

# VETERINARY MEDICINE PUBLIC AND ECOSYSTEM HEALTH (VTPEH)

## VTPEH 4990 - Undergraduate Research in Public Health (1-4 Credits)

Research credits with public health program faculty may include topics of public health and environmental change, food security, local agriculture, and civic engagement. Contact faculty in the program directly to inquire about available research topics/projects.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Fall 2024, Summer 2024

Schedule of Classes (<https://classes.cornell.edu/>)

## VTPEH 6100 - Public Health Colloquium (1 Credit)

Practitioners in the field of public health discuss current, cross-cutting issues affecting scholarship and practice.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2021

Schedule of Classes (<https://classes.cornell.edu/>)

## VTPEH 6101 - Public Health Foundations I (3 Credits)

This course will introduce students to the history and role of public health, and will set the foundation of public health practice on the two guiding paradigms: the 10 essential public health functions, and the One Health/Planetary Health approach to public health prevention and problem solving. Students build their public health competency via investigating a breadth of public health issues, including both chronic and infectious disease, and the impact of our environment and climate on disease spread, acquisition, and impact.

**Enrollment Information:** Enrollment limited to: MPH students; and graduate students and upper level undergraduates by permission of instructor.

**Exploratory Studies:** (CU-ITL, CU-SBY)

**Last Four Terms Offered:** Summer 2025, Fall 2024, Summer 2024, Fall 2023

Schedule of Classes (<https://classes.cornell.edu/>)

## VTPEH 6102 - Social Epidemiology Principles and Multilevel Influences on Health (3 Credits)

This course is rooted in a systems perspective. It connects behavioral theory to practice, so that students understand the complex array of factors that influence health. It provides a foundation in drivers of human behavior, which will ultimately help students better understand why a particular situation exists. The course also builds necessary background knowledge and skill that will aid in designing tailored, effective, culturally informed interventions. This course will reinforce and expand upon learning from Public Health Foundations I by addressing drivers of health and behavior, including individual, family, environmental, technological, legal, institutional, cultural, and climate-based change. Conceptually, the course is guided by the Health Impact Pyramid, social determinants of health and an expanded socio-ecologic model. We draw on a lifecourse perspective, with particular attention to generational and cumulative impacts on populations. Through lectures, guided in-class activities, readings, discussion, guest speakers and case studies, students will further develop their public health competence and apply key concepts and systems thinking to assess domestic and global public health issues.

**Prerequisites:** VTPEH 6101.

**Enrollment Information:** Enrollment limited to: MPH students, graduate and professional students and seniors by permission of instructor.

**Exploratory Studies:** (CU-ITL, CU-SBY)

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

## VTPEH 6103 - Public Health Policy (3 Credits)

The purpose of this course is to consider and learn to advance policy issues confronting public health practitioners, governments and the public in public health systems in the United States, and around the world. This class presents an overview of the basic institutions, politics, and policy issues of contemporary public health policymaking, how they have changed over time, and why politics matters for public health, including ethical consequences of policy choices for different stakeholder populations. The class helps future public health leaders develop a basic framework for understanding, analyzing, evaluating, and advocating for public health policies using case-based learning of current public health issues facing the U.S. and the globe. During the course, students will select a pressing public health need, undertake a policy evaluation process to understand the impact on public health and health equity, propose evidence-based solutions, and then advocate as public health leaders for policies that will improve health and in diverse populations.

**Enrollment Information:** Enrollment limited to: MPH students; other students by permission of instructor.

**Exploratory Studies:** (CU-CEL)

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

## VTPEH 6104 - Epidemiology in Practice (3 Credits)

This applied course will cover foundational concepts of epidemiology, including data collection, measures of disease frequency and association, diagnostic testing, study design, and bias.

