

# Public Health

**MAJOR, MINOR**

**PROFESSORS:** Bonnie Bowers (psychology), LeeRay Costa (gender and women's studies), Renee Godard (biology), Edward A. Lynch (political science), Darla Schumm (religious studies), Morgan Wilson (biology), Pauline Kaldas (English)

**ASSOCIATE PROFESSORS:** Vladimir Bratic (communication), Pablo Hernandez (economics), Rachel Nuñez (history), Elizabeth Gleim (biology), Genevieve Hendricks (art)

**ASSISTANT PROFESSORS:** Abubakarr Jalloh (public health), Susan Eagle (public health), Mary Jane Carmichael (biology), Chris Florio (history), Kaila Thorn (environmental studies), Lindsey Breitwieser (gender and women's studies), Giancarlo Schrementi (mathematics and statistics)

**VISITING ASSISTANT PROFESSOR:** Charles Lowney (philosophy), Sadie Snow (Sociology)

The study of public health is an interdisciplinary endeavor that teaches students to recognize, assess, and address various issues of health on individual, community, and global levels. The interdisciplinary nature of the major allows students to build an integrated approach to health issues by combining sociocultural disciplines with the natural sciences. Students completing an undergraduate degree in public health can be employed in a variety of entry-level positions in both the public and private sector. Prospective job titles include health educator, community health worker, environmental health specialist, epidemiologist, public policy writer, emergency preparedness specialist, and coordinator of health initiatives. A Master's in Public Health degree will allow a student to advance in her career. The Hollins public health program is specifically designed with a core that builds a foundation of knowledge in public health and a slate of electives that allows students to build their own paths of specialty study. Working with the program director, they will construct generalized programs, programs focused on socio-cultural perspectives, or programs anchored in the natural sciences.

## REQUIREMENTS FOR A MAJOR IN PUBLIC HEALTH

11 courses (44 – 48 credits), including 5 core courses and one internship

### REQUIRED COURSES (20)

- PH 101: Introduction to Public Health (4)
- STAT 140: Introduction to Statistics (4)
- PH 201: Epidemiology (4)
- PH 301: Global Health (4)
- PH 470: Senior Seminar (4)

### INTERNSHIP (2 or 4)

- One internship completed during any term. Credits may vary depending on when a student chooses to complete the field experience. Academic component of supervised field experience in public health: students attend a weekly seminar to discuss readings linking research and practice, complete an independent project that builds on the internship, and develop presentations of their work. Application must be made with faculty prior to registration.

### SIX ADDITIONAL AFFILIATED COURSES (22-24)

- At least 2 at the 300 level, no more than 2 courses from one department, except for those courses with a Public Health (PH) designation.

### AFFILIATED COURSES:

- BIOL 132: Human Biology
- BIOL 140: Human Genetics
- BIOL 220: Human Physiology
- BIOL 312: Microbiology
- BIOL 314: Genetics
- BIOL 332: Immunology
- BIOL/ES 104: Introduction to Environmental Studies
- BIOL/ES 207: Ecology
- BIOL/ES 240: One Health: Linking Human, Animal, and Environmental Health
- BIOL/ES 253/253L: Microbial Ecology

