



COLLEGE *of* **PUBLIC HEALTH & HEALTH PROFESSIONS**
COLLEGE *of* **MEDICINE**

EPIDEMIOLOGY

SUMMER 2024 COURSE OFFERINGS



PHC6001: Principles of Epidemiology in Public Health

Instructor: Krishna Vaddiparti, PhD

Credits: 3

Summer C

Grading Scheme: Letter

Online Asynchronous

Prerequisites: None

Epidemiology methods frequently used to study disease patterns in community and clinic-based populations. Includes distribution and determinants of health-related states or events in specific populations and application to control of health problems.



PHC6002: Epidemiology of Infectious Diseases

Instructor: Jerne J Shapiro, MPH

Credits: 3

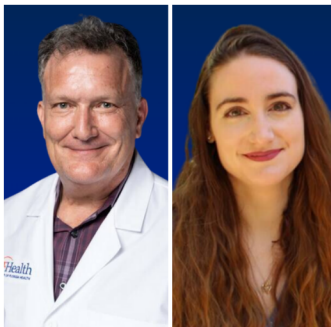
Summer C

Grading Scheme: Letter

Online Asynchronous

Prerequisites: PHC 6001, and PHC 6052 or PHC 6050: Statistical Methods for Health Sciences Research I or departmental approval.

Epidemiology, prevention, and control of infectious diseases affecting local, national, and global community health; epidemiologic methods used in disease surveillance and measures used in slowing or preventing spread of disease.



PHC6009: Epidemiology and Biology of HIV/AIDS

Instructor: Robert Cook, MD, MPH and Rebecca Fisk-Hoffman

Credits: 3

Summer C

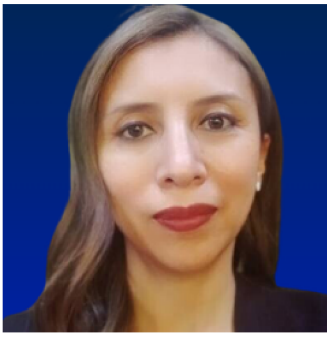
Grading Scheme: Letter

Online Asynchronous

Prerequisites: None

Examining the biological process by which HIV causes infection and AIDS, including the physiologic and cellular processes involved in HIV infection and treatment. Developing skills in finding and interpreting current epidemiologic data on HIV/AIDS, including risk factors, comorbid health issues, special populations, and health outcomes. Overview of HIV prevention strategies and their effectiveness. Special emphasis on epidemiology of HIV/AIDS in the rural south.





PHC6011: Epidemiology Methods II

Instructor: Catalina Lopez-Quintero, MD, PhD

Credits: 3 Summer A

Grading Scheme: Letter **Monday & Wednesday 9:30 - 1:45 pm**

Prerequisites: PHC 6000 & PHC 6052 & PHC 6053, or approval of instructor

Analytic methods in epidemiology with a foundation in applied epidemiological analysis and experience in peer-review productivity based on secondary data analysis.



PHC6041: Landmarks in Psychiatric Epidemiology

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

Credits: 2 Summer A

Grading Scheme: S/U **Online Asynchronous**

Prerequisites: None

Landmarks in psychiatric epidemiology, including mental health and substance use disorders, are reviewed with emphasis on student discovery. The focus is on findings, methodology, and historical development of methods in case finding and diagnosis; cohort discovery; and geographical, social, and community risk factors. Topics include relevance to current methodological challenges.



PHC7083: Artificial Intelligence and Data Science for Epidemiology and Population Health

Instructor: Mattia Prosperi, PhD, FAMIA, and Simone Marini, PhD

Credits: 2 Summer A

Grading Scheme: Letter **Tuesday 9:30 - 12:15 pm; 2:00 - 4:45 pm**

Prerequisites: PHC 6000, and at least one among PHC 6052, PHC 6053, PHC 7065 or PHC 6711 (or equivalent quantitative stats/programming course with permission of instructor)

This computational epidemiology course blends methodological, practical, and translational aspects with emphasis on new data science methods. The course is not intended to provide statistical training, but rather to teach students to recognize suitable computational approaches to handle data. Practice sessions will acquaint students with statistical and machine learning software.



PHC7427: Ethics in Population Science

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

Credits: 2 Summer A

Grading Scheme: S/U **Thursday 11:00 - 3:15 pm**

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

Covering federally mandated topics in the Responsible Conduct of Research: Data Acquisition, Management, Sharing, 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.





PHC7594: Genetic Epidemiology

Instructor: Jinying Zhao, MD, PhD

Credits: 3

Summer A

Grading Scheme: Letter

Monday & Wednesday 2:00 - 4:45 pm

Prerequisites: PHC 6000, PHC 6011 (can be taken concurrently), and PHC 6050c. Talk to the instructor for a prerequisite waiver or further information.

This course covers fundamental concepts and principles in genetic epidemiology. At the completion of this course, students are expected to critically discuss literature, design and conduct basic genetic analysis, and interpret research findings. Advanced methods course for PhD program.



PHC7727: Grant Writing for Population Health Research

Instructor: Volker Mai, PhD

Credits: 2

Summer C

Grading Scheme: Letter

Online Friday 9:30 - 10:45 am, 11:00 - 12:15 pm

Prerequisites: PHC 6011 Epidemiology Methods II

This course provides practical instruction in the grant process, with a specific focus on National Institutes of Health (NIH) procedures. It provides the student with experience in writing parts of the grant application and in reviewing other's grant applications. It also contains a Mock Grant Review session to assist students in understanding the process and content of grant review.
