GLOBAL PUBLIC HEALTH (GPH-GU)

GPH-GU 1005 Advanced Introduction to Bioethics (3 Credits)
Typically offered Fall
Advanced Introduction to Bioethics - Open only to Graduate Students in Bioethics or Philosophy or by Permission of Instructor. This seminar is intended to introduce students to the central methods and concerns of contemporary bioethics. We will consider topics including the grounds for respecting human (and other) life, the concepts of well-being and autonomy, decisions about future people, and justice in distribution of scarce medical resources. Students will develop familiarity with these concepts as well as the conventions and standards of bioethical debate.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 1006 Advanced Introduction to Environmental Ethics (3 Credits)
Typically offered Spring
Advanced Introduction to Environmental Ethics - This course situates theoretical developments in practical ethics broadly and in environmental ethics specifically. The course builds on the theoretical materials by examining a series of cases including ethics and agriculture, corporate responsibility and environmental injustice, and the environmental health consequences of war.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 1165 Research Ethics (3 Credits)
Typically offered Summer term
The course will examine the scandals that launched the field of research ethics and consider the ethical principles that arose in reaction. We will be especially concerned with the nature and limits of informed consent, as the central principle of research ethics. We will ask: what makes consent valid? What kind of understanding is required for consent to count as 'informed'? How should we distinguish research and clinical care; what clinical responsibilities to researchers have, in designing and conducting studies? What does it take to justify research when consent is impossible; as in the case of children or incapacitated patients? When, if ever, is it acceptable to use deception in research? What else is required, beyond informed consent, to justify research? In particular, what sorts of social goals should research promote, and what social harms must it avoid?
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 1210 Justice in Health & Healthcare (3 Credits)
This course surveys philosophical theories of justice, applying them to population bioethics with particular focus on environmental health justice. Case studies will include environmental racism and injustice in the United States as well as environmental and global justice dimensions of climate change, food systems, pollution, and infectious disease.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 1230 Advanced Introduction to Public Health Ethics (3 Credits)
This course examines the ethical foundations of public health and ethical issues that arise in the context of public health work. Topics will include, for example, balancing individual autonomy and community health, rights to health and healthcare, culturally respectful global health interventions, and the risk of generating stigma through public health campaigns. We will also discuss the ethics of public health research, exploring topics such as privacy considerations in data gathering and informed consent in a community health context.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2000 Independent Study (1-4.5 Credits)
Typically offered Fall, Spring, and Summer terms
Independent Study
Grading: School of Global Public Health Graded
Repeatable for additional credit: Yes

GPH-GU 2017 Ethics, Technology, and the Future (3 Credits)
This course explores ethical longtermism and related issues in value theory, intergenerational ethics, and the ethics of catastrophic risk. Longtermism is the view that what we ought to do is mostly determined by the long-term effects of our actions. It grew out of the Effective Altruism movement, which is all about doing the most good with limited resources. According to many longtermists, avoiding extinction and other large-scale catastrophes, like global totalitarianism or the collapse of modern industrialized civilization, turns out to be far more morally important than near-term priorities like curing disease or alleviating poverty. The view is understandably controversial. This course explores the case for longtermism, alternative ways of thinking about what is at stake in humanity's future, and a range of applied issues, like climate change, AI, and nuclear war.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2019 Technology, Public Policy and Health (3 Credits)
This course will explore ethical issues at the intersection of technology, public policy and health. Technological developments, especially those related to artificial intelligence, promise to have significant effects on our healthcare systems. Students enrolled in this course will learn how to use the tools of philosophy to analyze the ethical issues that these developments raise for our political institutions and the design of public policy. Some issues that may be covered include: artificial intelligence in medicine and public health, bias in healthcare algorithms, AI decision-making in medical diagnosis, digital health, equitable access to health, healthcare and global health, the limits of governmental regulation in healthcare and markets, and data protection and privacy. By the end of the course, students will gain important knowledge for how to analyze, design, and advocate for policies related to technology and health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2022 SAS for Beginners: Data Management and Exploration (1 Credit)
This 5-session (2 hours per session), 1-credit course will introduce students to Statistical Analysis System (SAS®) software and provide an opportunity to gain basic knowledge of this commonly-used software by working with data from the real-word (e.g. data related to the COVID-19 outbreak). The course will cover data management, descriptive analysis, and data visualization. Students will complete problem sets after each class to reinforce skills introduced during that class, create a fact sheet as a culminating assignment that requires students to analyze the real-word public health data and present their findings. All the learning materials will be taught and performed using SAS standard version (version 9.4) and SAS OnDemand for Academics.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2106 or 5106 and GPH-GU 2995 or 5995.

GPH-GU 2024 R Programming for Beginners (1 Credit)
R is among the leading programming languages in the realms of statistics and data science. This course will cover essential topics such as R objects, data visualization, data import & export, and data manipulation. Students will learn how to program in R effectively and efficiently for data analysis with popular R packages including tibble, ggplot2, readr, and dplyr. By the end of the course, students will have the ability to craft R scripts independently, capable of performing sophisticated data visualization, manipulation, and both import and export operations. This course does not require prior experience in programming or statistics and serves as a foundation for other courses in biostatistics, epidemiology, and data science.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2025 Reproductive Ethics (4 Credits)
This course surveys central issues in the ethics of human reproduction. Topics include whether (and when) procreation is permissible; the nature and extent of parental responsibility; the morality of abortion; the ethics of gamete donation; whether we can harm people by bringing them into existence; commercial surrogacy; genetic selection and disability; the impact of our reproductive choices on future generations; genetic engineering and enhancement. The course will introduce students to fundamental moral notions (e.g., harm, interests, rights, autonomy, respect), philosophical conceptions of personal identity, and the standards of bioethical debate.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2026 Neuroethics (4 Credits)
Typically offered occasionally
Neuroethics has two branches: the neuroscience of ethics and the ethics of neuroscience. The former is concerned with how neuroscientific technologies might be able to shed light on how we make moral decisions, as well as on other philosophical issues. The latter is concerned with ethical issues raised by the development and use of neuroscientific technologies. Topics include whether neuroscience undermines deontological theories; whether our moral reasoning is inherently biased; whether there is a universal moral grammar; the extended mind hypothesis; the ethics of erasing memories; the ethics of mood and cognitive enhancements; "mind#reading" technologies; borderline consciousness; and free will and addiction.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2027 Moral Indeterminacy (4 Credits)
It seems impermissible to kill one innocent person to save five other innocent people from being killed. At the same time, many people have the intuition that it may be permissible to kill one innocent person to save, e.g., one million people. Suppose that there is something to these intuitions. Is there a precise threshold when the act of killing an innocent person changes from impermissibility to permissibility, or is the boundary fuzzy? Is the source of this indeterminacy due to semantic vagueness in the term 'permissibility' or lack of adequate knowledge about what counts as permissible? Or does the indeterminacy stem from vagueness in the world? What is the difference between vagueness and indeterminacy? How should we go about deciding what to do when faced with a case of moral indeterminacy? In this seminar, we shall critically review some of the most popular philosophical approaches to vagueness including semantic, epistemological, and ontological approaches; consider whether the source of moral indeterminacy may be different from non-moral indeterminacy; and apply these insights to normative issues such as the defensibility of threshold deontology and the problem of incommensurability in population ethics.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2028 Nonconsequentialism (4 Credits)
Nonconsequentialism is a type of normative theory according to which the rightness or wrongness of an act is not determined solely by consequences. In particular, it holds that even when the consequences of two acts are the same, one might be wrong and the other right. In this course, we shall examine factors (prerogatives) that permit an agent to act in ways that do not maximize the good, and factors (constraints) that limit what an agent may do in pursuit of the good. We shall discuss topics such as the moral difference between harming and not-aiding; intending and foreseeing harm, i.e., the Doctrine of Double Effect; whether constraints are absolute; and how nonconsequentialists should address issues such as aggregation and the so-called paradox of deontology. We shall also investigate how one might be able to provide a plausible, theoretical foundation for nonconsequentialism.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2029 Controversies & Politics (4 Credits)
While medicine may aspire to objectivity, it remains a human practice that is often shaped by our personal values and political commitments. In this course, we will examine some of the ways in which medicine is 'value-laden', and in which our political commitments may inform our medical practices. We will ask questions like: how do we define health and disease? How do we draw the line between mental illness and mere mental difference? What role should a medical professional's personal values play in their practice? Should doctors have a right to refuse to perform medical procedures that violate their personal moral commitments? To what extent should medical systems accommodate patients' religious and cultural practices? We will address these questions, among others, by reading work from philosophy, political theory, and by examining case studies.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2030 Introduction to Global Health (2 Credits)
This course introduces students to public health from a global perspective, advancing students' understanding of the dynamic nature of global opportunities and threats and how they are affected by globalization. The course uses an ecological model of health to illustrate the impact of education, socioeconomic status, the environment, and political will on the global burden of disease. It introduces the primary actors in global health governance and financing and examines current and future priorities in global health, emphasizing the importance of intersectoral collaboration in addressing complex challenges. The course also presents the human rights and ethical dimensions of global public health, including decolonization.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2032 End of Life (4 Credits)
Central to philosophical discussions about the end of life is a well-known argument about the rationality of fearing death. That argument raises several puzzles about our asymmetrical attitudes concerning time, and about the badness of death. In addition to the value of death, this course will address related topics from among the following: definitions of death; personal identity; dementia and moral status; the meaning of life; the coherence and desirability of immortality; assisted death, advance directives, and end-of-life care; whether one can be harmed by being born. The general aim of the course is to strengthen your skills in analytical thinking and in substantive philosophical debate of these issues.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2033 Advanced Introduction to Ethics of Technology (3 Credits)
This course examines a range of important ethical issues concerning technology, data, and the Internet. Topics include the collection and use of algorithmic data, digital surveillance and privacy, social media addiction, the ethics of gamification, trust and consent in the digital age, the role of the Internet in spreading misinformation and increasing polarization, and the acceptable goals and design of AI systems.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2085 Autonomy, Capacity, and Consent (3 Credits)
This course investigates the nature of and relationship between autonomy, decision-making capacity, and informed consent. It divides into three parts. The first part asks: what is it to act autonomously and why is autonomy important? The second part asks: what is required to have decision-making capacity, understood as the ability of subjects to make their own medical and health-related decisions, and what is its relationship to autonomy? The third asks: what is consent, and why is it important? Although the focus of the course will be on general moral, metaphysical, and legal questions such as these, it will also consider a range of case studies arising in medical, research, and public health settings.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2086 Ethics of Privacy (3 Credits)
This course provides a comprehensive examination of the ethical dimensions of privacy, exploring its philosophical foundations, practical implications, and evolving challenges in the digital age. The course will critically discuss the origins and concept of privacy, through different philosophical accounts of privacy. Exploring the value and rights associated with privacy, the course navigates through contemporary challenges, including data and digital privacy, surveillance, anonymity and social media implications. Topics covered include the right to privacy in health care settings, medical and genomic privacy, decisional privacy, and postmortem privacy, alongside emerging concepts like mental privacy and neurorights, providing students with a critical understanding of privacy ethics in today's society.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2105 Thinking Critically and Ethically in Public Health (1.5 Credits)
This course is an introduction to critical thinking, ethics, and writing for public health professionals, who need to communicate public health content and identify communication strategies for different audiences. At the heart of such communications is persuasive writing. The first module introduces students to core reasoning skills such as what counts as a good reason for one's belief, what is an argument, the difference between a deductive argument and an inductive argument, and so on. Public health professionals are also often involved in devising policies that should be guided by sound ethical principles. The second module introduces students to key ethical theories and ethical issues that illustrate how the promotion of public health can conflict with autonomy, privacy, and social justice.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2106 Epidemiology (3 Credits)
Typically offered Fall
Epidemiology is the study of the distribution and determinants of health and disease in different human populations and the application of methods to improve disease outcomes. As such, epidemiology is the basic science of public health. This course is designed to introduce students in all fields of public to the background, basic principles and methods of public health epidemiology. Topics covered include: measures of disease frequency; epidemiologic study designs, both experimental and non-experimental; understanding bias; and measures of effect and association. In addition, students will develop skills to read, interpret and evaluate health information from published epidemiological studies and mass media sources.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2110 Health Care Policy (1.5-2 Credits)
Typically offered Fall
This course introduces students to key concepts, principles and practices in the field of health policy and management. The course will examine issues that concern quality, costs, access to healthcare and public health services for individuals and populations. The course emphasizes the need for leaders in today's world of public health to understand central issues in both policy and management and, importantly, how these interact. The overall goal of the course is to provide information for students to build an understanding of the fundamental ideas, issues, and problems currently debated in health policy and management and to provide a foundation for practice in a range of careers in public health and health care policy and management.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2112 Public Health Management and Leadership (1.5-2 Credits)
Typically offered occasionally
The overall goal of the course is to provide information for students to build an understanding of the fundamental ideas, issues, and problems currently debated in public health management and to provide a foundation for practice in a range of careers in public health and management.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2115 Introduction to Principles of Nutrition in Public Health (3 Credits)
Typically offered Fall
This course will cover the basic concepts of the science of nutrition detailing the nutrients, food sources, function and nutritional requirements. The course will integrate the nutritional needs of populations, both nationally and globally, with emphasis on undernutrition, over nutrition and the double burden of malnutrition. The principles of nutritional needs will be applied to promoting health in vulnerable populations.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2125 Nutrition Education and Promotion Initiatives in Public Health (3 Credits)
Typically offered Spring
This course will examine the role of nutrition education as a means of promoting, maintaining and improving the health and wellness of community populations. Using evidence based approach; the course will integrate skills obtained through practice and experience with external evidence from systematic research regarding nutrition education. Students will acquire the skills and knowledge to effectively identify, assess and adapt nutrition education materials and programs.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2126 Healthcare Claims Data Analysis (3 Credits)
This course will introduce students to the richness, complexities, and limitations of healthcare claims data and how the data may be deployed to answer a variety of real-world population health questions. Topics covered in the course include an introduction to claims data and how it is used in population health analysis and quality of care measurement, data basics, claims coding, and how claims data is used in business, academic research, and to inform policy. Students will work hands-on with claims data to complete course assignments and a project.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2128 Writing and Communications for Public Health Policy and Management (3 Credits)
Writing, presenting, and facilitating are core competencies in public health policy and management. Without the ability to produce clear, concise, and engaging writing you will have trouble convincing others of your point of view. Equally important are your facilitation and presentation skills. In this class we will develop the skills required to write compelling public health and policy documents. We will explore ways to present your material so your audience can grasp its importance. We will discuss tactics for facilitating discussions, practice the technique of active listening, and learn strategies for how to "read a room." This class will include brief lectures, discussion, role plays and student-centered learning.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2130 Global Health Diplomacy (3 Credits)
Typically offered occasionally
Many of the geopolitical forces that shape global health (global disease burden and our collective response to it) lie outside of the health sphere. This course will explore the ways in which global health is influenced by, and can influence, other global forces including foreign policy, trade/economic policy, environmental policy, and security policy in a globalizing world. Effective responses to current and future global health challenges require that public health professionals (particularly those working in policy or at a policy-level) understand these dynamics and how best to leverage them in order to achieve better health outcomes globally.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2132 Stress and Health in Communities (3 Credits)
This course is designed to review theories and research examining the role of stress in health. The course will review basic concepts and models of stress and the mechanisms by which stress may influence health outcomes. Through these concepts and models, this course will cover a range of topics, including the neurobiological underpinnings of stress and health and socio-ecological stressors and their influence on racial/ethnic health disparities. A key aspect of the class will be to critically evaluate and discuss the research on stress and health through the critique of studies' methods, data, and conclusions. This course will foster an interdisciplinary approach to comprehensively understanding stress and health in communities.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2140 or 5140 or Public Health PHD or DPH.

GPH-GU 2135 Dissemination and Implementation Science in Health Care and Public Health (3 Credits)
Dissemination and implementation (D&I) science studies how evidence-based interventions in health care and public health can be spread and integrated into practice. This course introduces foundational elements of D&I science and teaches the essential skills required to apply D&I methods effectively to overcome barriers to dissemination, implementation, sustainability and spread of evidence-based health care and public health programs and policies. Students will learn how to develop and evaluate solutions to overcoming barriers to implementing evidence-based interventions. The course uses case studies to provide examples of ways in which these methods can be applied in real world settings.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2136 Fundamentals of Global Health and Development (3 Credits)
This course offers an in-depth exploration of the global health architecture and how it functions, focusing on governance and financing mechanisms aimed at advancing global health initiatives and addressing pressing global challenges like non-communicable diseases, pandemics, natural disasters, and conflicts. It will provide a comprehensive-understanding of the primary actors and how their organizations function at various levels (i.e., global, regional, country, and community). The course will also explore the influence of social, political, and commercial health determinants and colonialism's legacy on health and health systems in different regions of the world. Finally, the course will examine how these factors influence the ability of countries to build resilient health systems and improve health outcomes.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2030 and Plan: GUUMPHMPH.