**Corequisites:** VTPEH 6105 or BTRY 6010.

**Enrollment Information:** Enrollment limited to: MPH students; graduate students by permission of instructor.

**Last Four Terms Offered:** Summer 2025, Fall 2024, Summer 2024, Fall 2023

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6105 - Biostatistics for Health Sciences (3 Credits)**

This course provides a comprehensive introduction to statistical inference, equipping students with the skills to critically interpret and apply statistical methods to support evidence-based decision-making in Public Health. Through interactive lectures and in-class practice, students will explore key concepts such as probability-based reasoning, hypothesis testing, and statistical fallacies. The course covers essential inferential techniques, including parametric and non-parametric statistical tests, regression models and multivariate analysis. Assessment includes applied exercises to reinforce understanding of the assumptions and limitations of these methods, along with peer reviews of scientific publications, emphasizing the interpretation of statistical analyses. This course involves limited calculation and coding, making this course accessible to any students looking to strengthen their statistical literacy for evidence-based decision-making.

**Prerequisites:** VTPEH 6108.

**Enrollment Information:** Enrollment limited to: MPH students and graduate students by permission of instructor.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6107 - Public Health Writing Lab (1 Credit)**

This course examines public health issues through a One Health/Planetary Health lens. Through case studies and examples, students learn to apply systems thinking approaches to address public health challenges, and analyze interactions between human, animal and environmental health. There is a substantial writing component to the course.

**Corequisites:** VTPEH 6181.

**Exploratory Studies:** (CU-SBY)

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021  
Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6108 - Public Health Data Analysis Lab (1 Credit)**

This data analysis workshop supports skills-building and proficiency in use of accessible tools such as Excel, Google Sheets, and Stata. Students will explore frameworks, processes, and methods; build skills in data cleaning, organization, analysis, and visualization; and engage in peer-review and workshoping to improve data literacy.

**Corequisites:** VTPEH 6105.

**Last Four Terms Offered:** Spring 2025, Fall 2024, Spring 2024, Fall 2023  
Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6109 - Public Health Foundations (2 Credits)**

This course will introduce students to the history and role of public health, and will set the foundation of public health practice on the two guiding paradigms: the 10 essential public health functions, and the One Health/Planetary Health approach to public health prevention and problem solving. Students build their public health competency via investigating a breadth of public health issues, including both chronic and infectious disease, and the impact of our environment and climate on disease spread, acquisition, and impact.

**Enrollment Information:** Enrollment limited to: MPH program students; graduate students and upper class undergraduates with permission of instructor.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6111 - Infectious Disease and Health (3 Credits)**

This course comprises two parts. The lecture section will cover viral, bacterial and parasitic agents important for public health, as well as infectious disease epidemiology, surveillance, and infectious disease countermeasures. The discussion section will address similar topics using cases and professional experiences to drive small-group discussion and applied learning.

**Prerequisites:** Recommended prerequisite: undergraduate biology and chemistry.

**Enrollment Information:** Enrollment limited to: MPH students. Upper-level undergraduates and graduate students require permission of instructor.

**Exploratory Studies:** (CU-ITL, CU-SBY)

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021  
Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6113 - Advanced Epidemiologic Methods (3 Credits)**

This course will introduce students to statistical methods commonly used to analyze epidemiologic data and to understand advanced epidemiologic concepts necessary to interpret the results. By the end of the course, students will be able to properly use and interpret linear regression, logistic regression, Poisson regression, and survival analysis. Key concepts in molecular epidemiology will also be covered.

**Prerequisites:** VTPEH 6104.

**Enrollment Information:** Enrollment limited to: MPH students; other students by permission of instructor.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6114 - Applied Epidemiology: Disease Surveillance and Outbreak Response (3 Credits)**

Global development is driving disease outbreaks; communicable disease prevention and control is a foundational element of public health, reducing death and disability. Core to this practice is the ability to assess and monitor population health; investigate, diagnose, and address health hazards and root causes; communicate effectively to inform and educate; and enable equitable access to prevention and care services. In short, you will be a public health asset if you can engage in applied epidemiology to prevent, detect, mitigate, and respond to communicable disease outbreaks. In this course, you will build and hone your skills as a field epidemiologist. To do so, you will reinforce your understanding of bacterial, viral, and parasitic diseases of concern, and then practice methods to detect outbreaks, to investigate causes, and to support public health prevention through risk mitigation, communication, and policy change.

**Last Four Terms Offered:** Fall 2024

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6115 - Pandemic Prevention Preparedness and Response (3 Credits)**

This course provides knowledge and skills to prevent, prepare for, and respond to pandemics. It explores zoonotic pathogens in wildlife, spillover dynamics, and pathogens spread through human populations. Students learn advanced epidemiological modeling and develop integrated strategies using the One Health framework. The course combines lectures, practicals, and a flipped classroom format with presentations and group projects. By integrating theoretical foundations with real-world applications, students gain the expertise needed to lead effective pandemic response efforts in a rapidly changing global environment.

