

PUBLIC HEALTH

Chair: Lecturer JULIE PEDRONI

Advisory Committee: Professors: L. BANTA, A. GEHRING, C. JOHNSON, C. SHANKS*, L. SHORE-SHEPPARD***, B. ZIMMERBERG. Associate Professors: A. HANE, B. KLINGENBERG, N. MUNEMO, T. WATSON. Assistant Professors: J. BLACKWOOD, S. GODLONTON, B. HEGGESETH, P. KOHLER. Lecturers: K. GUTSCHOW, K. HONDERICH, J. PEDRONI.

Public health seeks to understand, and also to protect and improve, health at the level of a community or population. Communities make decisions and allocate resources that, intentionally or not, fundamentally shape human life. For example, great reductions in sickness and early death have come from social interventions with relatively low financial cost, such as physically separating drinking water from sewage, or distributing aspirin, condoms, mosquito nets, vaccines or soap, or sharing new ideas about life's possibilities. The way a society is organized affects the way that social and scientific knowledge is distributed within it; access to that knowledge shapes health at the individual level. At its heart, the study of public health focuses on questions about relationships between science and society, and between reality and possibility: what effective public health policy is and how we can measure its effectiveness; what the relationship is, and ought to be, between research and policy; how we reconcile important moral and economic claims, or balance other values that compete with maximizing health; what counts as disease, over time and among cultures; how we think about cause and responsibility; what constitutes a healthy environment; how our fundamental beliefs determine our approaches to health decisions; and how such decisions ought to be made.

REQUIREMENTS

Application to the concentration must be completed in the Spring of sophomore year. Applications are due on the final day of pre-registration. Application materials can be obtained on the public health website <http://public-health.williams.edu/> by early April or by e-mailing the chair of the program. Due to excess demand for the concentration, applicants are not guaranteed admittance to the program.

PHLH 201(S) Dimensions of Public Health

All students wishing to pursue the Area of Concentration should take this course early in their careers, preferably sophomore year. Students may petition the advisory committee to substitute a course taken in a study-abroad program focused on global health, providing that the course is equivalent in scope. However, students who plan to take advantage of this option should have taken at least two other courses from among the electives by the end of their sophomore year, and should recognize that those who lack a foundation in the core issues of the field may find it more challenging to prepare their proposal for admission to the concentration.

Statistics

Statistical analysis is at the heart of the quantitative tools necessary to study the health of populations. One course in statistics from the list below is required of all concentrators.

Elective Courses

Concentrators must take at least three electives, with at least two different prefixes, from the list below. Elective courses are grouped by category, but these clusters are not meant to constrain students to a single "track" within the program. Instead, each student is free to determine, with the guidance of an advisory committee member(s), a set of electives that provides an intellectually coherent exploration of his/her particular areas of interest within the field of public health. In choosing electives, students should consider the balance of breadth versus depth that will allow them to gain theoretical and methodological sophistication in one or more areas. Students may not substitute an independent study for any of these electives. Winter Study courses may not be counted towards the electives.

Experiential Component

Because many public health challenges cannot be fully appreciated until one has hands-on experience with real communities and actual populations, each concentrator must have at least one relevant field-based educational experience with a research component. This requirement may be met through participation in an approved study abroad program (see below), one of the Winter study courses marked with an asterisk, a WS99 project, or a not-for-credit summer or academic-year internship. In every case, the advisory committee must approve the project in advance. This experiential component will serve as a focal point for the student's work in the capstone course. Please note that experiential component should address both the "public" and "health" in public health. Projects that center on clinical or lab or that do not have a meaningful health component will generally not satisfy the PH experiential requirement. More information is on the public health website, <http://public-health.williams.edu>.

PHLH 402(S) Senior Seminar in Public Health

The capstone seminar provides concentrators with the opportunity to reflect upon and synthesize their experiential learning in the context of understanding gained from a cohesive set of elective courses, and through the lens of a variety of intellectual and disciplinary frameworks. A second goal is to give concentrators experience working in a multi-disciplinary team to address a real-world, and in many cases very daunting, public health problem. Students will spend the first part of the semester writing about and sharing with their classmates their fieldwork experiences; these reflections will be framed by readings on health inequities, cultural perspectives and global practices. Through these case studies, students will gain an appreciation for the complex web of structural, societal, and policy issues that define and constrain approaches to contemporary public health crises. Readings for this portion of the course will be chosen by the faculty member to address a shared topic, to be agreed upon by the end of the previous semester between the instructor and students. In the second portion of the course, teams of students will identify a public or global health problem (akin to a Gates Global Challenge), and, drawing jointly on the methods of their respective disciplines, will develop a comprehensive proposal to address this problem. Team projects will be presented to and evaluated by a board of internal and/or external examiners, comprised of faculty members from Williams, alumni and other PH practitioners from the surrounding region. The capstone course is required of all

concentrators, but may be opened to other students with relevant experience at the discretion of the instructor and the advisory committee, if space permits.

