

Graduate Certificate: Clinical Health Services Research

COLLEGE OF PUBLIC HEALTH

Learn more about the graduate certificate in Clinical Health Services Research.

About the Certificate

The Clinical Health Services Research (HSR) certificate is a 12-credit graduate certificate program designed to provide a foundation for clinicians and other healthcare professionals in this multidisciplinary field that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviors affect access to healthcare, quality of care, and costs. Knowledge of health services research allows healthcare professionals to develop both better understandings of population-based outcomes and skills to participate in population-based research. The certificate program gives students a grounding in health services research, including study design, methods, and interpretation of results. Successful completion of the Clinical HSR certificate program enables graduates to:

- illustrate understanding of health services research theory and concepts by comparing alternative models for population health issues;
- formulate innovative and important health service research questions informed by systematic reviews of the literature, stakeholder needs, and relevant theoretical and conceptual models;
- select appropriate study designs to address specific health services research questions;
- develop expertise in collecting primary health and healthcare data and in assembling secondary data from existing sources;
- use appropriate analytical methods to assess associations between variables; and
- apply knowledge of the structures, performance, quality, policy, and context of health and healthcare to formulate solutions for health policy problems.

Time Limit for Certificate Completion: 2 years

Campus Location: Main, with certain courses also offered at Temple University Center City (TUCC)

Full-Time/Part-Time Status: The graduate certificate may be completed on a part-time basis.

Non-Matriculated Student Policy: The certificate program is open to non-matriculated graduate students.

Admission Requirements and Deadlines

Application Deadline:

Fall, Spring, and Summer admissions are on a rolling basis. Interested students should contact the College of Public Health for permission to enroll in coursework.

Apply at <https://sophasexpress.liasoncas.com/>.

For questions, please contact the CPH Office of Admissions at cph@temple.edu or 215-204-5200.

Bachelor's Degree in Discipline/Related Discipline: Applicants must hold a baccalaureate degree. Official transcripts must be submitted for all postsecondary institutions attended.

Certificate Requirements

Number of Credits Required to Complete the Certificate: 12

Required Courses:

Code	Title	Credit Hours
EPBI 5201	Epidemiological Research Methods I	3
HIM 5129	Health Data Analysis	3
Select two courses from the following:		6
EPBI 8301	Clinical Research Methods in Public Health	
HIM 5106	Technology for Population Health	
HIM 5111	Technology for Healthcare Financial Management	
HPM 5122	Healthcare Quality and Safety	

HPM 8008	Health Economics
HPM 8013	Research Methods in Health Policy

Total Credit Hours

12

GPA Required to be Awarded the Certificate: 3.0 minimum

Contacts

Certificate Program Web Address:

<https://www.temple.edu/academics/degree-programs/clinical-health-services-research-certificate-graduate-hp-chsr-grad>

Admissions Information:

Dept. of Health Services Administration and Policy
 524 Ritter Hall Annex
 1301 Cecil B. Moore Avenue
 Philadelphia, PA 19122-6005
 publichealth@temple.edu
 215-204-5899

Submission Address for Application Materials:

<https://sophasexpress.liasoncas.com/>

Department Contacts:

Admissions:

CPH Office of Admissions
 cph@temple.edu
 215-204-5200

Certificate Program Director:

Michael Harvey, Dr.P.H.
 michael.harvey@temple.edu
 215-204-1225

Chairperson:

Huanmei Wu, Ph.D.
 huanmei.wu@temple.edu
 215-204-8163

Epidemiology and Biostatistics Courses

EPBI 5001. Biostatistics for Health Professions. 3 Credit Hours.

This course is for graduate students in nursing and other health-related professions and is meant to teach students the common biostatistical tools used to analyze, present and interpret health-related data. The course will cover topics including data summary and visualization, descriptive statistics, sampling and confidence intervals, hypothesis testing, diagnostic tests, and inference related to t-test, ANOVA, simple and multiple regression, nonparametric tests and measurement agreements. Statistical processing through the program SPSS will be integrated into the program and used in tandem with critical principles needed for effective statistical decision making. At the conclusion of the course, students will be able to analyze real data sets and provide quantitative evidence to support scientific conclusions.

Level Registration Restrictions: May not be enrolled in one of the following Levels: Undergraduate.**Repeatability:** This course may not be repeated for additional credits.**EPBI 5002. Biostatistics. 3 Credit Hours.**

Students will review fundamentals of descriptive statistics, estimation, and hypothesis testing. More advanced influential methods will be introduced, including, but not limited to, regression and correlation and analysis of variance. At the conclusion of the course, students will be able to analyze real data sets and provide quantitative evidence to support scientific conclusions. The emphasis is on "doing" statistics utilizing sound statistical theory and relying on validated statistical software (SAS/SPSS) to produce descriptive statistics and inferential analyses, and interpret the results.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.**Repeatability:** This course may not be repeated for additional credits.

EPBI 5003. Spatial Analysis in Public Health. 3 Credit Hours.

This course will create a methodological framework for approaching public health issues within the context of spatial investigations of health and disease, both internally via perceptual mapping, and externally via geographic information systems (GIS). This integrative discipline provides the opportunity for students to draw upon the concepts and techniques of sound public health and add a spatial perspective to their analysis.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 5005. Applied Analysis of Health. 1.5 Credit Hour.

This lab course will focus on integrating concepts from biostatistics, epidemiology, environmental health, health policy, and social and behavioral health through hands-on data analysis and presentation techniques using SAS statistical software. Modules will also include SPSS and qualitative software. Labs will immerse students in applied exercises so they more fully understand the statistical principles presented in the co-requisite lecture course (EPBI 5002) as well become comfortable assessing available data and producing data-driven public health materials for various audiences. Each lab session includes exercises to help students more fully understand the statistical and analytic principles. It also re-enforces material covered in EPBI 5101, EPBI 5201, and EPBI 5002.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health.