**Enrollment Information:** Enrollment limited to: students enrolled in the MPH program, graduate students and upper-class undergraduates with permission of instructor.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6116 - Infectious Disease Epidemiology Applications (3 Credits)**

This course pushes students to apply the tenets of infectious disease epidemiology to demonstrate proficiency in the core functions and essential services of public health. Students will explore real-world infectious disease challenges, and apply tools and strategies to explore risks and disparities, understand needs and opportunities, and propose reasonable and feasible solutions. The course is conducted using a "flipped" format, drawing from and building upon prior MPH learning. Students are expected to complete all required readings and assigned exercises prior to class. Relatively little class time will be spent lecturing. Rather, class time will be devoted to demonstrating, discussing, and practicing the concepts covered in the assigned readings and assigned exercises. Assessment will be based a midterm and final project submission.

**Prerequisites:** VTPEH 6104, VTPEH 6105, VTPEH 6181 and VTPEH 6111 AND VTPEH 6113 recommended.

**Enrollment Information:** Enrollment limited to: MPH students; other students by permission of instructor.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6121 - Food Systems and Health (3 Credits)**

The goal of this course is to introduce students to connections between food systems and health. The course uses concepts, theories and methods from multiple disciplines. Students will explore the complex interconnections of food systems and public health needs and learn from interdisciplinary experts and professionals in the fields of local and international public health, economics, sociology, and environment.

**Enrollment Information:** Enrollment limited to: MPH students; and graduate students by permission of instructor.

**Exploratory Studies:** (CU-ITL, CU-SBY)

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6122 - Public Health Nutrition (3 Credits)**

In this course, we will discuss a range of public health nutrition problems as well as policy and program approaches. We will learn about public health nutrition from the perspectives of epidemiology and behavioral science, mainly considering examples in the United States and other high-income countries, as well as in select low- and middle-income country settings.

**Enrollment Information:** Enrollment limited to: graduate and professional students; seniors with permission of instructor. Recommended prerequisite: VTPEH 6121.

**Exploratory Studies:** (CU-ITL, CU-SBY)

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6123 - Food Systems Approaches to Food Safety (3 Credits)**

Every year, over 48 million people experience a foodborne illness. In this course you will learn how foodborne illnesses are investigated, and how outbreaks are traced through complex food systems back to the contaminated food. By conducting patient interviews, you will gain practical experience in solving foodborne disease outbreaks. You will also contribute to preventing foodborne outbreaks in our community by working with local food processors to reduce food safety risks.

**Prerequisites:** VTPEH 6121, VTPEH 6122 or equivalent.

**Enrollment Information:** Enrollment limited to: MPH students; others with permission of instructor.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022

**Learning Outcomes:**

- Identify food safety risks throughout specific farm-to-fork food systems
- Describe relevant disease surveillance systems and their roles in outbreak surveillance and detection
- Acquire practical investigation skills by collecting data for use in real-life foodborne disease investigations
- Implement root cause analyses to facilitate foodborne disease outbreak investigations
- Synthesize data of recent national foodborne disease outbreaks help support prevention (via policy change, systems change, education, etc.)

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6124 - Food Systems and Health Applications (3 Credits)**

This course pushes students to apply the tenets of food systems, nutrition, and health to demonstrate proficiency in the core functions and essential services of public health. Students will explore real-world food systems and health challenges, and apply tools and strategies to explore risks and disparities, understand needs and opportunities, and propose reasonable and feasible solutions. The course is conducted using a “flipped” format, drawing from and building upon prior MPH learning. Students are expected to complete all required readings and assigned exercises prior to class. Relatively little class time will be spent lecturing. Rather, class time will be devoted to demonstrating, discussing, and practicing the concepts covered in the assigned readings and assigned exercises. Assessment will be based on midterm and final project submission.

