

BIOMEDICAL GRADUATE STUDIES

(MD) {BMP}

501. Economics of Health Care Delivery. (L) Dr. Mark Pauly. Prerequisite(s): Permission needed from Instructor.

How medical care is produced and financed in private and public sectors, economic models of consumer and producer behavior, applications of economic theory to health care.

503. (PUBH538) Qualitative Methods in Health Research. (L) Drs. Frances Barg and Judy Shea. Prerequisite(s): Permission needed from Instructor.

The purpose of this course is to expose students to a variety of qualitative approaches/methodologies that may be used in health services/policy research. In didactics we will discuss the pros and cons of a range of qualitative Methods, how the method is actually implemented (with multiple experts presenting approaches), and pair the presentation with a broader discussion in which students compare and contrast health oriented articles in which the method was used. Students will have the opportunity to apply the theoretical approaches to their own research interests with direct input from the faculty and their peers.

504. (NURS612) Principles and Practice of Healthcare Quality Improvement. Jennifer S. Myers and Kathleen G. Burke. Prerequisite(s): Permission needed from Instructor.

Healthcare delivery is complex and constantly changing. A primary mission of leading healthcare organizations is to advance the quality of patient care by striving to deliver care that is safe, effective, efficient, timely, cost effective, and patient-centered. The goal of this inter professional course is to provide students with a broad overview of the principles and tools of quality improvement and patient safety in health care while also guiding them through the steps of developing a quality improvement project. It will provide a foundation for students or practicing clinicians who are interested in quality improvement and patient safety research, administration, or clinical applications. As part of this course, students will design and plan for a real quality improvement project in their area of interest within healthcare using the methods and tools taught in the course.

550. (EPID550) Clinical Economics and Clinical Decision Making. (B) Drs. Sankey Williams and Henry Glick. Prerequisite(s): Permission needed from Instructor.

This course focuses on the application of decision analysis and economic analysis of diagnostic tests using two by two tables, likelihood ratios, and ROC curves. The course continues with the introduction of more general tools for decision analysis, including decision trees and other mathematical models. A major focus of the course is the application of economic principles to the evaluation of health outcomes. During seminars, students will carry out practical exercises that include problem solving, critically analyzing published articles, and learning to use computer software that facilitates decision and economic analyses.

580. (EPID580) Outcomes Research. (A) Dr. Jeffrey Silber. Prerequisite(s): Permission needed from Instructor.

This course is divided into two main parts. The first part addresses issues related to the measurement of quality in healthcare. Included is a review of the classical-structure-process-outcome quality paradigm. The paradigm's strengths and limitations are addressed. This part especially focuses on outcome measures of quality and examines the validity of alternative measures. The second part deals with observational, or quasi-experimental, research studies. It addresses the advantages and limitations of alternative designs, and covers the role of clinical risk adjustment in observational studies of medical interventions. It focuses on the problem of selection bias, and reviews recent methods for dealing with this bias, such as instrumental variables.

BIOMEDICAL GRADUATE STUDIES

(MD) {BMP}

SM 600. Introduction to Health Policy and Health Services Research. (E) Dr. Zachary Meisel. Prerequisite(s): This course is only open to Masters of Science in Health Policy Research Students.

This course will provide students with an introduction to health services and health policy research. First, faculty representing various departments and schools at the University of Pennsylvania will introduce students to a number of "hot topics," including health disparities, medical decision making, neighborhoods and health, quality of care, access to care, behavioral incentives, and cost effectiveness research. Second, the course will offer an introduction to various career paths in the research and policy domains. Third, the course will provide a brief overview of practical issues such as grant opportunities, data options, publishing, and dissemination.

SM 601. Contextual Foundations of Community Health 1. (L) Dr. Lucy Tuton. Prerequisite(s): Course only open to Robert Wood Johnson Foundation Clinical Scholars.

