

# Public Health (PH)

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## Courses

### PH 101. Introduction to Public Health. 3 Credits.

This course introduces undergraduate students to the interdisciplinary and exciting field of public health. Discussing and studying the processes and practices of public health enhances the population health perspective of healthcare and other professionals. Broad topics discussed include: Principles of evidence-based public health and tools for implementation including health communication and informatics, applications of social and behavioral sciences, and health policy, law and ethics; Methods for addressing non-communicable diseases, communicable disease, and environmental diseases and injury; Examination of public health institutions and systems at the local, state, federal, and global levels as well as future issues in public health.

### PH 190. Critical Thinking, Academic, and Professional Skills for the Health Professions. 3 Credits.

This course provides students with opportunities to develop proficient critical thinking and clinical problem-solving skills as they are used in the health professions. This course will also immerse students in reasoning-related activities that facilitate academic success, teamwork, and a demonstrated commitment to the roles and responsibilities required of all health professionals. Cross-listed with ASCI 190 and PHRM 190.

### PH 300. Introduction to the U.S. Health Care System. 3 Credits.

This course introduces students to the structure, design and groups who participate in the U.S. healthcare system. Emphasis will be placed on describing the roles of various health professions, organizations and/or settings in which health care is provided, and the mechanisms by which health care is financed. Students will gain an understanding of how these components frame major issues of health policy and public health that include, ensuring access to services, ensuring high quality care, and ensuring that care is provided efficiently. This course will also immerse students in reasoning-related activities that facilitate teamwork and a commitment to the roles and responsibilities required of all health professionals. Prereq or Coreq: Junior or senior standing.

### PH 301. Research Methods in Health Services. 3 Credits.

This course introduces students to tools and techniques used in health-related research and evidence-based medicine. Students will also develop skills and confidence necessary to read, synthesize, and evaluate the health services literature. Prereq: STAT 330 with a grade of C or higher. Prereq or Coreq: Junior or senior standing.

### PH 379. Global Seminar. 1-6 Credits.

NDSU instructed experience or field study in a foreign country. Conducted in English for residence credit. Pre-requisite: Prior approval by International Student and Study Abroad Services and major department. May be repeated. Standard Grading.

### PH 432. Cultural Competence for Health Professionals. 3 Credits.

This course will present evidence that cultural competence is a lifelong quest toward achieving positive outcomes for health service providers. It will also focus on specific cultures and various levels of sub-cultures within any given community and the impact or influence of those culturally driven behaviors and traditions upon community populations. Students will be exposed to methods to assist health professionals in ensuring that health decisions take into account individual understanding of the professional's knowledge and how this knowledge should be respectful of individual cultural preferences. The course is grounded in the understanding that cultural competency should not be viewed as an endpoint, but rather a lifelong pursuit of individuals, communities, organizations, and governments to strive for continuous improvement, by practicing cultural humility to effectively utilize assets and address the health needs of individual communities. Prereq or Coreq: Junior or senior standing. Dual-listing: PH 632.

### PH 461. Injury Prevention. 1 Credit.

This course is intended to introduce students to the basic tenets of injury prevention. Additionally, the course will expose students to the epidemiology of numerous types of injury, and to public health methods to controlling and/or eliminating injuries. Prereq or Coreq: Junior or senior standing. Dual-listing: PH 661.

### PH 462. Global Health. 3 Credits.

Global Health will survey the health of populations globally and introduce strategies, programs and health systems designed to improve the health of those populations. Prereq: PH 474. Dual-listing: PH 662.

### PH 465. Women's Health. 2 Credits.

This course will explore historical, social, behavioral, cultural, and environmental issues that impact women's health, as well as medical and public health interventions and programming that promote women's health. Prereq or Coreq: Junior or senior standing. Dual-listing: PH 665.

### PH 474. Epidemiology. 3 Credits.

Study of the distribution and dynamics of disease in populations. Presents principles and methods of epidemiologic investigation with a focus on infectious diseases. Prereq: PH 101. Dual-listing: PH 674.

### PH 475. One Health. 2 Credits.

This course focuses on One Health concepts, emphasizing the interconnectivity between human, animal and environmental health. Prereq: Senior standing. Cross-listed with ANSC 475. Dual-listing: ANSC 675 and PH 675.

