50-minute presentation as part of the departmental seminar series. One faculty member will work with student in developing seminar and then critique it afterwards.

EPID891

Advanced Readings in Epidemiology

Fall term

2 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm. Instr.

Students will review assigned readings on the epidemiology or natural history of specific infections or chronic diseases or on host or environmental factors associated with disease, or on epidemiological methods and their application. May be elected more than once

EPID970

Pre-candidacy research in Epidemiology

Fall term

1-8 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Doctoral Student in Epidemiology Standing

Original investigations in the various fields of Epidemiology as part of the student's preparation for their dissertation research and writing.

EPID990

Dissertation Research/Pre-Candidate

Fall term

1-8 Credit Hour(s)

Instructor(s): Staff

For students who have NOT reached candidacy yet.

EPID995

Dissertation Research/Candidate

Fall term

8 Credit Hour(s)

Instructor(s): Staff

Election for dissertation work by doctoral student who has been admitted to status as a candidate

HBEHED516

Global Health Anthropological Perspectives (Anthro 416)

Fall term

3 Credit Hour(s)

Instructor(s): Padilla, Mark

Offered every year

Last offered Fall, 2006

Master's level lecture course designed to provide an extensive overview of the major initiatives and issues in global health over the past three decades. Anthropological perspectives on and critiques of international health development programs will be emphasized. Readings will focus on examples of anthropology in global public health, and written reactions to these readings, along with two objective exams, will form the basis for course grading. The course constitutes an elective for students in the developing Global Health IC, and will be cross-listed as an upper-division undergraduate course in the Department of Anthropology (LS&A). Although anthropological perspectives will be emphasized no prior anthropological coursework or competencies are expected of students.

HBEHED540

Fundamentals of Reproductive Health

Fall term

3 Credit Hour(s)

Instructor(s): Anderson, Frank J.

Prerequisites: Recommend prior human physiol course

The course provides a comprehensive introduction to the field of reproductive health, in the USA and internationally. The course will introduce students to historical trends in the global burden of reproductive ill-health, the social ecology of reproductive risk, clinical health practice, and current controversies in policy and practice. Through a comparative look at reproductive health needs (e.g. maternal morbidity, contraceptive use, STI care and HIV-related services), in a range of diverse social settings, we will critically examine the logic and impact of current international standards for RH policy and practice.

HBEHED578

Practical Projects

Fall term

1 Credit Hour(s)

Instructor(s): Staff

Not offered 2008-2009

Prerequisites: None

Practical projects in the application of theory and principles of Health Behavior and Health Education to individual and community-based public health settings. Course requirements include an approved practical project related to Health Behavior and Health Education in consultation with a faculty advisor. May be elected more than once. Enrollment limited to Health Behavior and Health Education majors with at least two full terms of prior registration.

HBEHED600

Psychosocial Factors in Health-Related Behavior

Fall term

3 Credit Hour(s)

Instructor(s): Strecher, Vic

Psychological and social determinants of health, illness, and sick role behavior, emphasizing the decisional bases for health-related actions. Critical review of models of health behavior. Role of social communication and influence processes in health decisions. Application of concepts from behavioral science to a variety of health problem areas.

HBEHED610

Issues in Public Health Ethics

Fall term

3 Credit Hour(s)

Instructor(s): Roberts, Scott

Prerequisites: Grad Status

This course will address a range of issues in public health ethics. The first part of the course will provide an introduction to key ethical frameworks and concepts relevant to public health, and it will describe the overlap and distinctions between public health and medical ethics. The remainder of the course will use a case-based approach to considering ethical dilemmas in several domains, including the following: 1) resource allocation and distributive justice; 2) questions of autonomy and paternalism; 3) health promotion & disease prevention; 4) clinical care; 5) research ethics; and 6) emerging issues in public health ethics. The course will use a blend of lectures and group discussions to consider topics of interest. Students will play an active role in researching, presenting, and writing up case studies that will be used to illustrate ethical concepts and conflicts and to facilitate class discussion.