Co-requisites: EPBI 5002.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5101|Minimum Grade of B-|May be taken concurrently

OR EPBI 5201|Minimum Grade of B-|May be taken concurrently.

EPBI 5101. Fundamentals of Epidemiology. 3 Credit Hours.

The main purpose of this course is to provide an understanding of the basic methods and tools used by epidemiologists to study the health of populations. This course provides a graduate-level introduction to the fundamental concepts and methods used in epidemiology, the basic science of public health and prevention. This course covers terminology used in epidemiology; basic measures of frequency of disease occurrence; concepts of exposure, outcome, and association; epidemiologic study designs; epidemiologic criteria for causality; potential sources of bias and controlling for bias; and the role of epidemiology in public health policy. Applications related to a broad range of current epidemiologic studies are discussed. Students will calculate basic statistics used in epidemiologic studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 5201. Epidemiological Research Methods I. 3 Credit Hours.

This course provides an introduction to the fundamentals of conducting epidemiologic research and protocol development. It covers definitions of epidemiology; measures of disease frequency and risk assessment; measures of effect and association; epidemiologic study designs, including randomized clinical trials, cohort, case-control studies, and cross-sectional surveys; assessment of screening programs; an overview of the role of bias and confounding in epidemiologic study results; and analytic techniques, including modeling using multiple variables, survival analysis, and issues related to quality assurance. Note: This course is the introductory epidemiology course for students in the M.S. in Epidemiology or related Public Health degree programs that require advanced quantitative methods. May be taken in place of EPBI/PBHL 5101 for students in the M.P.H., M.S. in Environmental Health and Ph.D. programs.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 5204. Mental Health Epidemiology. 3 Credit Hours.

Epidemiology of psychiatric disturbances is explored, including alcohol and other drug dependencies, psychosocial aspects of health and illness. The emphasis is on epidemiologic methods and theories in psychosocial and mental health research.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health, Social Work.

Repeatability: This course may not be repeated for additional credits.

EPBI 5500. Seminar in Current Issues in Public Health. 3 Credit Hours.

Seminar topics rotate to address current issues in public health research, policy and practice.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health, Social Work.

Repeatability: This course may be repeated for additional credit.

EPBI 8002. Research Seminar in Public Health. 3 Credit Hours.

This is a research seminar on linkages between theory and research in social and behavioral health studies. It is required for Ph.D. students prior to taking the preliminary examinations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 8011. Social Epidemiology. 3 Credit Hours.

The purpose of this course is to provide an introduction for graduate students to the key social factors that are thought to influence health. These social factors include constructs such as gender, race, socioeconomic status, and social support. Understanding these social factors is important for public health research and practice. These factors can be considered "fundamental causes" of health outcomes insofar as they may cause or modify other factors that are known to influence health, such as individual behaviors or genetics. The course will focus on the conceptual and theoretical basis of these social factors, how these social factors are measured in epidemiologic research, and the mechanisms by which these social factors are thought to affect health. Students will have the opportunity to improve their skills in critically evaluating empirical data about the association between these social factors and health.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health, Social Work.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5101|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5101|Minimum Grade of B-|May not be taken concurrently
OR EPBI 5201|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5201|Minimum Grade of B-|May not be taken concurrently.

EPBI 8012. Multivariable Biostatistics. 3 Credit Hours.

The objective of the course is to provide basic theory and application of regression models, analysis of variance, nonparametric statistics, and survival analysis applied to the analysis of population-based data. The emphasis will be on generating and interpreting results and health related applications rather than on statistical theory. The course is designed for graduate students in public health who are already familiar with basic statistical concepts, including descriptive statistics, the components of statistical inference (p-values, hypothesis tests, confidence intervals, etc.), as well as concepts of confounding and effect modification.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5002|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5002|Minimum Grade of B-|May not be taken concurrently.

EPBI 8201. Structural Equation Modeling. 3 Credit Hours.

An extremely rapid pace of change in statistics and methodology in the field of developmental processes and family systems requires that graduate students (and newly minted PhDs in academic and applied settings) be well versed in current data analytic techniques and able to keep abreast of emergent techniques by being aware of contemporary methodological literature. This course will illustrate the uses of structural equation models for cross-sectional, longitudinal, and family data analysis. The course is organized to take participants through each of the cumulative steps in the analysis: deciding which type of model is appropriate, setting up the data file and coding variables, interpreting and displaying empirical findings, and presenting results in both verbal and written form. Class time will be devoted primarily to lectures, examples, group discussions, and hands-on application of course material.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 8202. Epidemiological Research Methods II. 3 Credit Hours.

The content of this course illustrates statistical concepts, methods, and strategies used in epidemiologic studies, beyond the principles discussed in EPBI/PBHL 5201 (Epidemiological Research Methods 1). Topics include a review of basic study designs, analysis of prospective and retrospective data, assessment of bias, confounding, effect modification/interaction, statistical methods of stratification and adjustment, sample size/power calculations, importance of quality control and data monitoring in randomized clinical trials, critical determination of causality, and the comprehensive analyses, reporting and presentation of epidemiologic results.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5201|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5201|Minimum Grade of B-|May not be taken concurrently.

EPBI 8204. Multilevel Mod in Int Res. 3 Credit Hours.

Interdisciplinary research nearly always involves data with a nested, hierarchical, or multilevel structure. Such data violate the standard statistical assumption of independence of observations. As well, the most important interdisciplinary research questions often involve understanding effects of one level of this structure on characteristics of another level of structure. Within the intervention contexts, individuals often serve as their own context as events unfold over chronological time. This course provides a broad and comprehensive introduction to analysis of multilevel data with an emphasis on questions which bridge disciplines. Participants should be familiar with the general linear model (analysis of variance, regression) prior to enrolling in this course, but no previous familiarity with mixed models (other than repeated measures ANOVA) is assumed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 8205. Chronic Disease Epidemiology. 3 Credit Hours.