GPH-GU 2137 Topics in Dynamic Modeling (3 Credits)
Typically offered Fall
Modeling is not merely mathematics, computing, or statistics. It is the art of formalizing questions that are novel, revealing, and testable, and whose answers are unexpected, replicable, and consequential. Dynamic models concern how systems unfold in time. This course expands students' scientific perspectives, highlighting strengths, weaknesses, and synergies across dynamic modeling approaches, with diverse applications from infectious diseases to wealth inequality to contagious violence.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2140 Global Issues in Social & Behavioral Health (3 Credits)
Typically offered Fall
This course begins by examining social, psychological, and cultural factors that have an impact on public health in community, national, and global contexts. These factors include population characteristics, individual beliefs and behaviors, and policies that affect public health problems and their solutions. The second half of the course introduces students to methods that public health professionals use to address the social and behavioral determinants of health. These methods include theories and perspectives drawn from the social/behavioral sciences, interventions and policies designed to alleviate health disparities, and methods to evaluate interventions and disseminate the results.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2145 Introduction to Public Health Systems: Management and Policy Issues (3 Credits)
Typically offered Fall
This course introduces students to key issues, concepts and practices in the field of public health management and policy. We examine the organization, management and performance of public health departments and systems. The course emphasizes the need for leaders in today's world of public health to understand central issues in both public health policy and management and, importantly, how these interact. The overall goal of the course is to promote students' understanding of, and ability to analyze, fundamental issues and ideas that are central to public health systems and to develop students' skills for a range of careers in public health management and policy.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2110 or GPH-GU 5110 or Public Health PHD or DPH.

GPH-GU 2152 Introduction to Agent-Based Modeling (3 Credits)
How do local (micro-scale) interactions between individuals generate global (macro-scale) societal patterns--of disease, of conflict, of inequality? Agent-based modeling (ABM) is a powerful new way to address such questions computationally. In ABMs, software individuals and the interactions between them are explicitly represented, and these local interactions generate the global patterns we wish to explain, and to alter through policy, epidemics being prime examples. This course introduces students to ABMs from epidemiology, public health, and social science. It teaches students to build, analyze, extend, test, and present simple models in NetLogo. No prior programming is required. Final projects will be tailored to students' interests and technical levels.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2153 Global Environmental Health (3 Credits)
Typically offered Fall and Spring
Environmental health sciences represent the study of biological, physical, and chemical agents that affect the health of both communities and workers. This course provides students with an introduction to key areas of environmental health. Students gain an understanding of the interaction of individuals and communities with their environment, the impact of environmental agents on human health, and specific applications of concepts of environmental health including exposure assessment and engineering controls. The impact of global environmental issues on health equity will be considered, as well as scientific, political, legal, and economic perspectives on global environmental health. Emphasis is placed on issues in environmental health that transcend national boundaries.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2154 Adolescent Health and Development (3 Credits)
This course will provide an overview of adolescent health and development. Drawing from a range of disciplines, students will critically examine the state of the evidence on adolescent health and learn about the main health issues and considerations to promote healthy development in this age group. Course topics include: healthy biological and psychological development; the social contexts of adolescent development, including race/ethnic identity development; nutrition, body image and weight stigma and discrimination; adolescent sexuality development; HIV and other sexually transmitted infections; mental health, tobacco and alcohol use; youth violence; and adolescent health in emergencies, such as COVID-19.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2155 Public Health Policy (3 Credits)
Typically offered Spring
This course explores policy tools and regulatory mechanisms that can be used to improve the public's health. It examines issues related to evidence, stakeholders, and the processes involved in policymaking and implementation. Students will learn to evaluate government and other institutions' policies and formulate apt policy solutions to public health problems, such as those resulting from tobacco, alcohol, and food consumption. We will discuss the government's ability to shape health policy and limitations on the same in the context of firearms, injury prevention, and the labeling and marketing of products that cause harm. The course brings in current events so students gain a practical and current understanding of public health policy issues.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2110 or GPH-GU 5110 or Public Health PHD or DPH.

GPH-GU 2158 Pandemics: History, Ethics, Politics, and Policy (3 Credits)
Typically offered Fall
This course traces the evolution of the United States response to pandemics from 1900 to the present. It uses historical literature and documents to embed students in the historical, economic, and policy contexts in which pandemics occur. The course uses a range of historical cases and other publicly available sources including documents made available through state and federal litigation that illuminate the tradeoffs that health officials must consider and structures and cultures that shape decision-making and conflict or alignment between health officials, advocates, opponents (including corporate forces), and the groups subjected to efforts to control or mitigate the spread of disease.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2160 Qualitative & Field Methods (3 Credits)
Typically offered Fall and Spring
This course is devoted to flexible forms of inquiry suited to the local context of global public health research. Sometimes known as ?action research?, ?rapid assessment, and ?community-based participatory research? these approaches share a commitment to working closely with and in communities to identify health risks and effective interventions for ameliorating them. Although field research may include surveys and other forms of quantitative research, the emphasis in this class will be on qualitative methods with mixed method approaches included where appropriate. The focus will be on introducing the basic content/skills of on-the-ground field research under challenging conditions, i.e., shortages of time and resources as well as cultural/ linguistic differences. There are additional aspects to learning these methods (e.g., data analysis) that require much more time and skill development than is possible in this brief introductory course. Interested students are strongly advised to take additional coursework in qualitative methods.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2182 Statistical Programming in R (3 Credits)
R is one of the most popular programming languages in statistics and data science. This course will introduce various R programming topics, including R objects, data visualization, data import & export, data manipulation, creating functions and iterations for statistical simulations, and writing high-quality reports with R Markdown. The course will focus on public health datasets as illustrations to best meet the practical needs of GPH students but is also open to those of other backgrounds. By the end of the course, students will be able to comfortably program in R for effective data preprocessing, analysis and presentation. This course does not require prior experience in programming or statistics and serves as a foundation for other courses in biostatistics, epidemiology, and data science.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2183 Introduction to Statistical Programming in R (2 Credits)
R is one of the most popular programming languages in statistics and data science. This course will introduce various R programming topics, including data visualization, exploration, and transformation, via illustrations with public health datasets. Students will learn how to program in R effectively and efficiently for data analysis with popular R packages including dplyr, tibble, readr, and ggplot2. By the end of the course, students will be able to write R codes from scratch for data visualization, exploratory analysis, transformation, and import & export. This course does not require prior experience in programming or statistics and serves as a foundation for other courses in biostatistics, epidemiology, and data science. Students are recommended to take the follow-up course: Intermediate Statistical Programming in R.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2184 Intermediate Statistical Programming in R (2 Credits)
R is one of the most popular languages in statistics and data science. This course is the follow-up of GPH-GU 2183 Introduction to Statistical programming in R, and covers intermediate R programming topics that include organizing and modifying data, operating on various data object types, creating functions and iterations for statistical simulations, and writing high-quality reports with R Markdown. The course will focus on public health datasets as illustrations to best meet the practical needs of CGPH students but is also open to those of other backgrounds. By the end of the course, students will be able to comfortably program in R for effective data preprocessing, analysis and presentation. This course serves as a good preparation for courses in biostatistics, epidemiology, and data science.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2190 Essentials of Public Health Biology (3 Credits)
Typically offered Fall
This course introduces MPH students with minimal formal training in biology to the biological and molecular context of public health. The course provides an overview of: a) basic biological principles and mechanisms relevant to public health practice; and b) biomedical technology as applied in public health. The course covers basic principles of genetics, immunology, microbiology, and cell biology in the context of global public health. Areas covered include infectious diseases, genetic and chronic diseases, allostatic load, environmental factors affecting health, and prevention and treatment strategies.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2198 Simulations in Biostatistics (2 Credits)
Typically offered Summer term
This course will survey methods of computerized simulations and practice the application of these methods in realistic scenarios. The freely available software package, R, will be used. We will learn algorithms for virtually mimicking environments with random components and learn how to design and conduct simulation studies to investigate such environments. These include clinical trials and observational studies. Emphasis is given to the implementation of numerical algorithms, rather than the theoretical underpinnings of the algorithms. Applications of simulations to the study of statistical methods used for estimation and testing in public health will be discussed. Students will learn to design and implement a simulation study in a biostatistical context of their own interest.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2995 or 5995 and GPH-GU 2182.

GPH-GU 2205 Gun Violence in America: Public Health, Politics, andPragmatism (3 Credits)
More Americans have been killed with guns since 1968 than died in all the wars since the country's founding. Addressing this crisis means solving tenacious problems of both public health and politics. In this course we will examine the main causes of firearm injury, the political actors that have influenced America's public policy response, and the ways all of this connects to the underlying beliefs and behaviors that define American's relationship with guns.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2211 Environmental Justice and Global Health (3 Credits)
Environmental Justice - A Global Outlook (3) Environmental Justice has implications for public health practice both locally and globally because marginalized groups such as people of color and people of low socioeconomic status continue to be exposed to greater numbers of environmental hazards in their homes, in their jobs, in their communities, and in the food they eat, relative to the society at large. This course will explore the links between the environmental justice movement and civil rights. Students will examine the political response to the movement, both locally and globally, through legislative and regulatory actions.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2153 or 5153 or GUUMPHPHD, GUUMPHDPH.

GPH-GU 2213 Public Health Nutrition (3 Credits)
Typically offered Fall
Introduction to the concepts, principles, and scope of practice of public health nutrition. The course emphasizes the distinction between population-based and individual-based approaches to prevention and alleviation of diet-related conditions, and the societal, economic, environmental, and institutional barriers to improving the nutritional status and health of diverse population groups.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2217 Food Policy for Public Health (3 Credits)
Typically offered Fall
Food and its many aspects has become a mainstay of public health policy, popular discourse, and national debate. This course examines current policy issues related to the modern food environment locally, nationally and internationally. The course provides background into how the U.S. government (federal, state, and local) can act in the area of food policy and it delves into topics related to nutritional guidelines, food programs, food safety, labeling, marketing, and pricing. We will additionally explore issues related to the food industry, the global nutrition transition, and agricultural and environmental food production concerns.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2218 Assessing Community Health Needs (3 Credits)
Typically offered Fall
Community health assessments comprehensively identify the assets and needs of a defined group. When conducted in tandem with community members, community health assessments provide a window into how a community sees itself, the systems and patterns it functions by, and its assets and needs. Public health practitioners can use this information to work with a community to utilize its strengths to address mutually acknowledged needs. In this course, students will work in teams to conduct a community assessment of an assigned United Health Fund district within New York City. The focus of the course will be on introducing the basic content/skills of on-the-ground field research, collecting, analyzing, and summarizing data. Specifically, students will use primary data (surveys, in-depth interviews, observations) and secondary data (public data sets) collection along with systems thinking to describe and understand the health, demographics, and socio-economic profile of the community. Students will survey and/or interview community leaders, community based organization representatives, health practitioners, and/or community residents. Students will summarize the findings and offer recommendations in a final report and presentation.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2106 or GPH-GU 5106 and GPH-GU 2995 or GPH-GU 5995 and Corequisite: GPH-GU 2361 or GPH-GU 5361 or Public Health PHD or DPH.

GPH-GU 2219 Application of Implementation Science Frameworks to Address Diseases in Global Populations (3 Credits)
In order to improve health outcomes for diverse populations, evidence-based interventions (EBI) or evidence based practices (EBP) must be sustainable and incorporated into routine care in global settings. Students will explore several implementation science frameworks using examples from low and middle-income countries (LMICs). Then, through a guided series of critical thinking interactive workshops/ activities apply the framework (e.g. RE-AIM, CFIR, EPIS...etc.) to address distinct diseases in global population(s), by selecting an EBI/EBP and explore its application to a global health challenge. At the end of the course, students will be able to critically evaluate and assess the utilized framework and articulate the strengths and deficiencies inherent within that framework to address the stated problem.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2135 or GPH-GU 2347 or GPH-GU 3347.

GPH-GU 2220 Applying Systems Thinking to Global Health Practice (3 Credits)
Typically offered not typically offered
This course provides an overview of the state-of-the-art concerning the Global Burden of Disease, the Disease Control Priorities, Universal Health Coverage and Health Systems Analyses. Students apply systems thinking and evaluation methods in designing policies to accelerate progress toward the health related Sustainable Development Goals (SDGs), by categorizing health related targets within the SDGs according to mortality, incidence/prevalence of disease, risk factors, cost effective interventions and health system platforms. For each of these dimensions, students analyze concepts, methods, information sources and existing data for countries with differing burdens of disease.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2106, GPH-GU 2380 and GPH-GU 2030.

GPH-GU 2222 Clinical Ethics (3 Credits)
Typically offered Spring
Theoretical and practical medical ethics, combined with observation in a clinical setting.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2224 Introduction to Urban Health and Equity (3 Credits)
This course will introduce students to urban health and its broad determinants. The course will combine readings, classroom lecture and discussion to provide an overview of urban health and health equity. As an emerging interdisciplinary area of research, practice and policy, we will draw on the work of experts and experience from all regions of the world and examine the challenges a focus on cities raises as a subnational focus when global health governance has historically worked with national governments. We will also look specifically at NYC as a global city that has been committed to advancing urban health and health equity through a health in all policies approach and alignment of its strategic plan OneNYC with the SDGs to examine its successes and challenges.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2225 Psychometric Measurement and Analysis in Public Health Research and Practice (3 Credits)
Typically offered Fall
*Students will examine the principles of measurement and testing as applied to public health research and practice, including the technical interpretation of test scores using the classical test model. Content of the course will consider individual measures of constructs and behaviors measured in public health research and practice. Students will examine and deconstruct principles and techniques used in psychometric studies to establish levels of reliability and validity and will utilize statistical software to conduct analyses. *
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2227 Psychiatric Epidemiology (3 Credits)
Psychiatric epidemiology is the study of the distribution and determinants of mental disorders at the population level. This course provides an overview of: (1) the history of this subfield of epidemiology; (2) approaches to classification of mental health conditions and (descriptive and analytic) study design and how they have evolved over time; (3) our current understanding of the burden and causes of mental disorders globally; (4) the important role of culture and context in the classification, prevalence, and correlates of mental health conditions; and (5) how epidemiologic findings have informed public health intervention. The course emphasizes critical evaluation of methodological approaches in psychiatric epidemiology, challenges and current debates, and future directions for this field of study.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPHMPH, GUYUMPMPH, GUEPIDMS with a prereq of GPH-GU 2106 or 5106) or (GUUMPHPHD, GUUMPHDPH with a prereq of GPH-GU 2930).

GPH-GU 2229 Commercial Determinants of Health: A focus on tobacco, alcohol, and industrial food (3 Credits)
This interdisciplinary graduate-level course on Commercial Determinants of Health explores the influential role of commercial entities in shaping population health outcomes. Students critically analyze the strategies, policies, and practices of industries like food, tobacco, alcohol, and marijuana, examining their impact on public health, health equity, and disease risk. Through case studies and discussions, students gain insights into the complex relationship between commercial determinants and nutrition, while exploring strategies for promoting healthier societies. Within the areas covered, the course highlights the significant influence of the private sector on our physical and social environments, evidence surrounding health issues, and public discourse.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2230 Global Non-Communicable Disease Prev & Control (3 Credits)
Typically offered Spring
This course will focus on the considerable and increasing burden of disease due to chronic diseases, mental health, substance use (alcohol, tobacco, other drugs), risk factors (obesity, lack of physical activity), and injuries within the developing world. It will present methods for measuring the burden of non-communicable disease, review approaches to program and service development to modify risk factors, present lessons learned from successful developing country programs, and discuss implications for health services development and international development policies.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2232 Detection and Control of Waterborne Pathogens (3 Credits)
Waterborne pathogens are the etiologies of a range of diseases – including gastroenteritis, poliomyelitis, hepatitis, Legionnaire's disease, and intestinal worm infections – and play an important role in the global burden of disease. This course will introduce students to fundamental principles of water-related infectious diseases, including the detection and enumeration of waterborne pathogens and indicator microorganisms; the burden of disease and mode of transmission of different classes of microorganisms; pathogenesis; and engineering controls to reduce transmission. The course will have a global perspective, and include water treatment options in low-resource settings.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2233 Data, A I, and the People's Health (3 Credits)
Typically offered Fall
Motivated by social science theory, this course introduces data science concepts related to health equity. Topics include challenges across the data lifecycle (e.g., sampling, analysis, reporting), statistical sampling methods, representation techniques, and frameworks for measuring health disparities. Students will examine algorithmic fairness, predictive model implications, and the effects of data variance across social and geographic contexts. Practical exercises involve community-engaged research, identifying equity concerns in quantitative data, and addressing statistical issues to mitigate health inequities where applicable.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2182 and (GPH-GU 2353 or 3353); Students in plan code GUUMPHMPH, GUYUMPMPH, GUBIOSMS, GUBIOEMA, GUUMPHPHD, or GUUMPHDPH.