HBEHED613

Men's Health: A Social Ecological Perspective

Fall term

3 Credit Hour(s)

Instructor(s): Griffith, Derek

Prerequisites: N/A

Men's health is a field that examines four broad areas: (1) conditions that are unique to men, (2) diseases or illnesses that are more prevalent in men, (3) health problems for which risk factors are different in men, and (4) health issues for which different interventions are required for men. Regardless of race and age, the life expectancy of men across the world tends to be shorter than that of women. For all but one of the top 15 leading causes of death, men have higher death rates than women. Female gender plays a critical role in determining and addressing women's health. Male gender is similarly important but less often acknowledged and examined in academic courses, epidemiologic research, or public health interventions and policies. In health research, men are often studied as though they are a homogenous group, despite men of different races, ethnicities and socioeconomic positions (SEP) having markedly different health outcomes. This course will discuss the intersection of sex, gender, race/ ethnicity, SEP and health but focus on the implications for men's health. The primary objective of this one-semester, three-credit course is to provide a forum for preparing students to develop and implement research and policies to address the poor health of men, with particular attention paid to men of color. The course will require students to review and critically analyze issues in conducting research including or exclusively on men. The course provides students with a fundamental working knowledge of key concepts and theories, social and economic determinants of health, and contemporary topics relevant to providing a broad and comprehensive foundation for examining scientific literature and conducting descriptive and intervention research on gender within racial and ethnic populations in the U.S. and racial differences between men of different racial or ethnic backgrounds.

HBEHED620

Behavioral Research Methods in Public Health

Fall term

3 Credit Hour(s)

Instructor(s): Zimmerman, Marc

Principles of design of behavioral research on public health problems and programs. Objectives, philosophy, and methods of science including causal inference, the role of hypotheses, criteria for establishing adequate hypotheses, research designs and data collection techniques. Formulation of a research problem within a program setting.

HBEHED621

Seminar in Behavioral Research Methods in Public Health

Fall term

3 Credit Hour(s)

Instructor(s): Krause, Neal M

Prerequisites: HBHE 620 or equiv.

Intensive analysis of selected topics; characteristics and advantages of alternative types of studies; purposes of various experimental designs; development of methodology for program evaluation; interviewing and questionnaire construction and problems in analysis of data, with particular emphasis on problems of spuriousness

HBEHED622

Program Evaluation in Health Education

Fall term

3 Credit Hour(s)

Instructor(s): Janevic, Mary

Prerequisites: Biostat 503 or equiv. and a course dealing with health education program development
Examination and application, through a series of exercises, of several program evaluation models relevant for health education, including the goal attainment, goal-free, systems responsive, and decision-theoretic models, with emphasis on both process and impact analysis. Design options for measuring program effect, with the associated threats and external validity, are discussed, and several basic statistical techniques are reviewed and examined in terms of their applicability to program evaluation, including sampling and sample size determination for both surveys and experiments.

HBEHED623

Racial/Ethnic Health Disparities

Fall term

3 Credit Hour(s)

Instructor(s): Neighbors, Harold

This course focuses on how public health has responded to the unique health and mental health problems of ethnic "minority" groups with emphasis on African Americans. The course focuses on various models of mental disorder and how those models are operationally defined in community and clinical studies, with particular attention paid to group differences in diagnosis and epidemiologic case-finding. Emphasis is also placed on risk and protective factors such as stress, social support, identity, discrimination, acculturation, and coping capacity.

This course is cross-listed with 602 in the Social Work department.

HBEHED624

Need Assessment Methods for Behavioral and Educational Health Programs

Fall term

3 Credit Hour(s)

Instructor(s): Valerio, Melissa

Offered every year

This course is for the student who is interested in gaining knowledge and skills about different methodological approaches to doing need assessment for health and human service organizations. The course will focus on the use of both secondary (e.g. agency statistics, census) and primary (survey, forums, informants, focus groups) data. The course emphasizes feasible and inexpensive methods, which can be used by internal evaluators. Students will learn how community epidemiologic surveys (e.g. the National Institute of Mental Health Epidemiologic Catchment Area Program) can be used in conjunction with local secondary data for synthetic estimation of health needs. Need assessment will be conceptualized as a political process as well as a research methodology. Three class sessions will be devoted to an in-depth analysis of a major mental health need assessment conducted by the instructor for the Michigan Department of Corrections. By using this study as a case example, students will be provided with an "inside look" at the social side of need assessment. The case study will also focus on using need information for program development.

HBEHED625

Research in Health Behavior

Fall term

1-4 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm. Inst.

Individual work on a problem in the area of health behavior relevant to program effectiveness in public health, under the tutorial guidance of an appropriate staff member. Regular conferences are arranged to discuss research designs, proposed problem solutions, methods for data collection and analysis. The investigation is reported in a paper, which may be submitted for publication. May be elected more than once.

HBEHED627

Chronic Illness Interventions: Infancy to Young Adulthood

Fall term

3 Credit Hour(s)

Instructor(s): Connell, Cathleen

Prerequisites: Perm. Instr.

