School of Public Health

Courses

Courses include the following:

- BSDC (p. 1): Brown School Doctoral
- CLNV (p. 3): Clinical Investigation
- PHCC (p. 3): Public Health Concentration Courses
- PHEL (p. 5): Public Health Electives
- PHFN (p. 7): Public Health Foundation
- PHPC (p. 8): Public Health Practicum
- PHRS (p. 8): Public Health Research
- PHS (p. 9): Population Health Sciences
- PHSL (p. 9): Public Health Skill Lab
- PHTPS (p. 12): Public Health Transdisciplinary Problem Solving
- PSYCH (p. 15): Psychological & Brain Sciences
- SWPM (p. 15): Social Work Practice Methods
- SWSP (p. 16): Social Work Social Policy
- SWTH (p. 16): Social Work Theory

Brown School Doctoral

BSDC 8000 Introduction to Advanced Research
This course provides an introduction to the basic and central concepts in social scientific research. It also addresses the skills needed to conceptualize and plan a research project. The research process is presented as a means to scientifically and systematically advance social work and social science knowledge. This course also examines some of the current issues concerning scientific research. Students prepare a framework for a critical review of research in a selected area and prepare a full research proposal, suitable for submission to external funders.
Credit 3 units.
Typical periods offered: Fall

BSDC 8001 Conceptual Foundations of Social Science Research
This is an introduction to the conceptual and philosophical foundations of social science research. Through readings and in-class exercises, students will explore a diversity of topics integral to doctoral level scholarship, including reliability and validity, causal inference, research epistemology, the nature of social phenomena, the role of agency, rationality and its consequences, and other assumptions inherent in the conceptualization of, and study of, social phenomena.
Credit 3 units.
Typical periods offered: Fall

BSDC 8003 Foundations of Data Analysis
This course provides some of the mathematical and conceptual tools essential to data analysis in social science research. A wide range of statistics are covered. The focus of the course is principally upon the development of arithmetic and conceptual tools needed for advanced work in research design, model development, model fitting and estimation, hypothesis testing, and interpretation of data. The course revolves around the systematic establishment of scientifically meaningful comparisons and relationships. The course will evolve from simple bivariate to more complete multivariate forms of data analysis. Basic principles are illustrated through exercises.
Credit 3 units.
Typical periods offered: Fall

BSDC 8004 Foundations of Data Management
This course focuses on the practical skills of data management that the PhD student will need to complete their dissertation and early career research. The course will cover techniques in importing data from commonly used platforms into statistical packages, data manipulation, variable creation, and documentation. This didactic course includes syntax-based learning and the analysis of case study examples of actual data management challenges.
Credit 3 units.
Typical periods offered: Fall, Spring

BSDC 8005 Applied Linear Regression Analysis
This course is a seminar in multiple regression (MR) analysis. There is an emphasis on both conceptual and procedural aspects of MR. Conceptually, multiple regression is approached as a general model with extensive applications in social work research and knowledge building. The procedures of multiple regression are understood as extensions of simple regression and correlation. Statistical formulas for various facets of multiple regression are presented; examples from the literature are critiqued; and experience in working with multiple regression is gained through computer exercises.
Credit 3 units.
Typical periods offered: Spring

BSDC 8006 Generalized Linear Models
Generalized linear models are a collection of statistical methods used to analyze categorical and limited dependent variables. In this course, students will learn fundamental concepts and skills to conduct generalized linear models, and know how to apply these techniques to social, behavioral, and health research. The course covers the following topics: the Nelder and Wedderburn framework of generalized linear models and the key concept of link function, maximum likelihood estimator, a review of logistic and probit models, multinomial logit model, ordered logistic regression, Poisson regression, negative binomial regression, quasi-likelihood functions, and model fit/validation. Students taking this course are assumed to have taken statistics courses on inferential statistics and regression analysis, particularly Applied Linear Regression Analysis-S90-6900. This course is designed to fulfill part of the core quantitative methods requirements for doctoral students at the Brown School. It will typically be the second quantitative methods course taken for all PHS students, and some SW students.
Credit 3 units.
Typical periods offered: Fall

BSDC 8007 Social Network Analysis
Social Network Analysis is an advanced graduate seminar covering social network analysis methods, with an emphasis on using network analysis tools to model social and health science relational and systems data. Network analysis techniques have become more widely used in recent years to study important areas such as the spread of infectious diseases (e.g., AIDS), the structure of the Internet and other complex information systems, the organization of terrorist networks, peer and family influences on smoking and obesity, referral patterns in social service systems, the diffusion of innovations, and the structure of governmental policy systems. The class will cover the historical and conceptual foundations of network analysis, but will emphasize

a hands-on approach to exploring network data and learning to use professional network analysis tools. Specific topics include background and history of network analysis; network theories; network data collection and management; network visualization; network measures of centrality, cohesion, and structural equivalence; statistical modeling of networks; and longitudinal network analysis.
Credit 3 units.
Typical periods offered: Spring

BSDC 8008 Structural Equation Modeling
This course introduces the analysis of general structural equations. Topics include causal models and path analysis structural equation models with observed variables, confirmatory factory analysis, consequences of measurement error, the relation between latent and observed variables, and combined latent variable and measurement models. LISREL software will be learned.
Credit 3 units.
Typical periods offered: Fall, Spring

BSDC 8010 Multilevel & Longitudinal Modeling
This course is an advanced statistics seminar intended for graduate students in social work, public health, health or social sciences. This course covers hierarchical linear modeling techniques that are used to build and test multilevel and longitudinal statistical models. This course will be of interest to anybody who wants to know how to analyze contextual, ecological, and longitudinal data. The course will review both the conceptual issues and methodological issues in using hierarchical linear modeling by working with several real public health and social science data sets. Topics include: fitting and testing two-level and three-level models; evaluating model fit; generalizing multilevel models to binary and other special data; building simple longitudinal models; advanced error covariance structures. Prerequisite: Completion of a graduate level regression or general linear modeling class.
Credit 3 units.
Typical periods offered: Spring

BSDC 8011 Propensity Score Analysis
Propensity score analysis is a relatively new and innovative class of statistical methods that has proven useful for evaluating the effects of treatments or interventions when using nonexperimental or observational data. This PhD course focuses on three closely related, but technically distinct propensity score methods: (1) Propensity score matching and related methods, including greedy matching, optimal matching, propensity score subclassification, and propensity score weighting using Stata psmatch2, pweights and R optmatch; (2) Matching estimators using Stata nnmatch; and (3) Propensity score analysis with nonparametric regression using Stata psmatch2 and lowess. The examination of these methods will be guided by two conceptual frameworks: the Neyman-Rubin counterfactual framework and the Heckman scientific model of causality. The course also covers Heckman's sample selection model and Rosenbaum's approaches of sensitivity analysis to discern bias produced by hidden selections. The course uses Stata software to demonstrate the implementation of propensity score analysis. PhD students enrolled should be familiar with descriptive and inferential statistics. Students not meeting this prerequisite should contact the instructor to determine their eligibility to enroll in this course.
Credit 3 units.
Typical periods offered: Fall

BSDC 8014 Theoretical Orientations in Public Health Sciences
The primary goal of Theoretical Orientations in Public Health Sciences is to provide an in-depth exploration of the major theoretical traditions and approaches used in the public health sciences. The class will cover the historical development of important public health theories, as well as current theoretical developments and challenges. Students will also engage with a number of class exercises and assignments that will introduce them to how theories are developed, applied, and tested in public health research contexts. The theoretical coverage emphasizes a 'cells-to-society' approach, and will include assessments of biological, medical, epidemiologic, behavioral, environmental, policy, organizational, and systems theories.
Credit 3 units.
Typical periods offered: Spring

BSDC 8017 Mixed Methods Research: Foundations & Applications
Mixed methods research is becoming critically important for the fields of social work, public health, medicine, and behavioral health. This diverse methodology focuses on pragmatically conceptualizing, collecting, analyzing, and mixing quantitative and qualitative data and approaches in a single or series of studies (Creswell & Clark, 2007). The fundamental strength of mixed methods designs is that using and mixing quantitative and qualitative approaches can produce a better and more comprehensive understanding of the area of study than using a single method. Mixed methodologies are also suitable for capturing the multi-faceted and dynamic complexities of social phenomena and have the potential to advance the generation of knowledge and actions to find practical and sustainable solutions to real-world problems. This doctoral-level course introduces students to the fundamental elements, characteristics, debates, approaches and designs of mixed method research and its applications to real-world problems. In this course students will develop and apply skills to critically appraise the quality and rigor of mixed methods studies and write a mixed method grant proposal.
Credit 3 units.
Typical periods offered: Fall

BSDC 8018 Designing for Dissemination, Implementation & Sustainability: How to Maximize Impact & Equity
This course will introduce students to modern concepts in design thinking and how they affect dissemination, implementation, and sustainability of health interventions in clinical and public health translational research practice. This course will provide students with methods in all stages of the design thinking process: 1) empathize; 2) define; 3) ideate; 4) prototype; and 5) test. The goal of this approach is to ensure that the products of research (interventions, materials, and findings) are developed in ways that match well with the needs, resources, workflows, and contextual characteristics of the target audience and setting to maximize impact and equity.
Credit 3 units.

BSDC 8500 Independent Study I
Doctoral students only
Credit 3 units.
Typical periods offered: Fall, Spring, Summer

BSDC 8501 Independent Study II
Doctoral students only
Credit 3 units.
Typical periods offered: Fall, Spring

BSDC 8502 Independent Study III
Doctoral students only
Credit 3 units.
Typical periods offered: Spring

BSDC 8800 Professional Development Seminar I
Brown School doctoral students only.