**Prerequisites:** VTPEH 6104, VTPEH 6105, VTPEH 6181; VTPEH 6121, VTPEH 6123, VTPEH 6124 encouraged.

**Enrollment Information:** Enrollment limited to: MPH students; others by permission of instructor.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6131 - Disaster Policy and Politics (3 Credits)**

The course examines cases of historical disasters in the United States moving from the late 19th century through present day – including Yellow Fever, Polio, Hurricane Katrina, and the Gulf of Mexico Oil Spill – to understand the policy processes and political influences on policy outcomes for disaster responses and how they have changed over time. As the effects of climate change increase, understanding policy responses to disasters, how political incentives may change and alter policy responses, and how to improve equity and efficacy in disaster responses becomes increasingly important. This course helps students explain the influence of politics on disaster response policy (laws, regulations), implementation (of policy), and resilience.

**Last Four Terms Offered:** Spring 2025

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6132 - Public Health Emergency Management (3 Credits)**

This course examines the basic principles of public health emergency management; various types of disasters and emergencies including infectious disease outbreaks, natural disasters and bioterrorism; and how emergency management principles can be applied to public health incidents. Students will be introduced to domestic and international public health emergency preparedness planning, common concepts and processes used such as the Incident Command System (ICS), the National Incident Management System (NIMS), the National Response Framework, and the Strategic Framework for Emergency Preparedness. Legal and ethical considerations relevant to public health emergency management will also be covered. Past incidents, emergencies and disasters will be reviewed, and lessons learned to inform future preparation and response will be discussed. Students will participate in small groups for in-class scenarios and exercises and prepare a press statement regarding a potential public health emergency threat.

**Last Four Terms Offered:** Fall 2024, Spring 2024

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6133 - Crisis and Emergency Risk Communication (3 Credits)**

This course builds students' ability to communicate with the public and media during a public health crisis or emergency and conduct disaster preparedness PR campaigns to maximize trust and engagement, and to minimize harm. To do so, the course will cover common strategies for communicating about hazards, as well as the major challenges common during disaster situations. The course will run concurrently with VTPEH 6184 Public Health Communications, and builds on that course by focusing on the unique challenges posed in disaster situations and in disaster-preparedness campaigns. Over the semester, you and your classmates will put the skills into practice to create numerous public-communications media, including fact sheets, media advisories, public service announcements, and mock interviews. You will also evaluate existing public campaigns and documents.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6134 - Vulnerability Analysis and Hazard Mitigation (3 Credits)**

The purpose of this course is to present students with data-based hazard mitigation experience. The course will cover core elements of the physical risks communities might face, aspects that might make communities more vulnerable or more resilient, Federal Emergency Management Agency (FEMA) state and local hazard mitigation plans, FEMA Hazard Mitigation Assistance (HMA), and hazard-evaluation frameworks. Student learning will be reinforced by writing a State Hazard Mitigation Plan (SHMP) and Hazard Mitigation Grant Program (HMGP) grant. Over the semester, you and your classmates will learn different tools and frameworks for evaluating the hazards faced by communities, while immediately applying that knowledge to write the major documents that govern hazard mitigation in the United States. At the end of the semester, you will submit your HMGP grant proposal in response to a (mock) request for proposals. This is a significant written document that relates many public health core competencies with emergency management specific skills. Generating a significant document through this course serves as an Integrated Learning Experience for students on the Emergency Management Track.

**Prerequisites:** VTPEH 6131, VTPEH 6132, and VTPEH 6133.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6141 - Planetary Health (3 Credits)**

Degradation of the environment through climate change, pollution, land use shifts, and more can impact human health in myriad ways. Food access and nutrition, infectious diseases, chronic diseases, mental health, and the impacts of migration and conflict are increasingly being tied to these environmental changes. The Planetary Health course will introduce students to the anthropogenic threats to human health, examine the pathways from environmental change to human health, and design and analyze interventions to improve both human and environmental health. Using systems and interdisciplinary perspectives, we will explore the interconnected challenges of providing for human and ecosystem health in case studies. We will also evaluate possible solutions to planetary health problems and their implications for equity, human health, and environmental health.