This course examines intervention efforts aimed at the self-management of chronic illness from a lifespan perspective with a focus on infancy, childhood, adolescence, and young adulthood. Theoretical and conceptual frameworks for viewing chronic illness in the context of individual and family development will be discussed. Specific examples of health education interventions for selected chronic illnesses and school-based approaches to cardiovascular risk reduction will be examined. The appropriate developmental tasks and psychosocial and cognitive stages for individuals and their implications for the self-management of chronic illness will be described. The format of the course will rely heavily on structured and informed discussion. A brief overview will be provided each week, followed by exchange generated by discussion questions for each week's reading assignments as well as small group exercises. Student presentations based on a wide variety of chronic illnesses will be scheduled throughout the course.

HBEHED629

Families and Health

Fall term

3 Credit Hour(s)

Instructor(s): Chatters, Linda

Prerequisites: Grad Status

This course will examine families as a primary context for understanding health and health-related behaviors. Major topics include: 1) models and theories of the family, 2) history and current status of family-based practice, 3) the impact of demographic trends and their impact on family structure and functioning, 4) family diversity with respect to social status groups, ethnicity, and culture and their implications for understanding health phenomena, 5) families as the context for socialization to health beliefs and practices, 6) the provision of family-based care, and 7) health profiles of family members and their family roles.

This course is cross-listed with HB727 (School of Social Work) in the School of Social Work department.

HBEHED640

Community Organization for Health Education

Fall term

3 Credit Hour(s)

Instructor(s): Israel, Barbara

Prerequisites: Perm. Instr. and Grad Status

Examines social and structural factors associated with health and illness; concepts and theories regarding planned change and community; and models and principles of community organization practice for health education. Several models of community organization are analyzed along the dimensions of: community diagnosis needs assessment, selection and implementation of action strategies, evaluation research, role of the professional and ethical considerations.

HBEHED644

Readings in Health Behavior and Health Education

Fall term

1-6 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm. Instr.

Review of literature on selected topics in health behavior, health education or related areas under guidance of faculty member. Critical analysis; written and oral reports. May be taken more than once for a total not to exceed 6 credit hours.

HBEHED660

Theory, Research and Practice in Adolescent Health

Fall term

3 Credit Hour(s)

Instructor(s): Caldwell, Cleo

Not offered 2008-2009

Prerequisites: Grad Status

Examines educational efforts designed to promote better health outcomes among adolescents. Review developmental theories, research, and interventions to promote health in this population. Addresses various contexts for intervention programs and their implications. Topics covered include, but are not limited to, the effects of peer and family influences on health, resiliency, violence, alcohol and drug use, and sexual behavior.

HBEHED668

Health Communications for Public Health

Fall term

3 Credit Hour(s)

Instructor(s): Resnicow, Ken

Prerequisites: HBHE 600

From one-on-one health counseling to broad-based social marketing campaigns, a vast body of research over the past twenty years has demonstrated that numerous dimensions of health communications, including message format, receiver characteristics, and delivery channel can affect program impact. This course will address key considerations for constructing effective health communications including the application of behavior change theories and general marketing principles. Selected prior and current health promotion campaigns will be critically reviewed and students will be asked to develop a health communication intervention or social marketing campaign. Occasional guest lecturers, actively involved in development of health communication interventions will be integrated into the syllabus.

HBEHED678

Critical Histories, Critical Moments in Health Behavior and Health Education

Fall term

3 Credit Hour(s)

Instructor(s): Valerio, Melissa

Not offered 2008-2009

Prerequisites: HBHE student or permission of instructor

The goal of this course is to introduce health behavior and health education (HBHE) students to the historical roots of the field and to connect these roots to current day issues. To this end, we will examine key historical milestones and figures who were instrumental in developing the discipline. We will discuss major debates that still have currency today, such as the social control of infectious diseases and assumptions about the origins of racial/ethnic, nationality, and class differences in health. We will also examine the historical and intellectual foundations of current HBHE research and practice, including the genesis of stress research, community based participatory research, health disparities, and the ecological framework. Finally, we will examine the continuing influence of several major figures, including (but not limited to) Sydney and Emily Kark, Guy Steuart, Marshall Becker, John Snow, Hans Selye and Paulo Preire.