- BIOL/ES 316: Wildlife Disease
- BIOL/ES 357: Conservation Biology and Lab
- BIOL/PSY 317: Biological Psychology
- BLI 210: Conflict, Feedback, and Change
- BLI 220: Decision Making Strategies
- BLI 471: Negotiation and Feedback
- CHEM 214: Analytical Chemistry
- CHEM 221: Organic Chemistry
- COMM 208: Qualitative Methods
- COMM 225: Public Speaking
- COMM 238: Argumentation and Advocacy
- COMM 244: Social Marketing
- COMM 270: Intercultural Communication
- COMM 344: Health Communication
- CMPS 110: Computer Basics and Applications
- CMPS 160: Applied Computing I with Python
- CMPS 260: Applied Computing II: How to Think Like a Data Scientist
- CMPS 335: Data Mining Techniques
- ECON 157: Principles of Microeconomics
- ECON 241: The Economics of Social Issues
- ECON 254: The Economics of Health Care
- ECON 261: Public Finance
- ECON/ES 230: Economics and the Environment
- ECON 312: Economics of Development and Globalization
- ENG 174: International Women's Voices
- ENG 211: Multicultural Women Writers
- ENG 320: Immigrant Literature
- ENG 346: Arab-American Literature
- ES/GWS 219: Food, Culture, and Justice
- ES/INTL 210: World Geography
- ES/PHIL 182: Environmental Ethics
- ES 373: Environmental Justice
- GWS 141: Introduction to Gender and Women's Studies
- GWS 242: Gender, Culture, & Power
- GWS/REL 281: Saints, Sinners, and Misfits: Religion and Disability
- GWS/HIST 310: The Body and Sexuality in Europe
- GWS/REL 318: Sexual Ethics
- GWS/SOC 250: Mad in America: Gender, Mental Health, and Popular Culture
- HIST 265: African-American History, 1865 to the Present
- HIST 329: Slavery: A Global History
- INTL/POLS 302: Comparative Urbanism
- PHIL 181: Contemporary Moral Issues
- PHIL 241/341: Poverty and Human Capability
- PHIL 253: Biomedical Ethics
- POLS 255: State and Local Government
- PSY 204: Social Psychology
- PSY 208: Research Statistics
- PSY 215: Motivation and Emotion
- PSY 342: Principles of Abnormal Behavior
- REL 126: Introduction to Religion
- REL 212: Christian Traditions
- REL 215: Silenced? Marginalized Voices in Judaism, Christianity, and Islam
- REL 217: Islam and the West
- REL 218: Buddhist Traditions
- REL 219: Jewish Traditions
- REL 223: Women in Buddhism
- SOC 234: Social Problems

- STAT 251: Statistical Methods I
- STAT 324: Data Wrangling with R
- STAT 361: Regression

### REQUIREMENTS FOR A MINOR IN PUBLIC HEALTH:

6 courses (22 – 24 credits)

- PH 101: Introduction to Public Health
- PH 201: Epidemiology
- STAT 140: Introduction to Statistics
- PH 301: Global Health
- 2 courses from the list of affiliated courses, with at least one at the 300 level

### COURSES IN PUBLIC HEALTH:

#### PH 101: INTRODUCTION TO PUBLIC HEALTH (4)

Jalloh

Public health, founded on the principle of social justice, is the science of improving the health of all individuals in a community. In this introductory course, students will learn about the history of public health, the tools we use to improve the public's health, and the structure of the U.S. public health system. Students will then apply what they learn to better understand the state of health in the United States and current controversies in public health. Open to first-year students. Offered Term 1. (DIV, MOD, INQ)

#### PH 201: EPIDEMIOLOGY (4)

Jalloh

This course analyzes the distribution, determinants, and prevention of disease, disability, and premature death in populations. It includes a quantitative analysis of the biological, social, economic, and environmental conditions that affect health, as well as an examination of potential bias in studies. Prerequisites: PH 101 and q, or permission of instructor. Open to first-year students. Offered Term 2. (r, Q, TLAS)

#### PH 240: ONE HEALTH: LINKING HUMAN, ANIMAL, AND ENVIRONMENTAL HEALTH (4)

Gleim

Nearly two-thirds of all human infectious diseases are transmissible to animals and vice versa. One Health is a world-wide movement which focuses on the intersectionality of human, animal, and environmental health and how interdisciplinary efforts can be made to better study and solve these problems. This seminar-based course will take a case study approach to explore concepts and approaches integral to One Health. Key diseases and issues related to human, animal, and environmental health for which this approach could or has been utilized will be explored, along with its associated peer-reviewed literature. This course is specifically targeted towards pre-health, pre-vet, and public health students, along with students interested in field biology and environmental science. Also listed and described as BIOL/ES 240. Prerequisites: ES/BIOL 207/207L, or PH 201, or permission. Open to first-year students. Offered Term 2.