Written Proposal for the PH Portfolio

To be considered for admission to the Area of Concentration in Public Health, students must submit a written statement describing the portfolio of courses, study abroad, and experiential learning component(s) they intend to pursue. In this proposal, candidates for the concentration should describe their intellectual goals, and if relevant, how these relate to their professional goals. A fundamental purpose of the proposal requirement is to encourage the student to consider concretely how s/he will engage with socio-cultural, behavioral, policy, and/or biomedical aspects of population health. To this end, students should address whether a methodological or disciplinary emphasis ties their chosen courses together, and how the intended experiential component will relate to this set of questions. This proposal is due by the end of course registration period in the spring of the sophomore year, and should be prepared in consultation with a member of the advisory committee. Concentrators are required to revisit and update their proposal prior to registration in the spring of the junior year, and to provide documentation of their internship experience both prospectively and retrospectively. The final portfolio will typically include major papers written for electives within the concentration, and may serve as a resource for students to draw on during their capstone course.

PHLH Bioethics + Interpretations of Health

CHIN 253/COMP 254/WGSS 255 "Disease" in Modern Chinese Literature and Culture
COMP 232 Reading and Writing the Body
HIST 374 American Medical History
PHIL 212/WGSS 212 Ethics and Reproductive Technologies
PHIL 213 Biomedical Ethics
PHIL 227 Death and Dying
PHIL 228/WGSS 228 Feminist Bioethics
PHIL 274 Messing with People: The Ethics of Human Experimentation
PHIL 337 Justice in Health Care
REL 246/ANTH 246/WGSS 246/ASST 246 India's Identities: Religion, Caste, and Gender
REL 248/ASST 248/ANTH 248/WGSS 249/GBST 248 Body Politics in South Asia: Gender, Sex, Religion, and Nation
SOC 332 Life and Death in Modernity
SOC 371/HSCI 371/SCST 371 Science, Technology, and (Bio)medicalization

PHLH Biomedical Determinants of Health

BIOL 133 Biology of Exercise and Nutrition
BIOL 134/ENVI 134 The Tropics: Biology and Social Issues
BIOL 136 Studying Human Genetic Diversity: Individuals, Populations, and 'Races'--Dangerous Biology
BIOL 219 Dangerous Exposures: Environment, Immunity, and Infectious Disease
BIOL 313 Immunology
BIOL 315 Microbiology: Diversity, Cellular Physiology, and Interactions
BIOL 417 Translational Immunology: From Bench to Bedside
CHEM 115 AIDS: The Disease and Search for a Cure
CHEM 341/ENVI 341 Toxicology and Cancer
CHEM 343 Medicinal Chemistry
PSYC 317/NSCI 317 Nature via Nurture: Topics in Developmental Psychobiology
PSYC 335 Early Experience and the Developing Infant

PHLH Core Courses

PHLH 201 Dimensions of Public Health
PHLH 402 Senior Seminar in Public Health

PHLH Decision-Making by Institutions + Individuals

ECON 205 Public Economics
ECON 230 The Economics of Health and Health Care
ECON 381 Global Health Policy Challenges
ECON 465 Pollution and the Labor Market
ECON 468 Your Money or Your Life: Health Disparities in the United States
ECON 504 Public Economics
PSCI 209/WGSS 209 Poverty in America
PSCI 228 International Organization
PSCI 249/GBST 249 From Beetroot to Zero Grazing: Comparative Response to AIDS in Africa
PSYC 326 Choice and Decision Making

PHLH Methods in Public Health

ECON 379/523 Program Evaluation in International Development
MATH 307 Mathematical Modeling: Dynamics of Infectious Disease (offered only in Spring 2016)
MATH 410/BIOL 214 Modeling in Ecology

PHLH Nutrition, Food Security, and Environmental Health

AFR 211/AMST 211/ENVI 211/SOC 211 Race and the Environment
BIOL 220/ENVI 220 Field Botany and Plant Natural History

BIOL 308 Integrative Plant Biology: Fundamentals and New Frontiers
BIOL 422/ENVI 422 Ecology of Sustainable Agriculture
ENVI 208 Science and Politics in Environmental Decision Making
ENVI 233 The Industrial Animal
ENVI 283/PSCI 283 Dirty Politics: Regulating Hazardous Chemicals and Wastes