Credit 1 unit.
Typical periods offered: Fall

BSDC 8801 Professional Development Seminar II
Brown School doctoral students only.
Credit 1 unit.
Typical periods offered: Spring

BSDC 9000 Practicum in Research I
This course provides doctoral students with hands-on research experience under the guidance of a faculty mentor.
Credit 2 units.
Typical periods offered: Fall, Spring, Summer

BSDC 9001 Practicum in Research II
This course provides doctoral students with hands-on research experience under the guidance of a faculty mentor.
Credit 2 units.
Typical periods offered: Fall, Spring, Summer

BSDC 9002 Practicum in Research III
Section 00 is for SW PhD, Section 01 is for PHS PhD.
Credit 2 units.
Typical periods offered: Fall, Spring, Summer

BSDC 9003 Practicum in Teaching I
Section 00 is for SW PhD, Section 01 is for PHS PhD.
Credit 1 unit.
Typical periods offered: Fall, Spring, Summer

BSDC 9004 Practicum in Teaching II
Section 00 is for SW PhD, Section 01 is for PHS PhD.
Credit 1 unit.
Typical periods offered: Fall, Spring, Summer

BSDC 9005 Practicum in Teaching III
This course provides doctoral students with hands-on research experience under the guidance of a faculty mentor.
Credit 1 unit.
Typical periods offered: Fall, Spring, Summer

BSDC 9500 Mentored Assistant Teaching Experience
Students assisting in the course instruction under the supervision of the course instructor.
Credit 0 units.
Typical periods offered: Fall, Spring

BSDC 9501 Mentored Independent Teaching Experience
Eligible doctoral students teach independently with the guidance of faculty.
Credit 0 units.
Typical periods offered: Fall, Spring

BSDC 9502 Area Statement & Qualifying Exam
Second-year doctoral students enroll in this course and successfully pass the area statement and qualifying exams before August 1 of their fourth year.
Credit 3 units.
Typical periods offered: Fall, Spring

BSDC 9900 Doctoral Research
This zero-credit course allows students to continue research with advisors or engage in new research with other faculty mentors to build skills & working relationships. Students are expected to engage in mentored research experience with faculty through the entirety of their doctoral studies.
Credit 0 units.
Typical periods offered: Fall, Spring, Summer

Clinical Investigation

CLNV 5230 Introduction to Dissemination and Implementation Science
Upon successfully completing this class, scholars will be able to: Describe the need for dissemination and implementation research, compare theories and frameworks in the field, select the appropriate designs, strategies, outcomes, and measures for implementation studies. Scholars will also: Understand the importance and language of D&I basic science, explore the theories and frameworks that are commonly used in D&I research and practice, describe the importance of context at multiple levels in D&I science, distinguish between implementation strategies and outcomes from those in efficacy and effectiveness research, describe various study designs, methods, and measures that support D&I science, understand D&I methods and challenges across various settings and populations, recognize opportunities to apply D&I science to intervention development and evaluation, and understand how D&I science can further your research/practice plans and career.
Credit 3 units.
Typical periods offered: Fall

CLNV 5420 Designing for Dissemination, Implementation & Sustainability: How to Maximize Impact and Equity
This course will introduce students to modern concepts in design thinking and how they affect dissemination, implementation, and sustainability of health interventions in clinical and public health translational research practice. This course will provide students with methods in all stages of the design thinking process: 1) empathize; 2) define; 3) ideate; 4) prototype; and 5) test. The goal of this approach is to ensure that the products of research (interventions, materials, and findings) are developed in ways that match well with the needs, resources, workflows, and contextual characteristics of the target audience and setting to maximize impact and equity.
Credit 3 units.
Typical periods offered: Fall

Public Health Concentration Courses

PHCC 6000 Epidemiology Methods
This course extends the concepts and methods of epidemiology from S55-5002, providing an in-depth exploration of concepts and skills in epidemiologic research, including analytic reasoning and study design, execution, data analysis and interpretation. Prerequisite: S55-5002 and S55-5003 or equivalent.
Credit 3 units.
Typical periods offered: Spring

PHCC 6001 Foundations of Geographic Information Systems (GIS) for the Applied Social Sciences

This course will familiarize students with the basic knowledge of geographic information systems (GIS) and their application to social work practice and research. The course is organized around three primary areas: 1) conceptual; 2) technical; and 3) data management. A conceptual overview of GIS is presented to provide students with foundational knowledge about the theory, purpose, function, and applicability of GIS in practice and research settings. Students will develop critical thinking skills necessary to devise research questions appropriate for a GIS, to develop a GIS, interpret the findings, and to evaluate the spatial relationships between variables.

Credit 3 units.

Typical periods offered: Fall, Spring

PHCC 6002 Global Health

This course provides an overview of issues in international health, with a particular emphasis on those affecting health in low-income countries. It will cover the infectious diseases of malaria, tuberculosis, HIV/AIDS, acute respiratory infections, diarrheal diseases, and neglected tropical diseases (e.g. helminth infection). Chronic diseases and risk factors will also be addressed. An overview of the biology, epidemiology, and intervention evidence base will be covered, drawing from the Disease Control Priorities Project.

Credit 3 units.

Typical periods offered: Fall

PHCC 6003 Policy, Politics & Power in Global Health

The course will introduce students to the role of power and politics in global health and provide them with analytical tools to critically examine this field. It will review key debates, issues, concepts, theories and case studies linked to current major health and development issues, highlighting their relationship to health. It is based on a multidisciplinary approach to analysis of these issues.

Credit 3 units.

Typical periods offered: Spring

PHCC 6004 Health Economics

In this course, students will learn how to apply economic tools to the study of health and medical care issues. The course will examine the special features of medical care markets, the demand for health and medical care services, the economic explanations for the behavior of medical care providers (i.e., physicians and hospitals), the functioning of insurance markets, cost and comparative effectiveness, the economics of public health, and technology diffusion. Also examined will be the role of, and economic justification for, government involvement in the medical care system. The tools developed in the course will be used in discussions of current policy topics such as health reform, insurance reform, incentives for health behavior, rationing, and price regulation.

Credit 3 units.

Typical periods offered: Spring

PHCC 6005 Quantitative Methods for Health Policy Analysis

This course will introduce students to additional methods and topics in economic evaluation of health (health care and public health) and health services research (HSR). Students will learn the differences, strengths, and weaknesses of different approaches at a user level. Students will produce a project in which they focus on either the economic evaluation or HSR side to evaluate public health policies or problems. Prerequisite: Health Economics (S55-5120) or permission of instructor.

Credit 3 units.

Typical periods offered: Fall, Spring

PHCC 6006 Health, Politics & Policy

Health, Politics, and Policy: This course focuses on how public policies are actually made in the United States, and, in particular, health policies. The course is designed to introduce students to the literature, concepts, theories, and politics of the policy process and methods for analyzing this process. The emphasis in the readings will be on different concepts for studying the policy process and analyses. This course will focus on concepts related to policy processes including policymaking and politics.

Credit 3 units.

Typical periods offered: Spring

PHCC 6007 Fundamentals of Mental Health for Public Health

This course will provide an overview of the diagnosis and treatment of mental illness and other behavioral disorders for students who intend to work in the field of public mental health in a nonclinical capacity. Discussions of diagnosis will outline the main clinical and public health features of each category of mental illness, including clinical presentation, the course and prognosis of illness, and basic epidemiology. Discussions of available treatments will provide theoretical and practical examples of common medical and individual/group psychosocial interventions. The last hour of each class will take the format of a class discussion focusing on a critical examination of historical and contemporary issues pertaining to public mental health.

Credit 3 units.

Typical periods offered: Fall

PHCC 6008 Public Mental Health

This course will provide an overview of public mental health: the application of public health methods to the prevention and control of mental illness and substance use disorders and the promotion of mental well-being in populations. Although the course will focus primarily on the United States, public mental health will be also examined from a global perspective. Topics covered will include the distribution and determinants of mental and behavioral health problems, the prevention of mental and behavioral health problems and the promotion of mental well-being, and mental and behavioral health policy and services.

Credit 3 units.

Typical periods offered: Spring

PHCC 6009 Advanced Data Analysis

Students will be provided with an introduction to theory and analytical techniques commonly employed in the practice of public health through mini-lectures and a hands-on experiential learning approach. Students will work in teams to develop and conduct a project, choosing from real-world public health datasets. Mini-lectures will address theory as well as practical tools and in class exercises will be focused on application of the theories and tools. Homework will be assigned that provides students with further opportunity to gain competency in strategies that can be employed to analyze public health data. The course will also provide students with the opportunity to develop skills in data visualization strategies, conducting reproducible research, presenting projects, and effectively responding to constructive critiques. Prerequisites: S55-5002, S55-5003, S55-5230, basic competency in R, or motivation to learn R or by instructor permission. Priority is given to MPH: Epi/Bio Specializers.

Credit 3 units.