GPH-GU 2235 Biostatistical Consulting (3 Credits)
This course will provide an introduction to biostatistical consultation. Students will learn about ethical principles, professional standards for communication and interaction, interpretation of a scientific or public health problem and its translation into a statistical framework, execution of the required tasks (e.g., design, analysis plan, data analysis, interpretation), and clear communication of the results. Students will participate in mentored group consultations with investigators from across NYU. Students will read and discuss literature on the art and science of biostatistical consulting. Students will write up summary reports for two projects and present one to the class. Some projects may turn into an applied practice experience or thesis. This PhD level course may be taken by MS/MPH students who have sufficient background.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2236 Criminalization and Public Health in the U.S. (3 Credits)
This course offers a historical review and critical analysis of criminalization in the United States (US) from a public health perspective. Students will examine the development of US carceral structures, with an emphasis on those related to mental health and drug use, and how these structures impact individual, family, community, and population health. Critical race theory, criminology, social theory, and other theoretical frameworks will be used to investigate the policies, norms, and practices defining criminalization in the US today, and the social movements for change. [Trigger warning: Course readings include graphic depictions of violence.]
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2242 Crisis and Emergency Risk Communication (3 Credits)
This course covers key concepts of crisis and risk communication theory and its practical application to emergent and catastrophic public health events. Crisis and emergency risk communication is among the central strategies by which government officials and community and organizational leaders promote critical protective actions to their constituents and stakeholders. This course will use a series of case studies to illustrate the principles, strategies, and tactics of effective risk communication. The course will also explore the shifting locus of authority as new media channels emerge and the information landscape continues to evolve, often moving away from centralized mass media brokers and towards more decentralized and informal models of information sharing and seeking.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2140 or 5140 or GUUMPHPHD, GUUMPHDPH.

GPH-GU 2244 Health Care Management Science (3 Credits)
This course is designed to equip students with a fundamental understanding of health system management and transformation including delivery models, value-based care, population health, policy, change management, and continuous quality improvement. It will introduce basic contextual knowledge about healthcare systems and quantitative models for improving healthcare system performance. Students will learn through the combination of interactive didactics, assigned reading, expert guest speakers, and completing a group capstone quality improvement project in a healthcare setting.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2246 Decision Science for Global Public Health (3 Credits)
Policy makers at every level constantly face decisions that profoundly impact the lives and health of people around the world. Should we invest in a costly new drug that could save lives? Should we close our school during a pandemic? This course will empower you to support people who navigate these challenging choices in a landscape marked by scarce resources, limited information, and lives on the line. We'll explore a diverse range of subjects: from statistics to sociology, and from economics to ethics. While we'll draw most examples from global health, and especially from the world of vaccines, the approaches we'll discuss are applicable across public health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPHMPH, GUYUMPMPH with prereq of GPH-GU 2106 or 5106 and GPH-GU 2995 or 5995) or GUUMPHPHD or GUUMPHDPH.

GPH-GU 2248 Managing Strategy in Public Health (3 Credits)
This elective course equips learners with skills and current practices related to strategy, an important area of focus for leaders and managers in public health and health-related organizations aiming to improve organizational performance. It helps learners answer the question: "How do organizations use resources, and why do some organizations outperform others?" You will learn approaches that enable organizations to create value, to leverage advantage, and to communicate strategic plans. Overall, this course will equip learners with useful theories, frameworks, and perspectives while enhancing their critical analytical skills in the application of strategy in public health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPMPH, GUYUMPMPH with a prereq of GPH-GU 2112 or 5112) or GUUMPHPHD or GUUMPHDPH.

GPH-GU 2250 Health and Human Rights (3 Credits)
Typically offered Fall
This course approaches global health and justice from international human rights and humanitarian law. The course is designed to provide public policy and public health students with the basis for literacy about human rights and humanitarian law. Through lectures, case studies and practical training, students will be able to gain knowledge and skills to determine how rights violations impact health, and how to engage in using the human rights approach to improve health outcomes. Topics, including HIV/AIDS, sexual and reproductive rights, the right to health in war and disasters, access to medicines and the ethical obligations of public health professionals, will be used to illustrate practical applications of human rights to global health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2255 Substance Use and Public Health (3 Credits)
Typically offered Summer term
This course covers the broad group of licit and illicit substances with psychoactive effects used in the US and globally. Over the course the semester, we will review the epidemiology and effects of substance use on biologic, psychological, social function and public health as well as history, trafficking, regulation, treatment and controversies. In addition, pharmacological properties and effects of licit and illicit substances are reviewed and linked to health, economic, and societal problems. Best clinical practices in prevention and treatment and controversies over management of substance use disorders (SUDs) will be discussed, along with ethical issues of interest to health providers and public health practitioners.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPHMPH, GUYUMPMPH, GUEPIDMS with a prereq of GPH-GU 2106 or 5106) or GUUMPHPHD or GUUMPHDPH.

GPH-GU 2265 Climate Change and Global Public Health (3 Credits)
Typically offered Spring
This course is about Climate Change i.e. Global Warming! Climate Change has been cited as the most significant public health challenge of the 21st century. We will intensively cover climate change science, public health response to disasters and altered distribution of diseases especially arthropod-borne, ecological consequences, fossil fuel air pollution, global food and health security, and government policy options. Examples of climate challenges will be covered including severe weather storms, flooding, drought, heat wave mortality and morbidity, ocean acidification, sea level rise, and loss of biodiversity. Renewables such as wind and solar energy will be assessed by States. Climate Denialism is covered with the text,"The Madhouse Effect." *GPH-GU 2240** Perspectives in Global Mental Health* (3) Common mental disorders such as depressive, anxiety and substance use disorders are leading causes of disease burden globally and are associated with serious functional impairment, reduced quality of life, unemployment and homelessness and exacerbate risk for medical illness. Yet they tend to get lost on the global health agenda. Lack of familiarity with interventions, measurement challenges, and stigma are, in part, to blame. This course provides exposure to this increasingly relevant public health challenge from a global perspective, with a particular focus on the epidemiology, risk factors and consequences, individual- and population-level approaches to treatment and prevention, and delivery of care for mental health problems in different settings and cultural contexts worldwide. Pre-requisites: GPH-GU 2106 or 5106
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2270 Translating Research to Practice: Adapting and Implementing Evidence-Based Public (3 Credits)
Typically offered Spring
Evidence-based public health is now recognized as the foundational gold standard for developing programs and interventions to improve population health. In practice, many challenges exist to identifying appropriate evidence-based interventions and adapting them to perform as intended in new settings. This course will examine approaches for selecting, adapting, and implementing evidence-based public health interventions. The framework presented in the course will help prepare students to adapt and implement programs that are theory-based, evidence-based, community-based, and reality-based.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2349 or 5349 and GPH-GU 2415 or 5415
Restriction: Public Health MPH.

GPH-GU 2272 Value-Based Healthcare (3 Credits)
Value-based healthcare is a healthcare delivery model in which providers, including hospitals, physicians, and other practitioners are paid based on patient health outcomes. Under value-based care agreements, providers are rewarded for helping patients improve their health, reduce the effects and incidence of chronic disease, and live healthier lives, in an evidence-based way. The class will explore how value-based care is being used in an attempt to attenuate wide disparities in health care outcomes, high costs, and increasing levels of provider burnout. There will be a focus on Medicaid, duals, and vulnerable populations, and the use of care management, integrated behavioral health and programs that address social service needs to provide better "value" for those populations.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2274 Outbreak Epidemiology: Re-emerging and Emerging Infectious Diseases (3 Credits)
Over the last 20 years, we have witnessed a number of local as well as large-scale, multi-state and multi-country disease outbreaks and pandemics of re-emerging and emerging diseases – including measles, H1N1, Zika, Ebola, SARS, MERS, and currently SARS-CoV-2 (COVID-19). In light of the emergence and re-emergence of these infectious disease outbreaks, the overall objective of this course is to introduce students to the essential elements of outbreak investigations in both local, national and global settings. The course covers three broad content areas that include understanding and detecting infectious diseases, investigating outbreaks, and communication and prevention of future outbreaks.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2275 Nutrition Epidemiology for Public Health (3 Credits)
Typically offered Spring
This course provides in-depth knowledge of the principles and challenges inherent to the discipline of nutritional epidemiology. In addition to covering fundamentals of nutritional epidemiology such as collection, analysis, and interpretation of data on dietary intake and nutritional status within diverse population groups, the course will place strong emphasis on methodological considerations in study design and pertinent statistical issues, including measurement error. The course emphasizes critical evaluation of dietary assessment methods and the results of research studies associating intake of foods, nutrients and dietary patterns with the risk of chronic diseases. Importantly, the course addresses the translation of scientific findings into nutritional recommendations and policies. Students in Public Health Nutrition should take GPH-GU 2115 prior to taking this course.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2276 Public Health Financial Management (3 Credits)
This course introduces financial and accounting principles for public health and health care. Topics covered include accounting theory, budgeting, resource management, financial planning, and third party reimbursement. Students are presented with the basic foundations of financial management before progressing to demonstrate how health care managers can apply financial management theory and principles to help make better decisions that promote the financial well-being of public health and health care delivery organizations.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2110 or GPH-GU 5110 and GPH-GU 2112 or 5112 or Public Health PHD or DPH.

GPH-GU 2278 Global Cancer Epidemiology (3 Credits)
Cancer is a major public health concern globally, surpassing rates of cardiovascular disease in adults <75 years. It is a multifactorial disease with genetic, environmental and modifiable lifestyle risk factors. This course provides an overview of: a) the global and national burden of cancer; b) risk factors including genetic, early life risk factors and modifiable factors: tobacco, excess adiposity and diet (carbohydrates, processed foods, sugar-sweetened beverages, and alcohol); and c) cancer surveillance and policy as it relates to primary and secondary prevention of cancer. Students will discuss landmark studies in cancer epidemiology with an emphasis on population studies in the US and Europe. Students will also gain an understanding of cancer biology and important mechanisms that underlie carcinogenesis.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2280 Environmental Health Assessments and Interventions (3 Credits)
This course will introduce students to the fundamentals of conducting an environmental health assessment of a contaminated site and propose interventions to reduce human exposure and disease. Students will learn and be able to apply the fundamentals of conducting environmental air, soil and water sampling for hazardous chemical, physical and biological agents. In addition, a variety of environmental remediation methods and public health interventions will be introduced. Special focus will be on environmental hazards in low and middle-income countries with numerous case studies presented and discussed.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2153 or 5153 or GUUMPHPHD, GUUMPHDPH.

GPH-GU 2282 Health Economics (3 Credits)
This course introduces microeconomics and economic evaluation concepts that are used to understand and analyze the organization, financing and delivery of public health and health care services. Topics covered include the demand for health and health care, cost of delivering services, market structure, economic evaluation, and cost-effectiveness analysis. The course also compares the structure and performance of public health and health care systems around the world in terms of equity and health outcomes.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2110 or GPH-GU 5110 and GPH-GU 2112 or 5112 or Public Health PHD or DPH.

GPH-GU 2285 Global Women's Health Programs - Analyzing/Evidence to Improve Women's Lives (3 Credits)
Typically offered Spring
This course introduces the student to the major health issues facing women in low resource countries and how to analyze existing programs geared towards improving women's health. Students will learn how biological, environmental, and societal issues affect women's health, the outcomes of pregnancy, and child survival. Topics include reproductive and obstetric health, women's rights, gender-based violence, access to health education, family planning, female genital cutting, and the public health interventions proven to positively impact these issues. Students will intensively evaluate and analyze the interventions created to improve the lives of women and identify key elements that constitue an effective global women's health program. Students will learn the necessary skills to generate solutions to the complex circumstances affecting the health of women globally.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2286 Introduction to Data Management and Statistical Computing (3 Credits)
Typically offered Spring
There is a gap between data collection and statistical analysis. Data management and manipulation is an essential component of public health practice necessary to fill this gap. The course will focus on command-based programming for modifying and managing data, and developing processes, procedures and documentation for reproducibility and efficiency. By the end of the course students will be able to comfortably create datasets, access existing datasets, create variables, clean data, merge data sets, create samples from larger data sets, label data and variables, create and debug code. Students will be exposed to the basics of several statistical packages (Stata, SAS, R, and Tableau). This course is intended for students who have no or minimal experience using statistical software.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2289 Non-Profit Management in Low-Income Settings (3 Credits)
This course provides students with practical knowledge of non-profit organization (NGO) work in low-income countries, including the skills needed to work in this sector. Students will be introduced to NGO problem analysis, strategy, and tools distinct from the government and for-profit sectors through case-study studies, in-depth discussion, in- and out-of-class exercises, and guest speakers.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2292 Public Health Law (3 Credits)
Typically offered Spring
Many of public health's greatest successes have been based on the successful use of the law. Therefore, an understanding of the fundamentals of public health law and the legal foundations of public health is essential to appreciating the tools available to government to address public health threats. This class will examine the government's authorities and also the legal limitations on government enacting law to improve population health at the federal, state, and local levels and by the executive, legislative, and judicial branches. We will additionally analyze core public health issues in the context of this legal framework.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: of GPH-GU 2294 or GUUMPHPHD or GUUMPHDPH.

GPH-GU 2294 Designing and Managing Organizations in Public Health (3 Credits)
This course has two overall goals. The first is to increase your effectiveness in leading individuals and teams within and across organizations, sectors and agencies that seek to improve public health. The course's second goal is to prepare you to effectively design organizations and master organizational processes to impact population health. This course prepares to achieve your objectives by providing you with fundamental frameworks and tools developed from the behavioral and social sciences and tested by leaders in organizations across the public, non-profit, and for-profit sectors.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2300 Professional Writing for Public Health (3 Credits)
Typically offered Fall of even numbered years
This course will help students develop and refine writing skills highly relevant to different public health professions and sectors. The majority of the writing for this course will be completed in class to provide immediate support and feedback, with revisions and editing to be completed outside of class. Please note: This course is an alternative to Thesis I. Students who register for this course must also register for the 1-credit, 7-week datathon course which will meet in the first 7-weeks of Spring 2026 semester. These two courses, together, replace the requirement for Thesis I and Thesis II.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2317 Social Epidemiology (3 Credits)
Typically offered Spring
This course explores the subdivision of epidemiology that elucidates the ways in which social identities, processes, arrangements and structures shape the population distribution of health and disease, and produce social inequalities in health. This course rests on the premise that the study of the determinants of health at multiple levels, and their interrelationships, is essential in order to better explain, potentially predict, and hopefully improve the health of populations. This course is intended to provide an overview of the major areas of inquiry, key theories, seminal findings, methodological challenges/solutions and ongoing debates. By the end of the course students will understand the theoretical, substantive, and methodological parameters of social epidemiology, and be able to evaluate its strengths and limitations.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2319 Grant Writing to Fund Public Health Research (3 Credits)
Typically offered Spring
A hands-on approach to grant writing including development of skills in locating potential funding sources and the use of appropriate grant-writing style & technique. Students are guided through the development of a grant proposal, from locating sources of funds; through development of program objectives, background, & methods; to the peer review process.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2320 Data Utilization in Public Health Practice (3 Credits)
Typically offered Fall and Summer terms
Data Utilization in Public Health Practice (3 credits) Public health practice typically demands competencies in identifying, extracting, analyzing, interpreting and disseminating information from large surveys, administrative data sets, government reports, qualitative studies, and other data sources. This course will develop these competencies through rigorous evaluation of existing data resources (including their strengths and limitations for answering specific public health questions) and best practices in data utilization for situational assessment; monitoring; policy, program and strategy development; and surveillance of health outcomes through real-world case studies and assignments. The course will also provide students with basic skills in data analysis and visualization using Microsoft Excel and an interactive, online mapping software (Carto).
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPHMPH, GUYUMPMPH with prereq of GPH-GU 2106 or 5106 and GPH-GU 2995 or 5995) or GUUMPHPHD or GUUMPHDPH.

GPH-GU 2324 Infectious Disease Epidemiology (3 Credits)
The course will provide an overview of the principles and methods of applied infectious disease epidemiology. Students enrolled in this course will learn the terminology associated with infectious disease epidemiology, factors that impact infectious disease transmission dynamics (i.e. vaccination and immunity), the methods used to conduct infectious disease surveillance, and control measures to reduce or eliminate the burden of certain infectious diseases in our population. In addition, the course will cover topics such as assessment of vaccine field effectiveness, molecular epidemiology and laboratory diagnosis of key infectious diseases. Finally, the course will cover the risk factors, transmission dynamics and control measures for key infectious diseases in global and domestic settings.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPHMPH, GUYUMPMPH, GUBIOSMS, GUEPIDMS with a prereq of GPH-GU 2106 or 5106 and GPH-GU 2995 or 5995) or GUUMPHPHD or GUUMPHDPH.

GPH-GU 2329 Using Evidence to Inform Decision-Making: Interventions and Health Equity (3 Credits)
The evidence base in intervention science is complex, varied, and ever-changing. This course provides students with skills necessary to critically appraise evidence for public health interventions, including evidence that is based on experimental, quasi-experimental, and nonexperimental methods, from a health equity lens. Drawing upon various disciplines (intervention science, design of experiments, implementation science, decision science, and beyond), the course will support students in considering the link between evidence and action in public health and prepare students to conduct an independent critical appraisal of published evidence for an intervention to reduce health disparities.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2332 Applied Regression Analyses (3 Credits)
This course will provide students with training and practical experience needed to construct and analyze results from regression models most often applied in epidemiological research to address pressing public health questions. Specifically, this course covers six regression methods commonly utilized in epidemiological research: Linear Regression for continuous outcomes, Logistic Regressions for binary and multinomial outcomes, Ordinal Logistic Regression for ordinal outcomes, as well as Poisson and Negative Binomial models for count data. This course will cover estimation, interpretation, inference, prediction, diagnostics, and model selection for each model type with a focus on application to epidemiological research. Analyses will be taught and performed using Stata. R script will be made available as well.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2995 or 5995.