HBEHED699

Health Behavior and Health Education Capstone

Fall term

1 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm Instr

HBHE 699 is elected by students enrolled in the Masters degree program in Health Behavior and Health Education and who are in their final semester of study. Students engage in a synthesis/analysis of their individual program of study and skill and knowledge formation in health behavior and health education. Specific objectives are to: 1) consider how various aspects of their course work informs their summary evaluation of the field placement and 2) describe how course work, the field placement experience and other activities relate to explicit competencies for the program, as well as specific career goals and objectives. Information used in this process includes a review of the students original statement of purpose, field placement experience, course work within HBHE and the SPH, program and course exit competencies, and related additional work, research or internship experiences. Students write a capstone paper under the guidance and supervision of the faculty advisor.

HBEHED710

Special MPH Topics in Health Behavior and Health Education

Fall term

1-6 Credit Hour(s)

Instructor(s): Staff

Masters level seminar designed to provide an extensive review of a number of substantive and methods and skill areas in health behavior and health education. Readings, discussion and assignments are organized around issues of mutual interest to faculty and students. Reviews and reports on topics required in the areas selected. May be elected more than once.

HBEHED800

Seminar in Health Behavior and Health Education

Fall term

3 Credit Hour(s)

Instructor(s): Caldwell, Cleo

Advanced study of principles of health behavior, educational and motivational approaches to improve health, and research and evaluative issues in health behavior and health education. Includes discussion of behavioral science and health education applications to public health, with special topics selected by students for review and discussion. Designed for doctoral students in Health Behavior and Health Education. May be elected more than once.

HBEHED810

Special Topics in Health Behavior and Health Education

Fall term

2-6 Credit Hour(s)

Instructor(s): Staff; Geronimus, Arline T

Doctoral seminar designed to provide an extensive review of a number of substantive areas of health behavior and health education. Readings and discussion organized around issues of mutual interest to faculty and students. Reviews and reports on topics required in the areas selected. May be elected more than once.

HBEHED849

Research in Health Education

Fall term

2-6 Credit Hour(s)

Instructor(s): Staff

Prerequisites: HBHE 620

Investigation of a selected topic in health education; development of study and plan of operation; conduct of investigation and preparation of final report. Primarily for students in the Department with prior master's or doctoral preparation, others by permission. Emphasis on application of basic research competence in study of problems in health education. May be elected more than once.

HBEHED850

Psychosocial Factors in Mental Health

Fall term

2 Credit Hour(s)

Instructor(s):

Not offered 2008-2009

Prerequisites: Graduate Standing and Permission of Instructor

Selected advanced topics including problems of diagnosing psychopathology through community surveys, psychosocial predictors of mental illness, primary prevention and coping with undesirable life events. This seminar brings together a multidisciplinary set of faculty and students from sociology, psychology, health behavior and health education, psychiatry, and epidemiology to present and discuss recent research on the social and psychological sources of mental and physical health. Substantively, the seminar will focus on the role of psychosocial and social structural factors in the etiology and course of health and illness, including the study of life events, chronic role strains, resources for adapting to potential stressors, and the actual process of coping and adaptation. The application of social epidemiology to problems of service utilization may also be considered.

This course is cross-listed with Soc 850, Psych 890, Epid 850 in the Sociology, Psychology, and Epidemiology/SPH department.

HBEHED900

Research in Health Behavior and Health Education

Fall term

2-6 Credit Hour(s)

Instructor(s): Staff

Research work undertaken by doctoral students in collaboration with faculty advisers, including participation in on-going departmental research activities. Open only to doctoral students in Health Behavior and Health Education. May be elected more than once.

HBEHED990

Dissertation/Pre-Candidate

Fall term

1-8 Credit Hour(s)

Instructor(s): Staff

Half Term (IIIA or IIIB, 1-4 credits) Election for dissertation work by doctoral students in Health Behavior and Health Education who are not yet admitted to status as a candidate.

HBEHED995

Dissertation Research for Doctorate in Philosophy

Fall term

8 Credit Hour(s)

Instructor(s): Staff

Half Term (IIIA or IIIB, 1-4 credits) Election for dissertation work by doctoral students admitted to status as candidate.

HMP517

Issues in Public Health Genetics

Fall term

3 Credit Hour(s)

Instructor(s): Citrin, Toby; Modell, Stephen

Prerequisites: EPID 515 or Perm Instr

This course focuses on ethical, legal, and social issues and analysis arising from the increasing application of genetic technologies to the health of individuals and populations. The four course segments cover the technical and social background of population-based genetic interventions, decision making criteria used in assessing the feasibility of proposed genetic screening programs and gene therapy trials, policy frameworks, such as cost-effectiveness analysis and ethical reasoning, which can aid in the selection and design of genetic programs and policies, and the deliberative processes decision making bodies can use in resolving differing interests as policy is developed and adopted. Each segment involves didactic presentations and class exercises in which students will grapple with current and anticipated publicized dilemmas. The segments collectively are linked by examples common to each portion of the course.