This intermediate course will cover selected topics in chronic disease epidemiology through critical examination of the current literature. Students will have the opportunity to study methodological issues, strategies for prevention, and contemporary issues in research. Coronary heart disease, cancer, diabetes, musculoskeletal disorders, chronic lung diseases and others will be addressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

SBS 5102|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5102|Minimum Grade of B-|May not be taken concurrently
OR EPBI 5201|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5201|Minimum Grade of B-|May not be taken concurrently.

EPBI 8206. Infectious Disease Epidemiology. 3 Credit Hours.

This course provides the basis for understanding infectious diseases, disease transmission, risk factors, outbreak investigation and study designs, surveillance methods, and current infection-control strategies and mechanisms. The purpose of this course is to expose students to the principles and practices of infectious disease epidemiology and how communicable diseases and their control affect public health locally, nationally, and internationally.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

SBS 5102|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5102|Minimum Grade of B-|May not be taken concurrently
OR EPBI 5201|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5201|Minimum Grade of B-|May not be taken concurrently.

EPBI 8207. Reproductive and Perinatal Epidemiology. 3 Credit Hours.

This course presents the epidemiology of major reproductive and perinatal outcomes and offers an overview of human reproduction. The course will be divided into two parts. Part one covers the basic principles of reproductive biology and physiology. The second part will focus on outcomes in reproductive and perinatal research including fertility and fecundity, reproductive disorders, birth defects, preterm birth, fetal growth, miscarriage, stillbirth, and preeclampsia. The course will discuss unique methodological issues and novel study designs in reproductive and perinatal epidemiology. An emphasis of the course will be the evaluation of the current literature related to reproductive and perinatal complications as well as the design of a reproductive or perinatal epidemiologic study.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5101|Minimum Grade of B-|May not be taken concurrently
OR EPBI 5201|Minimum Grade of B-|May not be taken concurrently.

EPBI 8208. Data Management and Analysis. 3 Credit Hours.

The content of this course will illustrate practical concepts, methods, and strategies used in the development, management and analysis of large data sets through in-class and homework exercises, quizzes, and a final project. Each class session will be a mixture of a lecture, demonstration and hands-on SAS programming exercises.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5002|Minimum Grade of B-|May not be taken concurrently
OR EPBI 8012|Minimum Grade of B-|May not be taken concurrently.

EPBI 8209. Epidemiology of HIV/AIDS. 3 Credit Hours.

The epidemiology of HIV/AIDS is the subject of this course. Application of epidemiological principles and concepts in infectious disease epidemiology with emphasis on surveillance, research, prevention, and control are covered.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5101|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5101|Minimum Grade of B-|May not be taken concurrently
OR EPBI 5201|Minimum Grade of B-|May not be taken concurrently
OR PBHL 5201|Minimum Grade of B-|May not be taken concurrently.

EPBI 8212. Grantsmanship in Health Research. 3 Credit Hours.

This course will provide students with applied advanced epidemiologic research methods to critically assess gaps in current knowledge and to develop a competitive grant proposal application. Students will apply the epidemiologic methods and knowledge from prior courses and gain expertise in assessing gaps in knowledge, innovative thinking, grant conception, development and writing, study implementation and approach, budget preparation, and grant critiques. In the first half of the course, students will be introduced to the concepts of significance and innovation, identifying gaps in knowledge, choosing an epidemiologic research topic, identifying a funding agency and developing a set of specific aims, significance and innovation statements. In the second half of the course, the grant proposal will be written in the format of an NIH pre-doctoral epidemiology research grant following NIH grant application guidelines including a developed research plan, identified research team, and NIH biosketch and human subject protection plans. Students will be introduced to the concepts of power, sample size and effect size and will calculate necessary power and sample size requirements in the finalized grant proposal. Students will also participate in a mock grant review session. Students will use this opportunity to develop and submit an application for an NIH or foundation pre-doctoral award to support their dissertation work.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 8213. Cancer Epidemiology. 3 Credit Hours.

This course covers general principles of carcinogenesis and genetics of cancer, domestic and international patterns in cancer incidence and mortality, cancer surveillance and screening, cancer prevention and control, as well as epidemiologic characteristics and risk factors for most prevalent cancers among adults, children/young adults, and public health implications of cancer. In addition, there is a focus throughout the course on critical evaluation of different methodological approaches used in cancer research, potential biases inherent given study designs, and practical solutions.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(EPBI 5002|Minimum Grade of B-|May not be taken concurrently)

AND (EPBI 5101|Minimum Grade of B-|May not be taken concurrently)

OR EPBI 5201|Minimum Grade of B-|May not be taken concurrently)

EPBI 8301. Clinical Research Methods in Public Health. 3 Credit Hours.

This course provides an introduction to the core topics in clinical research. Beginning with practical issues in starting and advancing in a career in clinical investigation, the course proceeds to cover diagnosis and treatment studies, research on prognostic and casual risk factors, special types of study design and analyses, principles of measurement in human subjects, studies using secondary databases, and outcomes research. This course will be an elective class for all students enrolled in the Master of Science in Epidemiology, Clinical Research and Translational Medicine, as well as the Doctor of Philosophy in Epidemiology programs. This graduate level course is principally aimed at health care professionals, not limited to the field of public health, usually with graduate courses relevant to their clinical discipline, who desire advanced knowledge and skills in evaluating, designing and implementing clinical research studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5002|Minimum Grade of B-|May not be taken concurrently.