GPH-GU 2336 Critical Reading of the Biostatistical Literature (3 Credits)
This 3 credit course will provide an introduction to critical reading and reviewing of the biostatistical literature. Each class meeting will focus on an article with substantial biostatistical content that will be selected by a student in the class, who will prepare questions that will be distributed prior to class for consideration by students, and will prepare slides that will clearly summarize the main points in the article and will help guide the discussion. The class instructor must approve of the selected article and will offer guidance in its selection. Students will read the article prior to class and prepare a written review that addresses the design, analysis, interpretation and conclusions of the article, and that responds to the guiding questions sent by the leader. Class participation is expected and is essential.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2338 Machine Learning in Public Health (3 Credits)
This course provides students with a strong foundation in machine learning relevant to public health and biomedical applications. Topics include the data generating process, model selection and evaluation, generalized linear models, common supervised and unsupervised machine learning algorithms such as support vector machines, decision trees, random forests, neural networks, and k-means, and ethics and communication. Students will learn methods for optimal and proper implementation of machine learning, such as assessment of assumptions about the data generating process, feature generation, treatment of missing data, and reduction of bias. Students will gain familiarity with the potential power of machine learning in public health, as well as its particular challenges inherent to public health applications.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2342 Global Issues in Public Health Nutrition (3 Credits)
Typically offered Spring
This course addresses major global nutrition issues that we face today. Food insecurity, and all forms of malnutrition, underweight, obesity and micronutrient deficiencies are leading risk factors of mortality and comorbidity worldwide. The course is developed in the context of the United Nations System, through the lens of the Sustainable Development Goals (SDGs) and the 2030 Agenda. We will discuss climate change, conflict, and economic downturn as determinants of food insecurity that are worsening non-communicable disease prevalence. Next, we understand malnutrition, its major determinants and its interconnections with the food systems. Students will design a solution for these issues, using the systems approach and principles from social entrepreneurship in the the global landscape.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2343 HIV/AIDS Public Health Promotion (3 Credits)
Students will examine the evolution of the HIV epidemic in the United Kingdom (U.K.) and the United States (U.S.) throughout the last four decades using a public health lens with an emphasis on population-based health promotion strategies and responses of the respective health system within each country. Students will learn about the history of the disease in the U.K., U.S and within a global context, the biomedical aspects of the disease including HIV testing, and treatment, the epidemiology of the disease, the socio-bio-behavioral drivers of the disease, and HIV/AIDS public health policies and calls to action both within the U.K. and the U.S. Students will examine, analyze, apply, and evaluate theoretical paradigms and research, drawn from public health and interrelated disciplines with regard to HIV prevention, treatment, and care as it is manifested in the across all segments of the population. The course utilizes a biopsychosocial framework for understanding illness and health promotion and emphasizes theory-based HIV prevention and care. The course uses an experiential learning approach; students engage with to local AIDS service organizations, health care facilities, and thought leaders, all with an eye to bring an end to the AIDS epidemic.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2344 Maternal and Child Nutrition in Public Health (3 Credits)
Typically offered Fall
This course is concerned with the study of nutritionally-related determinants of health and disease in maternal, infant, and child populations. Biological, physiological, and psychological aspects of reproduction (maternal) and growth and development (infants and children) will be discussed, with particular focus on how they are influenced by nutrition. Methodological issues encountered in research (e.g. data collection and analysis) will also be incorporated into lectures and discussions. After completion of this course, students should understand the important immediate and long-term roles that nutrition plays in reproductive and pediatric health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2347 Tackling Global Health Disparities through Implementation Science Research (3 Credits)
Students will examine and review the epidemiology and drivers of the global burden of non-communicable diseases as well as two 'chronic' infectious diseases (tuberculosis and HIV). Students will explore solutions through an implementation science research framework. 'Real life' case studies will be used to allow students to fully grasp how to design, implement and evaluate effective interventions in low resource settings and among vulnerable populations. The course will focus on the use of alternative research study designs as well as the potential for mobile health interventions to improve disparities in access to care through task-shifting and task-sharing among front-line health providers to reduce health disparities.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (Students in plan code GUUMPHMPH or GUYUMPMPH) and (GPH-GU 2106 or GPH-GU 5106).

GPH-GU 2349 Program Planning and Evaluation (3 Credits)
Typically offered Fall
This course will introduce the major principles, concepts and methods used to plan, monitor and evaluate public health interventions and programs. Emphasis is placed on helping students develop the essential skills required in developing program plans, monitoring program implementation, and conducting evaluations for public health practice.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2353 Regression I: Linear Regression and Modeling (3 Credits)
Typically offered Fall and Spring
Regression models are one of the most important statistical techniques used in public health. This course focuses on data analysis that use linear regression models for continuous outcomes. The first part of this course introduces simple and multiple linear regressions, principles of ordinary least square regression models, model assumptions, and inferences about model parameters. The second part of the course focus on important practical matters, such as prediction, variable selection, moderated effects, and mediation. These two parts together provide the foundations for more advanced statistics modeling. Examples are drawn from broad areas of public health research. All the analyses will be taught and performed using Stata and/or R statistical software.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2995 or 5995.

GPH-GU 2354 Regression II: Categorical Data Analysis (3 Credits)
Typically offered Fall
Regression models are one of the most important statistical techniques used in public health. This course focuses on data analysis that use linear regression models for continuous outcomes. The first part of this course introduces simple and multiple linear regressions, principles of ordinary least square regression models, model assumptions, and inferences about model parameters. The second part of the course focus on important practical matters, such as prediction, variable selection, moderated effects, and mediation. These two parts together provide the foundations for more advanced statistics modeling. Examples are drawn from broad areas of public health research. All the analyses will be taught and performed using Stata statistical software.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (Students in plan code GUUMPHMPH, GUYUMPMPH, or GUBIOSMS) and (prereq of GPH-GU 2353).

GPH-GU 2355 Analysis of Epidemiologic Data Using SAS (3 Credits)
Public health research and practice often require the use of statistical software to analyze data. This course is designed to give students practical and direct experience with using Statistical Analysis System (SAS®) software to analyze public health-related data. Throughout the course, students will work with a data set and learn how to generate descriptive, bivariable, and multivariable statistics. They will also gain additional skills in organizing statistical findings in tables and figures and instruction in writing Methods and Results sections, similar in style to those presented in peer-reviewed journal articles. These skills will prepare students for future analytic projects by strengthening their analytic capacity and building expertise in a well-known, versatile statistical program used both in all areas of public health practice. Pre-requisites: GPH-GU 2106 OR GPH-GU 5106 and GPH-GU 2920
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2356 Research Project Mgmt Bootcamp (3 Credits)
Typically offered Spring
For many MPH graduates their first job is a project or research coordinator for a public health research study. This course is designed to provide a crash course in aspects of these jobs to prepare students to apply competitively for their first job post-MPH (and to prepare them for applying for the applied practice experience). Students will gain direct skills in: project management, IRB processes and procedures, setting up a data management system (i.e., REDCap), project materials (e.g., standard operating procedures), and grant management. The course incorporates skill- building activities, readings, professional development lectures, and recorded interviews with faculty and research staff.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2106 or 5106 or 2160 or 2361 or 5361.

GPH-GU 2357 LGBTQ Health Disparities (3 Credits)
Typically offered Spring
This course examines the core interdisciplinary theories, knowledge, research, and methods evidenced in in understanding LGBTQ health and disparities evidences in the LGBTQ population. The course introduces students to the main conceptual frameworks for the study of LGBTQ individuals, communities, and populations across the lifespan and overviews existing knowledge about LGBTQ health in the United States and globally. The course highlights research design, measurement, ethics, and analysis issues in population research in LGBTQ health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2359 Applied Practice Experience Seminar (2 Credits)
Typically offered Fall and Spring
This course complements the internship applied practice experience by providing a structured and supportive environment to reinforce the internship goals of developing public health competencies, gaining valuable work experience, and cultivating professionalism. Students complete the internship in the summer or fall of their final year in the program, and enroll in the course in the fall. The internship and course fulfill the Applied Practice Experience requirement for the following MPH concentrations: Community Health Science & Practice, Environmental Health Sciences, Global Health, Public Health Policy & Management, and Public Health Nutrition.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2360 Integrative Learning Experience Seminar (2 Credits)
Typically offered Fall and Spring
A key goal of the MPH program is to enable students to synthesize principles, concepts, and competencies learned through coursework and the Applied Practice Experience. This course provides a structured and supportive environment to help students achieve this goal and to develop professionalism. Students prepare a professional report, poster, and critical reflection paper, comprising the MPH Integrative Learning Experience. Students enroll in the course in their final spring semester. The course fulfills the Integrative Learning Experience requirement for the following MPH concentrations: Community Health Science & Practice, Environmental Health Sciences, Global Health, Public Health Policy & Management, and Public Health Nutrition.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GPH-GU 2359 or GPH-GU 5359) and (Plan: GUUMPHMPH or GUYUMPMPH).

GPH-GU 2361 Research Methods in Public Health (3 Credits)
Typically offered Spring
This course is a review of research and original writings related to public health. Students will learn to apply research methodology to problems in public health. This course provides an introduction to the fundamentals of research study design and methods. It serves as an introduction to quantitative and qualitative approaches to research, as well as ethical issues in conducting research. Through the mix of texts, articles from the public health literature and course work, students will build skills for conducting research and critically evaluating research designs and research findings.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GUUMPHMPH, GUYUMPMPH, GUBIOSMS with a co-req of GPH-GU 2106 or 5106 or GUUMPHPHD, GUUMPHDPH.

GPH-GU 2363 Causal Inference: Design and Analysis (3 Credits)
Causal inference seeks to study the causal effect of certain treatment/exposure/intervention on some outcome of interest. It has been widely used in public health, biomedical research, social sciences, educational research, economics, etc. The course will introduce some fundamental and advanced causal inference methods and will emphasize their applications in public health, biomedical research, and social sciences. Topics include the potential outcomes framework, treatment effect models, design and analysis of randomized experiments, methods for adjusting for overt bias in observational studies, sensitivity analysis for hidden bias in observational studies, detection of hidden bias, and methods for controlling for hidden bias. Each topic will be illustrated with extensive real-data public health examples.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2366 Sequential Methods in Clinical Trials (3 Credits)
Typically offered Fall
This course offers an in-depth exploration of sequential methods used in the design and analysis of clinical trials. In the first half of the semester, the students will be introduced to the fundamental aspects of clinical trials, including their justification, structure, and key concepts. The second half of the semester will focus on the statistical methodologies associated with clinical trials, particularly sequential analysis, sample size and power calculation, adaptive design, and interim monitoring.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 3225 and GPH-GU 2182 or 2286.

GPH-GU 2368 Applied Survival Analysis (3 Credits)
This course will provide an introduction to the analysis of survival data, i.e., data subject to incomplete observation due to censoring. Topics include estimation via the Kaplan Meier estimator, comparison of survival data via the log rank and related tests, and regression modeling of survival data using the Cox proportional hazards model and accelerated failure time model. Parametric modeling of survival data will also be covered. Additional topics may include left truncation, competing risks, and multivariate survival data. Examples in Stata, SAS and R will be provided and assignments will involve analysis of survival data.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2353 or GPH-GU 2332.

GPH-GU 2372 Applied Bayesian Analysis in Public Health (3 Credits)
Bayesian analysis is one of the two major statistical paradigms; the other is Frequentist analysis. The course will briefly review the theory behind Bayesian methods and will focus on the practical implementation to public-health and biomedical data. Topics include comparison of Bayesian and Frequentist analyses, Bayesian inference of various one-parameter models and normal models, Markov Chain Monte Carlo algorithms, Bayesian (generalized) linear regression models, and Bayesian hierarchical models. Data analysis with the R software will be emphasized in the course. Upon successful completion of the course, students will be able to formulate Bayesian models for data analysis in public health and biomedicine, and will be able to implement the Bayesian inference using R.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2182 and GPH-GU 2332 or GPH-GU 2353.

GPH-GU 2374 Evaluation of Epidemiological Studies (3 Credits)
Typically offered Fall of odd numbered years
This course provides an overview of reproductive health policies and practices in the United States. For each topic presented, students will take a critical look at the major policies that affect the provision and access to health care and the resulting health outcomes and disparities. Students are asked to review the trends in reproductive health care practice in the United States and have the opportunity to identify and practice health education skills that can impact health care outcomes.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2378 Statistical Methods in Genomics and Bioinformatics (3 Credits)
Typically offered Fall
Genomics and other omics data have become cornerstones of research in biology, biomedicine, and public health, yet their high dimensionality, heterogeneity, and complex structures challenge traditional computational and statistical methods. This course introduces fundamental and advanced statistical and computational approaches to address these challenges, emphasizing core statistical concepts and their applications in bioinformatics and biomedical problems. Topics include gene expression, regulatory sequence analysis, RNA-seq, spatial transcriptomics, and gene regulation studies. Methods covered range from multivariate analysis and sequence modeling to machine learning, illustrated with real-world examples from public health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2182 and GPH-GU 2338 and GPH-GU 2354.

GPH-GU 2380 Data-Driven Decision Making in Global Public Health (3 Credits)
This course develops skills and competencies in making data-driven decisions to improve global public health outcomes, especially in high disease-burden environments. It is based on a framework of enabling environment, supply, demand, and quality factors that affect the effective coverage of services that would prevent outcomes such as under-5 mortality, neonatal mortality, and maternal mortality. The class will introduce decision support platforms developed by UNICEF, WHO, and the World Bank that help public health professionals choose between available strategies and interventions in a high burden country to reduce adverse health outcomes.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2387 Survey Design, Analysis, and Reporting (3 Credits)
This course will provide students with a comprehensive understanding of survey design, analysis and reporting. The course starts with secondary data analysis and transitions to primary data collection and. Secondary data analysis covers hypothesis testing using nationally representative samples (e.g., NHANES, BRFSS, NHIS, YRBSS) with complex sampling designs, weighted and nested (multilevel) data analysis. Primary data collections includes questionnaire development, scale development, and data analysis of survey data using Stata (e.g., regression modeling, factor analysis, item response theory). Survey administration, study design and sampling, development of web-based surveys using Qualtrics, creating codebooks and managing data are covered through an experiential learning process.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPHMPH, GUYUMPMPH, GUBIOSMS, GUEPIDMS with a prereq of GPH-GU 2106 or 5106 and GPH-GU 2995 or 5995) or GUUMPHPHD or GUUMPHDPH.

GPH-GU 2405 Health Communications: Changing Social Norms in Theory and Practice (3 Credits)
Typically offered Spring
The course provides an introduction about the theory, design, implementation, and evaluation of health communication programs. Several resources are used to allow students to acquire practical knowledge and skills in health communications planning and implementation. Case studies, resources, research tools and examples of different media channels are reviewed and analyzed to explore how to reach different target audiences with the most effective health communication interventions.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2415 Community-Based Health Interventions (3 Credits)
Typically offered Spring
Identification and evaluation of programs designed to reduce health risks among individuals and communities, with a focus on factors influencing the design of interventions, choice of methods, ways to assess the magnitude of change effected by the intervention, and ethical issues raised by the interventions.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2140 or 5140 or Public Health PHD or DPH.

GPH-GU 2425 Continuous Quality Improvement (3 Credits)
This course encourages students to think creatively about what it means for a healthcare organization to make quality the highest priority. We will explore the current forces driving the push toward quality outcomes and accountability at all levels and settings of healthcare, while focusing on the philosophy of continuous improvement through team work and statistical thinking. Students will use structural tools for analysis, decision making and performance measurement.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2435 Advanced Health & Human Rights (3 Credits)
This course will build on the introductory Health and Human Rights course by focusing on additional topics, methodologies and debates in the field. Through a case study approach and group projects, students will weigh the relative costs and benefits of using a rights-based approach in a public health context, as well as explore how public health policies, programs and practices can impact human rights. Students will acquire an in-depth knowledge of international human rights as applied to public health through real-world application. Students will write a grant proposal on a health and human rights intervention or research study and present on this topic at the end of the semester.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2250 or GPH-GU 5250.

GPH-GU 2440 Emerging Diseases and Bioterrorism (3 Credits)
Typically offered Spring
The emergence of new pathogens and drug resistance, as well as increased transmission opportunities caused by human migration, political instability and breakdown of healthcare infrastructure, has led to a rising prevalence of infectious disease. This course aims to provide training in the biology, epidemiology and control of emerging diseases. It will provide the necessary skills to analyze the interplay between human host and pathogen in both evolutionary ecology and statistical epidemiology frameworks. There will be a discussion of ?Darwinian Medicine?. Specific bioterrorism pathogens will be discussed, as well as methods of identification and predictive modeling of a bioterrorism incident. In addition to lectures, class time will include practical data handling. Discussion of both methodological and substantive epidemiology papers from the recent literature will be led by the students.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2450 Intermediate Epidemiology (3 Credits)
Typically offered Spring
This course will develop an understanding of epidemiologic concepts and methods that will be a backbone to in depth training in specialty areas. It will provide a technical and conceptual training in study design, multivariant analysis, sample size calculations and other key epidemiologic techniques. It will build on the basic core course.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Plan GUUMPHMPH, GUYUMPMPH, GUBIOSMS, GUEPIDMS with a prereq of GPH-GU 2106 or 5106 and GPH-GU 2995 or 5995 or GUUMPHPHD, GUUMPHDPH.