**Enrollment Information:** Enrollment limited to: graduate and professional students.

**Exploratory Studies:** (CU-SBY)

**Last Four Terms Offered:** Fall 2024, Fall 2023, Spring 2023

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6142 - Health, Wellbeing, and The Environment (3 Credits)**

Understanding the concepts connecting people's health and wellbeing and the environment is critical to identifying the causes of planetary health issues and proposing efficient solutions. The course will cover key concepts governing planetary health issues, including ecological interactions, scales at which planetary health phenomena occur, and biodiversity. We will review the data and methods available for the consideration of each of those concepts in real-world planetary health studies. We will discuss how to use those concepts to identify causes, leverage points, and trade-offs for planetary health issues, with the objective of developing fair and sustainable solutions. To illustrate these concepts, the course draws on diverse case studies, including infectious diseases, urbanization, and nature connectedness, offering practical insights into the complexities of planetary health challenges.

**Prerequisites:** VTPEH 6141.

**Last Four Terms Offered:** Spring 2025

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6143 - Health Impact Assessment (3 Credits)**

Public health and community leaders seek to identify policy or program alternatives that will help to better address a need or gap, as a step towards building health equity and justice. More and more, the role of—and human interactions with—built and natural environments are considered when seeking innovations to improve human and ecosystem health. Health impact assessments can be a useful tool, a means of assessing the health impacts of policies, plans and projects in diverse economic sectors using quantitative, qualitative and participatory techniques (World Health Organization). The course will introduce students to the 4+2 steps that are used to consider and conduct a health impact assessment and will work to consider fit and feasibility of this approach, develop organizational capacity to implement the approach, and practice implementation with a real world/real-world-like project.

**Prerequisites:** VTPEH 6141 and VTPEH 6142.

**Enrollment Information:** Enrollment limited to: graduate and professional students.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6144 - Leading Change for Health Equity, Sustainability, and Justice (3 Credits)**

Issues related to health equity, sustainability, social and environmental justice are considered complex or wicked problems. To understand and begin to address these, a strategic toolkit is needed. This course will review what wicked problems are, how change happens, and the roles that public health leaders play. Students will practice compiling an evidence base to inform actions, professional writing (white papers), and oral pitches. Students will define a project scope, conduct a literature review, draft a project report outline, identify and access relevant data, review data to inform action, and develop a project report that could or will be submitted to a 'client'. Generating a significant document through this course serves as an Integrated Learning Experience for students in the Environment, Climate, and Health Track.

**Prerequisites:** VTPEH 6141, VTPEH 6142, and VTPEH 6143.

**Enrollment Information:** Enrollment limited to: MPH students; other students by permission of instructor.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6171 - Applied Ethnographic Assessment in Public Health Practice (2 Credits)**

This course will introduce students to applied ethnographic assessment. Such assessments use rapid, focused data-gathering techniques and both quantitative and qualitative analyses to address specific questions relevant to social and cultural conditions of individuals and communities, including those relevant to public health practice. They involve describing contexts, processes, preferences, motivations and/or relationships, and can be used for formative research, needs assessment, intervention design, and/or program evaluation (Sangaramoorthy and Kroeger, 2020:3). In this course, we will discuss theoretical underpinnings and data collection and analysis procedures for ethnographic techniques such as direct observations, and social mapping, free listing, and pile sorting, which can be employed in interviews and/or focus group discussions. For each method, students will practice using these methods to explore a community-identified need.

**Prerequisites:** Research methods course strongly advised; VTPEH 6181 or equivalent.

**Enrollment Information:** Enrollment limited to: MPH ECH concentration students; others with permission of instructor.

**Last Four Terms Offered:** Fall 2024, Fall 2022

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6172 - Leading Change for Health Equity, Sustainability, and Justice (3 Credits)**

Issues related to health equity, sustainability, social and environmental justice are considered complex or wicked problems. To understand and begin to address these, a strategic leadership toolkit is needed. Week-by-week, this seminar will help build that toolkit. We'll review what wicked problems are, how change happens, and the roles that we can play as public health leaders; we'll revisit methods used to rapidly assess and evaluate the current state, and compare that to the ideal (future) state; we'll practice compiling an evidence base for use to inform actions; and we'll practice professional writing (white papers) and oral pitches. Students will define a project scope, develop a work plan, conduct a literature review, draft a project report outline, identify and accessed relevant data, reviewed data to inform action, and draft a project report that could be submitted to a 'client'.

**Enrollment Information:** Enrollment limited to: MPH students; graduate and undergraduate students with permission of instructor.