#### PH 250: SPECIAL TOPIC: SOCIAL DETERMINANTS OF HEALTH (4)

Jalloh

Social circumstances influence the health and well-being of individuals and communities. This course fosters an understanding of micro- and macro-determinants that result in racial/ethnic and socio-economic differences in health outcomes. Determinants include income, wealth, education, social status, social support, social stressors, and social-physical environments, among others. Students will learn about the social conditions impacting individual and community health. Open to first-year students. Offered Term 2. (o, DJP)

#### PH 250: SPECIAL TOPIC: GENDER AND HEALTH (4)

Eagle

This course examines the intertwined impacts of both gender and sex on health. Many health issues are unique to people of specific biological sexes—male, female, and intersex. Additionally, gendered power relations structure clinical interactions, medical research, and health policy, leading to differences in health outcomes across all genders. This course will allow students to apply gender analysis to population health issues. Open to first-year students. Offered Term 1.

#### PH 250: SPECIAL TOPIC: CULTURE, HEALTH, AND ILLNESS (4)

Eagle

We might think that it is relatively straightforward to determine if someone is healthy or sick. For example, we generally define and describe disease in biological terms; the signs and symptoms of disease are observed through medical examination and testing. However, health and illness are culturally defined and socially constructed concepts. How people manifest and experience poor health—and the proper responses to being in poor health—varies significantly across cultures. This course is an exploration of medical anthropology: how health and illness are

defined, described, experienced, and treated across social and cultural divides. Open to first-year students. Offered Term 2.

**PH 253: MICROBIAL ECOLOGY (4)****Carmichael**

Microbial ecology is the study of microbes in the environment and their interactions with the environment, each other, and plant and animal species. The discipline is at the heart of the function of every ecosystem on the planet, from the lithosphere to the cryosphere, the human body, and the built environment. This course will survey the microbial diversity within the biosphere and delve into the complex interactions between microbial communities and the worlds they inhabit. Also listed and described as BIOL 253 and ES 253. Pre-requisites: For BIOL Majors, BIOL 207/207L and BIOL 220/220L, or permission; ES Majors, ES 105 and ES 207/207L, or permission; For PH Majors, PH 101 and PH 201, or permission. BIOL majors cannot receive credit for BIOL 253/253L and BIOL 312/312L. Not offered in 2024-25. (SCI: Must take lab to fulfill SCI).

**PH 253L: MICROBIAL ECOLOGY LAB (4)****Carmichael**

This lab will use culture-dependent and independent techniques and common biogeochemical assays to survey the microbial ecology of a variety of environments. Also listed and described as BIOL 253L or ES 253L. Co-requisite: BIOL, ES, or PH 253. Not offered in 2024-25. (SCI)

**PH 260: PUBLIC HEALTH AND SOCIAL JUSTICE (4)****Jalloh**

As social justice is the central mission of public health, this course provides critical analysis of the relationship between social justice and population health. Issues include racism, discrimination, poverty, education, employment, and housing, just to name a few. In particular, students will engage in in-depth examination of residential segregation and its impact on the health and well-being of racial/ethnic minorities. Open to first-year students. Not offered in 2024-25. (DIV)

**PH 290: INDEPENDENT STUDY (2 or 4)****Department**

Independent study conducted below the advanced level. Application must be made with faculty prior to registration. Offered any term.

**PH 301: GLOBAL HEALTH (4)****Jalloh**

This course expands ideas introduced in Introduction to Public Health and Epidemiology to infectious and chronic disease in terms of global prevalence. It considers case studies, theory, and methods about health from a multidisciplinary perspective. Students explore the relation of biological, economic, political, cultural, and behavior factors to health, as well as disease spread and management. Prerequisites: PH 101 or PH 201, or permission of instructor. Offered Term 1. (GLO, DJP)

**PH 316: WILDLIFE DISEASE (4)****Gleim**

This lecture/lab course will provide a general understanding of disease ecology and examine both common and newly emerging diseases that impact wildlife. We'll also examine the roles these diseases play in population regulation, game management, conservation of rare and endangered species, and how they can affect human and domestic animal health. Lab components of the course will involve both field and laboratory-based experiences involved in routine testing of wildlife and/or vectors for pathogens. This course cannot count as a 300-level laboratory course for the biology major. Also listed and described as BIOL/ES 316. Prerequisite: Sophomore standing and BIOL/ES 207/207L and BIOL 236/236L, or PH 201, or permission. Not offered in 2024-25. (SCI, TLAS)

