

# Department of Epidemiology

## Summer 2018 Course Offerings



### **PHC 6001: Principles of Epidemiology in Public Health**

Instructor: Krishna Vaddiparti, PhD, MPE, MSW

Credits: 3

Summer C: Online

Grading Scheme: Letter

*Prerequisites: None.*

This course is an introduction to epidemiology for students majoring in any aspect of the health sciences. This course presents the principles and methods of the epidemiological investigation of both infectious and non-infectious diseases. The purpose of this course is to equip students with the necessary knowledge and skills to explain the place of epidemiology in the general health thinking and to communicate and apply the basic principles of epidemiology.



### **PHC 6002: Epidemiology of Infectious Diseases**

Instructor: Jerne Shapiro, MPH

Credits: 3

Summer A: M, W, R, 5:00p-8:00p; Summer C: Online

Grading Scheme: Letter

HPNP G-111

*Prerequisites: PHC 6001 and PHC 6052 or PHC 6050, or permission from the instructor.*

This is an intermediate-level course that will introduce the student to the unique aspects of infectious disease and epidemiological methods used in their study, prevention and control. The student will gain knowledge through lectures, case studies, simulated outbreaks, readings, exercises, and an individual project. The course covers: sexually transmitted diseases, vector-borne diseases, zoonotic diseases, tuberculosis, diarrheal diseases, hepatitis, HIV, food-borne diseases, hospital transmission and control, and emerging and re-emerging pathogens.



### **PHC 6009: Epidemiology and Biology of HIV/AIDS**

Instructor: Robert L. Cook, MD, MPH

Credits: 3

Summer C: Online

Grading Scheme: Letter

*Prerequisites: None.*

In this course, students will: 1) Examine the biological process by which HIV causes infection and AIDS, including the physiologic and cellular processes involved in HIV infection and treatment; 2) Develop skills in finding and interpreting current epidemiologic data on HIV/AIDS, including risk factors, comorbid health issues, special populations, and health outcomes; and 3) Learn an overview of HIV prevention strategies and their effectiveness, with a special emphasis on epidemiology of HIV/AIDS in the rural south.



### **PHC 6011: Epidemiology Methods II**

Instructor: Lusine Yaghjian, MD, MPH, PhD

Credits: 3

Summer A: Mondays and Wednesdays, 9:30a-1:45p

Grading Scheme: Letter

HPNP G-114

*Prerequisites: PHC 6000, PHC 6052, and PHC 6053, or permission from the instructor.*

This course describes the implementation of common analytic methods in epidemiology. A course project helps build a foundation in applied epidemiologic analysis and develop experience in peer-review productivity based on secondary data. This course builds upon PHC 6000 (Epidemiology Methods I) to extend the understanding of epidemiologic concepts and methods by providing applied training in the conduct of secondary data analysis studies.



**PHC 6041: Landmarks in Psychiatric Epidemiology**

Instructor: Catherine W. Striley, PhD, MSW, ACSW, MPE

Credits: 1

Summer C: Online

Grading Scheme: S/U

*Prerequisites: None.*

Landmarks in psychiatric epidemiology are reviewed with an emphasis on student discovery of studies with enduring value.



**PHC 6937: Genetic Epidemiology**

Instructor: Jinying Zhao, MD, PhD

Credits: 3

Summer A: Mondays and Wednesdays, 2:00p-5:00p

Grading Scheme: Letter

HPNP G-110

*Prerequisites: PHC 6000, PHC 6011, and PHC 6050, or permission from the instructor.*

The course will provide students with a focused exposure to major concepts and theories in genetic epidemiology for human diseases. At the completion of this course, students should be able to critically review and discuss genetic epidemiologic literatures, provide input on the design of genetic epidemiologic studies, identify and apply appropriate tests for genetic analysis for both qualitative and quantitative outcomes using either families or unrelated individuals, and interpret the results of genetic linkage and association analysis.



**PHC 7083: Computational Epidemiology in Population Science**

Instructor: Mattia Prospero, MEng, PhD

Credits: 1

Summer A: Tuesdays, 12:30p-4:45p

Grading Scheme: Letter

HPNP G-108

*Prerequisites: PHC 6000, or permission from the instructor.*

This course covers topics in statistical and computational learning techniques tuned for "big data" and applied to epidemiology and clinical diagnosis. The course will blend both methodological and translational science aspects. Students will learn how to identify the best modeling strategies for large datasets made upon epidemiological study designs, including multi-source and heterogeneous data.



**PHC 7427: Ethics in Population Science**

Instructor: Catherine W. Striley, PhD, MSW, ACSW, MPE

Credits: 2

Summer A: Tuesdays, 12:30p-4:45p

Grading Scheme: S/U

COM C2-33

*Prerequisites: Advanced degree or PhD candidacy, or permission of the instructor.*

This course covers federally mandated topics in the responsible conduct of research: data acquisition, management, sharing, and ownership; conflict of interest/commitment; human subjects; animal welfare; research misconduct; publication practices and responsible authorship; mentor/trainee responsibilities; peer review; and collaborative science. This ethics course is for those enrolled in research intensive graduate programs.



### **PHC 7727: Grant Writing for Population Health Research**

Instructor: Linda B. Cottler, PhD, MPH, FACE, and Volker Mai, PhD, MPH

Credits: 2

Summer C: Fridays, 9:30a-12:00p

Grading Scheme: Letter

CTRB 4240C

*Prerequisites: PHC 6011, or permission from the instructor.*

This course provides practical instruction in the grant writing process with a specific focus on National Institutes of Health (NIH) procedures. It provides students with experience in writing a full grant application and in reviewing others' grant applications. It also contains a mock grant review session to assist students in understanding the process and content of grant review.