PHP 2220C - Perinatal Epidemiology: Women and Infants’ Health during Pregnancy in a Global Context

W 3pm-5:30pm in 121 South Main Street 247, Dr. Angela Bengtson

This course introduces students to major topics that affect the health of women and their infants during pregnancy and the perinatal period. We will address issues relevant to both high and low-resource settings, but will pay particular attention to low-resource settings. The course covers pregnancy loss and pregnancy outcomes, chronic and infectious diseases during pregnancy, and key methodological issues when studying health outcomes during the perinatal period. The course will include course lectures, informal discussions with experts, and student-led discussions and journal clubs.

Student will complete a course paper and brief presentation on a selected research topic. This course is open to masters and PHD students in any concentration or program who have taken an introductory epidemiology course such as PHP 2120 or PHP 2150, and, with instructor permission, to undergraduate students who have taken PHP 0850.

PHP 2220E - Topics in Environmental and Occupational Epidemiology

Th 9:30am-12pm in 121 South Main Street 241, Dr. Joseph Braun

This course introduces students to the epidemiological study of historical and contemporary environmental/occupational agents, focusing on study design, biases, and methodological tools used to evaluate and extend the evidence linking exposures to human disease. The course will discuss applications, strengths, and limitations of different study designs and their use in studying specific environmental agents. Didactic lectures and student-led discussions will be used to provide students with a basic understanding of and the tools to apply/extend their knowledge of specific environmental agents (endocrine disruptors) and special topics (children's neurodevelopment). Prerequisite: PHP 2120, PHP 2150, or equivalent. Undergrads with PHP 0850 and instructor's permission.

PHP 1900 - Epidemiology of Disorders and Diseases of Childhood and Young Adulthood

T 9am-11:30am in 121 South Main Street 331, Dr. Alison Field

Students will learn about diseases and disorders of childhood and young adulthood, including allergies, autism, eating disorders, obesity, endometriosis, and migraines. Students will learn how these disorders are defined, how many youth are impacted, and the age-appropriate epidemiologic methods to study disorders and diseases during
childhood, adolescence, and young adulthood, respectively. For the final project, students will pick a disease or disorder of interest that occurs during childhood, adolescence, or young adulthood, synthesize the results from multiple epidemiological studies, and concisely present this information in both a written report and an oral presentation.

**PHP 1900H - Racial/Ethnic, Socioeconomic-, and Other Group-Based Health Disparities in the United States**

T 1pm-3:30pm in 121 South Main Street 259, Dr. Chanelle Howe

This course will examine the epidemiology of health disparities in the United States (US). This examination will include discussing various definitions of a “health disparity” and the distinction between health disparities and health equity. US-based disparities in health-related outcomes (e.g., care, disease, and behaviors) by various factors such as race/ethnicity, gender identity, sexual orientation, socioeconomic position, and geography will be examined. Students will discuss the importance of and approaches (e.g., epidemiologic) for documenting and reducing US health disparities. Successful completion of PHP 0850, PHP 2120, PHP 2150, or an equivalent course is strongly recommended prior to enrolling in PHP 1900H.

**PHP 2130 - Human Biology for Public Health**

F 9:30am-12pm in 121 South Main Street 259, Dr. Karl Kelsey

This course provides basic principles of human biology and its applications to public health. Examples of biology topics include the cardiovascular system, endocrine system, immune system, nervous system, genetics, cancer, cardiovascular disease, HIV/AIDS, and depression. Examples of applied topics include strengths and weaknesses of using biomarkers, accuracy and precision of biological measures, quality assurance and quality control methods for using biomarkers for public health research. Mixed teaching methods are used, including small group discussions, problem-based learning and guest lectures. Prerequisite: PHP 2120 (may be taken concurrently) or instructor permission. Enrollment limited to 20 graduate students.

**PHP 2220B – Nutritional Epidemiology**

Wednesday from 9:30am-12pm, Dr. Simin Liu

This course provides an overview of contemporary issues in human nutrition that require the application of epidemiologic principles and quantitative methods, ranging from assessment of molecular etiologies for disease outcome to evidence-based
development of clinical guidelines and public health policies for foods and dietary supplements.

**PHP 1854 - The Epidemiology and Control of Infectious Diseases**

MW 9am-10:20am in 121 South Main Street 245, Dr. Brandon Marshall

Course objectives are to introduce students to methods and concepts in the study and control of infectious diseases. By the end of this course, students will have a solid foundation in the distribution, transmission, and pathogenesis of major infectious diseases that affect human populations. We will investigate methods to design and evaluate public health strategies to prevent or eliminate infectious diseases, including: outbreak investigation, disease surveillance, infection control, screening, and vaccination. The course is open to undergraduate students who have completed PHP 0320 or PHP 0850, and to graduate students who have completed or are concurrently enrolled in either PHP 2120 or PHP 2150.

**PHP 2200 - Intermediate Methods in Epidemiologic Research**

MW 1:30pm-2:50pm in 121 South Main Street 241, Dr. Gregory Wellenius

This second course in epidemiologic methods reinforces the concepts and methods taught in PHP 2150, with in-depth instruction in issues of study design, assessing threats to study validity including confounding and selection bias, and analyzing data with standard regression models. The course emphasizes hands-on learning and includes a combination of didactic lectures, discussions of methodologic papers, and a required laboratory component where students will learn to apply the concepts learned in class to real-world problems. Prerequisites: PHP 2150 and either 2510 or 2507, or permission of the instructor. Co-requisite: PHP 2511 or 2508.

**PHP 1160/PHP2160 - The Global Burden of Mental Illness: A Public Health Approach**

Th 12pm-2:30pm Location TBD, Dr. Stephen Buka

Provides an introduction to the classification, epidemiology, etiology, treatment and potential prevention of psychiatric disorders from a population perspective. Reviews the magnitude and social burden associated with mental disorders worldwide and opportunities to enhance prevention and treatment.

Covers concepts and methods used to study mental illness at the population level, including definitions of “normality” and “pathology”, current classification systems and measurement approaches to assess psychopathology and severity and cross-cultural
Issues.

Covers the prevalence, risk factors, and etiology of major disorders of children, adolescents and adults, including autism spectrum disorders, attention deficit disorders, mood and anxiety disorders, schizophrenia and substance use disorders. PHP 0850 OR prior coursework in psychology, epidemiology, sociology or related fields.