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 "Disease* in Modern Chinese Literature and Culture
Taught by: Man He
Catalog details

PHIL 212 / SCST 212 / WGSS 212 Ethics and Reproductive Technologies
Taught by: Julie Pedroni
Catalog details

PHIL 213 T(S) Biomedical Ethics
Taught by: Julie Pedroni
Catalog details

PHIL 227 Death and Dying
Taught by: Julie Pedroni
Catalog details

PHIL 228 / STS 228 / WGSS 228 (F) Feminist Bioethics
Taught by: Julie Pedroni
Catalog details

PHIL 274 T Messing with People: The Ethics of Human Experimentation
Taught by: Julie Pedroni
Catalog details

PHIL 337 T Justice in Health Care
Taught by: Julie Pedroni
Catalog details

REL 246 T / ANTH 246 / ASST 246 / WGSS 246 (F, S) India’s Identities: Reproducing the Nation, Community and Individual
Taught by: Kim Gutschow
Catalog details

SOC 332 Life and Death in Modernity
Taught by: Grant Shoffstall
Catalog details

SOC 371 / HSCI 371 / SCST 371 Medicine, Technology, and Modern Power
Taught by: Grant Shoffstall
Catalog details

PHLH Biomedical Determinants of Health

B IOL 133 Biology of Exercise and Nutrition
Taught by: Steven Swoap
Catalog details

B IOL 134 / ENVI 134 (F) The Tropics: Biology and Social Issues
Taught by: Joan Edwards
Catalog details

B IOL 219 T Dangerous Exposures: Environment, Immunity, and Infectious Disease
Taught by: Lois Banta
BIOL 313(S) Immunology
Taught by: Damian Turner

BIOL 315(S) Microbiology: Diversity, Cellular Physiology, and Interactions
Taught by: Lois Banta

BIOL 417 Translational Immunology: From Bench to Bedside
Taught by: Damian Turner

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

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

PSYC 317 T / NSCI 317 Nature via Nurture: Topics in Developmental Psychobiology
Taught by: Betty Zimmerberg

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

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

PHLH Decision-Making by Institutions + Individuals

ECON 205(F) Public Economics
Taught by: Sara LaLumia

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

ECON 381 Global Health Policy Challenges
Taught by: Susan Godlonton

ECON 465 Pollution and the Labor Market
Taught by: Matthew Gibson

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

ECON 504(F) Public Economics in Developing Countries
Taught by: Jen Bakija

PSCI 209 / WGSS 209 Poverty in America
Taught by: Cathy Johnson

PSCI 228(S) International Organization
Taught by: Cheryl Shanks

PSYC 326(S) Choice and Decision Making
Taught by: TBA

PHLH Methods in Public Health

ANTH 371 / STS 370 / WGSS 371(F) Medicine, Pathology, and Power: An Ethnographic View
Taught by: Kim Gutschow
ECON 523 / ECON 379(S) Program Evaluation for International Development
Taught by: Susan Godlonton

MATH 310 T / BIOL 210 Mathematical Biology
Taught by: Julie Blackwood

PHLH 250 Qualitative Research Methods in Public Health
Taught by: Marion Min-Barron

PHLH 255 Research Methods in Public Health
Taught by: Marion Min-Barron

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(S) Field Botany and Plant Natural History
Taught by: Joan Edwards

BIOL 308(F) Integrative Plant Biology: Fundamentals and New Frontiers
Taught by: Claire Ting

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

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, S) Mindsight: Mindfulness and Medicine
Taught by: Kim Gutschow

ECON 380 / ECON 519 Population Economics
Taught by: Lucie Schmidt

ECON 468 Your Money or Your Life: Health Disparities in the United States
Taught by: Tara Watson
PHLH Statistics Courses