Typical periods offered: Fall, Spring

PHCC 6010 CPH Exam
The Certified Public Health (CPH) exam covers the areas of knowledge relevant to contemporary public health and general principles. A passing grade is required.
Credit 0 units.
Typical periods offered: Fall, Spring

PHCC 6011 Capstone I
The purpose of Capstone I is to prepare students for their independent integrated learning experience or capstone project. The capstone project is a student-initiated project that integrates and synthesizes selected MPH foundational and specialization competencies in a high-quality written product that demonstrates student mastery of such competencies. Capstone I aims to prepare students for the development of their capstone project by providing capstone guidelines, direction in competency selection, workshops and practice in scientific writing, proposal/outline development, and small group presentations and feedback on project ideas. This one-credit course is required of all MPH students before completion of their capstone project.
Credit 1 unit.
Typical periods offered: Fall, Spring

PHCC 6012 Capstone II
The purpose of Capstone II is for students to draft and finalize the capstone project proposed during Capstone I. Students will work independently and have regular progress meetings with the faculty instructor for their course section. Upon completion of their capstone projects, students will also perform a self-learning reflection by completing an MPH competency self-assessment.
Credit 1 unit.
Typical periods offered: Fall, Spring, Summer

Public Health Electives

PHEL 6000 Applied Qualitative & Participatory Methods
This course is designed to familiarize students with the perspectives, methods, and techniques of qualitative and participatory research. The course covers both the theoretical foundations of qualitative inquiry and a variety of methods of data collection. The class will use examples from and discuss how these methods are used in global research. Student fieldwork projects, which are carried out concurrently with classroom lectures and activities, are a central part of the course. Prospective students should note that this course requires significant time spent outside of class arranging interviews and then collecting, transcribing and summarizing data.
Credit 3 units.
Typical periods offered: Spring

PHEL 6001 Mental & Behavioral Health Epidemiology
This course covers the public health burden and potential causes of common mental and behavioral health problems, such as depression, anxiety disorders, and addictions. The course will be divided into three sections: (1) defining and measuring mental and behavioral health problems; (2) risk and causal factors for mental and behavioral health problems -- from cells to society; and (3) the use of epidemiologic findings to inform mental /behavioral health policy and prevention.
Credit 3 units.
Typical periods offered: Spring

PHEL 6002 Social Epidemiology
The goal of this course is to introduce students to the discipline of social epidemiology; and its role in understanding the social determinants of health and health inequities. Given the breadth of the developing field of social epidemiology, this course will provide a systematic and selective overview of literature in the field covering the history and development of the field of social epidemiology, theoretical perspectives, major substantive areas, conceptual approaches, and current controversies related to theory, research methods, and research findings. The approach taken includes consideration of fundamental causes of health as well as upstream and downstream factors. Substantive areas covered include but are not limited to race/ethnicity, socioeconomic position, social capital, gender, life course approaches and area effects, placing emphasis on methods and issues of measurement.
Credit 3 units.
Typical periods offered: Spring

PHEL 6003 Translating Epidemiology Into Policy
Policy has a well-documented, powerful and sustained effect on public health indicators. This course covers the epidemiologic basis for health policy, types of policy evidence, policy theories, study designs for understanding the effects of policy, methods of policy communication, and current controversies. Course content will be covered through readings, individual and group exercises, case studies, lectures, and discussions. Prerequisite: S55-5002, Foundations of Public Health: Epidemiology
Credit 3 units.
Typical periods offered: Fall

PHEL 6004 The Role of Insurance in Public Health
The Public Health System focuses on the access and delivery for all Americans, with a special focus on the uninsured, those living in poverty and located in rural areas. Managed Care is playing an ever-increasing role in government sponsored healthcare including Medicaid, Medicare and Exchanges. Because populations historically taken care of by the public health system have a disproportionate burden of chronic disease and costly health conditions, managed care companies have taken innovative steps to control costs. Not only is it important for students to understand the basics of health insurance, but also the tools that payers use to manage and control costs including case management, utilization review, and formulary structure. Additionally understanding technology infrastructure, coordinated primary care delivery models and value-based contracting is essential to any leader in the public health space. Communicating these concepts to community partners, patients and the media is also a critical skill set.
Credit 3 units.
Typical periods offered: Spring

PHEL 6005 Applied Machine Learning Using Health Data
This course teaches popular machine learning (ML) models using Python and their applications on health data. The topics include (1) Python programming basics (e.g., coding with Python, Python modules such as NumPy, Pandas, Matplotlib, and Scikit-learn); (2) Classification ML models; (3) Regression ML models; (4) ML model training and validation; (5) Support vector machines and decision trees; (6) Ensemble methods; (7) Dimensionality reduction; and (8) Unsupervised learning techniques. Students who complete this course will: (1) Understand the algorithms for ML models widely adopted in health sciences; (2) Proficiently apply ML models to analyze health data; and (3) Appraise the relative strengths and weaknesses of alternative ML models in the contexts of real-world problem-solving. Weekly assignment helps students deepen their understanding of critical concepts and sharpen their model building and problem-solving skills using health datasets. Students who complete this course will have a

solid foundation to pursue more advanced artificial intelligence (AI) topics, including deep learning. A prerequisite for this course is an introductory course on statistics or biostatistics. No prior exposure to Python programming is needed.
Credit 3 units.
Typical periods offered: Spring

PHEL 6006 Qualitative Research Methods
Examination of essential elements of qualitative designs, including identification of researchable questions, subject protection, interviewing, transcribing and analysis of data. Emphasis will be placed on qualitative data collection techniques and qualitative analysis of data. Students will learn about participant and non-participant observation, focus groups, and ethnography.
Credit 3 units.
Typical periods offered: Fall, Spring, Summer

PHEL 6007 Using Administrative Data for Health Services Research
The objective of this advanced graduate course is to prepare students to understand and use large administrative healthcare databases to perform epidemiologic / health services research. Lectures will cover the translation of clinical care into healthcare utilization data, review various types of national and state administrative databases, describe methods for administrative database research, and emphasize key issues related to data security and confidentiality. We will consider the strengths and limitations of observational studies using large databases to augment evidence from randomized clinical trials. Students will get hands-on experience with administrative data via programming with R statistical software. Students will develop and present to the class a research proposal in their own area of interest using administrative data. Students will further gain experience with healthcare database research by reviewing journal articles weekly.
Credit 3 units.

PHEL 6008 Systematic Review & Meta-Analysis
A systematic review attempts to identify, appraise and synthesize all of the empirical evidence that meets prespecified eligibility criteria to answer a given research question. A meta-analysis refers to the statistical methods used for contrasting and combining results from different studies in the hope of identifying patterns, sources of disagreement, and/or other interesting relationships that may come to light in the context of multiple studies. There are three learning objectives for this course: (1) to deepen the student's understanding of the key concepts and essential methods of a systematic review and meta-analysis through lectures and reading assignments; (2) to help students master the basic skills needed to conduct a systematic review and meta-analysis through hands-on exercises and projects; and (3) to help students complete a publication-quality systematic review or meta-analysis of their own choice as the final project of this course. Prerequisite for MPH students: S55-5240; permission from instructor for PhD students.
Credit 3 units.
Typical periods offered: Spring

PHEL 6009 Applied Deep Learning Using Health Data
Data are now available to social scientists in a way and quantity that has never existed before, presenting unprecedented opportunities for advancing social research and practices through state-of-the-art data analytics. On the other hand, dealing with extensive, complex, unconventional big data (e.g., free text, image, video/audio recording) requires revolutionary analytic tools only made available during the past decade. Artificial intelligence (AI), characterized by machine and deep learning, has become increasingly recognized as an indispensable tool in modern social and behavioral sciences. For example, AI methodologies have been applied to enhance the effectiveness of diagnosis and prediction of disease conditions, advance understanding of human development and functioning, and improve the effectiveness of data management in various social and human services. As a subdomain of AI, deep learning is based on artificial neural networks in which multiple (deep) layers of processing are used to extract higher-level features progressively from data. This layered representation enables modeling more complex, dynamic patterns than the traditional machine learning (which sometimes are called shallow learning as in contrast to deep learning), which finds its utility in analyzing the big data-data massive in scale and messy to work with (e.g., unstructured texts, images, audios, and videos). This course contributes to the overarching goal of training next-generation researchers in modern data analytics. It aims to equip students with the core knowledge and essential skills to apply deep learning models to address real-world problems. Through the course, students will familiarize themselves with computer programming in data science, learn state-of-the-art deep learning models, and apply them to social and behavioral questions. In addition, one essential field of deep learning applications is assisting decision-making through identifying patterns and trends, improving prediction precision, and automating evidence collection, synthetization, and dissemination. Students who master deep learning tools will be at the frontier to leverage the power of AI in analytics and practices.
Credit 3 units.
Typical periods offered: Fall

PHEL 6010 Systems Thinking in Health
The major challenges facing global and public health in the 21st century are truly daunting; they include global climate change, global pandemics along with the rise of vaccine denial, threats to food systems and physical activity, persistence of income disparities and health inequities; and healthcare systems that are fracturing as a result of multiple financial, legal, political, and governmental pressures. These 'wicked' problems resist easy solution, and they call for new ways of thinking, studying, evaluating, and implementing. Systems science is a relatively new interdisciplinary paradigm that suggests new ways of addressing these pressing public health challenges. The goal of the new Systems Thinking in Health class is to introduce systems thinking skills and knowledge to graduate students in public health and other closely related disciplinary programs. The course will be conceptual and historical in nature, showing how systems concepts can be an alternative (and sometimes more effective) approach for understanding public health, compared to more usual research, evaluation, and intervention traditions. The course weaves together three broad types of activities: 1) exploration of core systems science concepts such as complexity, holism, dynamics, feedback, nonlinearity, and heterogeneity; 2) understanding how various public health challenges can be viewed through a systems lens such as global pandemics, nutrition and obesity, violence, global warming and environmental change, and health equity; and 3) introducing based systems science research and evaluation methods, including systems mapping, system dynamics modeling, network analysis, and agent-based modeling. At the end of the class, students will be able to: Articulate how major public health problems are embedded in complex systems, in and of themselves Understand the basic concepts and principles of systems science Understand how systems concepts and methods have been historically used to address critical health problems (e.g., modeling for pandemic preparedness) Reframe a specific public health problem in systems terms to support subsequent research, evaluation, or program implementation
Credit 3 units.
Typical periods offered: Spring

PHEL 6011 Independent Study
Credit 0 units.
Typical periods offered: Fall, Spring, Summer

PHEL 6012 Building Applications With Generative Artificial Intelligence

Build Applications with Generative AI is a dynamic, hands-on course designed for those eager to harness the power of generative artificial intelligence (Gen AI) to create innovative applications. Over 15 weeks, students will immerse themselves in the practical aspects of using Python, the leading programming language in AI development, to craft and deploy a variety of applications. From constructing intuitive data dashboards that visualize model findings to developing sophisticated chatbots and autonomous AI agents, this course covers the spectrum of Gen AI capabilities. Students will delve into advanced techniques such as image segmentation, object detection, retrieval augmented generation (RAG), and the integration of vector databases for a deep analysis of both qualitative and quantitative data. Whether you're generating lifelike images, automating systematic reviews, or building AI tools to combat disinformation, this course offers the skills and insights to bring your ideas to life. By focusing on real-world applications, including deploying these innovations for global use, learners will not only gain a thorough understanding of Gen AI technologies but also acquire the expertise to pioneer new solutions in various domains. Get ready to transform the digital landscape by developing applications that bridge the gap between theoretical AI and practical, impactful solutions. Prerequisites for this course include proficiency in Python programming. While an understanding of machine learning and deep learning is helpful, it is not required for enrollment.
Credit 3 units.