GPH-GU 2480 Longitudinal Analysis of Public Health Data (3 Credits)
Typically offered Spring
This course covers modern methods for the analysis of repeated measures, correlated outcomes, and longitudinal data, including the unbalanced and incomplete data that are characteristic of public health research. There are four widely available methods for dealing with dependence: robust standard errors, generalized estimating equations, random effects models and fixed effects models. This course examines each of these methods in some detail, with an eye to discerning their relative advantages and disadvantages. Different methods are considered for quantitative outcomes and categorical outcomes. The course uses Stata statistical software and gives students hand-on experience working with real data.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2353 or GPH-GU 2332.

GPH-GU 2500 Topics in Public Health: (3 Credits)
Typically offered occasionally
This course will describe fundamental and advanced concepts of Artificial Intelligence with a focus on their applications in Public Health Management and Consulting. The course will cover traditional and modern approaches and technologies empowering Artificial Intelligence, fundamental and advanced concepts of data and models, and essential topics of Artificial Intelligence applied in Public Health Management and Consulting, including Surveillance and Population Health, Resource Optimization and Efficiency, Decision-Making and Stakeholder Collaboration, and Human-Centered Innovation.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2501 Special Topics: Data Science and Machine Learning in Public Health Practice and Research (1 Credit)
This 5-session (2 hours each session), 1 credit course will introduce and encourage thinking around new datasets and methods in epidemiology and public health. The entire data science pipeline, from data gathering, processing, analysis and communication will be considered. Content along each part of the pipeline will include summaries of current and best practices from the literature, discussion of select exemplar research papers and methods in terms of their appropriateness in public health, and approaches to address methodological challenges. Content will be related to both infectious diseases such as COVID-19 as well as non-communicable diseases. The workshop format will be highly interactive with significant time devoted to discussion. Students will be encouraged to spend time before sessions reading identified papers. Students will also be encouraged to bring their own dataset to the course or use publicly available ones to develop their own data science project, and time in the course will be allotted for discussing specific challenges they face in their project. The main outcomes will be exposure to current research and practice in data science and health, an understanding of tradeoffs, challenges and possible approaches. We will spend the last module on discussion and potential design of future research regarding ethics in artificial intelligence (AI) specific to the public health context.
Grading: School of Global Public Health Pass/Fail
Repeatable for additional credit: No

GPH-GU 2502 Special Topics: Outbreak Epidemiology: Re-emerging and Emerging Infectious Diseases* (3 Credits)
Over the last 20 years, we have witnessed a number of local as well as large-scale, multi-state and multi-country disease outbreaks and pandemics of re-emerging and emerging diseases – including measles, H1N1, Zika, Ebola, SARS, MERS, and currently SARS-CoV-2 (COVID-19). In light of the emergence and re-emergence of these infectious disease outbreaks, the overall objective of this course is to introduce students to the essential elements of outbreak investigations in both local, national and global settings. The course covers three broad content areas that include understanding and detecting infectious diseases, investigating outbreaks, and communication and prevention of future outbreaks.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2503 Special Topics: Through the COVID-19 Magnifying Glass: An Examination of Racial and SES Disparities (1 Credit)
This 5-session (2 hours each session), 1 credit, course will examine the racial, ethnic, and socioeconomic health disparities in COVID-19 infections, hospitalizations, and mortality. Session 1 will provide an overview of our current understanding of the biology, clinical manifestations, and epidemiology of COVID-19. Students' understanding of COVID-19 health disparities will be centered in the pre-existing and entrenched health disparities in Session 2 with Session 3 specifically examining COVID-19 infections, hospitalizations, and mortality disparities. Session 4 will explore disparities in the impact of COVID-19 mitigation strategies. Finally, Session 5 will end the course with a discussion of best practices to addressing COVID-19 health disparities in the US.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2504 Special Topics: Introduction to Clinical Trials: COVID-19 as a Case Study (1 Credit)
This 5-session (2 hours each session), 1 credit, course will introduce students to the many facets of clinical trials, including their justification and structure, along with many real examples drawn from the over 800 COVID-19 clinical trials worldwide that have been registered as of May 5, 2020 (https://www.covid19-trials.com/). The course will cover designs and methods for the various phases of clinical trials. For each class, students will read reports on clinical trials from the medical literature that exemplify designs and issues discussed in class. Students will develop a full clinical trial design during the course.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2505 Special Topics: Social Network Data Analysis with R, with Application to COVID-19 (1 Credit)
This 5-session (2 hours each session), 1 credit, course will introduce students to social network data analysis with demonstrations in R. The past decade has witnessed a surge of the network data generation in the areas of technological, biological, social, and informational. This course will provide an introduction to networks. It will cover the descriptive analysis of network, network visualization, network models, and community detection. Various concepts and visualizations will be demonstrated using the R language. As a final project, the student will analyze a real network dataset from the COVID-19 pandemic and write a report.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2506 Special Topics: Statistical and Epidemiological Evaluation of COVID-19 Studies (1 Credit)
Pre-requisites: none. This 5-session (2 hours each session), 1 credit, course will examine the rapidly evolving research on COVID-19 and engage students in its critical evaluation. An introduction to infectious disease epidemiology and modeling will be provided, as well as to the wide array of publicly available data sources for COVID-19, including databases and social media, and their use in COVID-19 research. Students will discuss research reports in the media and scientific publications and their interpretations in light of the design and data analysis of the underlying studies. Using what they have learned in the course, students will write a report or op-ed type article or develop a video presentation incorporating an infographic or data visualization that critically evaluates a particular COVID-19 topic.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2507 Special Topics: The Impact of COVID-19 in Global and Environmental Health (1 Credit)
This course is designed to introduce students to the breadth and depth of expertise of the faculty in the Global and Environmental Public Health Program. It will not only provide students with an overview of the ongoing research and projects faculty are engaged in but will also highlight how COVID-19 has impacted their work. It will explore the implications of the pandemic on the future global health and what it means for the next generation of public health practitioners. The course will touch on a diverse set of topics, including urban health, climate change, community engagement, and health disparities in the context of COVID-19.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2509 Special Topics: Public Health Policy and Management Challenges (1 Credit)
This course introduces students to public health policy and management challenges related to the COVID-19 pandemic from the perspective of experts in the field. The course includes an overview of the impact of COVID-19 on public health and healthcare systems, a description of misinformation issues and government responses, community and primary care challenges, and a critical assessment of the responses of public health and healthcare systems to the crisis.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2510 Special Topics: Healthcare Claims Data Analysis (3 Credits)
Typically offered not typically offered
This course will introduce students to the richness, complexities, and limitations of healthcare claims data and how the data may be deployed to answer a variety of real-world population health questions. Topics covered in the course include an introduction to claims data and how it is used in population health analysis and quality of care measurement, data basics, claims coding, and how claims data is used in business and academic research. Students will work hands-on with claims data to complete course assignments and a project.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2512 Special Topics: Applied Spatial Statistics for Public Health (1 Credit)
This 5-session (2 hours each session), 1 credit, course will survey topics on the statistical analysis of data collected in space, with application to public health. Topics include defining geostatistical, areal and point processes, visualizing spatial data, spatial covariance functions, prediction and kriging, conditional autoregressive models, intensity functions, and K functions. Through In-class labs, students will learn to analyze spatial data in practice. Using what they have learned in the course, students will write a group report about a spatial data analysis.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2513 Special Topics: Advanced Epidemiological Methods: Evaluation of Epidemiological Studies (3 Credits)
The goal of this advanced course in epidemiology is to provide students with the ability to evaluate a body of evidence on key public health issues. To achieve this goal, students will apply their extant knowledge of study design and analytic approaches used in epidemiology to critically evaluate the strengths and limitations of the methods reported in the scientific literature. The course will provide skills in conducting systematic literature reviews and meta-analyses. By reviewing the epidemiologic literature on key topics in public health, students will be able to (1) evaluate issues impacting the internal and external validity of the evidence presented in these studies; and (2) apply the knowledge and skills gained in the course to developing and writing empirical papers and systematic reviews as well as grants and research proposals.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2520 Issues in Global Pediatr Pediatric Oral Health (3 Credits)
Typically offered Spring
Children in disadvantaged communities of developing countries have rates of untreated oral diseases that range from 32-90%. In over forty of the least developed countries, many communities have no basic or emergency care for their populations. This course will allow the student to: a) understand the epidemiology of oral diseases in children, b) understand and develop ways to meet the challenge of untreated oral diseases in disadvantaged communities, c) identify significant issues that affect the oral health of children worldwide and proposed ways to improve the oral health of children, and d) acquire the skills necessary to develop oral health promotion strategies directed at children across the world.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2686 Thesis I: Practice and Integrative Learning Experiences (2 Credits)
Typically offered Fall
This course (part of a two-semester series; Thesis I and Thesis II) introduces the thesis as the culminating experience for MPH candidates in the Biostatistics (BIO), Epidemiology (EPI), and Social and Behavioral Science (SBS) tracks, and allows students to develop skills in conducting public health research, analyzing and interpreting data and presenting study findings. The thesis is intended to reflect the training students have received in the MPH program and demonstrate their ability to integrate, synthesize, and apply the knowledge and skills from coursework and practicum experiences to a real world public health problem or issue that is relevant to their major field of interest. In Thesis I students will also have the opportunity to reflect on their practice experiences, most often in the site from which the thesis is drawn. The course provides students with the knowledge and skills to develop and refine research questions, conduct a comprehensive review and analysis of the literature relevant to the topic of interest, select a theory or organizing framework, outline the methods, formulate a plan for data collection and analysis, and develop an annotated outline of the project.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2687 Thesis II: Practice and Integrative Learning Experiences (2 Credits)
Typically offered Spring
This is the second course in a two-semester series that continues work on the culminating activity, the thesis, for Biostatistics (BIOS-MS and BIOS-MPH), Epidemiology (EPI-MPH), and Social and Behavioral Sciences (SBS-MPH) concentrations. The focus of this course is on completing the proposed thesis and preparing for the presentation of the final thesis. Students will work closely with their thesis advisor during the semester, but the course instructor will provide structural guidance on several remaining sections (results, discussion, structured abstract) of the thesis. The thesis should demonstrate the student's ability to think critically, synthesize foundational and concentration competencies, provide understanding and insight into a substantive area of inquiry, and convey ideas effectively to an intended audience. Pre-requisite: GPH-GU 2686
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 2930 Epidemiological Methods and Design (3 Credits)
Typically offered Fall
This 3-unit course will cover in-depth, advancedmethods for modern epidemiologic study design, sampling, quantitative measurement, including reliability and validity, and statistical analysis appropriate for selected study designs relevant to global health research and practice. Considerations regarding the responsible conduct of research in international settings will be integrated throughout the course. This doctoral-level lecture/seminar course is offered to graduate students with a basic knowledge of epidemiologic and biostatistical principles, including causal inference, standard study design, confounding, bias, validity, and commonly-used analytical methods.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (Plan codes GUUMPHMPH, GUYUMPMPH, GUBIOSMS, GUEPIDMS, GUUMPHPHD, or GUUMPHDPH) and (completion of GPH-GU 2450).

GPH-GU 2960 Theories in Public Health, Practice, Policy & Research (3 Credits)
Typically offered Fall
The 'intervention imperative' in public health has traditionally overshadowed theory development (Connelly, 2005; Potvin et al., 2005). Consequently, many public health practices and interventions are predicated upon unexamined or under-theorized assumptions about etiology. As the scope of public health expanded beyond infectious diseases, its theoretical foundations extended beyond biomedical 'germ theory' explanations to include behavioral psychology. By the late 20th century, these foundations grew to incorporate multi-factorial etiologies and systems approaches borrowing from social science theories and methods. This course examines an array of paradigms, theories and conceptual models used in public health. These will be roughly categorized into the following domains: a) biomedical; b) psychological; c) organizational; d) socio-cultural; and e) structural /critical. Specific public health problems—HIV/AIDS, cancer and mental disorders—will be examined using relevant theories. Emphasis will be on adopting a comparative, critical and integrative (biopsychosocial) perspective on theories and key concepts in public health practice, policy and research.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (Plans GUUMPHMPH or GUYUMPMPH) and (GPH-GU 2140 or 5140) and (GPH-GU 2361 or 5361).

GPH-GU 2995 Biostatistics for Public Health (3 Credits)
Typically offered Fall and Spring
This course covers basic probability, descriptive and inferential statistics, and the role of biostatistics in the practice of public health. Specific attention will be given to common probability distributions in public health and medicine, t-tests, Analysis of Variance, multiple linear and logistic regression, categorical data analysis, and survival analysis. Statistical topics are presented conceptually with little derivation, and applications are demonstrated using common statistical software. The course can be taken online or in-person.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3000 Perspectives in PublicHealth: Doctoral Seminar I (1.5 Credits)
Typically offered Fall and Spring
The Global Public Health Doctoral Colloquium is a forum in which prominent and up and coming researchers present their work on pressing topics related to global public health. It offers doctoral students and faculty a chance to hear from their colleagues, while engaging in a dialogue about current research.
Grading: School of Global Public Health Pass/Fail
Repeatable for additional credit: No

GPH-GU 3010 Perspectives in Public Health: Doctoral Seminar II (1.5 Credits)
The Doctoral Colloquium II is a forum in which builds on part I, in which distinguished faculty and researchers present their work on important topics in public health. It addition to engaging in a dialogue about current research and scholarship, student learn some about various methodology used in public health research; they develop foundational skills that are required for their doctoral program including literature reviews, aspects of manuscript writing, revising and submission of manuscripts, research dissemination and learning about pre-doctoral grant funding.
Grading: School of Global Public Health Pass/Fail
Repeatable for additional credit: No

GPH-GU 3015 Doctoral Research (1.5-6 Credits)
This course is to be taken by GPH PhD students when conducting research to be used for their dissertations or when working on their dissertations. Students take 1.5-6 credits of this course per semester for a total of 33 credits as part of their degree requirements.
Grading: School of Global Public Health Pass/Fail
Repeatable for additional credit: Yes

GPH-GU 3020 Evidence-Based Public Health & Systematic Review Best Practices (0 Credits)
raining scholars in evidence-based Public Health (PH) practice is essential as practitioners seek to develop high-quality, community-based interventions and implementation plans, create and evaluate PH policies, and seek guidance in the decision-making process. Thus, evidence-based PH relies on the most current high-quality information. This course will focus on significant evidence-based PH skills including literature searching, critical appraisal of PH outcomes, data management and publication through the use of applicable informatics tools and discussion. After completion of this course, doctoral students will have a strong foundation for conducting literature reviews and participating in the research process in academia or when practicing in the field of PH.
Grading: School of Global Public Health Pass/Fail
Repeatable for additional credit: No

GPH-GU 3030 DrPH Leadership Seminar I (1.5 Credits)
The DrPH Public Health Leadership Seminar serves as a vehicle for co-creating with DrPH students a community of learning and action to facilitate application of learnings from their courses and real-life challenges as public health leaders in an experiential peer-learning platform. The seminar will introduce students to public health leaders at local, national, and global levels and to expert researchers, practitioners and policy makers speaking on critical public health issues. It will also offer structured activities to strengthen students' leadership skills at the personal, organizational, national and global levels in order to manage the process of organizational change needed to advance population health and health equity in public health programs and policy.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3031 Introduction to Global Health (2 Credits)
This course introduces students to public health from a global perspective, advancing students' understanding of the dynamic nature of global opportunities and threats and how they are affected by globalization. The course uses an ecological model of health to illustrate the impact of education, socioeconomic status, the environment, and political will on the global burden of disease. It introduces the primary actors in global health governance and financing and examines current and future priorities in global health, emphasizing the importance of intersectoral collaboration in addressing complex challenges. The course also presents the human rights and ethical dimensions of global public health, including decolonization
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3035 DrPH Leadership Seminar II (1.5 Credits)
The DrPH Public Health Leadership Seminar is a two-semester course sequence that serves as the vehicle for co-creating with DrPH students of a community of learning and action. The seminar introduces students to public health leaders at local, national, and global levels and to expert researchers, practitioners and policy makers speaking on critical public health issues. The seminar also serves as a platform for students to apply learnings from their courses and real-life challenges as public health leaders into an experiential peer-learning platform – the Action Learning Set, with the goals of strengthening leadership skills at the personal, organizational, national and global levels and developing the ability to manage organizational change and advance population health and health equity.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3045 DrPH Leadership Seminar III (3 Credits)
It builds on Leadership I, in which students assess their own leadership capacities and develop plans to strengthen them, and Leadership II, in which offers structured opportunities for students to plan and lead an organizational change project from wherever they are in their organization. Leadership III is focused on the students as future senior leaders–CEO/Commissioner/Executive Director of organizations critical to advancing public health: governmental public health agencies, non-profit organizations, and partnerships with the private sector, including global level leadership to advance public health and health equity.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3050 Methods in Community Health Research (3 Credits)
Typically offered Fall
Research in communities and natural (non-laboratory) settings requires flexibility and adaptability, especially when conducted in global sites where conditions are dynamic and often uncontrolled. This 1.5 credit doctoral -level course will explore approaches to conducting research with and in communities experiencing health disparities, in particular, the Community Based Participatory Research (CBPR) approach. Participants will become familiar with the historical, theoretical and philosophical perspectives that have informed CBPR. The course will review research methods utilized in conducting community health research including qualitative methods such as ethnographic observation and in-depth interviews (individual or focus group), use of quantitative surveys in combination with qualitative data or other data sources such as analyses of clinical or administrative data, geospacial methods (GIS) and Photovoice (Mixed Methods). Students will have the opportunity of interviewing collaborating community and academic partners. This course assumes the student has had previous coursework in research design and data collection in both quantitative and qualitative methods.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3110 Advanced Public Health Policy & Management (3 Credits)
This course provides students with an opportunity to study advanced public health policy and management topics, develop research questions and apply research methods in public health policy and management. Each topic is introduced through specific applications and methodological approaches from the health policy and management scholarly literature. Class discussions focus on the applications of advanced research methods to address specific key research questions developed by students. Topics addressed include public health policy and management applications to evaluate different research design approaches and hands on application of key statistical methods.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2110 or GPH-GU 5110 or Public Health PHD or DPH.