EPBI 8302. Behavioral Measurement. 3 Credit Hours.

This course will cover the classical and modern test theories and their applications to solve measurement problems in practice. This course will educate students on measurement concepts including test standardization, validity, reliability, operational definitions, scaling and latent variables in social and behavioral sciences. Issues surrounding validity and reliability of measures will be discussed in detail. Students will be given an opportunity to critically evaluate existing measures and to propose how a new measure can be developed and evaluated.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 5002|Minimum Grade of B-|May not be taken concurrently

OR EPBI 8012|Minimum Grade of B-|May not be taken concurrently.

EPBI 8303. Behavioral Epidemiology. 3 Credit Hours.

This course covers behavioral epidemiology and its role in public health. Students will be able to identify and explain the appropriate methods for measuring health-related behaviors/outcomes and related psychosocial constructs; critically analyze the appropriateness of methods used within published studies on health-related behaviors as well as determine appropriate methods for behavior-related research questions. In addition, students will use a behavioral theory/model as a framework and apply their skills in the development and assessment of a behavioral intervention to address a current public health problem of their choice including, but not limited to, intervention development, implementation planning, and evaluation/analyses.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(EPBI 5101|Minimum Grade of B-|May not be taken concurrently

OR EPBI 5201|Minimum Grade of B-|May not be taken concurrently)

AND (SBS 5002|Minimum Grade of B-|May not be taken concurrently)

AND (EPBI 5002|Minimum Grade of B-|May not be taken concurrently)

EPBI 8307. Systematic Reviews. 3 Credit Hours.

Systematic reviews are essential tools for health care workers, researchers, consumers, and policymakers who need to keep abreast of the accumulation of knowledge within their field. Systematic reviews provide more objective evaluation of the evidence than has been possible with traditional narrative reviews, and so can help resolve uncertainty and point toward promising future directions in research and practice. When appropriate, meta-analyses can help increase the precision of estimates regarding treatment effects and way to improve treatments. For example, identification of subgroups of individuals most (or least) likely to benefit from treatment can generate new questions to be addressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 8401. Concepts and Methods in Epidemiologic Research. 3 Credit Hours.

The doctoral course is designed to be the first in a series of doctoral level epidemiologic research courses and will focus on providing an in-depth conceptual framework of key research concepts and techniques. The course will enhance knowledge of research methods and encourage critical thinking to successfully develop research questions and design research studies. Students will demonstrate mastery in the fundamental skills that enable them to apply epidemiologic research methods to the design, analysis and interpretation of public health data. Specifically, the course will provide didactic and hands-on training in causality and association, study design, bias, error, confounding, causal diagrams, interaction, and effect modification. By the end of this course, students will have the foundational knowledge to begin to apply these methods to their own research. The course is intended for doctoral students in epidemiology or related fields. Students must be enrolled in a doctoral program in the College of Public Health or by permission from instructor.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health.

Repeatability: This course may not be repeated for additional credits.

EPBI 8402. Intermediate Concepts and Methods in Health Research. 3 Credit Hours.

This intermediate level research methods course will solidify student competencies in modern design of population health studies and provide methodological training beyond traditional approaches. This course is designed for doctoral students who have completed EPBI 8401 or a similar graduate level research methods course (as approved by Instructor) that provided a foundation for the understanding of epidemiologic concepts in population based studies. The course will include in-depth instruction through hands-on learning and didactic training that will develop the skills needed for students to design studies that preemptively address threats to validity and data analysis plans for both traditional and novel complex study designs. In addition to focus on the core concepts of study design, students will focus on understanding advanced topics such as causal inference and bias analysis. Students will also understand commonly encountered study issues such as competing risks, confounding, error, bias, and missing data. By the end of this course, students will move beyond understanding conceptual methods learned in entry-level research methods courses and will advance to applying traditional and advanced concepts to study design and data analysis planning.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

EPBI 8401|Minimum Grade of B-|May not be taken concurrently

OR EPBI 8202|Minimum Grade of B-|May not be taken concurrently.

EPBI 8403. Applied Concepts and Methods in Health Research. 3 Credit Hours.

This laboratory-based class will focus on analytic exercises to analyze and interpret data from cross-sectional, case-control, cohort, longitudinal and nested studies. Concepts will include traditional regression modeling as well as multilevel/hierarchical modeling, bias analysis, and Bayesian statistics. Students will learn how to apply key epidemiologic concepts to the analysis of data. By the end of this course, students will have developed the practical skills needed to analyze and interpret epidemiologic data.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health.

Repeatability: This course may not be repeated for additional credits.

EPBI 9083. Readings and Conference in Public Health. 1 to 3 Credit Hour.

This is an advanced tutorial in public health with an appropriate faculty member. Note: Registration requires a written contract with the supervising faculty member and approval of the student's advisor and of the Director of Graduate Programs.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

EPBI 9187. Biostat Cnslt Practicum. 3 Credit Hours.

The objective of this course is to prepare students to collaborate effectively as biostatistics support consultants in the health professions. The emphasis will be to refresh statistical techniques and develop communication and problem solving skills. This course is designed for graduate students in public health who can use well-validated commercial statistical software, such as SAS, for the analyses of data from observational and/or interventional research studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

EPBI 9289. MPH Fieldwork I. 3 Credit Hours.

This course entails a fieldwork project or internship in a public health agency. It includes seminars, oral and written reports of progress, and joint supervision by a preceptor and faculty member.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(EPBI 5201|Minimum Grade of B-|May not be taken concurrently)

AND (EPBI 5002|Minimum Grade of B-|May not be taken concurrently)

AND (EPBI 5005|Minimum Grade of B-|May not be taken concurrently)

AND (HPM 5006|Minimum Grade of B-|May not be taken concurrently)

AND (SBS 5001|Minimum Grade of B-|May not be taken concurrently)

AND (EPBI 8012|Minimum Grade of B-|May be taken concurrently)

EPBI 9389. MPH Fieldwork II. 3 Credit Hours.