In this course, students will be introduced to the social and cultural context of community health, an understanding of which is critical to the successful conduct of community-oriented research. The primary course objective is for students to learn about the dynamic between societal and cultural factors and health outcomes such as quality of life, morbidity and survival, and health disparities. Relying on an asset model approach to learning about communities, the course will (1) incorporate a series of didactic sessions that describe the diversity of the Philadelphia region with respect to cultural, environmental, economic, faith-based, ethical, and political influences on community health in order to (2) prepare the students to conduct a case study focusing on a population and/or issue addressing a diversity of health and social service needs. These course components are intended to assist students in developing the lens through which they will consider research questions leading to successful community oriented research.

611. Implementation Science in Health and Health Care. (B) Drs. Judy Shea and Frances Barg. Prerequisite(s): Permission needed from Instructor.

In this course, we will highlight a suite of qualitative, quantitative and mixed research methods that address the features of implementation science. The course will include an introduction to the foundational aspects of implementation science, followed by guest speakers who describe their implementation science research. The structure of the course will focus on 3 successive stages-(1) introduction to the foundation/theory of implementation science, (2) exposure to researchers conducting implementation research, and (3) and learning how to critically evaluate and design implementation science studies. An emphasis on specific tools in qualitative and mixed methods approaches is included.

SM 622. Topics in Leadership for Health Policy 2. (L) Drs. Anthony Rostain and Lucy Tuton. Prerequisite(s): HPR 602. Course only open to Robert Wood Johnson Foundation Clinical Scholars.

In this seminar series, students combine didactic sessions reviewing core leadership concepts and skills with reflective discussions on experiences in leadership through their training and community relationships.

HEALTH POLICY RESEARCH (HPR)

BIOMEDICAL GRADUATE STUDIES

(MD) {BMP}

SM 621. Contextual Foundations of Community Health 2. (L) Dr. Lucy Tuton. Prerequisite(s): HPR 602. Course only open to Robert Wood Johnson Foundation Clinical Scholars.

In this course, students will be introduced to the social and cultural context of community health, an understanding of which is critical to the successful conduct of community-oriented research. The primary course objective is for students to learn about the dynamic between societal and cultural factors and health outcomes such as quality of life, morbidity and survival, and health disparities. Relying on an asset model approach to learning about communities, the course will (1) incorporate a series of didactic sessions that describe the diversity of the Philadelphia region with respect to cultural, environmental, economic, faith-based, ethical, and political influences on community health in order to (2) prepare the students to conduct a case study focusing on a population and/or issue addressing a diversity of health and social service needs. These course components are intended to assist students in developing the lens through which they will consider research questions leading to successful community oriented research.

SM 602. Topics in Leadership for Health Policy 1. (L) Drs. Anthony Rostain and Lucy Tuton. Prerequisite(s): Course only open to Robert Wood Johnson Foundation Clinical Scholars.

In this seminar series, students combine didactic sessions reviewing core leadership concepts and skills with reflective discussions on experiences in leadership through their training and community relationships.

603. Health Services and Policy Research Methods I. (A) Drs. Judith Long and Judy Shea. Prerequisite(s): Permission needed from Instructor.

This course will introduce students to commonly used primary data collection methods and provide multiple examples of how they have been used in health services research. Through the course students will define a primary data collection research project and develop the methods necessary to conduct the project. To get the full benefit of this course, students should use this course to develop the methods they plan to employ in their primary data collection project.

604. Introduction to Statistics for Health Policy. (A) Dr. Andrea Troxel. Prerequisite(s): Permission needed from Instructor.

This is the first semester of a two-semester sequence. It is an introductory statistics course covering descriptive statistics, probability, random variables, estimation, hypothesis testing, and confidence intervals for normally distributed and binary data. The second semester stresses regression models.

SM 605. Multidisciplinary Perspectives on Health. Dr. David Rubin. Prerequisite(s): Course only open to Robert Wood Johnson Foundation Clinical Scholars.

In this seminar series, students select topics for in-depth discussion with visiting speakers from a wide range of disciplines. The discussions are led by core Clinical Scholar Program faculty. Each topic involves 5 to 6 sessions with the initial session focusing on critical appraisal of relevant literature.

