

PUBLIC HEALTH SCIENCE OPTIONS

The categories below organize approved PHSC Options courses into categories so that you can find a class of interest more easily. Some courses are listed in more than one category.

Note: While information on when these courses have been offered in the past is included, this does not guarantee future offerings. Approved study abroad courses are not included in this list.

For more information about the Public Health Science major curriculum, visit go.umd.edu/phsclasses.

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PUBLIC HEALTH SCIENCE OPTIONS

BEHAVIORAL AND COMMUNITY HEALTH

HLTH377 (HUMAN SEXUALITY)

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** none
- o **Last offered:** Fa21, WT22, Sp22, Su22, Fa22

HLTH402 (DISABILITY IS NOT AN OUTCOME: AN INTRODUCTION TO UNDERSTANDING DISABILITY)

With an intent to disrupt traditional understandings of disability as a health outcome to be prevented, this course will introduce students to disability as an identity, a community, a population of interest to public health professionals. To change this understanding students will explore historical representations of disability, ableism, and lived experiences of people with disabilities. Disability is a multi-layered concept that broadly describes a wide range of people. Although geared toward public health scholars, the mix of readings, discussions, and assignments will help students reflect and integrate learning into their own fields of study. The course examines factors that led to systemic oppression, and methods and strategies of moving toward a more inclusive society.

- o **Credits:** 3 credits
- o **GenEd:** DSHS, DVUP
- o **Pre-requisites:** none
- o **Last offered:** Su22

HLTH424 (LESBIAN, GAY, BISEXUAL & TRANSGENDER HEALTH)

The preparation of students to be knowledgeable advocates for the health of lesbian, gay, bisexual, and transgender (LGBT) populations. Course focus is defined by the Healthy People 2020 federal health objectives for LGBT populations: data collection for research, culturally competent healthcare, bullying in schools, suicide, homelessness, and sexually transmitted diseases including HIV.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; 60+ credits; rec. PSYC, SOCY, EPIB
- o **Last offered:** Fa21, Sp22

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HLTH431 (HEALTH LITERACY IN ACTION)

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major (0201); rec. HLTH371
- o **Last offered:** Fa21, Sp22, Fa22

HLTH460 (MULTICULTURAL POPULATION HEALTH)

Health concerns of U.S. ethnic minority groups and factors placing them at elevated risk for disease and injury. Health education concepts and strategies to reduce disparities between their health status and the health status of the general population.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major (0201); HLTH140, HLTH230, or HLTH366
- o **Last offered:** Fa21, Fa22

HLTH471 (WOMEN'S HEALTH)

The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC, HLTH, or WMST major
- o **Last offered:** WT22, Sp22, Su22

PUBLIC HEALTH SCIENCE OPTIONS

PHSC410 (PUBLIC HEALTH PROGRAM PLANNING AND EVALUATION)

Students will become familiar with the dynamics of public health program planning, and the basic process of identifying unmet needs. They will be able to identify different types of program evaluation, including needs assessment, formative research, process evaluation, impact assessment, and cost analysis.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; 60+ credits
- o **Last offered:** Fa21, Fa22

PSYC344 (HEALTH PSYCHOLOGY)

An examination of how psychological, biological, and social factors impact physical health and well-being. Students will use the biopsychosocial model to analyze topics including stress, health disparities, pain, addiction, disease states (e.g., cardiovascular disease, diabetes, cancer), and primary prevention.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** SPH or PSYC major; PSYC100
- o **Last offered:** Fa21, Sp22, Su22, Fa22

SOCY335 (SOCIOLOGY OF HEALTH AND ILLNESS)

An exploration of the social model to studying health and illness: how meanings and experiences of health and illness are socially produced. How experiences are shaped by the interaction of external social environments (culture, community) and the internal environment (human body), and by socio-demographic variables (race, class, gender, etc.). Disparities in health and healthcare delivery, medicalization of society, determinants of health, social construction of illness, and the social organization of health care.