This course is an evaluation of the fieldwork project or internship using a full range of research methodologies. Data are collected, analyzed, and reported in a comprehensive final report. Oral and/or poster presentations are presented to public health organizations. The course includes a final oral defense of the project or internship.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

EPBI 9991. Public Health Research Project. 1 to 3 Credit Hour.

Under the direction of an appropriate graduate faculty member, students tie together their coursework in a project that poses a problem, gathers data to help analyze the problem, and provides a solution. Note: Enrollment must be approved by the student's advisor and the Director of Graduate Programs.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

EPBI 9994. Preliminary Examinations. 1 Credit Hour.

This course supports preparation for taking the preliminary examinations in the Health Policy and Social and Behavioral Sciences Ph.D. programs. To enroll, students must have completed all required coursework for the Ph.D. and obtain the approval of the Ph.D. Program Director. Students must be enrolled to take the required preliminary examinations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy.

Repeatability: This course may be repeated for additional credit.

EPBI 9996. Masters Res in Pub Hlth. 3 Credit Hours.

This course is limited to students who have chosen to fulfill the master's degree by writing a thesis.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

EPBI 9998. Dissertation Proposal Research. 1 to 2 Credit Hour.

This course supports preparation of the dissertation proposal. The course is required for students who have passed the preliminary examinations for their PhD program and who have not yet defended the dissertation proposal.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy.

Repeatability: This course may be repeated for additional credit.

Pre-requisites:

EPBI 9994|Minimum Grade of P|May not be taken concurrently.

EPBI 9999. Dissertation Research. 1 to 6 Credit Hour.

This course is limited to Ph.D. candidates who have completed and defended a dissertation proposal that is filed with the Graduate School by the last day to add a course in the semester. Continuous registration in 9999 fall and spring is required until the dissertation is successfully defended.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Student Attribute Restrictions: Must be enrolled in one of the following Student Attributes: Dissertation Writing Student.

Repeatability: This course may be repeated for additional credit.

Health Information Management Courses

HIM 5101. Fundamentals of Health Informatics. 3 Credit Hours.

This course provides an introduction to the history, reasoning, and development of systems focused on the generation, aggregation, and analysis of health data. Students will gain exposure to usability requirements - elements of design which impact selection - in addition to the issues impacting data liquidity in the healthcare system. The course will also consider the various types of health information systems that exist in organizations and serve as feeders to clinical repositories of information.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HIM 5106. Technology for Population Health. 3 Credit Hours.

Individuals and organizations are increasingly dependent on technology for the creation of information relevant to health status. Technology is being utilized to monitor health or social behavior or provide interventions in the form of information, alerts, or the provision of information to advanced health practitioners. This course is intended to provide students an opportunity to assess existing and emerging technologies as they relate to the delivery of healthcare or the maintenance of health status.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HIM 5111. Technology for Healthcare Financial Management. 3 Credit Hours.

This course examines the nexus of value based care, financial management, and healthcare payment. Students examine complex financial systems and explore the principles of payment as they apply to various types of health care settings. This course focuses on payment policy and reporting requirements, and the students become familiar with topics such as fraud and abuse, revenue cycle management, integration of clinical and financial systems, charge master data, and managerial implications of alternative payment models.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HIM 5112. Health Information Systems: Design and Decision Making. 3 Credit Hours.

This course provides an introduction to the effective management of health informatics systems. Students will gain an understanding of the technical foundations required for the successful management of health informatics systems and the impact of adopting initiatives relative to an organization's operational and strategic goals. Students gain an exposure to industry benchmarking and appropriately valuing technology in healthcare. Topics related to the use of IT as a strategic resource, forming strategic health IT plans, the importance of stakeholders in health IT programs, and emerging healthcare technologies are explored.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HIM 5113. Database Administration for Health Informatics Professionals. 3 Credit Hours.

Modern life science organizations rely on databases for transaction management, data analysis, outcomes assessment, and to satisfy the internal needs of the organization as well as to satisfy regulatory, legal, and accrediting bodies. The goal of the course is to provide hands-on use of database management tools promoting a strong understanding of database design, data modeling and structured query language for data definition and data manipulation, and data analysis tools including pivot tables. In addition, the course will explore operational database systems versus analytic systems, the importance of database design on data integrity, data warehousing, and data mining at modern health science organizations. Data formats, collection, and integrity as they relate to continual performance improvement, with specific attention to practitioner performance, are also stressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HIM 5114. Health Informatics Project Management. 3 Credit Hours.

The development of interoperable electronic health record systems has resulted in increased systems integration, convergence, and complexity. Nearly half of all IT projects fail to meet budget, schedule, and functionality. The course provides a hands-on approach to systems analysis and management of health informatics (HI) projects. Students will be introduced to the concepts of managing HI projects by focusing on initiating, planning, executing, controlling, and closing projects in the context of topics such as integration, scope, timing, cost, quality, human resource, technology, communications, and risk and procurement. Students will also be provided an opportunity to analyze functional requirements for HI projects using a variety of process modeling approaches.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HIM 5127. Privacy and Security: Protecting Healthcare Data. 3 Credit Hours.

This course focuses on privacy and confidentiality and current legislative and health policy issues for electronic health record systems (EHRs). Ethical issues related to EHRs and advocacy of patients' and consumers' needs are explored. The course provides students with an understanding of regulatory requirements related to the protection of health information and introduces technical approaches to ensure compliance.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HIM 5128. Health Data: Standards and Interoperability. 3 Credit Hours.