### PH 477. Vaccinology. 3 Credits.

Vaccinology introduces the basic biological principles governing vaccinology, emphasizing vaccine development and testing, immunity, manufacture, and clinical aspects in veterinary and human medicine. Prereq: MICR 350. Cross-listed with MICR 477. Dual-listing: MICR 677 and PH 677.

**PH 479. Global Seminar. 1-6 Credits.**

NDSU instructed experience or field study in a foreign country. Conducted in English for residence credit. Pre-requisite: Prior approval by International Student and Study Abroad Services and major department. May be repeated. Standard Grading.

**PH 489. Health Services Capstone. 1 Credit.**

The purpose of this course is to provide an opportunity for students to reflect upon their experiences in the Bachelor of Science in Health Services program, and use that opportunity for reflection to develop a comprehensive plan that integrates coursework taken throughout the program and posits a clear career trajectory based on that plan. Prereq or Coreq: Health Services major in their final semester of study.

**PH 491. Seminar. 1-5 Credits.****PH 494. Individual Study. 1-5 Credits.****PH 496. Field Experience. 1-15 Credits.****PH 632. Cultural Competence for Health Professionals. 3 Credits.**

This course will present evidence that cultural competence is a lifelong quest toward achieving positive outcomes for health service providers. It will also focus on specific cultures and various levels of sub-cultures within any given community and the impact or influence of those culturally driven behaviors and traditions upon community populations. Students will be exposed to methods to assist health professionals in ensuring that health decisions take into account individual understanding of the professional's knowledge and how this knowledge should be respectful of individual cultural preferences. The course is grounded in the understanding that cultural competency should not be viewed as an endpoint, but rather a lifelong pursuit of individuals, communities, organizations, and governments to strive for continuous improvement, by practicing cultural humility to effectively utilize assets and address the health needs of individual communities. Dual-listing: PH 432.

**PH 661. Injury Prevention. 1 Credit.**

This course is intended to introduce students to the basic tenets of injury prevention. Additionally, the course will expose students to the epidemiology of numerous types of injury, and to public health methods to controlling and/or eliminating injuries. Dual-listing: PH 461.

**PH 662. Global Health. 3 Credits.**

Global Health will survey the health of populations globally and introduce strategies, programs and health systems designed to improve the health of those populations. Dual-listing: PH 462.

**PH 665. Women's Health. 2 Credits.**

This course will explore historical, social, behavioral, cultural, and environmental issues that impact women's health, as well as medical and public health interventions and programming that promote women's health. Prereq or coreq: Graduate student or instructor permission. Dual-listing: PH 465.

**PH 674. Epidemiology. 3 Credits.**

Study of the distribution and dynamics of disease in populations. {Also offered for undergraduate credit - see PH 474.}.

**PH 675. One Health. 2 Credits.**

This course focuses on One Health concepts, emphasizing the interconnectivity between human, animal and environmental health. Cross-listed with ANSC 675. Dual-listing: ANSC 475 and PH 475.

**PH 677. Vaccinology. 3 Credits.**

Vaccinology introduces the basic biological principles governing vaccinology, emphasizing vaccine development and testing, immunity, manufacture, and clinical aspects in veterinary and human medicine. Cross-listed with MICR 677. Dual-listing: PH 477.

**PH 700. Preventing and Managing Chronic Illness. 3 Credits.**

This course will explore the effects of chronic health issues on individuals, families, and lay caregivers from a public health and clinical systems perspective. PH students only.

**PH 704. Public Health Management and Policy. 3 Credits.**

This course provides exposure to key public health issues that need to be addressed in health policy development and the management of public health systems in the United States. The course will combine didactic learning, active learning, and student-centered instruction. Key areas of focus include systems-thinking, public health policy, advocacy, management, data, and evaluation. Prereq or Coreq: Admission to the MPH program or Public Health Graduate Certificate or instructor consent.

**PH 706. Essentials of Epidemiology. 3 Credits.**

Emphasis on application of the principles of epidemiology as applied to the investigation and prevention of individual and population health problems.

**PH 711. Integrating Primary Care and Public Health. 3 Credits.**

The course examines the role of primary care and public health in addressing personal and population health issues with particular attention to community health needs assessment, social determinants of health, health inequities, cultural competence, and community involvement to address contemporary challenges to the health of U.S. populations. Prereq or Coreq: Admission to the MPH program or Public Health Graduate Certificate or instructor consent.