Public Health Foundation

PHFN 5000 Epidemiology

The purpose of this course is to present fundamentals of Epidemiology as a framework for using evidence-based approaches in addressing population health issues. Students will learn the role of epidemiological approaches for describing and quantifying health problems, and methodological approaches for assessing risk factors and disease etiology.
Credit 3 units.

Typical periods offered: Fall

PHFN 5001 Biostatistics

This course provides an introduction to quantitative data analysis as it is applied in public health. Biostatistics is one of the core disciplines of public health; but it also provides a set of analytic tools which are used across all the other core and associated public health disciplines. This course will teach students how to think about data clearly; how to describe important characteristics of public health data; how to design, implement, and interpret basic statistical analyses which are appropriate for the research question and the characteristics of the data; and how to communicate analysis results effectively.
Credit 3 units.

Typical periods offered: Fall

PHFN 5002 Environmental Health

This course presents a broad survey of the major environmental health issues facing contemporary society in first and third world countries. The course provides an overview of the interaction of the physical, psychological, and social environments of individuals in which they work and live. The course presents ecological concerns along with factors related to personal and community health.
Credit 3 units.

Typical periods offered: Fall, Spring

PHFN 5003 Cross-Cutting Themes in Public Health

The purpose of this course is to introduce public health students to the crucial and timely cross-cutting themes in public health. The course will cover a range of topics, including: the role of transdisciplinary science and collaboration in the development, implementation and translation of science to the population at large; evidence-based approaches to decision making in contemporary public health practice; methods for dissemination and implementation of public health to policy and practice; the importance of health disparities to the study of public health, and the role of ethics in the profession of public health.
Credit 1 unit.

Typical periods offered: Fall

PHFN 5004 Public Health Seminar I

In this seminar, students will work closely with faculty members in small groups to process, systematically analyze and discuss timely, real world public health challenges and solutions.
Credit 1 unit.

Typical periods offered: Fall

PHFN 5005 Public Health Seminar II

In this seminar, students will work closely with faculty members and peers to systematically analyze and discuss timely, real world public health challenges and solutions. Students enrolled in PHS II are required to attend the monthly Public Health Speaker Series lectures that will take place once in February, March and April from 12pm-1pm. The lectures will cover content that will inform class discussion and participation in the class session. Public Health Speaker Series dates will be published closer to the start of the semester.
Credit 1 unit.

Typical periods offered: Spring

PHFN 5006 Public Health & Urban Design Seminar I

This seminar brings together students from the MPH Urban Design specialization at the Brown School and MUD students (Master of Urban Design) from the Sam Fox School of Design for a monthly exchange with faculty from both programs as well as practicing urban design specialists. Sessions will engage students in discussions and analysis of real world urban challenges, and provide the opportunity to process and apply skills from their specialization course work and experiences from their practicum and culminating experience. This seminar course is required for students in the Urban Design specialization.
Credit 0 units.

Typical periods offered: Fall

PHFN 5007 Public Health & Urban Design Seminar II

Semester 2. This seminar brings together students from the MPH Urban Design specialization at the Brown School and MUD students (Master of Urban Design) from the Sam Fox School of Design for a monthly exchange with faculty from both programs as well as practicing urban design specialists. Sessions will engage students in discussions and analysis of real world urban challenges, and provide the opportunity to process and apply skills from their specialization course work and experiences from their practicum and culminating experience. This seminar course is required for students in the Urban Design specialization.
Credit 0 units.

Typical periods offered: Spring

PHFN 5008 Public Health & Urban Design Seminar III
Semester 3. This seminar brings together students from the Master of Public Health Urban Design specialization at the Brown School and Master of Urban Design students from the Sam Fox School for a monthly exchange with faculty from both programs as well as practicing urban design specialists. Sessions will engage students in discussions and analysis of real-world urban challenges, and they will provide the opportunity for students to process and apply skills from their specialization course work and experiences from their practicum and culminating experience. This seminar course is required for students in the Urban Design specialization.
Credit 0 units.
Typical periods offered: Fall

PHFN 5009 Public Health & Urban Design Seminar IV
Semester 4. This seminar brings together students from the MPH Urban Design specialization at the Brown School and MUD students (Master of Urban Design) from the Sam Fox School of Design for a monthly exchange with faculty from both programs as well as practicing urban design specialists. Sessions will engage students in discussions and analysis of real world urban challenges, and provide the opportunity to process and apply skills from their specialization course work and experiences from their practicum and culminating experience. This seminar course is required for students in the Urban Design specialization.
Credit 0 units.
Typical periods offered: Fall

PHFN 5010 Foundations of Field Education MPH
This workshop is designed to provide students with the information needed for the practicum/internship search, interview, and selection process. Students will learn the steps for securing a practicum/internship. In addition, they will create a personal rubric for choosing a practicum site. Students will also have the opportunity to ask questions of members of the field education team. After the workshop, students will be required to follow up with a field advising appointment to discuss their practicum/internship search process. This is a required course for all students prior to entering practicum.
Credit 0 units.
Typical periods offered: Fall, Spring

Public Health Practicum

PHPC 6001 Practicum I - MPH Program
This course provides supervised experience in application of public health techniques through work in a public health agency or other health care organization.
Credit 1-3 units.
Typical periods offered: Fall, Spring, Summer

PHPC 6002 Practicum II - MPH Program
This course provides supervised experience in application of public health techniques through work in a public health agency or other health care organization.
Credit 1-3 units.
Typical periods offered: Fall, Spring, Summer

PHPC 6003 Practicum III - MPH Program
Students must consult with their Office of Field Education advisor prior to registering for the course.
Credit 1-3 units.
Typical periods offered: Fall, Spring, Summer

PHPC 6004 Elective Practicum I - MPH Program
This course provides supervised experience in application of public health techniques through work in a public health agency or other health care organization.
Credit 1-3 units.
Typical periods offered: Fall, Spring, Summer

PHPC 6005 Elective Practicum II - MPH Program
This course provides supervised experience in application of public health techniques through work in a public health agency or other health care organization.
Credit 1-2 units.
Typical periods offered: Fall, Spring, Summer

PHPC 6006 Elective Practicum III - MPH Program
Students must consult with their Office of Field Education adviser prior to registering for this course.
Credit 1 unit.
Typical periods offered: Fall, Spring, Summer

PHPC 6007 MSW/MPH Dual-Concentration Practicum I
The MSW/MPH Dual-Concentration Practicum provides learning activities that meet the accreditation requirements of both MSW and MPH accrediting bodies. Students must select a practicum site that is affiliated for both programs. Students will complete a dual ELA to identify learning activities. A site visit and final evaluations will be used to assess student learning and provide a final grade. Prerequisite: completion of MSW Foundation Practicum.
Credit 1-3 units.
Typical periods offered: Fall, Spring, Summer

PHPC 6008 MSW/MPH Dual Concentration Practicum II
This course provides supervised experience in application of public health techniques through work in a public health agency or other health care organization.
Credit 1-2 units.
Typical periods offered: Fall, Spring, Summer

PHPC 6009 MSW/MPH Dual Concentration Practicum III
This course provides supervised experience in application of public health techniques through work in a public health agency or other health care organization.
Credit 1 unit.
Typical periods offered: Fall, Spring, Summer

Public Health Research

PHRS 6000 Research Methods
Focuses on evaluation at a variety of levels (individual, group, organization, community). Includes problem assessment, specification and monitoring of interventions, validation of measurement methods, and analysis and presentation of data.
Credit 3 units.
Typical periods offered: Fall

PHRS 6001 Applied Linear Modeling (ALM)
This course focuses on statistical modeling and analysis methods relevant to epidemiological and clinical research, as well as applied research in behavioral, social, and health sciences. A general linear models approach is taken to data analysis strategies using linear, logistic, and poisson regression, as well as ANOVA methods for repeated measures. Prerequisite: S55-5003.
Credit 3 units.
Typical periods offered: Fall, Spring

PHRS 6002 Planning, Implementation, & Evaluation Evidence-Based Programs & interventions (PIE)
This course focuses on program evaluation, outcomes research, cost effectiveness research, methods for executing and evaluating health education intervention plans, quantitative and qualitative methods and their application to public health practice. Prerequisite: S55-5000
Credit 3 units.
Typical periods offered: Fall, Spring

PHRS 6003 Advanced Applied Linear Modeling
In this course, we will learn to apply Advanced Statistical Modeling techniques including Multiple and Logistic Regression, GLM, MANOVA, ANCOVA and other techniques to the field of Public Health broadly defined. Through readings, lectures, discussions, and hands on work, we will learn to use and critically think about techniques as well as be aware of limitations when dealing with real world problems. This class is directed towards epidemiology and biostatistics students in the MPH program who need to use statistical methods to answer substantive questions of interest. The course will focus on problem solving and decision-making skills to choose a statistical approach appropriate to the research question, understand the limitations of that approach given your data, interpreting your results correctly, and reaching sound conclusions about the substantive question at hand.
Credit 3 units.

