



Global and Public Health Sciences

A focus on preventive, population-level solutions to health issues in domestic and international settings

The Global and Public Health Sciences (GPHS) major applies comprehensive, multidisciplinary perspectives to public health research, problems, and solutions. Sustained improvement of the health of populations requires an approach that involves the biomedical, social, behavioral, political and environmental sciences, and consideration of the cultural context.

Program Highlights

- Biological aspects of public health
- Environmental health
- Health policy and management
- Social and behavior health

Students interested in improving the health of communities and the actions that will protect or improve the lives of large numbers of individuals should consider the Global and Public Health Sciences major.

The work of public health professionals is distinct from that of clinical professionals who typically treat individuals after they have become sick or injured. Public health actions often involve educational and/or governmental approaches that influence many people simultaneously to address issues such as obesity and chronic disease (e.g. type 2 diabetes); food insecurity; clean water and air; HIV/AIDS and other infectious diseases; and access to health care.

The major is particularly appropriate for students who wish to pursue leadership positions in governmental or non-governmental

organizations that deal directly with current and emerging health concerns in the U.S. and abroad.

Curriculum

Students complete college requirements in the biological and social sciences, humanities, writing, and math. The major also requires courses in introductory biology, general chemistry, organic chemistry, biochemistry, and physiology. These courses collectively provide a foundation with which to understand the biomedical basis of public health issues.

All majors take “*Introduction to Public Health*” and “*Introduction to Global Health*” in their first year as an introduction to the principles of public health practice and research. Through case studies, students

Requirements in the Major

Core coursework

- Introduction to Public Health
- Introduction to Global Health
- Epidemiology
- Biostatistics
- Preparation for Engaged Learning
- Supervised experiential learning (minimum of three credits)
- Capstone in Global and Public Health Sciences

Natural Sciences

- Introductory Chemistry with lab
- Introductory Biology with lab
- Organic Chemistry
- Principles of Biochemistry
- Physiology

Advanced Specialized Selectives

(one course from each of the following areas)

- Social and behavioral health
- Biological aspects of public health
- Environmental health
- Health policy and management

Careers

Opportunities in public health are numerous and growing given an anticipated gap in public health workers at the local, state, and federal levels.

The GPHS major will prepare the next generation of leaders in public health through analytical and methodological skills; broad interdisciplinary perspectives; and exposure to complex settings, organizations, and specialties.

With this rigorous and comprehensive curriculum that exposes students to foundational knowledge in the biological sciences, as well as the social and behavioral sciences, career tracks may include health education, international health, infectious disease, environmental health, health policy management, epidemiology or biostatistics.

In addition, students can pursue public service, research, social entrepreneurship, and other health-related careers domestically and globally.

Students will be prepared to pursue advanced professional graduate education in medicine, public health, allied health sciences (e.g., dentistry, nursing), law, and business. They will also be prepared to enter Masters of Public Health programs or programs such as the 4+1 Masters in Health Administration offered through the College of Human Ecology's Sloan Program, and PhD programs.

learn about the achievements, challenges, controversies, and career opportunities in the field of public health.

Coursework in epidemiology and biostatistics augments this foundational coursework.

The following program focus areas include topics in public health, microbiology, nutrition and disease, nutrition and global health, social inequalities in physical and mental health, the U.S. healthcare system, reproductive health, and risk analysis and management.

Social and Behavioral Health

focuses on the role and understanding of social and behavioral determinants of health in individual, community, and societal contexts.

Biological Aspects of Public Health

explores the underlying biological mechanisms and processes in disease causation to inform the development of preventive and therapeutic interventions.

Environmental Health examines the role of the natural, built, and social environments in human health, including pathogenesis and prevention of environment-related health conditions.

Health Policy and Management focuses on the translation of scientific evidence to public health policy and practice, implementation of interventions, and design and performance of health systems.

Experiential Learning

GPHS students are required to complete supervised experiential learning in a research or community setting where they are challenged to engage with the content of their courses. Students gain a deeper understanding of public health issues and problems, and have the opportunity to enhance research, writing, and critical thinking by applying knowledge and skills learned in the classroom in a greater context.

A portfolio of approved experiences in the local community and on/off-campus academic settings (e.g. Urban Semester in NYC, Cornell in Washington), or in an international setting (e.g., Dominican Republic, India, Tanzania, and Zambia) from which students will make their selection is available.

Seniors enroll in the "Global and Public Health Capstone" course upon comple-

tion of the experiential learning component. Students demonstrate their ability to collaborate, develop a holistic understanding of a public health problem, and design practical, effective, and ethical solutions through the integration of knowledge and experience gained through the program in this senior-level course.

Special Opportunities

Research opportunities with Cornell faculty are available in a broad range of topics. Some students can qualify for graduation with Honors by completing an honors thesis and presentation. Along with the experiential learning component required by the major, a research experience further prepares students for advanced degree programs.

Students with interests in medicine who intend to apply to medical school can complete a pre-medical program by adding several additional courses, such as two semesters of physics and at least one semester of calculus. Those interested in other allied health fields can pursue prerequisite courses needed for those professional graduate programs as well.

Students interested in nutrition practice can meet the requirements of the Academy of Nutrition and Dietetics by adding courses in foods, nutrition and disease, microbiology, food service management, and counseling.

Prehealth advisors and other counselors in the College of Human Ecology help students plan their course of study to prepare for medical and other health related professional schools and graduate programs, identify opportunities for practical experience, and consider career options.

For More Information

www.human.cornell.edu/dns

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