BIOMEDICAL GRADUATE STUDIES

(MD) {BMP}

606. Fundamentals of Health Policy. (A) Dr. David Grande. Prerequisite(s): Permission needed from Instructor.

While academic researchers often think of health policy in terms of research evidence and outcomes, politics and political processes also play important roles. The purpose of this course is to provide those pursuing careers in health services research and health policy with an understanding of the political context from which U.S. health policy emerges. This understanding is important for researchers who hope to ask and answer questions relevant to health policy and position their findings for policy translation. This understanding is important as well to policy leaders seeking to use evidence to create change. The class provides an overview of the U.S. health care system and then moves on to more comprehensive understanding of politics and government, including the economics of the public sector, the nature of persuasion, and techniques and formats for communication. The course emphasizes reading, discussion and applied policy analysis skills in both written and oral forms. Concepts will be reinforced with case studies, written assignments and a final policy simulation exercise where students will be placed in the position of political advisors and policy researchers.

607. Health Services and Policy Research Methods II. (B) Drs. Andrew J. Epstein and Rachel M. Werner. Prerequisite(s): Permission needed from Instructor.

Empirical research for health care policy frequently involves the analysis of observational data--information that is not primarily collected for research purposes. With the rapid increase in U.S. health information technology capacity, future opportunities for research using these "secondary data" appear promising. The objective of this course is to teach the skills necessary to conduct quality health policy research using secondary data. These skills include formulating research aims and applying appropriate study designs for achieving these aims. The course will also include a survey of the content and structure of several commonly used administrative and public databases available to researchers and workshops to develop the skills to access and manipulate these valuable resources.

608. Applied Regression Analysis for Health Policy Research. (B) Dr. Nandita Mitra. Prerequisite(s): Permission needed from Instructor.

This course deals with the work-horse of quantitative research in health policy research--the single outcome, multiple predictor regression model. Students will learn how to 1) select an appropriate regression model for a given set of research questions/hypotheses, 2) assess how adequately a given model fits a particular set of observed data, and 3) how to correctly interpret the results from the model fitting procedure. After a brief review of fundamental statistical concepts, we will cover analysis of variance, ordinary least squares, and regression models for categorical outcomes, time to event data, longitudinal and clustered data. We will also introduce the concepts of mediation, interaction, confounding and causal inference.

SM 609. Research in Progress. Drs. David Asch and Judith Long. Prerequisite(s): Course only open to Robert Wood Johnson Foundation Clinical Scholars.

In this seminar series, students present their research protocols to core Clinical Scholar Program faculty. The discussion focuses on the development of a more in-depth understanding of issues to study design, bias, sampling, and analytic approaches as well as the inclusion of alternative perspectives from a wide array of social science disciplines.

BIOMEDICAL GRADUATE STUDIES

(MD) {BMP}

610. (PUBH537) Achieving Evidence-Based Health Policy. (B) Dr. Marsha Gerdes, PhD and Sarah Zlotnik, MSW, MSPH.

Achieving Evidence-Based Health Policy examines how research can influence health policy. The course teaches students practical tools for developing communications that effectively leverage policy impact. Sessions will examine: the dialectical relationship between research and policy; how selection of research methods may influence usefulness of results for the policy sphere; the implementation of research findings in real-world settings; the translation of research for a policy audience; and the role of various (the media; foundations; local, state, and federal government; advocates) in both research and policy debates. The instructors will draw on their work in pediatric health services research. The class will feature guest research and policy experts from the public and private sectors, who will explore core concepts using case studies from their expertise in topics like health care reform, immigrant health, mental health, and early childhood home visitation. These didactic topical presentations will be followed by discussions, seminar discussion examining how research findings impacted policy, and writing exercises aimed at honing skills for a policy audience.

799. Independent Study. (D) Faculty. Prerequisite(s): Permission of Program Director and Faculty Member.

This course is designed to provide the student with an opportunity to gain or enhance knowledge and to explore an area of interest related to health policy research under the guidance of a faculty member.

951. Health Policy Research Thesis I. Staff. Prerequisite(s): Course only open to Masters of Science in Health Policy Research fellows.

Each student completes a mentored research project that includes a thesis proposal and a thesis committee and results in a publishable scholarly product.

952. Health Policy Research Thesis II. Staff. Prerequisite(s): Course only open to Masters of Science in Health Policy Research fellows.

Each student completes a mentored research project that includes a thesis proposal and a thesis committee and results in a publishable scholarly product.