**PH 712. Public Health Research Methods. 3 Credits.**

This course provides an introduction to a variety of research methods and key components of a research study that can be employed in public health research and practice. Prereq or Coreq: Admission to the MPH program or Public Health Graduate Certificate or instructor consent.

**PH 722. Applied Community Health. 3 Credits.**

This course is designed to provide students with knowledge and skills needed to address public health issues within community settings. Prereq: Public Health students only.

**PH 725. Promoting Health through Policy, System and Environment. 3 Credits.**

This course will focus on health promotion at community, state, and national levels through policy, system, and environment (PSE) strategies through readings, films, writing, and discussion.

**PH 731. Biostatistics. 3 Credits.**

This core course introduces the selection, use and interpretation of basic statistical tests and concepts that may be used in addressing, analyzing and solving problems in public health, biomedical and health care research.

**PH 735. Principles of Infectious Disease Management I. 3 Credits.**

The course is the first part of a two-part series that will provide a foundational overview of the major infectious diseases that have a significant impact on public health.

**PH 736. Principles of Infectious Disease Management II. 3 Credits.**

The course will build on PH 735, Principles of Infectious Disease Management I and focus on the epidemiology, clinical presentation, treatment, and control of the major communicable diseases. Prereq: PH 735.

**PH 741. Social and Behavioral Sciences in Public Health. 3 Credits.**

Foundation knowledge and competencies in applying social and behavioral sciences theories and methods to public health problems.

**PH 745. Community Health Leadership. 3 Credits.**

This course will focus on developing leadership and collaboration skills required by public health leaders to work with community leaders and organizations.

**PH 750. Epidemiologic Methods I. 2 Credits.**

This course covers the development of an observational epidemiologic study and the use and interpretation of methods and techniques for analyzing observational epidemiologic data. Prereq: PH 706, PH 712.

**PH 752. Epidemiologic Methods II. 2 Credits.**

Distribution and dynamics of disease in populations and methods for detecting and interpreting spatial patterns of disease.

**PH 753. Public Health Surveillance. 2 Credits.**

This course provides an introduction to public health surveillance and key characteristics of a variety of surveillance systems that can be utilized in all fields of public health practice. Lectures from experts in the field will provide real world examples and opportunities for students to interact with public health professionals.

**PH 754. Health Survey Research. 2 Credits.**

This course will familiarize students with the use of survey research methods. The course will cover practical issues in survey methods, with a focus on instrument development, mode of data collection, sampling, and minimizing survey error. The course will include hands-on development of a survey instrument, a cover letter, and a sampling plan. Prereq or Coreq: Admission to the MPH program or Public Health Graduate Certificate or instructor consent.

**PH 781. Foundations of Maternal and Child Health. 3 Credits.**

Historical and theoretical foundations of maternal and child health (MCH) as well as policies and programs aimed to reduce morbidity, mortality, and health disparities in MCH populations will be covered.

**PH 782. Introduction to Maternal and Child Health Epidemiology. 2 Credits.**

This course provides an introduction to maternal and child health epidemiology and key metrics to describe the local, national and global status of the maternal and child health population. Requires admission to the MPH or PH certificate programs.

**PH 789. Integrative Learning Experience. 1 Credit.**

Students must complete an integrative learning experience (ILE) that demonstrates synthesis of foundational and concentration competencies selected based on student's educational and professional goals. Must have department permission to register.

**PH 790. Graduate Seminar. 1-5 Credits.****PH 793. Individual Study. 1-5 Credits.****PH 794. Practicum. 1-8 Credits.****PH 795. Field Experience. 1-15 Credits.****PH 797. Master's Paper. 1-3 Credits.****PH 798. Master's Thesis. 1-10 Credits.****PH 898. Continuing Enrollment. 1-9 Credits.**

For graduate students who have completed all necessary credits of course work including thesis (798) and dissertation (899) on their approved Plan of Study, but who have not yet completed and submitted their thesis or dissertation. This course does not count towards the credit requirements for the degree and is not financial aid eligible. Department consent required to enroll.

**PH 899. Doctoral Dissertation. 1-15 Credits.**