- o **Credits:** 3 credits
- o **GenEd:** DSSP – within the major
- o **Pre-requisites:** none
- o **Last offered:** Fa21, Sp22, Fa22

PUBLIC HEALTH SCIENCE OPTIONS

SOCIAL JUSTICE

CHSE338B (TEACHING AND LEARNING ABOUT CULTURAL DIVERSITY THROUGH INTERGROUP DIALOGUE; RACE, GENDER, OR SOCIOECONOMIC STATUS)

- o **Credits:** 1 credit
- o **GenEd:** DVCC
- o **Pre-requisites:** none
- o **Last offered:** Fa21, Fa22

CHSE338I (TEACHING AND LEARNING ABOUT CULTURAL DIVERSITY THROUGH INTERGROUP DIALOGUE; RELIGION AND SPIRITUALITY; SIZE AND APPEARANCE)

- o **Credits:** 1 credit
- o **GenEd:** DVCC
- o **Pre-requisites:** none
- o **Last offered:** Fa21, Fa22

CHSE338L (TEACHING AND LEARNING ABOUT CULTURAL DIVERSITY THROUGH INTERGROUP DIALOGUE; RACE, GENDER, OR CITIZENSHIP)

- o **Credits:** 1 credit
- o **GenEd:** DVCC
- o **Pre-requisites:** none
- o **Last offered:** Fa21, Fa22

CHSE338N (TEACHING AND LEARNING ABOUT CULTURAL DIVERSITY THROUGH INTERGROUP DIALOGUE; RACE, GENDER OR CITIZENSHIP)

- o **Credits:** 1 credit
- o **GenEd:** DVCC
- o **Pre-requisites:** none
- o **Last offered:** Sp22

CHSE338P (TEACHING AND LEARNING ABOUT CULTURAL DIVERSITY THROUGH INTERGROUP DIALOGUE; EMERGENT THEME)

- o **Credits:** 1 credit
- o **GenEd:** DVCC
- o **Pre-requisites:** permission required
- o **Last offered:** Sp22

PUBLIC HEALTH SCIENCE OPTIONS

CHSE338T (TEACHING AND LEARNING ABOUT CULTURAL DIVERSITY THROUGH INTERGROUP DIALOGUE; RACE, GENDER, OR CITIZENSHIP)

- o **Credits:** 1 credit
- o **GenEd:** DVCC
- o **Pre-requisites:** none
- o **Last offered:** Sp22

CHSE338X (TEACHING AND LEARNING ABOUT CULTURAL DIVERSITY THROUGH INTERGROUP DIALOGUE; RACE, SOCIOECONOMIC STATUS, OR (Dis)ABILITY)

- o **Credits:** 1 credit
- o **GenEd:** DVCC
- o **Pre-requisites:** none
- o **Last offered:** Sp22

PUBLIC HEALTH SCIENCE OPTIONS

ENVIRONMENTAL HEALTH

MIEH321 (ENVIRONMENTAL DETERMINANTS OF EMERGING INFECTIOUS DISEASES)

Examines the influences of environmental factors, economic development, migration, and land use changes on emergence and reemergence of infectious diseases. Explores how population growth, development, and climate change impact natural reservoirs of infectious diseases and how they are transmitted through human populations. Includes historical accounts, newly emerging and reemerging diseases.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** SPHL100 (coreq)
- o **Last offered:** Fa21, Sp22, Fa22

MIEH330 (ENVIRONMENTAL JUSTICE, RACISM, AND ENVIRONMENTAL HEALTH DISPARITIES)

Examination of environmental justice history, theory and science; discussion of linkages between the physical, natural, and social environments and environmental injustice; analysis of how environmental injustice can lead to adverse health conditions and environmental health disparities; discuss environmental justice case studies; and understanding of tools that can be used to understand and address environmental justice issues.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** SPH major; C- or better in MIEH300
- o **Last offered:** Sp21, Fa22

MIEH331 (THE BUILT ENVIRONMENT, SUSTAINABILITY, AND PUBLIC HEALTH)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; MIEH300
- o **Last offered:** Sp21

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MIEH480 (INTRODUCTION TO OCCUPATIONAL HEALTH)

Work, the way it is organized, and the workplace environment has an impact on public health and workers' and their families' physical and psychological health. The course introduces students to the field of occupational health and safety and ensures that workers' health is considered in all public health practice and policy. Basic concepts in occupational safety and health are discussed, as well as methods to anticipate, recognize, evaluate, and control environmental factors or stresses arising in or from the workplace. In addition to instructor-led lectures, guest speakers will be invited to discuss case studies and/or discuss workplace hazards unique to specific populations.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; C- or better in EPIB301 and MIEH300; rec. BSCI201
- o **Last offered:** Sp22

PHSC426 (CLIMATE CHANGE AND HEALTH)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; 60+ credits; MIEH300
- o **Last offered:** Sp21

PHSC430 (PUBLIC HEALTH IN THE CITY: PERSPECTIVES ON HEALTH IN THE URBAN ENVIRONMENT)

Exposure to issues related to city habitation and the health of the public, including how the urban environment impacts the lives and health of city dwellers, including discussion of the social determinants of health. Students are encouraged to think about urban health and policy, and to question the current state of urban public health. Issues of race, class, and equality will be discussed throughout the course as they relate to each of these topics.