HMP578

Practical Projects in Health Management & Policy

Fall term

1 Credit Hour(s)

Instructor(s): Staff

This course is designed for students wishing to pursue an internship relative to their degree program (primarily for international students). Practical experience is required for this course. Note: The Department is not obligated to find employment/internships for students. Course requirements include an approved practical work experience and consultation with faculty advisor.

HMP600

The Health Services System I

Fall term

3 Credit Hour(s)

Instructor(s): Lichtenstein, Richard L

Prerequisites: Enrollment in HMP or Perm Instr

First part of two-course sequence focusing on major issues in the organization of a health services system: role of values; assessment of health status; analysis of need, access and use of services; current supply and distribution of health resources; analysis of health care costs and expenditures. Students enrolling in HMP 600 are expected to also complete HMP 601.

HMP607

Corporate Finance for Health Care Administrators

Fall term

3 Credit Hour(s)

Instructor(s): Wheeler, John RC

Prerequisites: HMP606

Corporate finance theory and applications to health care organizations. Topics include the capital expenditure decision, the capital financing decision, financial feasibility, financial planning, cash management, and financial aspects of prepayment programs. The course makes extensive use of case studies.

HMP608

Health Care Financial Accounting

Fall term

1-2 Credit Hour(s)

Instructor(s): Wheeler, John RC; Grazier, Kyle

Prerequisites: none

HMP 604, Health Care Financial Accounting, provides an overview of financial accounting for students interested in health care management and policy. It is designed to serve the needs of both students who have never had a course in financial accounting (for 2 credits) and students who have had an introductory course in financial accounting but without health care applications (for 1 credit).

HMP610

Cost-Effectiveness Analysis in Health

Fall term

3 Credit Hour(s)

Instructor(s): Eisenberg, Daniel

Prerequisites: Perm. Instr

HMP 610 focuses on the use of cost effectiveness analysis to inform decisions about improving health. The course also covers a number of related analytical tools such as cost benefit analysis, decision analysis, and sensitivity analysis. Students will learn theoretical justifications for these tools as well as their limitations. The main goal is for students to understand when cost effectiveness analysis and related tools are appropriate and how to apply them in practice to a broad range of health issues.

HMP612

Medical Management of Disease

Fall term

1 Credit Hour(s)

Instructor(s): Hayward, Rodney

Not offered 2008-2009

Basic introduction to how disease is conceptualized and managed under the medical model. The course includes an introduction to medical terminology and disease taxonomy, and a basic introduction to issues in disease natural history, progression, prognosis, and diagnostic and therapeutic decision making and management relevant to non-medical health services professionals. Designed for students pursuing a Masters in Health Services Administration.

HMP615

Introduction to Public Health Policy

Fall term

1-4 Credit Hour(s)

Instructor(s): Lantz, Paula

Describes the nature of public policy interventions within the various domains of public health, the theoretical motivations for undertaking them, the influence of the political, bureaucratic, and social environmental in which policy decisions are made, the consequences of such decisions, and the key dimensions of analysis of the effects of public health policies. In addition to conceptual discussion of each of the above, the course includes evaluation of several case studies of public health policy decisions and their implications.

HMP616

Understanding Organizations

Fall term

3 Credit Hour(s)

Instructor(s): Myers, Valerie; Banaszak-Holl, Jane

Prerequisites: MHSA Candidate, MPH Candidate in HMP, or P.I.

This course provides an overview of key issues confronting modern organizations, with an emphasis on healthcare organizations but attention to supplier, customer, and other partnering organizations. The issues will be studied from several perspectives to familiarize students preparing for work in health care organizations with a working understanding of both organizational dynamics and approaches to understanding them. Students completing the course should understand fundamentals of how organizations are formed, governed, designed, and improved. They will also learn how workers and organizations related to each other, and how organizations relate to their environment and other organizations.

HMP618

Tobacco: From Seedling to Social Policy

Fall term

3 Credit Hour(s)

Instructor(s): Douglas, Clifford

Provides a comprehensive examination of the historical and contemporary use of tobacco products and of their health and social implications. The objective of the course is to learn how lessons from history, epidemiology, health behavior, and policy analysis can be combined to understand the nature of, and potential policy responses to, the ongoing epidemic of tobacco-related disease. Coverage includes history; production of tobacco products; marketing; elucidation of disease links; societal responses; impacts of anti-tobacco policies; industry responses; economics and politics of tobacco; cessation methods; lawsuits against the industry; contemporary policy developments in the U.S.; the global use of tobacco; the future of tobacco use and tobacco control.