**Exploratory Studies:** (CU-CEL, CU-SBY)

**Last Four Terms Offered:** Fall 2023, Fall 2022

Schedule of Classes (<https://classes.cornell.edu/>)



**VTPEH 6173 - Cross-sector Collaborations to Improve Health Equity (3 Credits)**

The U.S. experiences persistent disparities in health status and health outcomes across race, gender, class, sexual orientation, gender expression, and other dimensions of individual and group identity. Cross-sector collaboration is a leading public health approach to addressing the complex and multiple factors that drive health disparities but has inherent challenges. To promote health equity in the communities they serve, healthcare, public health and social services organizations can work together to promote health equity (when everyone has the opportunity to attain their full health potential) by addressing the social determinants of health (e.g., food, housing, transportation). This class will examine the challenges and opportunities faced by a local cross-sector collaboration that aims to advance health equity by integrating social care into the delivery of healthcare and optimizing care coordination throughout the care continuum. Supported by readings and lectures, this class will be taught primarily through hands-on analysis of real-world data and participation in interprofessional teams. Students will develop skills to work collaboratively with local leaders in the health system and in non-profit organizations that provide supportive services to Tompkins County residents. Students will also strengthen their ability to analyze and interpret quantitative and/or qualitative data and develop evidence-based recommendations that leverage organizational strengths to maximize collaborative opportunities and mitigate cross-sector challenges. This course is well suited for students interested in bridging public health and health care to promote health equity while honing their skills in data analysis and community engagement.

**Enrollment Information:** Enrollment limited to: MPH and MHA students, Jrs. and Srs. with permission of instructor.

**Exploratory Studies:** (CU-CEL)

**Last Four Terms Offered:** Fall 2023, Fall 2022

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6174 - Management Science in Public Health (3 Credits)**

This course surveys a variety of management science methods useful to public health managers and analysts. The emphasis will be on (a) formulating mathematical models of messy public health problems, (b) solving the formulations using Excel, and (c) presenting the results in a way that decision makers can understand. Applications will be drawn from the four MPH concentration areas. The course is conducted using a "flipped" format. Students are to complete all required readings and assigned exercises prior to class. Relatively little class time will be spent lecturing. Rather, class time will be devoted to demonstrating, discussing, and practicing the concepts covered in the assigned readings and assigned exercises. Assessment will be based on problem sets, a midterm exam, and a final project.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6175 - Introduction to GIS for Public Health (3 Credits)**

Geospatial Information Systems (GIS) are becoming increasingly used to advance equity and sustainability programs. This course will provide an introduction to different GIS software packages, as they are currently used by researchers and policymakers. We will explore existing mapping tools currently used to advance health equity in federal policy, create maps using ArcGIS Online, perform geospatial analysis using ArcGIS Desktop and QGIS, and spatially link various disparate datasets to enhance our analyses. Students are encouraged to bring topics and questions they want to explore, as they will have the chance to work on them throughout the course.

**Enrollment Information:** Enrollment limited to: MPH students and masters level students.

**Last Four Terms Offered:** Fall 2024, Fall 2023

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6176 - Public Health and Environmental Justice: Insights from Critical Humanities (2-3 Credits)**

In this round-table graduate seminar, we will critically engage with cross-cutting topics in health and environmental justice through interdisciplinary humanities lenses including political ecology, science and technology studies, feminist studies, environmental governance, sociology, anthropology, philosophy, history, and ethics. We will dive deep in discussions of weekly readings spanning these fields, in addition to grey literature, podcasts, and videos. Students co-facilitate discussions tying contemporary news to course themes that span nature and land, scientific knowledge, race and human classification, climate change and natural disaster, microbes and disease, multispecies perspectives, expertise and public engagement, bodies and built environments, world ecologies and capital, food and water system transformations, and more. Students also build toward an advocacy paper, written for a professional audience on a topic of interest.