GPH-GU 3120 Navigating the Landscape of Global Health: Understanding Challenges and Solutions (3 Credits)
This graduate seminar course aims to explore the complexities of global health, with three main objectives. Firstly, it is designed for doctoral students in Public Health, specializing in Global and Environmental Health (GEH), to provide a firm grounding in essential concepts, frameworks, theories, and ongoing debates in global health. Secondly, the course seeks to broaden students' perspectives by covering a range of contemporary and emerging topics in global health, including planetary health, climate change, infectious diseases, and non-communicable diseases. Lastly, the seminar will contextualize discussions on global health governance, decolonization, inequity, and the various challenges in global health, fostering a nuanced understanding of the complexities of the field
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2136 or GPH-GU 5136.

GPH-GU 3152 Advanced Agent-Based Modeling (3 Credits)
Agent-Based Modeling is a computational method for studying how interactions between agents generate global statistical regularities. Agents represent autonomous entities that are relevant to the phenomenon of interest such as individuals, households, and organizations. The course introduces the application of ABM in the context of epidemiology, public health, and the social sciences. The course trains students in using and developing models of various levels of complexity. From simple toy models that offer insight on the fundamental mechanisms of a phenomenon (such as the spread of an infectious disease) to realistic models that are calibrated to real-world observations and used for evaluating scenarios and interventions.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3165 Research Ethics (3 Credits)
The course will examine the scandals that launched the field of research ethics and consider the ethical principles that arose in reaction. We will be especially concerned with the nature and limits of informed consent, as the central principle of research ethics. We will ask: what makes consent valid? What kind of understanding is required for consent to count as 'informed'? How should we distinguish research and clinical care; what clinical responsibilities to researchers have, in designing and conducting studies? What does it take to justify research when consent is impossible; as in the case of children or incapacitated patients? When, if ever, is it acceptable to use deception in research? What else is required, beyond informed consent, to justify research? In particular, what sorts of social goals should research promote, and what social harms must it avoid?
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3175 Design, Conduct, and Analysis of Cohort Studies (3 Credits)
Cohort studies are critical to understanding the natural history of disease and making causal inferences about risk factors for disease. This course provides a comprehensive look at the design, conduct, and analysis of cohort studies. Emphasis is places on the conceptual framework underlying cohort studies and the need to assess longitudinal relationships with time-varying exposures and outcomes. The course will teach students basic and advanced concepts in cohort study design, data analysis techniques, and interpretation of study results. The course will also introduce students to the conduct of cohort studies, with an emphasis on recruitment, retention, quality assurance, and quality control.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3185 Health Services and Policy Research (3 Credits)
This course introduces key concepts and ideas in health services and policy research. Health services research is a multidisciplinary field of study that seeks to understand how economic, social, individual and structural factors are related to health care access, utilization, quality and costs. Insights from health services research are critical to inform health policy decisions across sectors and populations. Topics addressed in this course include health care quality, population health, health care costs, survey and administrative data sources used in health services and policy research, experimental and observational study designs, data management and comparative effectiveness research.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2110 or GPH-GU 5110 or Public Health PHD or DPH.

GPH-GU 3200 Dissertation Proposal Seminar (3 Credits)
Typically offered Fall and Spring
This course provides doctoral students with a learning context taught in the form of a workshop to fully develop the dissertation proposal, including the delineation of the format of the dissertation, the dissertation rationale, significance and aims, the conceptual framework guiding the work, and the methodological approaches to be utilized in the dissertation proposal. Each student's dissertation proposal will be discussed and workshopped throughout the course of the semester in in class, and it is expected that throughout the course each student will work closely with their dissertation Chairperson in refining the content and the details of the study. This course will guide students from conceptual clarity to the completion of a full draft of the written proposal. Each student will complete a draft of the proposal by the close of the semester.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3210 Qualitative Analysis: Interviewing and Mixed Methods Approaches (3 Credits)
This course is designed for students who are willing to engage in focused, hands-on training for in-depth interviewing and mixed methods research to answer critical public health questions. It aims to provide a detailed "how to" of in-depth interviewing as a standalone or mixed methods approach. During this process, you will examine the epistemological, theoretical, and practical application of qualitative methods and learn how to carry out an independent interview study, including data collection and analysis. Students will share experiences, transcripts, and constructive criticism as they embark their field work. Through readings and discussions, the class will critically examine a number of aspects and approaches to doing, analyzing, and disseminating in-depth interview and mixed methods research.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3215 DrPH Dissertation Preparation (1 Credit)
his course provides an overview of the DrPH dissertation proposal and final dissertation process, preparing students for their culminating work product. To prepare for the dissertation work, students will critically examine their dissertation topics by completing a literature review and developing an outline for their dissertation proposal. This course will help students develop their dissertation topics using evidence-based decision making utilizing information, theories, and frameworks relevant to the specific field of their dissertation work.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3220 Experimental Study Designs in Epidemiology (3 Credits)
Experimental study designs are key to evaluating public health interventions. This course covers quasi-experimental and experimental study designs used in epidemiology. Topics include the definition and history of clinical trials; study designs, including quasi-experimental, phase I-IV, cross-over, adaptive trials, and pragmatic trials; internal and external validity; controls, randomization, and masking; ethical issues; data analysis principles; monitoring of accumulating safety and efficacy data; and interpretation of results. Students will critically evaluate quasi-experimental and experimental studies, analyze trial data, and develop trial designs.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3225 Statistical Inference (3 Credits)
This course will provide an introduction to the fundamentals of probability and statistics that are the foundations of analytical methods in public health research. Topics to be covered include axioms of probability, common distributions (normal, binomial, Poisson), expectations, variances, convergence theorems, parameter estimation (method of moments, maximum likelihood, Bayesian methods), confidence intervals, hypothesis testing (likelihood ratio, Wald and score tests), bootstrap methods, permutation testing. All theoretical material will be motivated with problems from epidemiology, biostatistics, environmental health and other public health areas. Background in algebra and calculus is required. This is a doctoral level course and is open to Masters students who have the requisite background.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPHMPH, GUYUMPMPH, GUBIOSMS with a prereq of GPH-GU 2995 or 5995) or GUUMPHPHD or GUUMPHDPH.

GPH-GU 3234 Designing Innovative Behavioral Interventions for Public Health Impact (3 Credits)
Typically offered Fall
This doctoral-level course provides students with a set of conceptual, theoretical, and methodological frameworks (e.g., intervention optimization) to be applied in the design and implementation of multicomponent interventions. Students apply these frameworks in the development of a hypothetical intervention designed to improve a health disparity in their area of interest. Through the lens of principles of behavior change, students will examine methods of intervention development; contrast methods to define/develop intervention components; and consider how to balance effectiveness against implementation constraints. Students will develop (1) a detailed, theoretically- and evidence-informed approach for an intervention in their area of interest and (2) a research protocol that would be submitted for ethical review.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3235 Biostatistical Consulting (3 Credits)
This course will provide an introduction to biostatistical consultation. Students will learn about ethical principles, professional standards for communication and interaction, interpretation of a scientific or public health problem and its translation into a statistical framework, execution of the required tasks (e.g., design, analysis plan, data analysis, interpretation), and clear communication of the results. Students will participate in mentored group consultations with investigators from across NYU. Students will read and discuss literature on the art and science of biostatistical consulting. Students will write up summary reports for two projects and present one to the class. Some projects may turn into an applied practice experience or thesis. This PhD level course may be taken by MS/MPH students who have sufficient background.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 3353 or GPH-GU 3332.

GPH-GU 3240 Organizational Theory and Behavior in Health Care (3 Credits)
This course introduces key concepts and ideas in organizational theory and behavior in health care. The purpose of this course is to familiarize you with theories, methods and approaches that are characteristic of both "micro" organizational behavior and "macro" organizational theory. We will explore classic and contemporary theories and empirical research on OB and OT and learn how to assess the assumptions, strengths, weakness, and their application in health care settings. Throughout the course, special emphasis is placed on comparing alternative theoretical perspectives and research strategies, and on identifying issues for organizational research in the health care sector
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3248 Teams and Strategies in Public Health Management (3 Credits)
This course aims to equip learners with two inter-related domains that leaders and managers in public health organizations often have to focus on to improve organizational performance: teams and strategy. This course helps learners answer the question: "Why do some teams and organizations do better than others?" You will learn how to recognize suitable approaches to analyze team conditions and improve team performance, prioritize organizational activities and resources to create advantage or value for stakeholders, and communicate and implement strategic plans. Overall, this course will provide learners with useful theories, frameworks, and perspectives as well as improve their critical analytical skills around the effective use of teams and strategy to maximize organizational performance.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3260 Complex Systems, Disasters, and the Social Ecology of Health (3 Credits)
Much of a population's health and well-being is dependent upon numerous complex systems, ranging from biological systems, through social and cultural systems, to public health and medical systems, to critical infrastructure and lifeline systems, to larger environmental and ecological systems. This course will explore the systems that contribute to a social ecology of health, considering the theoretical approaches for studying such systems, and examining methodological approaches for studying complex adaptive systems and their relationship to health. A major aspect of the course will be to employ disaster case studies as a means of understanding such complex systems. This course will be particularly valuable for students interested in systems thinking as it relates to public health research.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3275 Practical Applications in Epidemiology (3 Credits)
The goals of this advanced course in epidemiology are to (1) provide students with knowledge of advanced epidemiologic methods and (2) an opportunity to apply these methods. To achieve these goals, students will be introduced to advanced epidemiologic analytic approaches currently employed to address common challenges in epidemiologic research that extend beyond the scope of traditional methods. Next, the course will provide skills in conducting advanced epidemiologic analyses. By combining epidemiologic knowledge with advanced epidemiologic methods, students will be able to (1) determine when to use these methods in their own research; and (2) conduct and interpret these analyses themselves.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3294 Designing and Managing Organizations in Public Health (3 Credits)
This course has two overall goals. The first is to increase your effectiveness in leading individuals and teams within and across organizations, sectors and agencies that seek to improve public health. The course's second goal is to prepare you to effectively design organizations and master organizational processes to impact population health. This course prepares to achieve your objectives by providing you with fundamental frameworks and tools developed from the behavioral and social sciences and tested by leaders in organizations across the public, non-profit, and for-profit sectors.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3332 Applied Regression Analyses (3 Credits)
This course will provide students with training and practical experience needed to construct and analyze results from regression models most often applied in epidemiological research to address pressing public health questions. Specifically, this course covers six regression methods commonly utilized in epidemiological research: Linear Regression for continuous outcomes, Logistic Regressions for binary and multinomial outcomes, Ordinal Logistic Regression for ordinal outcomes, as well as Poisson and Negative Binomial models for count data. This course will cover estimation, interpretation, inference, prediction, diagnostics, and model selection for each model type with a focus on application to epidemiological research. Analyses will be taught and performed using Stata. R script will be made available as well.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3338 Machine Learning in Public Health (3 Credits)
This course provides students with a strong foundation in machine learning relevant to public health and biomedical applications. Topics include the data generating process, model selection and evaluation, generalized linear models, common supervised and unsupervised machine learning algorithms such as support vector machines, decision trees, random forests, neural networks, and k-means, and ethics and communication. Students will learn methods for optimal and proper implementation of machine learning, such as assessment of assumptions about the data generating process, feature generation, treatment of missing data, and reduction of bias. Students will gain familiarity with the potential power of machine learning in public health, as well as its particular challenges inherent to public health applications.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Corequisites: GPH-GU 2182 and GPH-GU 3353 or GPH-GU 3332.

GPH-GU 3347 Tackling Global Health Disparities through Implementation (3 Credits)
Students will examine and review the core concepts of implementation science research in global health with a particular focus on tackling global health challenges in low- and middle-income countries (LMIC). Key concepts of implementation science research including 'what it is" and 'how to do it' will be reviewed. Students will review how to develop a practical approach to designing global health interventions as well as understanding the continuum from their implementation through to evaluation through a global health and implementation science research lens. This course will introduce important aspects of implementation research including: conceptual frameworks, research design, and evaluation and will provide a practical approach to understanding these concepts through their application to 'real life' examples of implementation research programs in the global health context.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3353 Regression I: Linear Regression and Modeling (3 Credits)
Regression models are one of the most important statistical techniques used in public health. This course focuses on data analysis that use linear regression models for continuous outcomes. The first part of this course introduces simple and multiple linear regressions, principles of ordinary least square regression models, model assumptions, and inferences about model parameters. The second part of the course focus on important practical matters, such as prediction, variable selection, moderated effects, and mediation. These two parts together provide the foundations for more advanced statistics modeling. Examples are drawn from broad areas of public health research. All the analyses will be taught and performed using Stata and/or R statistical software.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3354 Regression II: Categorical Data Analysis (3 Credits)
Regression models are one of the most important statistical techniques used in public health. This course focuses on data analysis that use linear regression models for continuous outcomes. The first part of this course introduces simple and multiple linear regressions, principles of ordinary least square regression models, model assumptions, and inferences about model parameters. The second part of the course focus on important > practical matters, such as prediction, variable selection, moderated effects, and mediation. These two parts together provide the foundations for more advanced statistics modeling. Examples are drawn from broad areas > of public health research. All the analyses will be taught and performed using Stata statistical software.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 3353.

GPH-GU 3368 Applied Survival Analysis (3 Credits)
This course will provide an introduction to the analysis of survival data, i.e., data subject to incomplete observation due to censoring. Topics include estimation via the Kaplan Meier estimator, comparison of survival data via the log rank and related tests, and regression modeling of survival data using the Cox proportional hazards model and accelerated failure time model. Parametric modeling of survival data will also be covered. Additional topics may include left truncation, competing risks, and study design. Students may select any software package to use for assignments; examples in Stata, SAS and R will be provided. Assignments will involve analysis of survival data from Public Health and biomedical studies.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 3353 or GPH-GU 3332.

GPH-GU 3372 Applied Bayesian Analysis in Public Health (3 Credits)
Bayesian analysis is one of the two major statistical paradigms; the other is Frequentist analysis. The course will briefly review the theory behind Bayesian methods and will focus on the practical implementation to public-health and biomedical data. Topics include comparison of Bayesian and Frequentist analyses, Bayesian inference of various one-parameter models and normal models, Markov Chain Monte Carlo algorithms, Bayesian (generalized) linear regression models, and Bayesian hierarchical models. Data analysis with the R software will be emphasized in the course. Upon successful completion of the course, students will be able to formulate Bayesian models for data analysis in public health and biomedicine, and will be able to implement the Bayesian inference using R. Pre-requisites: GPH-GU 3353 and GPH-GU 2184.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3374 Advanced Epidemiological Methods: Evaluation of Epidemiological Studies (3 Credits)
The goal of this advanced course in epidemiology is to provide students with the ability to evaluate a body of evidence on key public health issues. To achieve this goal, students will apply their knowledge of study design and analytic approaches used in epidemiology to critically evaluate the strengths and limitations of the methods reported in the scientific literature. The course will provide skills in conducting systematic literature reviews and meta-analyses. By reviewing the epidemiologic literature on key topics in public health, students will be able to (1) evaluate issues impacting the internal and external validity of the evidence presented in these studies; and (2) apply the knowledge and skills gained in the course to develop and write empirical papers and systematic reviews as well as grants and research proposals.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3378 Statistical Methods in Genomics and Bioinformatics (3 Credits)
Genomics and other omics data have become cornerstones of research in biology, biomedicine, and public health, yet their high dimensionality, heterogeneity, and complex structures challenge traditional computational and statistical methods. This course introduces fundamental and advanced statistical and computational approaches to address these challenges, emphasizing core statistical concepts and their applications in bioinformatics and biomedical problems. Topics include gene expression, regulatory sequence analysis, RNA-seq, spatial transcriptomics, and gene regulation studies. Methods covered range from multivariate analysis and sequence modeling to machine learning, illustrated with real-world examples from public health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Corequisites: GPH-GU 2182, GPH-GU 2338, and GPH-GU 2354.