Population Health Sciences

PHS 5100 Development, Validation and Application of Risk Prediction Models
This course will provide the knowledge and principles of predictive modeling, with applications to clinical and population health settings. Topics covered will include design, conduct, and application of risk predictions; statistical methods and analysis for model development and validation; evaluation of prediction models; emerging new methods; and risk stratification to identify a risk group, to assess eligibility to clinical trials and interventions, and to guide prevention priorities. The student will learn these topics through lecture, class discussions, data analysis lab, and homework.
Credit 3 units.
Typical periods offered: Spring

PHS 5140 Randomized Controlled Trials
This course provides a comprehensive introduction to randomized controlled clinical trials. Topics include types of clinical trials research (efficacy and effectiveness trials), study design, treatment allocation, randomization and stratification, quality control, analysis, sample size requirements, patient consent, data safety and monitoring plans, reporting standards, and interpretation of results. Course activities: lectures, manuscript critiques, class project, paper Course note: Students are strongly encouraged to have taken or be concurrently enrolled in biostatistics. If you are not a student in the MPHS program, please contact the program regarding registration.
Credit 3 units.
Typical periods offered: Fall

PHS 5160 Dissemination and Implementation Science
This course provides an overview of dissemination and implementation (D&I) science (i.e., translational research in health). Topics include the importance and language of D&I science; designs, methods, and measures; differences and similarities across clinical, public health, and policy settings; selected tools for D&I research and practice; and future issues.
Credit 3 units.
Typical periods offered: Spring

PHS 5230 Multilevel and Longitudinal Data Analyses for Clinical Research
The course - multilevel and longitudinal data analyses for clinical research is designed for medical students, clinicians and health researchers. The course is an extension of the intermediate biostatistics PHS 5041. The topics include basic statistical concepts and methods for various types of clinical data (continuous, categorical, count, and time-to-event outcome data) in multilevel and longitudinal settings. Through lectures, SAS labs, and homework assignments, students will understand the basic statistical concepts and methods for the four types of clinical outcome data in multilevel and longitudinal settings, will be able to address clinical research questions using these concepts and methods, will be able to perform basic data analyses on these types of data with SAS software, will be able to interpret the results in the context of clinical research.
Credit 3 units.
Typical periods offered: Spring

Public Health Skill Lab

PHSL 6000 Skill Lab: Statistical Analysis: SAS
This course will provide an introduction to the SAS statistical package in a Windows environment. Students will learn the basics of data management and manipulation through hands-on tutorials. Topic will include importing/exporting data, merging datasets, recoding variables, simple statistical analyses and troubleshooting. At the end of the course, students will have the skills necessary to use SAS for advanced biostatistics and epidemiology courses. Prerequisite: S55-5003, & S55-5000. This course is strongly recommended for students taking S55-5011.
Credit 1 unit.
Typical periods offered: Fall, Spring

PHSL 6001 Skill Lab: Statistical Analysis Using STATA
This skill lab will introduce students to the STATA statistical software package. Students will learn data concepts such as opening/importing/exporting data, applying formats, using syntax, creating variables, graphs and more. Statistical analysis techniques will be covered for both continuous and categorical outcome variables, including chi-square, t-tests, regression and survey weights. Students will demonstrate acquired skills during a final project working with data and running a statistical analysis and interpretation.
Credit 1 unit.
Typical periods offered: Fall, Spring

PHSL 6002 Skill Lab: Introduction to the R Statistical Programming Language & Environment

This course will introduce students the fundamentals of the R language and RStudio environment. The first session will cover how to obtain and install R and RStudio, import data, create descriptive statistics, and plot simple graphics. The second session will delve into data structures and classes, data manipulation and management, and common data analyses (t-tests, ANOVAs, correlations, regressions, etc.). Students will explore R's graphics capabilities and some of the publishing tools built into RStudio during the third session. Students are expected to have taken at least one introductory statistics course, but need no prior computer programming experience.

Credit 1 unit.

Typical periods offered: Fall, Spring, Summer

PHSL 6003 Skill Lab: Data Management

This skill lab will introduce students to the basic aspects of data management, starting with planning your database, moving to collecting, entering and cleaning data. Other topics will include data types, creating and recoding variables, formats and value labels, data dictionaries, missing data, and merging data. Students will learn to use descriptive statistics to quickly assess data integrity. Course will be hands on, primarily using Stata with other software where relevant. A majority of time spent working with data involves cleaning, manipulating, and preparing for analysis. This workshop will focus on these skills.

Credit 1 unit.

Typical periods offered: Fall, Spring, Summer

PHSL 6004 Skill Lab: Manuscript Development

This course will help students learn to write scholarly manuscripts for publication in peer-reviewed scientific journals. Students will learn and apply a prescriptive formula for writing each section of a manuscript and responding to reviewer critiques. The course is designed for those who are new to writing for publication as a lead author, and it emphasizes reporting findings from empirical studies. Students must enter the course with a manuscript project to work on. They will develop the manuscript through the course and submit it for peer review as the final course requirement.

Credit 1 unit.

Typical periods offered: Summer

PHSL 6005 Skill Lab: Qualitative Data Analysis

This weekend-intensive course focuses on analysis of qualitative data (e.g., interview transcripts) in public health and social work research. It will introduce the theory and methods of qualitative inquiry, highlighting the iterative nature of data analysis, coding, and writing. Students will learn the basics of NVivo using sample data for exercises and assignments and will leave prepared to analyze their own data.

Credit 1 unit.

Typical periods offered: Fall, Spring

PHSL 6006 Skill Lab: Introduction to GIS & Spatial Mapping

Geographic Information Systems (GIS) is a system for collecting, storing, displaying, and analyzing geographic information. This 1-credit course will serve as an introduction to applications of GIS and spatial mapping for social work and public health topics. Students will be introduced to the visual storytelling and data analysis power of creating maps. This course is intended to be a fundamental lab that provides hands-on experience in basic GIS skills. Methods for applying GIS techniques and other spatial mapping tools for data visualization will be introduced, and several examples of GIS in environmental and social domains will be analyzed. Students will learn about mapping terminology and skills to produce and analyze digital data maps. Students are not permitted to take concurrently with S55-5082/S65-5082.

Credit 1 unit.

Typical periods offered: Fall, Spring, Summer

PHSL 6007 Skill Lab: Practical Consideration in Developing Health Policy

This course will look at real world applications of public health principles as they apply to developing and proposing new health policy. The course will review basic public health principles as they apply to policy development and will provide students with an opportunity to work through the health policy development and proposal process.

Credit 1 unit.

Typical periods offered: Spring

PHSL 6008 Skill Lab: Effective Teams

Effective Teams will help students understand the key attributes and behaviors needed for successful team collaboration when partnered with diverse styles and personalities. Who leads and how is power balanced? How can team members have equal responsibility when skill sets vary? How can communication gaps be closed? How can less engaged team members be motivated?

Credit 1 unit.

Typical periods offered: Fall

PHSL 6009 Skill Lab: Data Visualization

Students from public health, computer science and design will form interdisciplinary teams to learn how health data can be analyzed and used to build prototypes, embedding visualizations to display data in clear, compelling, and engaging ways. Students will develop and apply skills and learn and use software for data management and analysis as well as information design. They will learn to work in interdisciplinary teams and learn from instructors across disciplines. Students will also gain skills in presenting and critiquing designs.

Credit 1 unit.

Typical periods offered: Fall, Spring, Summer

PHSL 6010 Skill Lab: Advanced Data Management

This skill lab will cover intermediate and advanced aspects of data management using STATA, however all concepts covered are transferable to similar software packages. Topics will include missing data, finding duplicate observations, repeated measures data, programming loops and data transformations such as merge, append, collapse, conversion from long to wide, etc. Prerequisite: S55-5960 or S55-5961 or S55-5962 or by permission of the instructor.

Credit 1 unit.