HMP630

Business of Biology

Fall term

1 Credit Hour(s)

Instructor(s): Staff

This course is cross-listed with BA 518 in the Business Administration department.

HMP640

Program Evaluation in Public Health

Fall term

3 Credit Hour(s)

Instructor(s): Kruk, Margaret

Prerequisites: grad status

The Purpose of this course is to provide students with an understanding of the fundamentals of evaluation and research as applied to public health programs, policies and other types of interventions. The course covers impact, outcomes, process and participatory evaluation, and a number of research designs common in public health evaluation research. Students will gain skills in framing evaluation questions. In addition, students will gain skills needed to understand and critique published evaluation literature, and skills in measurement/data collection strategies. Class format includes lecture, discussion articles, and small group exercises. For final project, students will design and write an evaluation plan in the format of a proposal for funding.

HMP643

Individual and Group Behavior in Health Service Organizations

Fall term

3 Credit Hour(s)

Instructor(s): Banaszak-Holl, Jane

Prerequisites: grad status

This course provides the knowledge and skills for understanding and effectively managing individuals and groups within health care organizations. We consider a wide variety of motivations that draw individuals to their jobs and keep them productive. We also consider why organizations form small groups and the dynamics of these groups over time. Students learn techniques for persuasive communication and conflict management, develop strategies for dealing with interpersonal problems in an organizational setting, and processes for handling work teams. Common organizational problems that students solve include choosing the right person through the hiring process, evaluating employee performance, and negotiating contracts.

HMP644

Strategic Planning and Marketing in Health Care

Fall term

3 Credit Hour(s)

Instructor(s): Calhoun, Judith

Prerequisites: HMP 600, HMP 601 or HMP 602 or PI

Covers general concepts of strategic planning for business development and marketing as applied to health care settings. Topics include: assessing and understanding the needs of key customer groups; health consumer behavior; market segmentation and targeting; clinical staff needs and relations; forecasting service demand; new product development; product pricing and distribution; advertising and public relations; analysis of collaborative and competitive environments, and strategy formulation. Potential conflicts between an organization's business objectives and its participation with competitors in collaborative community benefit programs are also explored. In the 3 credit hour version of the course, extra emphasis is placed on experiential learning methodologies for developing health services strategic plans and the exploration of topics key to successful strategic positioning, business development, and marketing in the management of health care services.

HMP645

Seminar in Leadership for Changing American Healthcare

Fall term

3 Credit Hour(s)

Instructor(s): Warden, Gail

Prerequisites: completion of first year requirements for HMP MPH or MHSA, or permission of instructor

This course will use four current, important topics on the national agenda to develop students' insights into how such topics evolve and are guided by professional managers and policy makers. Student teams will be formed around profession interests (e.g. provider management, insurance, government agencies). Each team will prepare two papers on each topic: (1) a background based on prior coursework and surveys of library and web resources, outlining the key issues, political positions of major stakeholders, technical issues, and actions proposed by others (2) a plan of action for a specific agency or organization, with agenda, timeline, types of participation, goals, and achievement issues. These papers will be submitted in writing for grading, and presented to classmates for discussion. A national leader concerned with the issue will join the seminar for the third session on each topic.

HMP652

Health Law

Fall term

3 Credit Hour(s)

Instructor(s): Jacobson, Peter

Prerequisites: HMP 600, 601

The purpose of this course is to introduce public health students, especially those interested in health administration and management, to the legal issues they are likely to face in managing a health care organization. The goals of the course are for students to understand generally: the functions of and interaction between courts, legislatures, regulators; the role of the courts in health policy and health care delivery; how to recognize legal issues and communicate with attorneys; how law will affect students as strategic thinkers in health care positions; how to apply basic tort and contract principles; and how to apply basic corporate law and antitrust principles. Specific topics will vary, but will usually include: liability; health care institutions as corporations; antitrust; tax exemption; privacy and confidentiality; regulatory oversight of health care systems, including quality of care; legal requirements for access to health care; nondiscrimination; and general employment issues. This class can be taken as an elective or in fulfillment of the law/politics requirement.