This course provides an introduction to the principles of healthcare interoperability and provides foundation in healthcare standardization related to: privacy, security, clinical vocabularies, data messaging, architectural framework, data content, and the meaningful use of electronic health record systems (EHRs). The course explores the role of healthcare standards in supporting interoperability, patient care, research, and the practice of evidence-based medicine. National and international standards development efforts are also discussed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HIM 5129. Health Data Analysis. 3 Credit Hours.

Healthcare delivery systems require capabilities to effectively generate, aggregate, and analyze data relevant to the optimal delivery of healthcare and maintenance of health. This course is intended to build on the competencies gained in previous courses surrounding the creation, structure and maintenance of clinical datasets, patient generated health data, and elements of the digital medical record. The course is designed to embrace team based approaches to solving complex issues in the healthcare delivery system. Students will use data visualization tools paired with quantitative data driven techniques which aid in addressing the challenges in the Triple Aim in healthcare. This course will enable the student to build a basic working knowledge of data analysis, dash boarding, and clinical intelligence platforms using appropriate methodologies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

HIM 8013|Minimum Grade of B-|May not be taken concurrently

OR HIM 5113|Minimum Grade of B-|May not be taken concurrently.

HIM 5190. Special Topics. 3 Credit Hours.

This course provides students the opportunity to explore new and emerging areas in the field of health informatics, to gain a deeper understanding of a specific area within the field. This course may also be used to present areas of study not normally taught in the program.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

HIM 9082. Independent Study in Health Informatics. 1 to 3 Credit Hour.

This course provides students the opportunity to work independently under the direction of a faculty advisor to gain a deeper understanding of an area in Health Informatics.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

HIM 9995. Capstone Project. 3 Credit Hours.

The capstone course is the culminating class for students in the Health Informatics program. Students will create strategies and approaches that focus on various disciplines of health informatics such as topics relating to the Electronic Health Record, Health Information Exchange, Meaningful Use, and Ethical/Legal issues. In addition, students will analyze systems and evaluate potential decisions from the persona of senior level healthcare executives.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Health Informatics.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Science.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health.

Repeatability: This course may be repeated for additional credit.

Pre-requisites:

(HIM 8001|Minimum Grade of B-|May not be taken concurrently)
OR HIM 5101|Minimum Grade of B-|May not be taken concurrently)
AND (HIM 8013|Minimum Grade of B-|May not be taken concurrently)
OR HIM 5113|Minimum Grade of B-|May not be taken concurrently)
AND (HIM 8027|Minimum Grade of B-|May be taken concurrently)
OR HIM 5127|Minimum Grade of B-|May be taken concurrently)
AND (HIM 8028|Minimum Grade of B-|May be taken concurrently)
OR HIM 5128|Minimum Grade of B-|May be taken concurrently)
AND (HIM 5006|Minimum Grade of B-|May not be taken concurrently)

Health Policy and Management Courses

HPM 5005. International Health Studies Abroad. 6 Credit Hours.

Students learn to articulate a historical and cultural understanding of the Costa Rican approach to health and medical care, to identify the major health concerns of the Costa Rican population in rural and urban settings and the major strides taken to improve health, to conduct limited fieldwork with rural communities in teams of 3 to 4 persons or conduct community health field research among the graduate students, and to write a professional paper and presentation on one of the health issues in Costa Rica based on their experience there. While previous Spanish language proficiency is not required, some Spanish language ability is essential for students to gain the maximum understanding during the program. Therefore, students during the first two weeks of the program take intensive Spanish language training in Costa Rica at the Institute for Central American Development Studies (ICADS). The third week involves travel to other regions within Costa Rica to examine different health conditions depending on the year's topics. During the fourth and fifth weeks, students live and work in rural communities and help to facilitate health education workshops on different activities such as: diabetes, nutrition, HIV/AIDS prevention education, women's health, child health care issues, first aid education, fitness and exercise, and backyard gardening.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5006. Political and Economic Aspects of Health. 3 Credit Hours.

The course provides an introduction to the structure and delivery of healthcare in the United States, as well as an introduction to health policymaking. In addition to required reading materials, students will be asked to examine current health policies at the local, state, and/or national level.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5007. Principles of Emergency Management. 3 Credit Hours.

This course is designed to introduce students to the concepts and models of public health preparedness and response for all hazards emergency management. It will enable health care and allied health professionals, public health professionals, and emergency responders to work together to plan and respond effectively to both natural and man made disasters. The course will introduce students to the identified core competencies of emergency health preparedness for public health professionals, which include functional roles, communication, resource identification, problem-solving, and evaluation. The issues of mental health and special populations will be introduced in an emergency management context. Students will utilize problem-based learning by analyzing actual disaster events and applying the theories, principles, and practice of preparedness, response, mitigation, and recovery.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5008. Seminar in Global Health. 3 Credit Hours.

This course focuses on the major factors influencing global health issues and the interdependence of the industrialized and developing world in addressing health problems from a global perspective. Commonality and differences in disease burden between the two will be emphasized. Students will also be aware of many of the major health issues affecting developing countries and the opportunities and problems that may be encountered in various health-related endeavors. Health system policy responses will also be considered.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5014. Leadership and Management in Non-Profit Organizations. 3 Credit Hours.

This course covers leadership and management in public health practice. The course will review leadership styles, moving through the "leadership pipeline" to help students understand the basic underpinnings of leadership. Within that context, the course will explore the essentials of applying strong leadership practices in public health organizations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5016. Public Health Advocacy. 3 Credit Hours.

The purpose of this course is to prepare future public health practitioners with substantive knowledge on how policy is crafted and how to effectively integrate public health science in the policy process, and to provide practical skills on engaging policymakers and public constituencies to support public health initiatives. It will combine policy/advocacy strategy, real-life case studies, lectures by policymakers, and strategic analysis of recent legislative developments in health care. Reading assignments provide background knowledge for class lectures and discussion.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5107. Forced Migration and Refugee Health. 3 Credit Hours.