PHSL 6011 Skill Lab: Introduction to Cost Effectiveness Analysis for Evaluating Policies & Programs

The objective of this course is to prepare students to design, interpret, and conduct a fundamental type of economic evaluation for a variety of policy settings. Cost-effectiveness analysis (CEA) is a common research and decision-making tool in public health and medicine, but the basic concepts are also applicable to social work and public policy. Under certain conditions, CEA can help analysts add structured, transparent, and scientific information to policy evaluation and resource allocation discussions. The course will meet in 5 sessions. Each day will begin with a core lecture to introduce new concepts and techniques. Small group activities and hands-on exercises will then be used to apply concepts and reinforce content. A variety of examples, including those which students may bring from outside experience or employment, will be reviewed and discussed to illustrate the range of ways in CEA can be applied. After establishing fundamental concepts and basic methods in CEA, the course will include how to interpret and communicate results,

discussion of proper use and misuse of CEA, alternative methods, limitations, and advanced topics for further study. No specialized software is required. Students are encouraged to bring laptops and questions, topics, data, or applications from outside settings.
Credit 1 unit.
Typical periods offered: Summer

PHSL 6012 Skill Lab: Introduction to Python for Public Health Data Analysis
This course will introduce students to the fundamentals of the Python language, common Python modules for data manipulation and analysis, and Jupyter notebook environment. The course will begin with how to acquire data from publicly available sources and databases, cleansing and transformation of data, creation of descriptive statistics and graphics. The course will also introduce Python's natural language processing and machine learning modules for basic data classification and predictive modeling applications. Throughout the course, instruction and assignments will promote best practices for creating programs that can be shared and used for reproducible research.
Credit 1 unit.
Typical periods offered: Fall, Summer

PHSL 6013 Skill Lab: Program Sustainability: Assessment Tools & Planning Strategies
The term sustainability - and the importance of sustainability - is often referenced regarding human services work. But it's often not clear what kind of sustainability is meant and what program leaders can do to improve the sustainability of the vital services they provide. This course introduces participants to a holistic Program Sustainability framework with eight domains: (1) Environmental Support, (2) Funding Stability, (3) Partnerships, (4) Organizational Capacity, (5) Evaluation, (6) Program Adaptation, (7) Communications, (8) Strategic Planning. Evidence shows that each of these dimensions is critical to public health and social service programs' long term capacity to operate and deliver on their missions. Participants will build their understanding of the framework, use the Program Sustainability Assessment Tool to assess a program of interest, and learn strategies for using the tool in group/organizational settings. Assessment results will be used to identify program strengths and determine key strategic areas for action. Participants will leverage this information to build a program sustainability action plan.
Credit 1 unit.
Typical periods offered: Summer

PHSL 6014 Skill Lab: Advanced Data Management & Statistical Analysis in SAS
This course will build upon the material covered in S55-5960 (DATA ANALYSIS: SAS) to provide students with the skills to tackle more complex data management and analysis tasks using the SAS statistical package in a Windows environment. Students will learn through hands-on tutorials and assignments. Topics will include arrays, exporting data, complex merging of datasets (e.g., merge-matching), developing algorithms, testing the assumptions of common statistical tests, and troubleshooting. Prerequisite: S55-5003, S55-5000, and S55-5960.
Credit 1 unit.
Typical periods offered: Fall

PHSL 6015 Skill Lab: Basics of SQL: A First Course in Using Relational Databases to Analyze Publicly Available Data
This course will introduce students to the database language SQL using the open-source relational database management system MySQL. The course will begin with an introduction to databases and then cover the major features of a database. Students will learn to create tables and fields, define relationship between tables, and manipulate numbers, strings, and dates. Students will obtain solid knowledge of the language, how to retrieve and manage data efficiently. By the end of the class, students will be able to download a publicly available dataset, import it into MySQL, and query to filter/extract subsets of data.
Credit 1 unit.
Typical periods offered: Spring, Summer

PHSL 6016 Skill Lab: Systematic Reviews
A systematic review is a standardized framework used to synthesize and assess the quality of the literature on a specific research topic. For both social workers and public health professionals, systematic reviews can provide insight into which interventions, programs, and policies are the most effective for addressing diverse social welfare and health problems among our clients and the public. Systematic reviews also enable us to learn about gaps in knowledge and limitations in existing literature to guide future social work and public health practice, research, and policy. This course covers the entire range of conducting a systematic review, including framing a review question, implementing a search strategy, and synthesizing data extracted from eligible studies.
Credit 1 unit.
Typical periods offered: Spring

PHSL 6017 Skill Lab: Applied Qualitative Data Analysis
This course allows students to continue to develop the qualitative data analysis skills introduced in Part 1 of this skill lab series. Students will bring their own qualitative data (e.g., interview transcripts) to analyze using NVivo. During class, the instructor will review all steps of the analysis process (e.g., codebook development, first-round coding, second-round coding, matrix analyses) and then work with students individually to create analysis plans and agree upon final assignment formats. Students will collaborate with one another to act as independent auditors of each other's analysis to gain feedback on their coding from peers. Students will leave having advanced the analysis of their data with a detailed plan for continued analysis. The instructor will be available after the completion of the class to support students' publication efforts. Prerequisite: S55-5965 or permission of instructor.
Credit 1 unit.

PHSL 6018 Skill Lab: Data & Algorithmic Bias
In public health and other social sciences, research is conducted by scientists working in a biased system using data from human beings living in a biased society. As a result, how we measure, collect, manage, analyze, report, disseminate, and implement science all have the potential to reinforce or widen existing biases. This potential to worsen existing biases goes against the goals and aspirations of most social scientists who are often working to protect and improve lives. In this skill lab, students will be introduced to potential sources of data and algorithmic bias and some strategies for identifying, understanding, and avoiding data bias.
Credit 1 unit.
Typical periods offered: Spring, Summer

PHSL 6019 Skill Lab: Strategic Healthcare Leadership
The goal of this course is to explore the applications of key strategic leadership principles to healthcare organizations. The Strategic Healthcare Leadership course is designed for students who aspire to leadership roles in healthcare sector organizations. Throughout the course, students will increase both their strategic thinking and leadership capacities with readings, role plays, experiential exercises, as well as self-reflection to sharpen an understanding of the complexity of the healthcare industry and how that complexity impacts effective decision making. The readings are books, case studies, and articles

from the general leadership literature, and from the organizational change management literature. The course will be enriched by guest executives who join the discussion and invite you into their world. In their words and from their perspectives, you will experience what it takes to define an organization's strategy from current and former healthcare executives. Finally, the course will provide an opportunity to reflect upon and apply principles learned throughout the course with a small group final project/paper that analyzes what they have learned about strategic leadership in the course.

Credit 1 unit.

Typical periods offered: Fall

PHSL 6020 Skills Lab: Using Publicly Available Global Health Data in Epidemiology & Biostatistics

This skill lab will provide practical variable operationalization, preliminary descriptive analysis, and analysis protocol writing skills that are relevant for students who are: (1) completing independent research projects (i.e., MPH capstone, research practicum, etc.), (2) seeking a data-driven global health career using complex and nationally representative household surveys, and (3) developing the skills to analyze the major causes of morbidity and mortality in low and middle income countries. Students will learn how to access publicly available global health datasets (i.e., Demographic and Health Surveys) commonly used by data scientists and epidemiologists to inform the policies, programs, and services of national health ministries and international health organizations. Students will then gain mastery of statistical and methodological considerations for handling complex survey data by understanding the principles of multistage sampling and probability. Students will increase confidence in developing pragmatic research questions that can be addressed using publicly available global health datasets and exploring data and statistical issues that require reformulation of research questions: missingness, low cell sizes, skip logic patterns, non-response, etc. The course instructor will systematically guide students through important stages of research question formulation, data access, preliminary data analysis, and descriptive statistics. The final project will be a 5 -page, double spaced, APA-style research analysis protocol consisting of research question and rationale (1 page), dataset description (0.5 page), descriptive statistics table (1 page), feasibility of addressing the research question (0.5 page), variable operationalization (1 page), and analytical plan for further descriptive or inferential statistics (1 page, completing the full analysis is not required). Overall, this course will equip students in independently answering a variety of research questions using publicly available global health datasets.

Credit 1 unit.

Typical periods offered: Fall

PHSL 6021 Skill Lab: Political Strategy for Gun Policy in the United States

In this five-week skill lab, we will focus on political strategy as it relates to gun laws in the United States, paying special attention to state-level ballot initiatives. We will review the politics of guns in America, the importance of the Second Amendment and recent decisions by the U.S. Supreme Court, the influence of lobbying groups like the National Rifle Association, and political advocacy tactics at the state level. We will also examine case studies to understand these ideas in practice, including Maine's unsuccessful attempt in 2016 to pass a ballot initiative aimed at expanding firearm background checks. The course will operate as an upper-level graduate seminar (i.e., it will be heavy on readings and required material) and class time will focus on discussion. Students will demonstrate their learning by collaboratively designing a ballot initiative campaign to expand or restrict firearm access in a state of their choosing. Prior enrollment in the skill lab, Gun Violence Epidemiology and Policy in the United States, is strongly encouraged, but not required. Familiarity with the basic structure and operation of American government is mandatory.

Credit 1 unit.

Typical periods offered: Fall

Public Health Transdisciplinary Problem Solving

PHTPS 6000 TPS: Public Health in St. Louis

This course provides critical knowledge and skills relevant to understanding the importance of context in public health practice. Seminal reports exhort the St. Louis community to consider the intersection of social, economic, and political structures and their impact on public health. Forward Through Ferguson: A Path Toward Racial Equity was written in response to the social and political unrest in the region after an unarmed black teenager was shot and killed, and it identifies the correlations between race and access to health and quality life. The For the Sake of All report outlines the connections between the social determinants of health and the unequal distribution of health in the St. Louis region. This course will use community-engaged teaching to explore these issues. Students will work alongside public health practitioners and community members to think together around strategies to move these recommendations forward.

Credit 3 units.

Typical periods offered: Spring

PHTPS 6001 TPS: Global Mental Health

This course aims to provide participants with an in-depth understanding of the current debates that are shaping Global Mental Health (GMH) in Low and Middle Income Countries (LMICs). It examines the history of GMH, its key principles, policies and practices alongside the challenges inherent to their implementation in some of the most challenging contexts. Using practical examples of GMH interventions in the area of stigma, depression, trauma and the mental health of marginalized populations, students will be encouraged to critically engage with concepts relevant to, social work, public health, sociology and anthropology so as to reflect on the design, applicability and relevance of such interventions. Furthermore, the course will examine several key issues inherent to the field, such as the cultural validity of modern psychiatric diagnosis, as well as its research methods and assessment techniques. Guest speakers will include individuals working on the forefront of GMH application. The course is designed to compel future social workers to think globally but act locally when debating and addressing mental health issues in an international context.

Credit 3 units.

