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 during pre-registration. Application materials can be obtained on the public health website 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. Depending on availability, a few students may be admitted in the Spring of Junior year with a mid-April deadline.

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 their 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. 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.
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 read, discuss, and compose written reflections on primary source empirical papers addressing a range of issues and disciplines in the field of public health. For example, topics may include 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. 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

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. Please note electives will not be offered every year. Students should check the course catalog as they considering possible electives.

PHLH Bioethics + Interpretations of Health

**CHIN 253 / COMP 254 / WGSS 255(F)** "Illness" in Modern and Contemporary Chinese Literature and Culture
- Taught by: Man He
- Catalog details

**PHL 211 T(F)** Ethics of Public Health
- Taught by: Julie Pedroni
- Catalog details

**PHL 212 / STS 212 / WGSS 212** Ethics and Reproductive Technologies
- Taught by: Julie Pedroni
- Catalog details

**PHL 213 Ti(S)** Biomedical Ethics
- Taught by: Julie Pedroni
- Catalog details

**PHL 228 / STS 228 / WGSS 228** Feminist Bioethics
- Taught by: Julie Pedroni
- Catalog details

**PHIL 337 Ti(F)** Justice in Health Care
- Taught by: Julie Pedroni
- Catalog details

**REL 246 T / ANTH 246 / ASST 246 / WGSS 246** India's Identities: Nation, Community, & Individual
- Taught by: Kim Gutschow
- Catalog details

**STS 227** Death and Dying
- Taught by: Julie Pedroni
- Catalog details

PHLH Biomedical Determinants of Health

**BIOL 133** Biology of Exercise and Nutrition
- Taught by: Steven Swoap
- Catalog details

**BIOL 154 / ENVI 154(F)** The Tropics: Biology and Social Issues
- Taught by: Joan Edwards
- Catalog details

**BIOL 219 Ti(F)** Dangerous Exposures: Environment, Immunity, and Infectious Disease
- Taught by: Lois Banta
- Catalog details

**BIOL 313(S)** Immunology
- Taught by: Damian Turner
BIOL 315 Microbiology: Diversity, Cellular Physiology, and Interactions
  Taught by: Lois Banta

CHEM 341 / ENVI 341 Toxicology and Cancer
  Taught by: David Richardson

PSYC 313 / NSCI 313(s) Opioids and the Opioid Crisis: The Neuroscience Behind an Epidemic
  Taught by: Shivon Robinson

PSYC 335(F) Early Experience and the Developing Infant
  Taught by: Amie Hane

STS 115 AIDS: The Disease and Search for a Cure
  Taught by: Bob Rawle

PHLH Core Courses

PHLH 201(S) Dimensions of Public Health
  Taught by: Kiaran Honderich

PHLH 402(S) Senior Seminar in Public Health
  Taught by: Susan Godlonton, Marion Min-Barron

PHLH Decision-Making by Institutions + Individuals

ECON 205(F) Public Economics
  Taught by: TBA

ECON 230(S) The Economics of Health and Health Care
  Taught by: Lara Shore-Sheppard

ECON 242 Evaluating the Costs and Benefits of Public Policies
  Taught by: Mikael Svensson

ECON 381(S) Global Health Policy Challenges
  Taught by: Susan Godlonton

ECON 465(F) Pollution and Labor Markets
  Taught by: TBA

ECON 468(S) Your Money or Your Life: Health Disparities in the United States
  Taught by: Tara Watson

ECON 504 Public Economics in Developing Countries
  Taught by: Jon Bakija

PSCI 209(WGSS 209(S)) Poverty in America
  Taught by: Cathy Johnson

PSCI 228 International Organization
  Taught by: Cheryl Shanks

PSYC 326(F) Choice and Decision Making
  Taught by: Kris Kirby

PHLH Methods in Public Health

ANTH 371 / STS 370 / WGSS 371(F) Medicine and Campus Health in Disruptive Times
  Taught by: Kim Gutschow

ECON 523 / ECON 379(S) Program Evaluation for International Development
  Taught by: Pamela Jakiela
PHLH Nutrition, Food Security, and Environmental Health

AFR 211 / AMST 211 / ENVI 211 / SOC 211 Race and the Environment
- Taught by: James Manigault-Bryant

BIOL 220 / ENVI 220 Field Botany and Plant Natural History
- Taught by: Joan Edwards

BIOL 308 Integrative Plant Biology: Fundamentals and New Frontiers
- Taught by: Claire Ting

ENVI 246 / AMST 245 / HIST 265(F) Race, Power, & Food History
- Taught by: April Merleaux

ENVI 283 / PSCI 283 Dirty Politics: Regulating Hazardous Chemicals and Wastes
- Taught by: Pia Kohler

ENVI 308 Science and Politics in Environmental Decision Making
- Taught by: Pia Kohler

ENVI 422 Ecology of Sustainable Agriculture
- Taught by: TBA

GEOS 207 / ENVI 201(F, S) The Geoscience of Epidemiology and Public Health
- Taught by: Rónadh Cox