**PH 344: HEALTH COMMUNICATION (4)****Eagle**

Health communication is an emerging specialty in the field of communication. This course is a survey of some of the concepts and theories in health communication and explores several areas, including the social construction of health and illness, patient-provider interaction, the development of health care promotion messages, and an overview of health care models and organizational structures in the U.S. Also listed and described as COMM 344. Prerequisite: sophomore standing. Offered Term 1.

**PH 350: SPECIAL TOPIC: COMPARATIVE HEALTH SYSTEMS AND POPULATION HEALTH (4)****Eagle**

Access to healthcare is a significant determinant of health. This course is anchored in study of the structure and function of the U.S. health care as a system, and analysis of its impact on health outcomes across multiple populations. It will situate this study in a global context to highlight the impact different health care systems have on population health outcomes. Prerequisite: sophomore standing. Offered Term 1.

**PH 350: Special Topic: Qualitative Research Methods (4)****Eagle**

This course leads students through the process of carrying out qualitative research. Students will learn why qualitative methods are used, focusing on theoretical approaches and developing research questions as well as why and how to apply for IRB approval. Students will also learn how to carry out research through methods appropriate to their research question, including content analysis, focus groups, and interviewing. From collecting data, students will move on to data management, analysis, and interpretation. Prerequisite: sophomore standing. Also listed and described as SOC 350. Offered Term 2.

**PH 373: ENVIRONMENTAL JUSTICE (4)****Thorn**

Environmental justice refers to both a field of study and an activist movement. Both the realm of study and activism focus on the way the different groups of people are differently impacted by environmental issues. This course examines the roots of environmental justice, considers the role of citizen activism and citizen science, and considers the systemic roots of environmental injustices in the United States, its territories, and the broader North American continent. Additionally, the course incorporates applied examples and experiences from the field in adjacent study areas including public health and sociology. Also listed and described as ES 373 and SOC 373. Prerequisite: ES 104, ES 117, PH 201, or SOC 110. Offered Term 1. (DIV, DJP)

**PH 390: INDEPENDENT STUDY (2 or 4)****Department**

Independent study conducted at the advanced level. Application must be made with faculty prior to registration. Offered any term.

**PH 399: INTERNSHIP (2 or 4)****Department**

Academic component of supervised field experience in Public Health. Students attend a weekly seminar to discuss readings linking research and practice, complete an independent project that builds on the internship, and develop presentations of their work. Application must be made with faculty prior to registration. May be proposed any term.

**PH 470: SENIOR SEMINAR (4)****Jalloh**

This course guides students through the process of public health intervention design, from needs assessment to evaluation. Students work in groups mentored by the course instructor to develop a community health needs assessment and improvement document, simulating public health working environments. The course is designed to empower students to synthesize their academic experience gained in prior public health coursework that will incorporate and gauge students' practical skills in developing an impactful project based on real life public health intervention. Prerequisite: Senior standing and PH 301 or permission of instructor. Offered Term 1.

**TRIP 1051: KENYA: AN INTERDISCIPLINARY VIEW OF WOMEN'S REPRODUCTIVE HEALTH****Jalloh,  
Breitwieser**

This academic and experiential program will center on women's reproductive health in Kenya. Via a collaboration between Kenyatta University in Nairobi, Kenya and Hollins University in Roanoke, Virginia, USA, students will gain a global health perspective with a focus on exploring reproductive health issues through an interdisciplinary lens, including maternal and child health, birthing experiences, and gendered economic disparities. Students will also be introduced to the Kenyan culture via immersive experiences with local organizations and populations. The partnership with Kenyatta will give students the opportunity to explore the shaping of public knowledge about and advocacy for women's health. Prerequisite: Permission of instructors. Next offered in Short Term 2026.