GPH-GU 3450 Intermediate Epidemiology (3 Credits)
This course will develop an understanding of epidemiologic concepts and methods that will be a backbone to in depth training in specialty areas. It will provide a technical and conceptual training in study design, multivariate analysis, sample size calculations and other key epidemiologic techniques. It will build on the basic core course. This course is the second course in a three course sequence on the theory and practice of epidemiology and is intended for masters- and doctoral-level students. The course consists of two components: lecture and lab sessions. Lectures will cover key epidemiologic methods and concepts in greater detail. Lab sessions will include review and practice of fundamental data analytic techniques employing STATA.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 3480 Longitudinal Analysis of Public Health Data (3 Credits)
This course covers modern methods for the analysis of repeated measures, correlated outcomes, and longitudinal data, including the unbalanced and incomplete data that are characteristic of public health research. There are four widely available methods for dealing with dependence: robust standard errors, generalized estimating equations, random effects models and fixed effects models. This course examines each of these methods in some detail, with an eye to discerning their relative advantages and disadvantages. Different methods are considered for quantitative outcomes and categorical outcomes. The course uses Stata statistical software and gives students hand-on experience working with real data.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 3353 or GPH-GU 3332.

GPH-GU 3555 Bioethics Practicum (2-4 Credits)
Typically offered Fall, Spring, and Summer terms
Prerequisite: One semester in the Program, or a minimum of three courses. .
Grading: School of Global Public Health Pass/Fail
Repeatable for additional credit: No

GPH-GU 3960 Theories in Public Health Practice & Research (3 Credits)
The 'intervention imperative' in public health has traditionally overshadowed theory development. Consequently, many public health practices and interventions are predicated upon unexamined or under-theorized assumptions. As the scope of public health widened from infectious diseases, its theoretical foundations extended beyond biomedical 'germ theory' explanations to include behavioral psychology. By the late 20th century, these foundations grew to incorporate multi-factorial etiologies and systems approaches borrowing from social science theories and methods. This course examines an array of theories and conceptual models used in public health. They are roughly categorized into the following domains: a) biomedical; b) psychological; c) socio-cultural; d) organizational/community; and e) structural / critical. Theoretical perspectives on specific public health problems as well as topics of interest to students in the class will be examined and discussed. Emphasis will be on adopting a comparative, critical and integrative perspective on theories and key concepts in public health practice, policy and research.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5010 Foundations for Epidemiology and Biostatics (0 Credits)
This course builds foundational skills that you will utilize as you work towards your degree. It consists of three modules. The Basic Math section covers basic math components that are utilized within the topics of Epidemiology and Biostatistics. The Biostatistics section covers fundamental statistical concepts that will help prepare you for Biostatistics. The final section looks at fundamental concepts that will help prepare you for Epidemiology. Both Epidemiology and Biostatistics, as well as other methodology courses in the curriculum, are fields that use samples from the population to look for trends, relationships, and associations. Findings are then used to make inferences about the population from which the sample was taken. The skills offered in this course provide a refresher of the basic knowledge needed to succeed in Epidemiology and Biostatistics and other courses are you complete your degree.
Grading: Class does not print on the transcript
Repeatable for additional credit: No

GPH-GU 5030 Introduction to Global Health (2 Credits)
This course introduces students to public health from a global perspective, advancing students' understanding of the dynamic nature of global opportunities and threats and how they are affected by globalization. The course uses an ecological model of health to illustrate the impact of education, socioeconomic status, the environment, and political will on the global burden of disease. It introduces the primary actors in global health governance and financing and examines current and future priorities in global health, emphasizing the importance of intersectoral collaboration in addressing complex challenges. The course also presents the human rights and ethical dimensions of global public health, including decolonization.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5106 Epidemiology (3 Credits)
Typically offered Fall and Spring
Introduces students to the field of public health epidemiology, emphasizing the sociocultural factors associated with the distribution and etiology of health and disease. Methodological skills including the calculation of rates, analysis of vital statistics, and programming data using a basic statistical package are covered.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5110 Health Care Policy (1.5-2 Credits)
Typically offered Fall and Spring
This course introduces students to key concepts, principles and practices in the field of health policy in the United States and other national health systems. The course will examine issues that concern quality, costs, access to healthcare and public health services for individuals and populations. The course emphasizes the need for leaders in today's world of public health to understand central issues in health policy. The overall goal of the course is to provide information for students to build an understanding of the fundamental ideas, issues, and problems currently debated in health policy and to provide a foundation for practice in a range of careers in public health and health care policy.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5112 Public Health Management and Leadership (1.5-2 Credits)
This course introduces students to key concepts, principles and practices in the field of public health management and leadership. This course provides information for students to build an understanding of the fundamental ideas, issues, and problems currently debated in health management and to provide a foundation for practice in a range of careers in public health and health care management. The overall goal of the course is to prepare students to increase their effectiveness in managing and leading individuals and teams in public health and health care organizations.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5115 Introduction to Principles of Nutrition in Public Health (3 Credits)
This course will cover the basic concepts of the science of nutrition detailing the nutrients, food sources, function and nutritional requirements. The course will integrate the nutritional needs of populations, both nationally and globally, with emphasis on undernutrition, over nutrition and the double burden of malnutrition. The principles of nutritional needs will be applied to promoting health in vulnerable populations.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5120 HIV/AIDS from a Global Perspective (3 Credits)
Typically offered occasionally
Students will examine the evolution of the HIV epidemic globally using a public health lens and emphasis on health promotion strategies and responses of health systems; concepts will be examined in regions with different epidemics: Africa, Eastern Europe/Asia, and the United States/Western Europe. Students will learn about HIV/AIDS history, biomedical aspects including testing and treatment, epidemiology, socio-bio-behavioral drivers, public health policies, and calls to action around the globe. Students will examine, analyze, apply, and evaluate theoretical paradigms and research, drawn from public health and interrelated disciplines with regard to HIV prevention, treatment, and care across all segments of the population. Theory-based HIV prevention and care are emphasized as is a biopsychosocial framework. Pre-requisites: GPH-GU 2106 OR GPH-GU 5106, GPH-GU 2140 OR GPH-GU 5140,> and GPH-GU 2190 OR GPH-GU 5190.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5130 Food Marketing and Communications (3 Credits)
With this course our intention is to familiarize students with the interplay between public health nutrition and marketing—from historical, theoretical, analytical, and practical perspectives. To that end, students will characterize the underlying trends of past and present marketing campaigns from major food companies and examine how these marketing strategies have evolved over time and affected consumers' perceptions, purchases, and eating behaviors. We will spend time discussing knotty issues entangled with food marketing and how these concerning practices play out today and perpetuate health inequity through structural racism.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5140 Global Issues in Social and Behavioral Health (3 Credits)
Typically offered Fall and Spring
This course begins by examining social, psychological, and cultural factors that have an impact on public health in community, national, and global contexts. These factors include population characteristics, individual beliefs and behaviors, and policies that affect public health problems and their solutions. The second half of the course introduces students to methods that public health professionals use to address the social and behavioral determinants of health. These methods include theories and perspectives drawn from the social/behavioral sciences, interventions and policies designed to alleviate health disparities, and methods to evaluate interventions and disseminate the results.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5150 Emergency Preparedness for Healthcare Organizations (3 Credits)
The healthcare system is uniquely challenged by large-scale disasters, which are on the increase in the United States and throughout the world. Every setting of healthcare, from hospitals to outpatient clinics may be affected by acute emergencies and disaster events. Therefore, as public health professionals, healthcare professionals, emergency managers, or other professionals in charge of ensuring a safe patient care environment, it is essential to become familiar with the current disaster management paradigm (mitigation, preparedness, response, and recovery) as it pertains to the healthcare environment. This course is designed to provide students with disaster management capabilities that will have applicability in their current or future employment.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5152 Introduction to Agent-Based Modeling (3 Credits)
How do local (micro-scale) interactions between individuals generate global (macro-scale) societal patterns--of disease, of conflict, of inequality? Agent-based modeling (ABM) is a powerful new way to address such questions computationally. In ABMs, software individuals and the interactions between them are explicitly represented, and these local interactions generate the global patterns we wish to explain, and to alter through policy, epidemics being prime examples. This course introduces students to ABMs from epidemiology, public health, and social science. It teaches students without prior programming experience to build, analyze, extend, test, and present simple models in NetLogo.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5153 Global Environmental Health (3 Credits)
Typically offered Fall, Spring, and Summer terms
Environmental health sciences represent the study of biological, physical, and chemical agents that affect the health of both communities and workers. This course provides students with an introduction to key areas of environmental health. Students gain an understanding of the interaction of individuals and communities with their environment, the impact of environmental agents on human health, and specific applications of concepts of environmental health including exposure assessment and engineering controls. The impact of global environmental issues on health equity will be considered, as well as scientific, political, legal, and economic perspectives on global environmental health. Emphasis is placed on issues in environmental health that transcend national boundaries.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5170 Introduction to Public Health (0 Credits)
This course provides an introduction to foundational principles, concepts, and methods in public health. Topics include: the history of public health; public health values and principles; core functions of public health; the role of biostatistics and epidemiology in measuring population health; the use of evidence; environmental, social, and behavioral influences on health; and globalization and health
Grading: School of Global Public Health Pass/Fail
Repeatable for additional credit: No

GPH-GU 5171 Global Public Health Informatics (0 Credits)
Typically offered Fall and Summer terms
Public Health Informatics is a new field that is concerned with the systematic application of information and computer sciences to practice, research and learning. This course is created to ensure that graduates of the program have working knowledge of information resources available for program planning, surveillance and data management and working knowledge in the use of evidence-based public health information tools that ensure use of current best practices and for lifelong learning.
Grading: School of Global Public Health Pass/Fail
Repeatable for additional credit: No

GPH-GU 5190 Essentials of Public Health Biology (3 Credits)
Typically offered Fall and Spring
This course introduces MPH students with minimal formal training in biology to the biological and molecular context of public health. The course provides an overview of: a) basic biological principles and mechanisms relevant to public health practice; and b) biomedical technology as applied in public health. The course covers basic principles of genetics, immunology, microbiology, and cell biology in the context of global public health. Areas covered include infectious diseases, genetic and chronic diseases, allostatic load, environmental factors affecting health, and prevention and treatment strategies.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5210 Global Health Disaster Preparedness & Response (3 Credits)
Large-scale disasters and catastrophes, also referred to as mega-disasters or hyper-complex emergencies, are of such magnitude that they affect an entire country- either directly or indirectly and require multi-national or international response capabilities to recover. Incidents or events such as pandemics and climate change that impact more than one country or region are also considered global disasters. In this course, students will define and characterize major catastrophic threats, assess data for mitigation purposes, conduct risk assessments for public health impact and structural and non-structural damages, identify recovery strategies and assess role of memorialization on community recovery. Students will prepare a Disaster Plan and appropriate Plan Annexes. This is an online course
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5213 Public Health Nutrition (3 Credits)
Public Health Nutrition involves the application of food and nutrition knowledge, policy, and research to improve the nutritional status and health of populations. This course emphasizes the distinction between population-based and individual-based approaches to prevention and alleviation of diet-related conditions, and the barriers to improving the nutritional status and health of diverse population groups. The course will discuss the social, behavioral, and food- and nutrition-related factors that affect health both nationally and globally. Lectures will integrate nutritional science, applied practice and nutrition research, and their application to initiatives and programs designed to improve the nutritional status of populations.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5218 Assessing Community Health Needs & Resources (3 Credits)
Community health assessments comprehensively identify the assets and needs of a defined group. When conducted in tandem with community members, community health assessments provide a window into how a community sees itself, the systems and patterns it functions by, and its assets and needs. Public health practitioners can use this information to work with a community to utilize its strengths to address mutually acknowledged needs. In this course, students will work in teams to conduct a community assessment of an assigned United Health Fund district within New York City. The focus of the course will be on introducing the basic content/skills of on-the-ground field research, collecting, analyzing, and summarizing data. Specifically, students will use primary data (surveys, in-depth interviews, observations) and secondary data (public data sets) collection along with systems thinking to describe and understand the health, demographics, and socio-economic profile of the community. Students will survey and/or interview community leaders, community based organization representatives, health practitioners, and/or community residents. Students will summarize the findings and offer recommendations in a final report and presentation.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2106 or GPH-GU 5106 and GPH-GU 2995 or GPH-GU 5995 and Corequisite: GPH-GU 2361 or GPH-GU 5361 or Public Health PHD or DPH.

GPH-GU 5220 Applying Systems Thinking to Global Health Practice (3 Credits)
Typically offered Spring
This course provides an overview of the state-of-the-art concerning the Global Burden of Disease, the Disease Control Priorities, Universal Health Coverage and Health Systems Analyses. Students apply systems thinking and evaluation methods in designing policies to accelerate progress toward the health related Sustainable Development Goals (SDGs), by categorizing health related targets within the SDGs according to mortality, incidence/prevalence of disease, risk factors, cost effective interventions and health system platforms. For each of these dimensions, students analyze concepts, methods, information sources and existing data for countries with differing burdens of disease.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 5106, GPH-GU 5380, and GPH-GU 5030.

GPH-GU 5229 Commercial Determinants of Health: A focus on tobacco, alcohol, and industrial food (3 Credits)
This interdisciplinary graduate-level course on Commercial Determinants of Health explores the influential role of commercial entities in shaping population health outcomes. Students critically analyze the strategies, policies, and practices of industries like food, tobacco, alcohol, and marijuana,examining their impact on public health, health equity, and disease risk. Through case studies and discussions, students gain insights into the complex relationship between commercial determinants and nutrition, while exploring strategies for promoting healthier societies. Within the areas covered, the course highlights the significant influence of the private sector on our physical and social environments, evidence surrounding health issues, and public discourse.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5232 Disease Elimination and Eradication Strategies for Infectious Diseases in LMICs (3 Credits)
Students will examine the core principles of disease elimination and eradication (E&E) - with a focus on challenges in low-resource settings - and co-develop a draft strategy in a specific country. Students will analyze case studies to better understand lessons learned, challenges faced, and effective interventions needed to achieve disease E&E. The class will provide an introduction to ethical issues in disease E&E, political, social, behavioral, and environmental/climate factors, health system strengthening, the integration of disease E&E programs with existing health systems, and communication and advocacy. Different thinking models (systems, design, strategic & evaluative) will be introduced to help students in their development of interventions to reduce and eventually eliminate disease in a given geography.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2106 OR GPH-GU 5106 AND GPH-GU 2140 OR GPH-GU 5140 Restriction: Public Health MPH.

GPH-GU 5240 Budgeting for Sustainable Health Returns on Investment (3 Credits)
This course develops budget and resource management competencies and skills. Students will identify, apply and evaluate existing methods and tools that were developed and implemented by the World Bank, UNICEF, WHO and other agencies to support analysis of additional costs, returns on investment, budget requirements and fiscal sustainability. Case studies, readings and datasets are based on real life applications to equity focused approaches and health system strengthening for the Millennium Development Goals (MDGs). Students will synthesize additional costs, budgets, sustainability, and returns on investment, and propose priority analytic tools to be applied or further developed for budget and resource management for the health related targets of the Sustainable Development Goals (SDGs).
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5250 Health & Human Rights (3 Credits)
This course approaches global health and justice from international human rights and humanitarian law. The course is designed to provide public policy and public health students with the basis for literacy about human rights and humanitarian law. Through lectures, case studies and practical training, students will be able to gain knowledge and skills to determine how rights violations impact health, and how to engage in using the human rights approach to improve health outcomes. Topics, including HIV/AIDS, sexual and reproductive rights, the right to health in war and disasters, access to medicines and the ethical obligations of public health professionals, will be used to illustrate practical applications of human rights to global health.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5270 Management of Public Health Disasters (3 Credits)
This course introduces basic principles and practices of public health disaster management. Students explore threat and hazard identification, mitigation, preparedness, response and recovery, and will apply their new skills and knowledge to address a wide range of natural and man- made disaster events of concern to public health. The course includes legal/ ethical considerations, psychological impacts of disasters, community resiliency, planning for the needs of vulnerable populations, and other topics relevant to disaster management. For the culminating project for this course, students develop a disaster plan for their local department of health or for their workplace. Students also complete (no-cost) on-line FEMA ICS certification training as part of this course.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5271 Translating Research into Practice: Adapting and Implementing Evidence-Based Public (3 Credits)
Evidence-based public health is now recognized as the foundational gold standard for developing programs and interventions to improve population health. In practice, many challenges exist to identifying appropriate evidence-based interventions and adapting them to perform as intended in new settings. This course will examine approaches for selecting, adapting, and implementing evidence-based public health interventions. The framework presented in the course will help prepare students to adapt and implement programs that are theory-and evidence-based, community-based, and reality-based.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2349 or 5349 and GPH-GU 2415 or 5415
Restriction: Public Health MPH.