Typical periods offered: Fall, Spring

PHTPS 6002 TPS: Protection of Women & Children in Humanitarian Response

It is currently estimated that one out of every 113 people is seeking asylum, internally displaced or a refugee; this is a level of global risk for which there is no known precedent. Conflict, climate change, drought and other natural disasters have resulted in the highest levels of displacement ever recorded, affecting more than 65.3 million people. Conflict and natural disasters destroy communities; wreak havoc on food, sanitation, security and supply chains; and propel survivors into fragile refugee camps and crowded urban areas. Increasingly, humanitarian responders are also asked to promote health systems development in fragile states and post-conflict scenarios. There is a critical need for technically competent public health professionals who understand the global dynamics of acute and complex emergencies, including the continuum from prevention and risk reduction to emergency response and the transition to development. This course explores operational ways of addressing protection concerns for women and children in natural disasters and war. It examines

protection from both a reduction of physical risk and a promotion of developmental well-being perspectives. Students will develop a practical understanding of effective interventions for preventing and responding to specific protection concerns, including child-family separations; child recruitment and use as armed combatants; sexual violence and abuse; and psychosocial well-being. Students will explore systemic approaches to promoting a protective environment for women and children in emergencies and post-conflict/reintegration transitions. Students will review strategies for incorporating critical elements of protection into broader humanitarian response operations; coordination among humanitarian agencies; evidence-based programming; community participation; and advocacy and policy change.

Credit 3 units.

Typical periods offered: Fall, Spring

PHTPS 6003 TPS: Health & Place: Spatial Thinking & Applied Methods

Along with person and time, place is one of the three key characteristics via which public health researchers and practitioners describe health and disease patterns in populations. Health and social disparities can be the result of geographic location and/or of the social, cultural, economic, or political contexts of this location. In this course, students will learn to use and integrate spatial thinking as well as ecologic, quantitative, and social approaches to frame and tackle public health problems. Throughout the course, health geography and spatial epidemiology will be used as conceptual and methodologic frameworks for understanding health and place relations. In addition to covering the use of key spatial concepts, students will acquire basic hands-on experience with a range of applied analytic tools. Prerequisites: S55 5002 and S55 5003. Pre- or Corequisite: S55 5230. Prior experience with GIS preferred.

Credit 3 units.

Typical periods offered: Fall

PHTPS 6004 TPS: Chronic Disease: Obesity Prevention & Public Health Policy

Students will be exposed to a wide range of perspectives from diverse disciplines about the various causes and potential solutions to key public health issues in the United States. Students will work in groups to integrate these transdisciplinary perspectives into a richer understanding of public health problems and propose new solutions that draw upon the contributions of at least three different disciplines.

Credit 3 units.

Typical periods offered: Fall, Spring

PHTPS 6005 Eliminating Health Disparities

Individuals and families living in poverty are in frequent contact with organizations providing a range of social services. Their use of public health services is much less common, despite the fact that they have many unmet health needs. In this course, students will apply transdisciplinary problem solving skills to generate strategies for better integrating health and social services to help eliminate health disparities.

Credit 3 units.

Typical periods offered: Spring

PHTPS 6006 TPS: Global Hunger & Undernutrition

This transdisciplinary problem-solving course explores the complexity and reciprocity of human nutrition and a changing environment. Globally, food systems contribute over 30% of greenhouse gas emissions, 70% of freshwater retrievals, and 40% of land use, yet enormous inequities persist in terms of access to high quality foods, malnutrition prevalence, and the impacts of climate change on food security. This course provides foundational knowledge in public health nutrition from cells to society and the skills necessary to critically analyze sustainability issues related to food systems. We then cover novel as well as evidence-based solutions to achieving sustainable, healthy, and equitable food systems. Learning labs (dietary assessment, anthropometric measures, etc.), field trips (WashU edible plant tour, community gardens, etc.) and guest lectures from leaders in the field are integral to course learning.

Credit 3 units.

Typical periods offered: Fall

PHTPS 6007 TPS: Interrogating Health, Race & Inequalities

Interrogating Health, Race, and Inequalities is intended for graduate students in the School of Social Work and in Arts & Sciences as well as advanced undergraduates in Arts & Sciences who have previous coursework in medical anthropology, public health, or urban policy. The fundamental goal of the course is to demonstrate that health is not merely a medical or biological phenomenon but more importantly the product of social, economic, political, and environmental factors. To meet this goal the course is designed to examine the intersection of race/ethnicity and health from multiple analytic approaches and methodologies. Course readings will draw from the fields of public health, anthropology, history, and policy analysis. Teaching activities include lectures, group projects and presentations, videos, and discussions led by the course instructors. These in-class activities will be supplemented with field trips and field-based projects. By the end of the course it is expected that students will have a strong understanding of race as a historically produced social construct as well as how race interacts with other axes of diversity and social determinants to produce particular health outcomes. Students will gain an understanding of the health disparity literature and a solid understanding of multiple and intersecting causes of these disparities.

Credit 3 units.

PHTPS 6008 TPS: Climate Change & Public Health

This course will explore the real and potential impacts a changing climate will have on public health. The course explores methods for understanding and studying these effects as well as the role of public health (as a discipline) in planning for and mitigating potential effects. Topics covered will include, but are not limited to: theoretical underpinnings of climate change, changing patterns in infectious disease and vectors, exposure to temperature extremes, emergency response (e.g. more extreme weather events), public policy, and more.

Credit 3 units.

Typical periods offered: Fall

PHTPS 6009 TPS: From the inside-Out: Public Health & The Built Environment

The built environment has contributed to and advanced public health and safety since the era of 2200 BCE when Hammurabi, the founder of the Babylonian Empire, proclaimed the 'Code of Hammurabi.' This code called for construction of 'firm houses' that would not collapse on their owners and for the imposition of severe penalties on constructors whose buildings collapsed. The same basis of care and prudent practice is in force today in building design, construction, environmental engineering, and community and urban design in order to protect public health and safety and the natural environment. This Transdisciplinary Problem Solving course will discuss issues in the US and within a global context of housing, healthy communities, sustainable design, environmental quality, and occupational health and safety. Students will prepare a health impact assessment (HIA) for a selected building or community development site. Prerequisite or corequisite for MPH Program Students: S55-5005 or permission of instructor.

Credit 3 units.

Typical periods offered: Spring

PHTPS 6010 TPS: Protection & Well-being of Displaced Children (Colombia)

Students must apply via sa.wustl.edu by October 18 and be selected for the course in order to participate. The course fee for the global courses is $1000, which covers airfare, accommodations, in-country travel and some meals. Colombia's decades of conflict have led to one of the world's largest contexts of internal displacement in known history. UNHCR (2018) figures show that Colombia is currently home to 5,761,000 internally displaced persons (IDPs). The government and the Revolutionary Armed Forces of Colombia (FARC) signed a peace agreement in 2016; however, violence persists between remaining armed groups. Further, due to the humanitarian crisis in Venezuela, 1.2 million Venezuelan migrants and refugees have recently crossed the border into Colombia. Although the government of Colombia has extended extraordinary support to Venezuelans, conditions remain dire for many. This course is grounded in the Global Classroom concept of distributed learning that mobilizes the power of a diverse set of learners to collectively explore the multifaceted challenges associated with organized efforts to protect children and promote their well-being in humanitarian settings. It will emphasize global standards and best practices; the value of local, culturally grounded voices/experiences; collaborative workspaces and dialogues; and locally informed investigations and assignments. The course format will include classroom lectures, discussion seminars, site visits, and data collection in Colombia. The field-based portion will take place in June 2020 over approximately 10 days in collaboration with the School of Government at Universitas Los Andes. There will also be a two to three-day site visit outside of Bogota, likely to Cucuta, a refugee-receiving area.

Credit 3 units.

Typical periods offered: Spring

PHTPS 6011 TPS: Gender, Poverty & Global Health

This course comes in the wake of the new sustainable development agenda to end poverty by 2030, which includes a stand-alone goal on gender equality and the empowerment of women and girls. It explores the interconnections between gender, health, and extreme poverty within low- and middle-income countries. Specifically, students will examine a broad range of data and programmatic evidence related to how gender norms and inequalities influence health and development outcomes in and across various global health sectors, including: maternal and child health; nutrition; family planning; water, sanitation and hygiene; and agriculture. Further, by reviewing government policies, donor mandates and gender-based interventions, students will learn how to identify and explain health-related gender gaps, as well as how to address gender norms and power relations in program/policy planning, implementation, and evaluation. At the end of the course, students will use in-depth case studies to propose programmatic and policy driven action to overcome current gender-related obstacles and advance global health and development.

Credit 3 units.

Typical periods offered: Spring

PHTPS 6012 TPS: Global Reproductive Health

This course will provide an overview of the critical issues in global reproductive health, covering basic reproductive biology and epidemiological trends related to contraceptive use, fertility, and adverse birth outcomes. Additionally, applying a solutions-based approach, we will use key theoretical frameworks and cases studies from the field to understand the influence of social, behavioral, and environmental factors on adverse reproductive health outcomes. Finally, students will be engaged in topics related to what the field has achieved thus far, including: changes in policies, laws, and development approaches; the use of new technologies; the promotion of constructive male engagement; and overall improvements in outcomes related to family planning, fertility, maternal health, violence, sexually transmitted infections, and HIV/AIDS. Obstacles to progress such as waning political commitment, trends in funding, weakened health systems, and cultural opposition, will also be discussed.

Credit 3 units.