HMP654

Operations Research and Control Systems

Fall term

3 Credit Hour(s)

Instructor(s): Mendez, David

Prerequisites: Biostat 503 or Biostat 553 or equiv and Grad Status

Provides rational framework for decision making for both operating and control systems in the hospital environment. Emphasizes basic modeling techniques and examples of actual hospital applications. Aims at thorough understanding of concepts of total value analysis, objective function formation, and exception reporting. Students become familiar with operations research techniques of inventory modeling, queuing, computer simulation, PERT/CPM, mathematical programming, and quality control. Presentation emphasizes objectives, constraints, and required assumptions of each of these techniques as applied to specific hospital examples.

HMP658

Governance and Leadership in Non-Profit Health Organizations

Fall term

3 Credit Hour(s)

Instructor(s): Alexander, Jeffrey A

Prerequisites: HMP 652 and (HMP 620 or HMP 616 or HMP 640), or permission of instructor.

In nonprofit health organizations, boards of directors play far more important roles than in business firms. Because nonprofits have no owners, boards must simultaneously represent the public and the interests of donors and members, while at the same time serving as links to a variety of stakeholders, including funders, clients, beneficiaries, professional and industry groups, and the communities in which they are located. Boards have ultimate authority to interpret organizational mission, to define goals, to hire and fire staff, and to allocate resources. Governing boards are held accountable when nonprofit organizations run into trouble. This course provides critical and practical understanding of the leadership role of nonprofit governance for managers, board members, and policy makers. It examines the legal characteristics of nonprofit entities, mechanisms of internal and external accountability, the governance implications of organizational structure, the powers and responsibilities of governing boards, factors affecting decision making, board/staff relations, the dynamics of board governance, and the role of stakeholders in governance. Readings include articles and monographs from the fields of anthropology, law, management, organizational behavior, and sociology, as well as cases and pertinent materials from the print media. Students are expected to participate in class discussions, to make oral presentations, to write three short papers, and to write a case study based on an actual organization.

HMP660

Economics of Health Management and Policy I

Fall term

3 Credit Hour(s)

Instructor(s): Hirth, Richard

Prerequisites: Grad Status

This course covers the principles of microeconomic theory and the fundamental concepts of the field of health economics. The focus is on individual behavior (demand), firm behavior (supply), and how these forces interact to yield market outcomes (prices and quantities) in health and health care. No previous background in economics is assumed. The purpose of the course is not to train you to be health care economists, rather it is to give you experience analyzing health management and health policy issues using economic tools. The basic framework of economics will be used to analyze the behavior of consumers, insurers, physicians, and hospitals. The tools of economics will be applied to both managerial issues such as pricing decisions and policy issues such as the medically uninsured. Additionally, these economic tools will be used to predict how various parties might respond to changes in the health care system.

HMP662

Topics in Health Economics

Fall term

3 Credit Hour(s)

Instructor(s): McLaughlin, Catherine G

Not offered 2008-2009

Prerequisites: HMP 663, HMP 610, or Perm. Instr.

The focus of this seminar is the use of economic principles to evaluate private and public health care policies. Students read articles and write several short papers on a variety of topics, including health insurance reform, consumer choice and the role of information, the economics of mental health and substance abuse, sin taxes, and the role of technology in health care costs. Students are also required to write a longer paper on a health economics topic of their choice.

HMP675

Sociology of Medicine

Fall term

3 Credit Hour(s)

Instructor(s): Liang, Jersey

Not offered 2008-2009

This course provides an overview of sociological approaches to the analysis and understanding of health and health care issues. Key topics include (a) social construction of health and sickness, (b) social structure and health, (c) health professions, (d) social organization of health care, and (f) social change, health, and health care. Applications of sociological concepts and methods to health management and policy will be emphasized. To foster a global perspective, health and health care in U.S. will be contrasted with those in other nations.

HMP677

Health Care Organization: An International Perspective

Fall term

3 Credit Hour(s)

Instructor(s): Liang, Jersey

Prerequisites: Grad Status

The American pursuit in making its health care system more equitable, effective, and efficient has largely been based on domestic health services research and policy analysis. Although the health care system in each nation is somewhat unique to its culture and history, the issues each faces are remarkably similar. Nations can learn a lot from one another in meeting these challenges. This course examines health care systems in approximately eight developed and developing nations (e.g., United States, Germany, Japan, Canada, United Kingdom, China, Mexico, and Kenya). In particular, comparisons will be made across these nations in the following areas: (a) population health, (b) health care financing and control, (c) health professionals and their patients, (d) health care organization, and (e) health system performance and reform strategies. Understanding how health care is delivered around the world will lead to a better appreciation of the relative merits and limitations of various systems, and will yield many useful insights in management and policy decision making. At the completion of this course, students will be expected to: 1. Describe the global burden of disease and health disparities, 2. Understand how health care is organized and financed in selected developed nations, 3. Learn the strengths and weaknesses of these systems, 4. Know the recent health care reforms enacted in these countries and their results, and 5. Apply the knowledge of international systems to the analysis of current issues in health policy and management. The course will be taught by a combination of lectures, in-class exercises, roundtable discussions, and site visits. Effective interventions in health care and related management and policy issues will be emphasized.