PHLH Reproductive, Maternal and Child Health

PHLH 310 Equity in Health
- Taught by: TBA

PSYC 335(F) Early Experience and the Developing Infant
- Taught by: Amie Hane

PSYC 352 Clinical and Community Psychology
- Taught by: Laurie Heatherington

PSYC 358 T(F) Developmental Psychopathology: Trajectories of Risk and Resilience
- Taught by: Catherine Stroud

PHLH Social Determinants of Health

AFR 211 / AMST 211 / ENVI 211 / SOC 211 Race and the Environment
- Taught by: James Manigault-Bryant

ANTH 269 T / ASST 269 / REL 269 / STS 269(F) Mindfulness Examined: Meditation, Emotion, and Affective Neuroscience
- Taught by: Kim Gutschow

ECON 380 / ECON 519(S) Population Economics
- Taught by: Lucie Schmidt
ECON 468(S) Your Money or Your Life: Health Disparities in the United States
  Taught by: Tara Watson

PHLH 310 Equity in Health
  Taught by: TBA

POEC 253(F) Empirical Methods in Political Economy
  Taught by: Anand Swamy

PSYC 201(F, S) Experimentation and Statistics
  Taught by: Kenneth Savitsky, Jeremy Cong, Catherine Stroud, Noah Sandstrom, Jeremy C Simon

STAT 161(F, S) Introductory Statistics for Social Science
  Taught by: Daniel Turek, Bernhard Klingenberg

STAT 201(F, S) Statistics and Data Analysis
  Taught by: Anna Plantinga, Elizabeth Upton, Richard De Veaux

STAT 372(F) Longitudinal Data Analysis: Modeling Change over Time
  Taught by: Anna Plantinga

WGSS 230 / AFR 230 Gender, Sexuality, and Global HIV/AIDS
  Taught by: Kieran Honderich

PHLH Statistics Courses

ECON 255(F, S) Econometrics
  Taught by: Owen Ozier, Matthew Gibson, David Zimmerman

STAT 101(F, S) Elementary Statistics and Data Analysis
  Taught by: Shaoyang Ning, Daniel Turek

STAT 202(F, S) Introduction to Statistical Modeling
  Taught by: Laurie Tupper

STAT 335(S) Biostatistics and Epidemiology
  Taught by: Anna Plantinga

STAT 410 Statistical Genetics
  Taught by: Anna Plantinga

STAT 440 Categorical Data Analysis
  Taught by: Bernhard Klingenberg

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 Chair. You can find general study away guidelines for Public Health at public-health.williams.edu.
PUBLIC HEALTH

PHLH 201 (S) Dimensions of Public Health (DPE)

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:** Course will be taught remotely.

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

**Prerequisites:** none

**Enrollment Limit:** 14

**Enrollment Preferences:** sophomores, potential Public Health concentrators

**Expected Class Size:** 14

**Grading:** no pass/fail option, yes fifth course option

**Distributions:** No divisional credit (DPE)

**Difference, Power, and Equity Notes:** This course fulfills the DPE requirement because of its central focus on the ways that difference and power shape health outcomes in the U.S. and internationally. It uses an interdisciplinary approach to explore issues including the historical relations between communities of color, healthcare providers, and public health practitioners; contestation over the role of markets and government in public health; and differing explanations for the patterns of race, class, etc., in health outcomes.

**Attributes:** PHLH Core Courses

Spring 2021

SEM Section: H1  MW 10:00 am - 11:15 am  Kiaran Honderich
SEM Section: H2  MWF 11:45 am - 1:00 pm  Kiaran Honderich

PHLH 220 (F) International Nutrition (DPE) (WS)

Global malnutrition continues to represent one of the most challenging issues of international development. Problems of both under- and overnutrition beginning as early as in utero can detrimentally influence the health, development and survival of resource-limited populations. This course introduces students to the most prevalent nutritional issues through a food policy perspective and exposes them to a wide variety of interventions, policies and current debates in the field of international nutrition. In addition to exploring the multi-level programmatic approaches for the prevention and treatment of the related nutritional problems, students will gain exposure and experience in program design and program proposal writing. Readings will involve both real-world programmatic documents/evaluations as well as peer-reviewed journal articles. Examples will be drawn from Africa, Asia and Latin America.

**Class Format:** This class will be remote. Each week students will typically be asked to (1) watch a series of short lectures- think 10-15' clips, (2) read peer reviewed articles and post on discussion boards (3) attend synchronous meetings - both in small groups of and as a whole class during assigned class time. Instructor will also be available for one-on-one online meetings/check-ins.

**Requirements/Evaluation:** six 1-page essays, one final term paper (10-15 pages), one oral presentation, and active class participation

**Prerequisites:** PHLH 201 or permission of instructor

**Enrollment Limit:** 12

**Enrollment Preferences:** Public Health concentrators

**Expected Class Size:** 12

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2) (DPE) (WS)

**Writing Skills Notes:** As a writing skills course, students will write six 1-page essays (each with an optional rewrite) which will help build the specific writing skills necessary for the final 10- to 15 page paper. Students will receive from the instructor timely comments on their writing skills, with suggestions for improvement.