GPH-GU 5275 Nutrition Epidemiology for Public Health (3 Credits)
The course provides in-depth knowledge of the principles and challenges inherent to the discipline of nutritional epidemiology. In addition to covering fundamentals of nutritional epidemiology such as collection, analysis, and interpretation of data on dietary intake and nutritional status within diverse population groups, the course will place strong emphasis on methodological considerations in study design and pertinent statistical issues, including measurement error.The course emphasizes critical evaluation of dietary assessment methods and the results of research studies associating intake of foods, nutrients and dietary patterns with the risk of chronic diseases. Importantly, the course addresses the translation of scientific findings into nutritional recommendations and policies.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5288 Perspectives in Migrant Health & Human Rights (3 Credits)
Typically offered occasionally
This course is a forum where public health and related practitioners share their professional experiences and insights working with a range of migrant populations. Through an online learning environment, students will examine current trends in the field of migrant health and human rights, with a focus on gaining practical skills and engaging in critical self-reflection. The course will enhance students' abilities to think critically and analytically about current problems and challenges confronting the field, and will complement conceptual and theoretical coursework, emphasizing the processes of implementing migrant health and human rights programming from practitioners' and migrants' perspectives.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5292 Public Health Law (3 Credits)
Many of public health's greatest successes have been based on the successful use of the law. Therefore, an understanding of the fundamentals of public health law and the legal foundations of public health is essential to appreciating the tools available to government to address public health threats. This class will examine the U.S. government's authorities and also the legal limitations on government enacting law to improve population health at the federal, state, and local levels and by the executive, legislative, and judicial branches. We will additionally analyze core public health issues in the context of this legal framework.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5296 Public Health Innovation and Entrepreneurship (3 Credits)
This course helps current and future public health practitioners develop skills to create innovative, sustainable, and scalable solutions that address public health challenges. Student teams explore gaps in the availability, accessibility, acceptability, adequacy, and appropriateness of health-related goods and services in target communities and propose innovations that would narrow those gaps and improve health outcomes. Then, using a stepwise, structured approach, the teams develop and refine a business model for the innovation through stakeholder interviews designed to maximize product-market fit and minimize failure risk.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5312 Global Perspectives in Reproductive Health & Human Rights (3 Credits)
This course examines reproductive health from a human rights perspective both nationally and internationally. After a review of the intersection of reproductive health and human rights, topics to be covered include: the demographic transition and declining birth rates; the rights of women with HIV infection and other vulnerable populations; men's influence on reproductive rights; viewing traditional practices through a human rights lens; and current reproductive rights.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5319 Writing Grants and Funding Proposals for Health-Related Programs (3 Credits)
This course introduces the principles and foundational skills of grant writing. This includes skills in locating potential funding sources, understanding the process and procedures of assembling a complete proposal, leveraging the diverse professional roles involved in completing a proposal (principal investigator, co-investigator, consultant, pre-award specialist, research associate, etc), and using appropriate grant-writing style & technique. Students are guided through the development of an U.S. National Institutes of Health (NIH) grant proposal, taking a team science approach. Student teams will develop a mock NIH proposal, from locating appropriate NIH Institutes through development of program objectives, background, & methods; to the peer review process.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5320 Data Utilization in Public Health Practice (3 Credits)
Typically offered Fall
Data Utilization in Public Health Practice (3 credits) Public health practice typically demands competencies in identifying, extracting, analyzing, interpreting and disseminating information from large surveys, administrative data sets, government reports, qualitative studies, and other data sources. This course will develop these competencies through rigorous evaluation of existing data resources (including their strengths and limitations for answering specific public health questions) and best practices in data utilization for situational assessment; monitoring; policy, program and strategy development; and surveillance of health outcomes through real-world case studies and assignments. The course will also provide students with basic skills in data analysis and visualization using Microsoft Excel and an interactive, online mapping software (Carto).
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GUUMPHMPH, GUYUMPMPH with prereq of GPH-GU 2106 or 5106 and GPH-GU 2995 or 5995) or GUUMPHPHD or GUUMPHDPH.

GPH-GU 5342 Global Issues in Public Health Nutrition (3 Credits)
This course addresses major global nutrition issues that we face today. Food insecurity, and all forms of malnutrition, underweight, obesity and micronutrient deficiencies are leading risk factors of mortality and comorbidity worldwide. The course is developed in the context of the United Nations System, through the lens of the Sustainable Development Goals (SDGs) and the 2030 Agenda. We will discuss climate change, conflict, and economic downturn as determinants of food insecurity that are worsening non-communicable disease prevalence. Next, we understand malnutrition, its major determinants and its interconnections with the food systems. Students will design a solution for these issues, using the systems approach and principles from social entrepreneurship in the the global landscape.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5349 Program Planning & Evaluation (3 Credits)
This course will introduce the major principles, concepts and methods used to plan, monitor and evaluate public health interventions and programs. Emphasis is placed on helping students develop the essential skills required in developing program plans, monitoring program implementation, and conducting evaluations for public health practice.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5359 Applied Practice Experience (2 Credits)
This course complements the internship applied practice experience by providing a structured and supportive environment to reinforce the internship goals of developing public health competencies, gaining valuable work experience, and cultivating professionalism. Students complete the internship in the summer or fall of their final year in the program, and enroll in the course in the fall. The internship and course fulfill the Applied Practice Experience requirement for the following MPH concentrations: Community Health Science & Practice, Environmental Health Sciences, Global Health, Health Policy, Management, and Public Health Nutrition.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5360 Integrative Learning Experience (2 Credits)
A key goal of the MPH program is to enable students to synthesize principles, concepts, and competencies learned through coursework and the Applied Practice Experience. This course provides a structured and supportive environment to help students achieve this goal and to develop professionalism. Students prepare a professional report, poster, and critical reflection paper, comprising the MPH integrative learning experience. Students enroll in the course in their final spring semester. The course fulfills the Integrative Learning Experience requirement for the following MPH concentrations: Community Health Science & Practice, Environmental Health Sciences, Global Health, Public Health Policy & Management, and Public Health Nutrition.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: (GPH-GU 2359 or GPH-GU 5359) and (Plan: GUUMPHMPH or GUYUMPMPH).

GPH-GU 5361 Research Methods in Public Health (3 Credits)
This course is a review of research and original writings related to public health. Students will learn to apply research methodology to problems in public health. This course provides an introduction to the fundamentals of research study design and methods. It serves as an introduction to quantitative and qualitative approaches to research, as well as ethical issues in conducting research. Through the mix of texts, articles from the public health literature and course work, students will build skills for conducting research and critically evaluating research designs and research findings.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GUUMPHMPH, GUYUMPMPH, GUBIOSMS with a co-req of GPH-GU 2106 or 5106 or GUUMPHPHD, GUUMPHDPH.

GPH-GU 5380 Data-Driven Decision-Making in Global Public Health (3 Credits)
Typically offered Spring
This course develops skills and competencies in making data-driven decisions to improve global public health outcomes, especially in high disease and malnutrition-burden environments. It is based on a framework of enabling environment, supply, demand, and quality factors that affect the effective coverage of services that would prevent outcomes such as under-5 mortality, neonatal mortality, maternal mortality and stunting. The class will introduce decision support platforms developed by UNICEF, WHO, and the World Bank that help public health professionals choose between available strategies and interventions in a high burden country to reduce adverse health and nutrition outcomes.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5405 Health Communications: Changing Social Norms in Theory and Practice (3 Credits)
This course provides an introduction to the theory, design, implementation, and evaluation of health communication programs. Several resources are used to allow students to acquire practical knowledge and skills in health communications planning and implementation. Case studies, resources, research tools and examples of different media channels are reviewed and analyzed to explore how to reach different target audiences with the most effective health communication interventions.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5410 Results-Focused Strengthening of Health Systems in LMIC Countries (3 Credits)
This course covers elements that are necessary for developing impactful global public health programs in Low and Middle Income Countries (LMIC), including but not limited to: a comprehensive overview of health systems and their specific components# an explanation of how the health system functions in different country settings# and an overview of crosscutting system-wide supply and demand bottlenecks and evidence-based strategies to address these. Assignments use practical country case studies and analyses of data sets on health system bottlenecks, strategic shifts, and enabling environments as well as estimations of resource requirements, cost effectiveness, and financing needs for health system strengthening.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5415 Community-Based Health Interventions (3 Credits)
Community-based health interventions are a major public health strategy for promoting population health. This course introduces the principles, methods, and applications of community-based interventions. Theoretical and conceptual frameworks shaping community health programs are examined, with a focus on the social ecological model and community participation. Major evidence-based strategies are identified, and case studies provide examples of applications, including challenges and factors influencing success. Challenges to evaluating and sustaining community-based health interventions are examined. Assignments prepare students to identify effective intervention strategies and develop a theory of change to address a specific public health issue.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: Public Health MPH and GPH-GU 2140 or 5140 or Public Health PHD or DPH.

GPH-GU 5420 Monitoring and Management of Public Health Programs for Equity (3 Credits)
Typically offered occasionally
This course develops skills and competencies for key steps in program monitoring and management to improve equity of global public health outcomes, namely situation analysis of equity, modeling effects of management decisions, monitoring changes in equity outcomes, and evaluating equity modeling, monitoring and outcomes. For each of these steps, students learn and apply core concepts, measures, and analytic tools concerning equity of outcomes, bottlenecks in coverage of interventions, and out of pocket health expenditures. The class will introduce databases, methods, and tools developed by UNICEF, World Bank, IHME and WHO, that help public health professionals reduce inequity in health & nutrition outcomes in LMICs.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 5995 Biostatistics for Public Health (3 Credits)
Typically offered Fall and Spring
GPH-GU 5995 Biostatistics for Public Health (3) This course covers basic probability, descriptive and inferential statistics, and the role of biostatistics in the practice of public health. Specific attention will be given to common probability distributions in public health and medicine, t-tests, Analysis of Variance, multiple linear and logistic regression, categorical data analysis, and survival analysis. Statistical topics are presented conceptually with little derivation, and applications are demonstrated using common statistical software. The course can be taken online or in-person.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9130 Global Health Diplomacy (3 Credits)
Many of the geopolitical forces that shape global health (global disease burden and our collective response to it) lie outside of the health sphere. This course will explore the ways in which global health is influenced by, and can influence, other global forces including foreign policy, trade/economic policy, environmental policy, and security policy in a globalizing world. Effective responses to current and future global health challenges require that public health professionals (particularly those working in policy or at a policy-level) understand these dynamics and how best to leverage them in order to achieve better health outcomes globally.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9153 Global Environmental Health (3 Credits)
Environmental health sciences represent the study of biological, physical, and chemical agents that affect the health of both communities and workers. This course provides students with an introduction to key areas of environmental health. Students gain an understanding of the interaction of individuals and communities with their environment, the impact of environmental agents on human health, and specific applications of concepts of environmental health including exposure assessment and engineering controls.The impact of global environmental issues on health equity will be considered, as well as scientific, political, legal, and economic perspectives on global environmental health. Emphasis is placed on issues in environmental health that transcend national boundaries
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9202 Aging, Health, and the Environment: A Global Perspective (3 Credits)
this course will contrast U.S. and international approaches to aging, health, and environmental risk. The world population is growing older: by 2050 the global population of those over 60 years old will reach nearly 2 billion. Italy, in particular, has the largest proportion (21.4%) of elderly citizens in all of Europe. There are several environmental risk factors that affect the aging process, including disasters, climate change, and pollutants. We will cover theories and principles of gerontology, climate change, disasters, and the built environment with the goal of understanding how environmental risk factors shape the aging process. Lastly, we will consider how Italian approaches to aging and health, including those of policymakers and local stakeholders, differ from the U.S. model
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9211 Environmental Injustice: From Local to Global (3 Credits)
Environmental justice has implications for public health practice both locally and globally because marginalized groups such as people of color and people of low socioeconomic status continue to be exposed to greater numbers of environmental hazards in their homes, in their jobs, in their communities, and in the food they eat, relative to the society at large. This course will explore the links between the environmental justice movement and civil rights. Students will examine the political response to the movement, both locally and globally, through legislative and regulatory actions. The first half of this course will focus on the history of environmental injustice and cover seminal readings, regulations and laws. The second half will focus on local and global air, water, food and land based environmental exposures.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9224 Introduction to Urban Health and Equity (3 Credits)
This course will introduce students to urban health and its broad determinants. In order to achieve healthier urban communities worldwide we must improve the built, socioeconomic and physical environments in cities. The course will combine readings, classroom lecture and discussion to provide an overview of urban health and health equity. As an emerging interdisciplinary area of research, practice and policy, we will draw on the work of experts and experience from all regions of the world and explore why cities are proving to be such an effective level of government to achieve results for health and health equity. We will also examine the importance of advancing health and health equity in cities in order to achieve the Sustainable Development Goals (SDGs). *This is equivalent to GPH-GU 2224*
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2140 or GPH-GU 5140 and Public Health MPH.

GPH-GU 9232 Disease Elimination and Eradication Strategies for Infectious Diseases in LMICs (3 Credits)
Students will examine the core principles of disease elimination and eradication (E&E) - with a focus on challenges in low-resource settings - and co-develop a draft strategy in a specific country. Students will analyze case studies to better understand lessons learned, challenges faced, and effective interventions needed to achieve disease E&E. The class will provide an introduction to ethical issues in disease E&E, political, social, behavioral, and environmental/climate factors, health system strengthening, the integration of disease E&E programs with existing health systems, and communication and advocacy. Different thinking models (systems, design, strategic & evaluative) will be introduced to help students in their development of interventions to reduce and eventually eliminate disease in a given geography.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2106 OR GPH-GU 5106 AND GPH-GU 2140 OR GPH-GU 5140 Restriction: Public Health MPH.

GPH-GU 9265 Climate Change and Global Public Health (3 Credits)
This course is about Climate Change i.e. Global Warming! Climate Change has been cited as the most significant public policy challenge of the 21st century. We will intensively cover the climate change science, public health impacts, ecological consequences, fossil fuel air pollution, global food and security, and policy options. Adaptation strategies to control outcomes of storm flooding, increased ozone and heat waves, drought, and threats to biodiversity will be covered. Mitigation by 100% renewables with texts on wind and solar energy will be assessed. Policy solutions will be evaluated from city governments, States, Countries, to Global treaties such as UN Framework Convention on Climate Change-Conference of the Parties Paris Agreement. Climate Denialism is reviewed with the text, "The Madhouse Effect."
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9278 Global Cancer Epidemiology (3 Credits)
Cancer is a major public health concern globally, surpassing rates of cardiovascular disease in adults <75 years. It is a multifactorial disease with genetic, environmental and modifiable lifestyle risk factors. This course provides an overview of: a) the global and national burden of cancer; b) risk factors including genetic, early life risk factors and modifiable factors: tobacco, excess adiposity and diet (carbohydrates, processed foods, sugar-sweetened beverages, and alcohol); and c) cancer surveillance and policy as it relates to primary and secondary prevention of cancer. Students will discuss landmark studies in cancer epidemiology with an emphasis on population studies in the US and Europe. Students will also gain an understanding of cancer biology and important mechanisms that underlie carcinogenesis.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9285 Global Women's Health Programs: Analyzing Evidence to Improve Women's LIves (3 Credits)
This course introduces the student to the major health issues facing women in low resource countries and how to analyze existing programs geared towards improving women's health. Students will learn how biological, environmental, and societal issues affect women's health, the outcomes of pregnancy, and child survival. Topics include reproductive and obstetric health, women's rights, gender-based violence, access to health education, family planning, female genital cutting, and the public health interventions proven to positively impact these issues. Students will intensively evaluate and analyze the interventions created to improve the lives of women and identify key elements that constitute an effective global women's health program. Students will learn the necessary skills to generate solutions to the complex circumstances affecting the health of women globally. This is equivalent to GPH-GU 2285
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9325 Behavioral and Communication Strategies for Global Epidemics (3 Credits)
This course focuses on the integration of three public health disciplines for emergency action: epidemiology, behavioral health/ intervention research and public health communication to provide students with a knowledge base and foundation of skills to be able to design and implement strategies in disease prevention and response in outbreak situations, with a focus on the reemergence of Polio and Ebola.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9343 HIV/AIDS Public Health Promotion (3 Credits)
Students will examine the evolution of the HIV epidemic in the United Kingdom (U.K.) and the United States (U.S.) throughout the last four decades using a public health lens with an emphasis on population-based health promotion strategies and responses of the respective health system within each country. Students will learn about the history of the disease in the U.K., U.S and within a global context, the biomedical aspects of the disease including HIV testing, and treatment, the epidemiology of the disease, the socio-bio-behavioral drivers of the disease, and HIV/AIDS public health policies and calls to action both within the U.K. and the U.S. Students will examine, analyze, apply, and evaluate theoretical paradigms and research, drawn from public health and interrelated disciplines with regard to HIV prevention, treatment, and care as it is manifested in the across all segments of the population. The course utilizes a biopsychosocial framework for understanding illness and health promotion and emphasizes theory-based HIV prevention and care. The course uses an experiential learning approach; students engage with to local AIDS service organizations, health care facilities, and thought leaders, all with an eye to bring an end to the AIDS epidemic.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No
Prerequisites: GPH-GU 2140 or GPH-GU 5140.

GPH-GU 9345 Public Health Emergency Preparedness and Response: A Global Perspective (3 Credits)
This course examines global approaches to public health emergency preparedness, response, and recovery by visiting an international site exposed to or vulnerable to significant catastrophic events. There is a particular emphasis on governmental and non-governmental response, recovery, and policy systems; critical decision-making inflection points; and issues associated with risk communication, coordination of public health and medical resources, and the public's trust in political and scientific authority. The course will also review broad principles of surveillance, mitigation, preparedness, response and recovery from various hazards, and cover both US and international emergency management and public health frameworks.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No

GPH-GU 9500 Topics in Public Health: Current Issues in Latino Health (3 Credits)
This course provides an overview of selected current research issues and theories concerning the mental and physical health of Latino populations in the United States. Topics addressed include: the heterogeneity and health status of Latino groups; conceptual and methodological issues related to Latino health; acculturation and identity theory; the association between health and various stressors, including discrimination and immigration; access to health care; and neighborhoods and health. The course highlights the need to integrate cultural issues in theory and research.
Grading: School of Global Public Health Graded
Repeatable for additional credit: No