PHLH Reproductive, Maternal and Child Health

ANTH 272/WGSS 272 Sex and the Reproduction of Society
HIST 378/WGSS 378 The History of Sexuality in America
PSYC 317/NSCI 317 Nature via Nurture: Topics in Developmental Psychobiology
PSYC 335 Early Experience and the Developing Infant
PSYC 337 Temperament and Biobehavioral Development
PSYC 350 Child Psychopathology
PSYC 352 Clinical and Community Psychology
REL 248/ASST 248/ANTH 248/WGSS 249/GBST 248 Body Politics in South Asia: Gender, Sex, Religion, and Nation

PHLH Social Determinants of Health

AFR 211/ENVI 211/SOC 211/AMST 211 Race and the Environment
ANTH 371 Medicine, Pathology, and Power: An Ethnographic View
ECON 380/ECON 519 Population Economics
ECON 468 Your Money or Your Life: Health Disparities in the United States
PSCI 209/WGSS 209 Poverty in America
WGSS 230/AFR 230 Gender, Sexuality, and Global HIV/AIDS

PHLH Statistics Courses

ECON 255 Econometrics
POEC 253 Empirical Methods in Political Economy
PSYC 201 Experimentation and Statistics
STAT 101 Elementary Statistics and Data Analysis
STAT 201 Statistics and Data Analysis
STAT 202 Introduction to Statistical Modeling
STAT 231 Statistical Design of Experiments
STAT 340 Categorical Data Analysis
STAT 372 Longitudinal Data Analysis: Modeling

STUDY ABROAD AND INTERNSHIPS

Although not a requirement for the PH concentration, study abroad and/or overseas internships provide a crucial opportunity to engage with global health issues through field-based coursework and independent research projects. The Public Health program in coordination with the Study Abroad Advisor and the Office of Career Counseling will advise students on opportunities in these areas. In particular, students may want to consider one of the several Global Health options offered through SIT. One or more courses completed on an approved study abroad program can be counted toward the three elective courses, with permission of the program coordinator. You can find general study away guidelines for Public Health on the public health website, <http://public-health.williams.edu/>.

PHLH 201(S) Dimensions of Public Health

Public health is concerned with protecting and improving health at the level of a community or population. Although individual behavior is an essential element of public health, collective, rather than individual, outcomes are the focus of public health study. In this course we will survey the field of public health, introducing students to core concepts and methods that highlight the interrelationship of individual choice and social institutions with environmental and biological factors in producing health outcomes at the population level. We will develop these concepts and methods within the context of signal cases and public health crises, covering infectious disease epidemics and prevention, sexual health, and mental health.

Class Format: lecture

Requirements/Evaluation: two papers on a selected population or country and health issue, two short reaction papers, peer reviews and active contribution to class discussion, including on Glow

Extra Info: may not be taken on a pass/fail basis

Prerequisites: none

Enrollment Preferences: sophomores, potential Public Health concentrators

Enrollment Limit: 30

Expected Class Size: 30

Distributional Requirements:

Non-divisional

Other Attributes:

PHLH Core Courses

Spring 2017

LEC Section: 01 MWF 11:00 AM 12:15 PM Instructor: Kiaran Honderich

PHLH 402(S) Senior Seminar in Public Health

This course is designed to provide senior concentrators the opportunity to delve into the public health literature. Students will read, discuss, and compose written reflections on primary source empirical papers addressing a range of issues and disciplines in the field of public health, including topics in the social determinants of health, environmental health risks, and access to health care. Students will also be divided into three or four research teams to investigate a contemporary real-life issue in public health by designing a study; collecting and analyzing data; and disseminating findings by written report and formal oral presentation to the public health advisory committee faculty. Some amount of off-campus travel may be required either in spring break or the latter half of the semester. The capstone course is required of all concentrators, but may be opened to other students with relevant experience at the discretion of the instructor and the advisory committee, if space permits.

Class Format: seminar

Requirements/Evaluation: active seminar participation, written reflections, contribution to the team research project and a 12- to 15-page final paper

Extra Info: may not be taken on a pass/fail basis

Prerequisites: completion of at least 4 courses counting towards the PHLH concentration

Enrollment Preferences: senior Public Health concentrators

Enrollment Limit: 14

Expected Class Size: 14

Distributional Requirements:

Non-divisional

Other Attributes:

PHLH Core Courses

Spring 2017

SEM Section: 01 MR 02:35 PM 03:50 PM Instructor: Amie Hane