**Enrollment Information:** Enrollment limited to: MPH and graduate students, or permission of instructor.

**Last Four Terms Offered:** Spring 2025, Spring 2024

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6177 - Case Studies in Global and Public Health (2 Credits)**

The goal of this seminar is to invite graduate and undergraduate students studying global and public health to integrate their knowledge, applied experience and professional interests to explore, and analyze public health case studies, with opportunities to experiment with new forms of case study approaches. The class will highlight two distinct approaches to case studies in global and public health, providing students with the unique opportunity to: 1) analyze global and public health challenges, policies and responses from different country and health systems perspectives 2) integrate the arts and humanities to deepen understanding of global public health issues, controversies and solutions, 3) develop problem solving, communication, critical reflection and interprofessional skills and 4) engage in active and participatory class discussions.

**Enrollment Information:** Enrollment limited to: second-year MPH students; graduate, and undergraduate junior and senior students.

**Last Four Terms Offered:** Spring 2025, Spring 2024

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**VTPEH 6181 - Public Health Practice - Assessment (3 Credits)**

Via this course, students will gain an understanding of the importance of comprehensive assessment of a public health need. Students will be exposed to, and expected to practice, assessment methods that are relevant to the field of public health, including literature reviews and secondary data analyses. This will be practiced via in-depth discussion of real-life cases, and by self-directed research, small group work, and peer review.

**Enrollment Information:** Enrollment limited to: MPH students; graduate students by permission of instructor.

**Exploratory Studies:** (CU-CEL)

**Last Four Terms Offered:** Summer 2025, Fall 2024, Summer 2024, Fall 2023

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6182 - Public Health Practice - Planning (3 Credits)**

Via this seminar, students will gain an understanding of the elements of needs- and evidence-based public health program and/or response planning, and will design a public health project/response to address a defined need related to prevention, treatment, and/or care. This course will cover the core elements of program planning, including concept mapping, logic models, work plans, Gantt charts, and basic budgets and staffing plans. This will be practiced via in-depth discussion of real-life cases, and by self-directed research, planning, grant writing, and peer review.

**Prerequisites:** VTPEH 6181.

**Enrollment Information:** Enrollment limited to: MPH students; graduate students by permission of instructor.

**Exploratory Studies:** (CU-CEL, CU-ITL, CU-SBY)

**Last Four Terms Offered:** Summer 2025, Spring 2025, Summer 2024, Spring 2024

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6183 - Public Health Practice – Monitoring, Evaluation, and Quality Improvement (3 Credits)**

Via this seminar, students will gain an understanding of the value and process of implementing routine monitoring and evaluation and continuous quality improvement with public health interventions. This will be practiced via in-depth discussion of real-life cases, and by self-directed research, planning, and peer review, including development of a M&E/CQI plan that could be implemented for a real project. In-person Fall; On-line Winter.

**Prerequisites:** VTPEH 6181, VTPEH 6182.

**Enrollment Information:** Enrollment limited to: MPH students; graduate students by permission of instructor.

**Exploratory Studies:** (CU-CEL)

**Last Four Terms Offered:** Winter 2025, Fall 2024, Winter 2024, Fall 2023

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6184 - Strategic Public Health Communication (3 Credits)**

Public health efforts are usually dependent on people changing their behavior, attitudes, or perceptions. Communication is a key component of facilitating that change. Even if behavior change is not the goal, ensuring that communication is relevant, acceptable, relevant and clear is essential. This course helps students understand the influence of communication in public health and how to use theory to identify the barrier(s) to the desired behavior for a particular audience. Students will learn how to conduct an audience analysis in order to develop targeted, relevant, compelling and accessible communication products. Over the term, we will incorporate theory, best practices, design principles, examples, critiques, cultural and literacy considerations, and exploration of various communication forms for different audiences and needs.

**Enrollment Information:** Enrollment limited to: MPH students; graduate students by permission of instructor.

**Exploratory Studies:** (CU-CEL, CU-ITL, CU-SBY)

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6191 - Professional Skills and Explorations in Public Health (1 Credit)**

The goal of this course is to prepare students for applied practice and careers in public health through explorations of public health sectors and careers, and through developing knowledge and skills in networking and interviews, writing effective cover letters and resumes, cultural humility and allyship, and community building and respect. Whether you are an experienced practitioner or just starting out in your professional career, this course offers a chance to better understand and articulate your professional goals and utilize resources toward your professional growth.

**Enrollment Information:** Enrollment limited to: MPH students; other graduate students and/or juniors/seniors by permission of instructor.