This course uses case studies and research literature to examine the multifaceted causes of complex emergencies and their subsequent impacts on the health of the population, including populations that stay in place, that are internally displaced (IPD), and population movement that crosses international borders (refugees). The policies and practices of the humanitarian response among both governments and non-governmental organizations (NGOs) and their impact on population health will be explored. A framework for three issues that effect population health in complex emergencies will be provided and their consequences and possible interventions iterated. These issues are mental health, gender based violence, and nutrition. Assessment, program implementation, and evaluation will be looked at in the context of the particular barriers and issues found in complex emergency situations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5111. Community Outreach in Public Health. 3 Credit Hours.

This course is designed to introduce students to the concepts and models of strategic community outreach as it pertains to the special population communities, within the context of emergency management planning, response, and recovery. It will assist health care and allied health professionals, public health professionals, and emergency responders to understand how accessible information and technology is part of the community outreach strategy. Students will utilize problem-based learning by analyzing actual and scenario-based disaster events and applying the theories, principles, and practices of strategic community outreach pertaining to emergency response and recovery. In addition, students will learn about the issues faced by special population communities and how to address these special needs in all hazard response and recovery.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5122. Healthcare Quality and Safety. 3 Credit Hours.

Quality management and quality improvement is the process undertaken by public health professionals, clinical providers, and other management professionals to identify underlying systemic issues in healthcare delivery impacting patient outcomes. Quality improvement and quality management utilizes data to establish performance standards within the healthcare delivery system. The iterative process of quality improvement includes the identification of pertinent issues, the development or sourcing of measurement tools, the ability to monitor adherence to widely accepted industry norms, and the ability to successfully manage change within an organization.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5190. Special Topics. 3 Credit Hours.

This course provides students the opportunity to explore new and emerging areas in the field of health policy and management, to gain a deeper understanding of a specific area within the field. This course may also be used to present areas of study not normally taught in the program.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

HPM 5202. Man-Made Disasters: Radiological, Chemical and Biological Terrorism. 3 Credit Hours.

This course is designed to introduce students to the concepts and models of public health preparedness, mitigation, and evaluation in the context of man-made disasters, including radiological, chemical and biological incidents. The course addresses identified core competencies of emergency preparedness for public health professionals that include disaster management, risk assessment, risk communication, governmental resources, functional roles, surveillance, and preparedness evaluation. Man-made disasters are looked at in a historical, environmental, and psychological context in order to elucidate the role of public health in man-made disaster preparedness and evaluation. In addition, the role of cultural competency and the needs of special populations are addressed. Public perception of risk and media views of man-made disasters are explored.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5208. History of U.S. Public Health. 3 Credit Hours.

To advance public health in the United States, it is important to understand the history of public health and how public health evolves. This course surveys the history of public health in the U.S. over the past 300 years and issues relevant to the 21st century. Each class session will focus on a history of public health theme, including shifting patterns of disease and illness; the emergence of public health as a profession; and the development of the U.S. public health systems. The class will focus on the dual nature of public health, encompassing both the biological basis of medicine and the economic, political, and cultural characteristics of societies in which public health operates. We will highlight how the beliefs and priorities in U.S. society have influenced both response to public health challenges and the activities by public health professionals to address these challenges. This includes scientific standards; religious or moral beliefs; and the political, cultural, economic, and sociodemographic gender context of society. Understanding historical interrelationships among context, issues, and decisions can help public health professionals better recognize and address today's challenges.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 5500. Seminar in Current Issues in Public Health. 3 Credit Hours.

Seminar topics rotate to address current issues in public health research, policy and practice.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health, Social Work.

Repeatability: This course may be repeated for additional credit.

HPM 8002. Research Seminar in Public Health. 3 Credit Hours.

This is a research seminar on linkages between theory and research in social and behavioral health studies. It is required for Ph.D. students prior to taking the preliminary examinations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 8003. Political-Economic Aspects of Public Health. 3 Credit Hours.

Survey of the political and economic aspects of public health systems, practice, research.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 8005. Theor Hlth Policy Making. 3 Credit Hours.

The purpose of this course is to introduce students to the primary theoretical frameworks for the development of policy, from agenda setting through decision-making and implementation. In addition to reviewing the theoretical foundations of policymaking, the course will apply the theories to current health policy issues.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 8008. Health Economics. 3 Credit Hours.

This class will promote the understanding of core health economics theory, using research literature and case studies to examine how economic theory has shaped the development and understanding of the healthcare systems and policies in the U.S. A background in economic theory will help students to understand and interpret research based on those theories. Health Economics is intended to promote an understanding of how these theories fit into the formation and changes in our healthcare structure. It will also offer an economic perspective on health behavior, such as how discounting relates to risk behavior and how risk preference relates to insurance purchase.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 8013. Research Methods in Health Policy. 3 Credit Hours.

The purpose of this course is to introduce and engage students in research methods used in health policy research, including both the development of policies and the evaluation of existing policies. The course will cover both qualitative methods such as policy analysis, interviewing, focus groups and content analysis, as well as quantitative methods such as legal mapping studies, secondary data analysis, and some economic evaluations. The course will explain and engage these methodologies, but students are not expected to carry out statistical analysis. Lastly, the course will require students to think about the results generated in such research and effective ways in which to communicate such findings to the appropriate audience. The course is intended for students who will be working on policy research or social science research that may include a policy component. Learning objectives will be met through didactic lecture, a formal policy analysis paper, individual homework assignments, and a final exam.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 8014. Comparative Health Policy. 3 Credit Hours.