**ECON 255(F, S) Econometrics**
- Taught by: Matthew Gibson, Kenneth Kuttner, Lara Shore-Sheppard, David Zimmerman

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

**PSYC 201(F, S) Experimentation and Statistics**
- Taught by: Jeremy Cone, Kris Kirby, Kenneth Savitsky

**STAT 101(F, S) Elementary Statistics and Data Analysis**
- Taught by: Elizabeth Upton

**STAT 161(F, S) Introductory Statistics for Social Science**
- Taught by: Anna Plantinga

**STAT 201(F, S) Statistics and Data Analysis**
- Taught by: Stewart Johnson, Shaoyang Ning

**STAT 202(F, S) Introduction to Statistical Modeling**
- Taught by: Xizhen Cai

**STAT 372 Longitudinal Data Analysis: Modeling Change over Time**
- Taught by: Anna Plantinga

**STAT 410(F) 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](http://public-health.williams.edu).

**PHLH 15 (W) The Human Side of Medicine and Medical Practice**

In today's health care atmosphere of physician accountability, advanced medical technology, and evidence-based diagnosis, the "human side" of medical practice is often minimized or even disregarded. Medical schools debate how or whether to emphasize this more interpersonal aspect of medicine within their curriculums. This concern with the patient/physician relationship becomes particularly relevant with today's reliance upon personal devices and with a culture promoting medicine as a big business model. Increasingly research shows that the combination of both perspectives—patient centered understanding and technical proficiency—lead to better diagnosis and treatment; to improved patient compliance and satisfaction; and to increased physician professional satisfaction. The doctor/patient relationship will be placed within the broader context of cybersecurity concerns, the opioid epidemic, and new disruptive models of health care. Original thinking, examining personal/family experiences, in-class skill practice and frequent class guest speakers will provide much of the learning experience. This seminar works well for those who have shadowed physicians or are planning to shadow, but ALL MAJORS ARE WELCOME. Lively discussion is key. Reading includes *Every Patient Tells A
Story (Lisa Sanders), When Breath Becomes Air (Paul Kalanthi), Black Man In A White Coat (Damon Tweedy) as well as a reading packet distributed by the instructor. Adjunct Instructor Bio: Sandra Goodbody is a clinical social worker, with a private psychotherapy practice in Washington DC. She has worked at the Institute of Medicine (National Academies) and has taught at The George Washington School of Medicine.

Requirements/Evaluation: final project plus three 2-page papers

Prerequisites: none

Enrollment Limit: 10

Enrollment Preferences: student interest

Grading: pass/fail only

Materials/Lab Fee: $15 and approximately $55 for books

Winter 2020

LEC Section: 01 TBA Sandra Goodbody

PHLH 25 (W) Public Health, Community Action, and Education in Rural India

This course will explore access to and reliance on public health services, NGOs, and education in a rural Indian social context. As one of the fastest growing and most populated countries in the world, India has the potential to have an enormous global impact. However, the country's future is entirely dependent upon the health of its population, specifically its most vulnerable—and most vital—members: women and children. To understand how public health and education policy can be formed and changed to address inequity and sociocultural biases, students will learn about the context of India and how local, national, and global actors currently interact with social systems. The course will begin with an orientation and introductory lectures in New Delhi. Then students will travel to rural Uttar Pradesh (UP) for 10 days for seminars with local experts and field trips to community health centers, schools, and villages. Following their trip to UP, students will travel to Rajasthan to meet NGO workers in Jaipur. The course will include an introduction to fieldwork methods and an interview project on a topic chosen by the student addressing development in India. This course will be run in partnership with the Foundation for Public Health, Education, and Development (http://fphed.org/). A UP-based organization with its own campus, FPHED's board collectively has decades of experience hosting study abroad programs, including biannual semester-long programs with the School for International Training. FPHED will assist in making all accommodations and travel arrangements, as well as making local connections with experts and translators for students. Adjunct Instructor Bio: Ms. Curtis graduated from Williams College in 2017 with a degree in Women's, Gender, and Sexuality Studies and a Concentration in Public Health. She conducted community-based participatory research on government reproductive health programs in rural India through a Fulbright-Nehru Fellowship. She has spent a cumulative 17 months to-date studying and researching reproductive health in rural India. She is currently a Health Care Assistant at Planned Parenthood in Boston.

Requirements/Evaluation: short paper and final project or presentation

Prerequisites: none

Enrollment Limit: 12

Enrollment Preferences: Public Health students, then by seniority

Grading: pass/fail only

Materials/Lab Fee: $3,260

Attributes: EXPE Experiential Education Courses TRVL Winter Study Travel Course

Winter 2020

TVL Section: 01 TBA Elizabeth F. Curtis

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
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: Seminar

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

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: sophomores, potential Public Health concentrators

Expected Class Size: 19

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 2020

SEM Section: 01  TF 1:10 pm - 2:25 pm  Kiaran Honderich
SEM Section: 02  TF 2:35 pm - 3:50 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. This course was previously titled Nutrition in the Developing World.

Class Format: seminar

Requirements/Evaluation: six 1-page essays, one situation analysis paper (5-7 pages), one final term paper (10-15 pages), one oral presentation, and active class participation

Prerequisites: PHLH 201 or equivalent

Enrollment Limit: 19

Enrollment Preferences: Public Health concentrators

Expected Class Size: 19

Grading: no pass/fail option, no 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) and a 5- to 7-page, country assessment paper 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 nutrition program design and implementation.

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

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Fall 2019
SEM Section: 01 M 7:00 pm - 9:40 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).

**Class Format:** seminar

**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

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**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.

**Class Format:** seminar

**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 397 (F) Independent Study: Public Health
Public Health Independent Study

Class Format: Independent Study
Grading:  yes pass/fail option, yes fifth course option
Distributions: (D2)

Fall 2019
IND Section: 01   TBA     Amie A. Hane

PHLH 398 (S) Independent Study: Public Health
Public Health Independent Study

Class Format: Independent Study
Grading:  yes pass/fail option, yes fifth course option
Distributions: (D2)

Spring 2020
IND Section: 01   TBA     Amie A. Hane

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.

Class Format: seminar/lab
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: 14
Enrollment Preferences: senior Public Health concentrators; students who are not senior Public Health concentrators should contact the instructor
Expected Class Size: 14
Grading:  no pass/fail option, no fifth course option
Distributions: No divisional credit
Attributes: EXPE Experiential Education Courses  PHLH Core Courses

Spring 2020
SEM Section: 01   TR 8:30 am - 9:45 am     Susan Godlonton
LAB Section: 02   T 1:00 pm - 4:00 pm     Marion Min-Barron