HMP683

Quality of Care

Fall term

3 Credit Hour(s)

Instructor(s): Wyszewianski, Leon

Not offered 2008-2009

Prerequisites: HMP 601 or HMP 602

Focuses on the concepts and practices of quality of care assessment, control, and improvement in health care delivery settings. Designed to provide an in-depth understanding of basic concepts and frameworks and of their applicability and relevance in specific situations. Covers major approaches to quality of care assessment, improvement, and control currently in use in the health care field.

HMP690

Readings in Health Management and Policy

Fall term

1-4 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Grad Status and Perm Instr

Directed readings or research on selected topics and problems relevant to health management and policy. May be elected more than once.

HMP693

Mental Health Policy in the United States

Fall term

2-3 Credit Hour(s)

Instructor(s): Eisenberg, Daniel

Not offered 2008-2009

Prerequisites: Grad Status

Students in this course will analyze mental health policies in the U.S. The class will meet once a week and have an interactive seminar format. We will approach various topics from both descriptive and analytical perspectives. Examples of topics include mental health insurance parity, the integration of mental health services and other health services, delivery of services in schools, delivery of services in prisons, and incentives influencing the balance between medication and therapy.

HMP697

Physician Managers in Managed Care

Fall term

1 Credit Hour(s)

Instructor(s): Weiner, Lowell

Not offered 2008-2009

Prerequisites: Grad Status

This course will introduce the student to the role of the medical director in managed care organizations. Focus will be on the medical director's responsibilities in the areas of benefits administration, utilization management, quality management, credentialing, physician relations, planning and budget.

HMP800

Doctoral Seminar on Health Services System I

Fall term

2 Credit Hour(s)

Instructor(s): Alexander, Jeffrey A

Prerequisites: HMP 600, HMP 601 or equiv

Intensive examination of selected topics in HMP 600. For doctoral students in Health Services Organization and Policy.

HMP815

Readings in Medical Care

Fall term

1-4 Credit Hour(s)

Instructor(s): Staff

Prerequisites: Perm Instr

Directed readings in special areas. May be elected more than once. Primarily for doctoral students in Health Services Organization and Policy.

HMP827

Advanced Seminar in Health Care Economics

Fall term

3 Credit Hour(s)

Instructor(s): Hirth, Richard

Prerequisites: Econ 501 and Perm Instr

Analysis of the application of advanced economic theory to problems in the health services field. Focuses on several health economics issues, including topics of current policy interest as well as topics for which the application of economic theory has been more fully explored. Classes will include a general discussion of the appropriate economic theory and empirical evidence and a critical review of the relevant health economics literature. Students must read approximately 30-40 articles and write several short papers.

HMP833

Research Topics in Sociology and Health Care Organization

Fall term

3 Credit Hour(s)

Instructor(s): Staff

Prerequisites: HMP doctoral students or P.I.

HSOP Program requirements. A topic in sociology and health care organization-policy is selected each term for detailed critical, theoretical, and methodological analysis leading to development, in class, of propositions aimed at advancing scientific status of the area of inquiry. Analysis and development of content follows logic of the research paradigm. Required of students with a sociology cognate in the doctoral program in Health Services Organization and Policy

HMP835

Research Practicum

Fall term

3-6 Credit Hour(s)

Instructor(s): Staff

Prerequisites: HMP 809, Perm Instr

The purpose of this course is to allow each student, early in his or her doctoral career, to gain experience in the actual performance of health services research. The experience will enable students to build sound research skills and to gain knowledge of the nature of inquiry in their discipline as well as in the field of health services research. Each student in the HSOP program is expected to elect a total of 6 credits in HMP 835.

HMP990

Dissertation/Precandidates

Fall term

1-8 Credit Hour(s)

Instructor(s): Staff

Election for dissertation work by doctoral students not yet admitted to status as candidate.

HMP995

Dissertation Research for Doctorate in Philosophy

Fall term

8 Credit Hour(s)

Instructor(s): Staff

Election for dissertation work by doctoral students admitted as candidates