Approaches to public health policy are informed and influenced by evidence and experience from across the nation and around the globe. Students will be challenged to think about the social, cultural, political and economic challenges of engaging public health policy to advance population health in an international context.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

HPM 5006|Minimum Grade of B-|May not be taken concurrently

OR PBHL 5006|Minimum Grade of B-|May not be taken concurrently.

HPM 8015. Public Health Policy and Legal Issues. 3 Credit Hours.

This course will introduce public health students to the basic legal principles underlying public health policy and the mechanisms to achieve policy change. The law is a powerful tool to support public health, but government must act within the confines of the Constitution and balance competing rights of individuals and the broader community. The course will explore these relationships in historical and present contexts and examine the differences among federal, state, and local governments' authority to enact public health policy. Students will be able to identify the legal issues that arise when government attempts to regulate risky behavior by individuals or the conduct of companies that produce and market products that create such risks (e.g., tobacco, firearms, and alcohol). The course will evaluate why the law is not uniform depending on the product government seeks to regulate (e.g., food vs. vaccines) and how litigation can effectively change this legal landscape. Any student interested in policy should be familiar with basic legal rules and current debates in regulation and control; this class will provide such insight and equip students to work in any type of policy or advocacy setting.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

HPM 5006|Minimum Grade of B-|May not be taken concurrently
 OR PBHL 5006|Minimum Grade of B-|May not be taken concurrently
 OR HPM 8003|Minimum Grade of B-|May not be taken concurrently
 OR PBHL 8003|Minimum Grade of B-|May not be taken concurrently.

HPM 8112. Public Health Program Evaluation. 3 Credit Hours.

The course concerns research methods and techniques used to evaluate public health programs. Students develop an evaluation design, including defined evaluation questions, study design, specific measures and methods, and human subjects protocols.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 9083. Readings and Conference in Public Health. 1 to 3 Credit Hour.

This is an advanced tutorial in public health with an appropriate faculty member. Note: Registration requires a written contract with the supervising faculty member and approval of the student's advisor and of the Director of Graduate Programs.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

HPM 9189. MPH Capstone Seminar. 3 Credit Hours.

This seminar is required of M.P.H. students during final year of study. The seminar includes integration of coursework and practice skills to develop a fieldwork project or internship in a public health agency.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

HPM 9289. MPH Fieldwork I. 3 Credit Hours.

The MPH is a professional degree designed to prepare you to work in the field of public health or health services. As such the program culminates in an integrative experience that facilitates the application of skills and competencies acquired through the MPH Program through fieldwork. This course entails a fieldwork project or internship in a public health agency or other health services organization. It includes seminars, oral and written reports of progress, and joint supervision by a preceptor and faculty member.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(EPBI 5002|Minimum Grade of B-|May not be taken concurrently)
 AND (EPBI 5005|Minimum Grade of B-|May not be taken concurrently)
 AND (EPBI 5101|Minimum Grade of B-|May not be taken concurrently)
 AND (HPM 5006|Minimum Grade of B-|May not be taken concurrently)
 AND (SBS 5001|Minimum Grade of B-|May not be taken concurrently)
 AND (SBS 5002|Minimum Grade of B-|May not be taken concurrently)
 OR SBS 5102|Minimum Grade of B-|May not be taken concurrently)

HPM 9389. MPH Fieldwork II. 3 Credit Hours.

This course is an evaluation of the fieldwork project or internship using a full range of research methodologies. Data are collected, analyzed, and reported in a comprehensive final report. Oral and/or poster presentations are presented to public health organizations. The course includes a final oral defense of the project or internship.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

HPM 9991. Public Health Research Project. 1 to 3 Credit Hour.

Under the direction of an appropriate graduate faculty member, students tie together their coursework in a project that poses a problem, gathers data to help analyze the problem, and provides a solution. Note: Enrollment must be approved by the student's advisor and the Director of Graduate Programs.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

HPM 9994. Preliminary Examinations. 1 Credit Hour.

This course supports preparation for taking the preliminary examinations in the Health Policy and Social and Behavioral Sciences Ph.D. programs. To enroll, students must have completed all required coursework for the Ph.D. and obtain the approval of the Ph.D. Program Director. Students must be enrolled to take the required preliminary examinations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

HPM 9995. Public Health Law Research Project. 3 Credit Hours.

The purpose of the Public Health Law Research Project is to provide a mentored research experience for students who have completed the foundational work in Public Health Law and have demonstrated the analytic abilities in Multivariable Statistics. Students are encouraged to develop their own empirical legal dataset or use an existing legal dataset to conduct an empirical analysis of a current or emerging public health policy. The course involves close research mentorship during the development and implementation of the research project.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Pre-requisites:

(JUDO 9189|Minimum Grade of B-|May not be taken concurrently)

AND (EPBI 8012|Minimum Grade of B-|May not be taken concurrently)

HPM 9996. Masters Res in Pub Hlth. 3 Credit Hours.

This course is limited to students who have chosen to fulfill the master's degree by writing a thesis.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

HPM 9998. Dissertation Proposal Research. 1 Credit Hour.

This course supports preparation of the dissertation proposal. The course is required for students who have passed the preliminary examinations for their PhD program and who have not yet defended the dissertation proposal.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy.

Repeatability: This course may be repeated for additional credit.

Pre-requisites:

HPM 9994|Minimum Grade of P|May not be taken concurrently.

HPM 9999. Dissertation Research. 1 to 6 Credit Hour.

This course is limited to Ph.D. candidates who have completed and defended a dissertation proposal that is filed with the Graduate School by the last day to add a course in the semester. Continuous registration in 9999 fall and spring is required until the dissertation is successfully defended.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Student Attribute Restrictions: Must be enrolled in one of the following Student Attributes: Dissertation Writing Student.

Repeatability: This course may be repeated for additional credit.