**Exploratory Studies:** (CU-CEL, CU-ITL, CU-SBY)

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6192 - Public Health Ethics, Leadership and Interprofessional Collaborative Practice (1 Credit)**

The goal of this course is to prepare students for applied practice and careers in public health by developing knowledge and skills in public health ethics, leadership and interprofessional collaborative practice. Whether students are experienced practitioners or just starting out in their professional careers, this course aims to 1) facilitate critical thinking, 2) introduce ethical inquiry and analysis for decision making, 3) utilize leadership principles and strategies for team performance and community building, and 4) build skills in interprofessional collaboration and critical reflection to promote and advance health equity and public health.

**Corequisites:** VTPEH 6191.

**Enrollment Information:** Enrollment limited to: MPH students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6193 - Special Topics in Public Health (1-4 Credits)**

The department teaches trial courses under this number. Offerings vary by semester and are advertised by the department before the semester starts. Courses offered under the number will be approved by the department curriculum committee, and the same course is not offered more than twice under this number.

**Enrollment Information:** Enrollment limited to: MPH students; graduate students by permission of instructor.

**Last Four Terms Offered:** Spring 2025, Fall 2024, Spring 2024, Fall 2023

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6194 - Public Health Toolkit: Applied Practice, Negotiation, and Presenting Transferable Skills (2 Credits)**

In this course, students reflect on, document and present their applied practice experiences, develop a portfolio to document and display competence and deliverables, and develop and practice public health negotiation skills. Students describe and present transferable skills for external audiences, drawing on coursework and applied projects, including in a fieldwork poster session.

**Enrollment Information:** Enrollment limited to: MPH students; graduate students by permission of instructor.

**Exploratory Studies:** (CU-CEL, CU-ITL, CU-SBY)

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6195 - Public Health Integrative Learning and Portfolio (2 Credits)**

The purpose of this class is to help guide and support the successful completion of your Integrative Learning Experience (ILE) project, or written capstone, that demonstrates your integrated competence across concentration and foundational public health domains. Weekly writing time will help you stay on track to complete a substantive, high-quality written document within a relatively short semester time period, while working independently and with a faculty mentor. In addition this semester, you will complete and polish your professional public health portfolio.

**Corequisites:** VTPEH 6194.

**Enrollment Information:** Enrollment limited to: MPH students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6270 - Data Analysis With R (2 Credits)**

This course guides students to proficiency in data analysis using R, equipping them with the skills to analyze quantitative data and create reports and interactive tools that support research, policy, and practice. Through weekly in-person lab sessions, students will participate in hands-on tutorials and collaborative debugging sessions to build essential coding and analytical proficiency. Key topics include data wrangling, visualization, simulation, statistical tests, and the development of interactive applications and reproducible reports. Students will gain experience with essential R packages such as ggplot2, lme4, rmarkdown, and shiny. Learning is reinforced through an individual project that includes a final report, an interactive tool, and a public repository, along with bi-weekly checkpoints to track progress and ensure skill development. Students must be proficient with data and data analysis. Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6277 - Advanced Case Studies in Global and Public Health (3 Credits)**

The goal of this course is to integrate the knowledge gained across the MPH Program, and synthesize and apply that knowledge to a) review public health case studies and b) develop public health case studies. The class will include facilitated class discussion, largely student led and allow students to hone in on problem-solving skills needed for contemporary public health practice. Students in the advanced section will focus on integrating the Arts and Humanities into Global and Public Health Case Studies by develop a presentation on a new topic and art form modeled on the presentations/discussions in class inclusive of pre-class assignments, a facilitators guide and PowerPoint slides with citations.

**Enrollment Information:** Enrollment limited to: second-year MPH students; graduate students by permission of instructor.

Schedule of Classes (<https://classes.cornell.edu/>)

**VTPEH 6990 - Graduate Research in Public Health (1-4 Credits)**

Research credits with public health program faculty may include topics of public health and environmental change, food security, local agriculture, civic engagement, health equity, social justice, environmental justice. Contact faculty in the program directly to inquire about available research topics/projects.

**Enrollment Information:** Enrollment limited to: MPH students; others with permission of instructor.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Fall 2024, Spring 2024

Schedule of Classes (<https://classes.cornell.edu/>)