**Difference, Power, and Equity Notes:** This course exposes the issues of difference, power and inequity by exploring the unequal distribution of
resources and power at the global, national and intra-national level within the international nutrition context. We will also critically engage with issues of power, cultural difference and related ethics in the context of international development and nutrition programming.

**Attributes:** PHLH Nutrition, Food Security + Environmental Health

**Fall 2020**

**SEM Section: R1  MW 6:45 pm - 8:00 pm  Marion Min-Barron**

**PHLH 250  (F) Qualitative Research Methods in Public Health**

Qualitative methods provide the opportunity to add in-depth meaning and context regarding research on individuals and the environments of study. This course introduces students to qualitative research theory in Public Health and gives them the opportunity to practice three qualitative research methods; (1) in-depth interviewing, (2) focus groups and (3) participant observation. Students will have the opportunity to pilot each of these three qualitative research methods, analyze a subset of the data via qualitative analysis software, and design a qualitative research study (including the research instrument). We will cover best practices in reporting qualitative results (for the purposes of peer-reviewed publication) and learn about the advantages and disadvantages of qualitative research in various domestic and international settings related to public health (such as nutrition, HIV and physical activity).

**Requirements/Evaluation:** three 1-page reflection papers, transcription/field notes of one qualitative method (5-7 pages), one research proposal (10-15 pages), and an oral presentation.

**Prerequisites:** PHLH 201 or equivalent

**Enrollment Limit:** 19

**Enrollment Preferences:** Public Health concentrators

**Expected Class Size:** 15

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2)

**Attributes:** PHLH Methods in Public Health

*Not offered current academic year*

**PHLH 255  (S) Research Methods in Public Health**

This course will introduce students to three common research methods utilized within Public Health: qualitative methods, survey methods and epidemiology. We will cover the basic research design process, integrating and comparing the qualitative methods of interviewing and focus groups, survey instrument design and pretesting as well as basic epidemiologic methods and concepts. Readings and discussions will engage with best practices in reporting these types of methods (for the purposes of peer-reviewed publication). Lastly, students will have the opportunity to design research instruments, pilot some of these methods, and analyze a subset of the data via analysis software. Students who have taken PHLH 250 should not enroll in PHLH 255.

**Requirements/Evaluation:** three 1-page reflection papers, development of two research instruments (3-5 pages), one critique of a journal article (5 pages), an oral presentation and active class participation.

**Prerequisites:** PHLH 201 or equivalent AND at least one Statistics course

**Enrollment Limit:** 19

**Enrollment Preferences:** Public Health concentrators

**Expected Class Size:** 15

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2)

**Attributes:** PHLH Methods in Public Health

*Not offered current academic year*

**PHLH 310  Equity in Health**

Equity in health has been defined as inequalities in health outcomes based on irrelevant social characteristics. The Sustainable Development Goals and Agenda 2030 highlight equity in health as a main focus and key to achieving social sustainability. This course will introduce students to the
concept of equity in health, and discuss the theoretical underpinnings of the pathways to unequal health outcomes. The social determinants of health and how they translate to uneven outcomes will be explored and discussed. There will also be a special focus on gender and gender-based violence as a driver of ill health. How to reduce inequity in health will be discussed and debated. Readings will involve some of the classic texts on health equity as well as recent explorations of the area.

Requirements/Evaluation: weekly short reflection papers and one final paper (10-12 pages)

Prerequisites: PHLH 201 Dimensions of Public Health or Permission of Instructor

Enrollment Limit: 16

Enrollment Preferences: Public Health Concentrators

Expected Class Size: 16

Grading:

Distributions: (D2)

Attributes: PHLH Reproductive, Maternal and Child Health PHLH Social Determinants of Health

Not offered current academic year

PHLH 397 (F) Independent Study: Public Health

Public Health Independent Study

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

Not offered current academic year

PHLH 398 (S) Independent Study: Public Health

Public Health Independent Study

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

Not offered current academic year

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 read, discuss, and compose written reflections on primary source empirical papers addressing a range of issues and disciplines in the field of public health. For example, topics may include the social determinants of health, environmental health risks, and access to health care. Students will also be divided into small research teams to interact with local organizations (remotely) and investigate a contemporary real-life issue in public health. 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.

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

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

Enrollment Limit: 10

Enrollment Preferences: senior Public Health concentrators; students who are not senior Public Health concentrators should contact the instructor

Expected Class Size: 8

Grading: no pass/fail option, no fifth course option

Distributions: No divisional credit

Attributes: EXPE Experiential Education Courses PHLH Core Courses

Spring 2021

SEM Section: H1 TR 9:45 am - 11:00 am Susan Godlonton
Winter Study

PHLH 99 (W) Independent Study: Public Health

Open to upperclass students. Students interested in doing an independent project (99) during Winter Study must make prior arrangements with a faculty sponsor. The student and professor then complete the independent study proposal form available online. The deadline is typically in late September. Proposals are reviewed by the pertinent department and the Winter Study Committee. Students will be notified if their proposal is approved prior to the Winter Study registration period.

Class Format: independent study

Grading: pass/fail only

Not offered current academic year