Typical periods offered: Fall

PHTPS 6013 TPS: Sustainability, Development & Health: Costa Rica

Sustainability Studies is a transdisciplinary field that integrates the economic, social, environmental, and technological problems that humanity must solve if our species is to continue to thrive on this planet. This course will employ lessons from diverse fields including, but not limited to, agriculture, forestry, energy production, environmental economics, domestic and international policy, ecology, resource management, and human health. The course introduces perspectives from the natural and social sciences, arts and humanities, and professional disciplines and explores how their interconnection increases the prospects for creating a more sustainable future. The course will be taught in Costa Rica at Earth University. While Costa Rica will provide many of the case examples used in the class, experts from many disciplines will provide lectures and learning opportunities from cases around the world. Specific topics to be explored include: paradigms and worldviews; agriculture, forestry, and food systems; principles of ecology, physics and economics; energy and natural resource and conservation; cultural sustainability; environmental politics and justice; ethics and religion; sustainable agriculture; conservation and preservation of ecosystems and species; and the roles of the arts; ecological connections to human health.

Credit 3 units.

Typical periods offered: Spring, Summer

PHTPS 6014 TPS: Climate Crisis: Understanding Complexity & Advocacy for Global Health Professionals

The elective course aims to provide frameworks that encourage students to engage with global discussions regarding the climate crisis as Global Public Health and Social Work professionals. This course takes a psychosocial and critical approach to examine the complexities of the links between climate crises and global health. In a fast changing domestic/international policy landscape, the next generation of leaders will need to innovate by challenging systems and processes and work across disciplines and borders to propose action that has sustainable impact and that is inclusive of diverse voices, identities, and Knowledge Systems. The course will enable students to: Decipher complex multidisciplinary challenges around interactions between Global Health (GH) and the Climate Crisis (CC). Develop strategic planning around policies and programs that are built on ethical considerations (understanding power dynamics and fostering bottom-up accountability towards the most disadvantaged populations). Develop personal and inter-personal competencies that are required for fighting climate chaos in the long term. Find strength and humility by developing a strong sense of community with their peers and work towards decolonizing Global Health and Climate Policy.

Credit 3 units.

Typical periods offered: Spring

PHTPS 6016 TPS: The Protection and Wellbeing of Displaced Children: A Colombian Case Study

This Colombian Case study involves a travel portion will take place in May, 2024 over approximately 10 days in collaboration with the School of Government at Los Andes University Students will meet over zoom with Los Andes students in spring, 2024 for 3-4 sessions. Students will spend the majority of the time in and around Bogota with guest lectures from faculty at Los Andes University, UNICEF, Government officials and others as well as site visits to displaced communities and

other at-risk populations around Bogota. Students from the Brown School and Los Andes will have the opportunity to learn, observe and reflect together on a range of issues and approaches - from high-level policies to community-led approaches to protection. During their stay, students will shadow implementing programming for children and families, and review monitoring and evaluation frameworks and other internal accountability processes. Students must apply for the course at sa.wustl.edu. There is a $1800 course fee for Brown School students. This will cover airfare, housing, in country transportation, breakfast, insurance. Students are responsible for all costs not covered by the course fee, including travel to the airport, additional meals, personal expenses, and visa or immunizations. Travel: May 18-25, 2024. This is a summer course, but students will have zoom sessions on 3-4 Fridays in April and May, 2024.
Credit 3 units.

Psychological & Brain Sciences

PSYCH 8068 Hierarchical Linear Models
Data in the social sciences are frequently organized hierarchically: students are enrolled in courses, which exist within separate schools, which are parts of different school systems; employees work within teams within different divisions of a company; the outcomes for participants or patients in different treatment groups are measured different numbers of times and include covariates that vary over time; partners, parents, and children are parts of family units that are parts of different communities. Hierarchical data contain dependencies that preclude traditional analyses (e.g., simple analysis of variance or multiple regression), requiring instead an approach that correctly estimates error sources and identifies systematic effects at their appropriate level of influence. This course provides an introduction to the analysis of hierarchical data with an emphasis on the correct identification of models, analysis of hierarchical data with current software, proper interpretation of results, and use of appropriate diagnostic tests for model adequacy. Prerequisites: Psych 5066 and Psych 5067.
Credit 3 units.
Typical periods offered: Spring

Social Work Practice Methods

SWPM 6011 Global Mental Health
This course aims to provide participants with an in-depth understanding of the current debates that are shaping Global Mental Health (GMH) in Low and Middle Income Countries (LMICs). It examines the history of GMH, its key principles, policies and practices alongside the challenges inherent to their implementation in some of the most challenging contexts. Using practical examples of GMH interventions in the area of stigma, depression, trauma and the mental health of marginalized populations, students will be encouraged to critically engage with concepts relevant to, social work, public health, sociology and anthropology so as to reflect on the design, applicability and relevance of such interventions. Furthermore, the course will examine several key issues inherent to the field, such as the cultural validity of modern psychiatric diagnosis, as well as its research methods and assessment techniques. Guest speakers will include individuals working on the forefront of GMH application. The course is designed to compel future social workers to think globally but act locally when debating and addressing mental health issues in an international context.
Credit 3 units.
Typical periods offered: Fall, Spring

SWPM 6044 Social Entrepreneurship
Social entrepreneurs use innovative, market-based tools and responses to solve social and environmental problems. This interdisciplinary class attracts students from all disciplines to develop an entrepreneurial mindset and skill set to apply to local and global issues. Through readings, lectures, local and international guest speakers, case studies, classroom debates, and lean startup and business model canvas techniques, students will gain meaningful insight into how to create and capture social value. Students will develop the skills to develop and pitch a social venture that fits their passions and interests in the Olin Big Idea Bounce Pitch competition that brings students together across campuses to share their ideas and compete for prize money. In addition, students will explore the role entrepreneurship and social impact investing play in the social and economic development of healthy communities both nationally and internationally.
Credit 3 units.
Typical periods offered: Fall, Spring

SWPM 6046 Social Innovation
Social innovation focuses attention on the ideas and solutions that create social value - as well as the processes through which people generate and capture them. . This year's theme is: Community Wealth Building: co-operatives, collective entrepreneurship, worker owned businesses and trusts. Community wealth building is a bottom-up approach to economic development based on greater democratic ownership, participation, and control that we can begin to develop and scale. The goal is to create a democratic economy and displace the extractive economy. We will review the latest literature and policy documents then meet with practitioners and communities driving this work forward across our St. Louis region. We will learn and apply innovation methods like design thinking, google sprints and asset mapping. Graduate students from across campus (MSW, MPH, MBA, MSP, and more) will work together as teams to develop a pitch or policy brief applying community wealth building and shared prosperity approaches to the Greater St. Louis area.
Credit 3 units.
Typical periods offered: Fall, Spring

SWPM 6074 Community Based System Dynamics
This course introduces students to community based system dynamics (CBSD) as an approach for engaging communities, organizations, and trans-disciplinary teams to understand and represent complex social, health, and policy problems through the diagramming conventions of system dynamics. The course introduces students to the background and theoretical foundations of community based system dynamics; qualitative causal mapping; the practice of group model building for working with organizations, communities, and teams through structured small group exercises or “scripts”; tools for designing, facilitating, and evaluating CBSD interventions; and techniques for managing group dynamics involving power, interpersonal conflicts, and working with marginalized stakeholders. Learning is structured around problem-based and experiential approaches, including simulated group model building exercises, facilitation practice, case study activities, and guest presentations by CBSD practitioners working in the field. The course draws on methods being developed and used by the Brown School's Social System Design Lab and explores current CBSD applications in both domestic and international settings.
Credit 3 units.
Typical periods offered: Fall, Spring

SWPM 6076 Foundations of Geographic Information Systems (GIS) for the Applied Social Sciences
This course will familiarize students with the basic knowledge of geographic information systems (GIS) and their application to social work practice and research. The course is organized around three primary areas: 1) conceptual; 2) technical; and 3) data management. A conceptual overview of GIS is presented to provide students with foundational knowledge about the theory, purpose, function, and applicability of GIS in practice and research settings. Students will develop critical thinking skills necessary to devise research questions appropriate for a GIS, to develop a GIS, interpret the findings, and to evaluate the spatial relationships between variables.
Credit 3 units.
Typical periods offered: Fall, Spring

SWPM 6077 System Dynamics Modeling for Strategic Design
This class focuses on the application of model-based systems thinking and system dynamics simulation modeling for strategy development in social work, public health, and social policy for the design of programs, interventions, and organizations. The course supports students to apply mathematical simulation modeling as a pragmatic tool for the design of program and policy interventions as well as organizational strategies. The course covers the foundations of the systems thinking perspective; problem scoping and definition; model structure formulation, the role of mixed methods to build confidence in models, and model-based analysis to inform design options. Application areas include organization and community practice, with examples from domestic and international settings. The course draws on methods being developed and used by the Brown School's Social System Design Lab and explores current CBSD applications in both domestic and international settings. Prerequisites: MSW S15-5007 & S15-5040; MPH S55 5000.
Credit 3 units.
Typical periods offered: Fall

Social Work Social Policy

SWSP 6018 Health Administration & Policy
This course provides an overview of the structure and functions of the U.S. Health Care System, the relationship between the health care delivery system and public health, and an overview of the health care policy process in the United States. The existing and evolving financing, organizational structures, and delivery systems are described along with alternatives that have been discussed and developed domestically and internationally. The course also introduces key concepts in health care management. Finally, the course provides students with the tools necessary to evaluate and analyze health policy and health care systems in the U.S. MSW Prerequisite: S15-5040. Same as S55-5004.
Credit 3 units.
Typical periods offered: Fall, Spring

Social Work Theory

SWTH 6003 Health Behavior & Health Promotion
The purpose of this course is to present fundamentals of social and behavioral science as a framework for using evidence-based approaches in addressing individual, families, and population health issues. Students will learn the role of social determinants of health problems, and theoretical approaches to guide the design and evaluation of health interventions.
Credit 3 units.
Typical periods offered: Fall, Spring, Summer