- o **Credits:** 3 credits
- o **GenEd:** DSHS, DVUP, SCIS
- o **Pre-requisites:** PHSC major; 60+ credits; C- or better in BSCI202 and MIEH300
- o **Last offered:** WT22, Sp22, Su22

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GLOBAL HEALTH

AREC365 (WORLD HUNGER, POPULATION, AND FOOD SUPPLIES)

An introduction to the problem of world hunger and possible solutions to it. World demand, supply, and distribution of food. Alternatives for leveling off world food demand, increasing the supply of food, and improving its distribution. Environmental limitations to increasing world food production.

- o **Credits:** 3 credits
- o **GenEd:** DVUP
- o **Pre-requisites:** none
- o **Last offered:** Sp22, Fa22

FGSM380 (RESPONSES TO GLOBAL CHALLENGES)

An examination of global issues and responses primarily from the perspective of the practitioner. The focus will be on social, humanitarian, and human rights issues in different global contexts.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** [Global Fellows application required](#)
- o **Last offered:** Fa21, Fa22

FGSM390 (WATER SECURITY AND GLOBAL HEALTH CHALLENGES)

An examination of questions and issues of water security and global health. Expert practitioners will also visit class and participate in discussions.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** [Global Fellows application required](#)
- o **Last offered:** Fa21, Fa22

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MIEH333 (EVERY DROP COUNTS: WATER, FOOD, AND GLOBAL PUBLIC HEALTH)

In-depth interdisciplinary study of the public health issues related to water use for global food production. Topics will include accessibility and availability of safe water for agriculture worldwide, potential microbiological and chemical hazards in agricultural water, alternative water sources such as reclaimed wastewater and return flows, food safety approaches to managing agricultural water, and agricultural influences on surface and groundwater quality. Political, social, and economic factors relating to agricultural water will be addressed, with special focus on regions that are leaders in innovative water management and regions where access to clean water for agriculture is a major challenge.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** MIEH300 or ENSP101
- o **Last offered:** Su21, Fa22

MIEH407 (ONE HEALTH: GLOBAL FOOD SAFETY AND SECURITY)

This is a collaborative course with the University of Maryland and Cairo University, Cairo, Egypt to explore the One Health Foundation and its application to improving international food safety and security. The purpose of this global undergraduate class is to disseminate knowledge on One Health and its application to improving global food safety and security. Students will apply principles of One Health to ensure food safety and food security in Egypt.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** 75+ credits
- o **Last offered:** Su22

PHSC401 (HISTORY OF PUBLIC HEALTH)

Emphasis is on the history of public health in the Western world from antiquity to the present. Also examines the influence of public health developments as they relate to the Western world as well as throughout diverse cultures and societies across the globe. Analysis focuses on the interaction among Western and non-Western cultures with respect to health issues, including science, policies, prevention and treatment.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; 45+ credits
- o **Last offered:** Su22

PUBLIC HEALTH SCIENCE OPTIONS

HEALTH POLICY

FGSM320 (PUBLIC HEALTH POLICY)

An exploration of the major questions and issues facing the U.S. health care system as well as the formulation and implementation of health policy.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** [Federal Fellows application required](#)
- o **Last offered:** Fa21, Fa22

FGSM340 (ENERGY AND ENVIRONMENTAL POLICY)

An examination of issues of energy and environmental sustainability through an investigation of policymaking in energy, climate change, and sustainable development.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** [Federal Fellows application required](#)
- o **Last offered:** Fa21, Fa22

FGSM370 (SCIENCE DIPLOMACY: FOREIGN POLICY & SCIENCE, TECHNOLOGY, AND INNOVATION)

An exploration of the critical roles scientific knowledge and technological innovation play in the formation and implementation of foreign policy issues, including energy and climate change, public health, space and innovation, and economic development.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** [Global Fellows application required](#)
- o **Last offered:** Fa21, Fa22

PHSC405 (PUBLIC ADVOCACY AND PUBLIC HEALTH)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; 60+ credits; HLSA300
- o **Last offered:** Sp21

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PHSC412 (FOOD, POLICY, AND PUBLIC HEALTH)

Broad overview of the impact of food and food policy on public health. Course covers topics such as access to food, food systems, influence of food policies on the individual, the cost of food, influences on food selection, food safety risks and responses, nutrition-related health challenges, and a comparison of US food/nutrition issues with those of other nations.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; 60+ credits; C- or better in HLSA300; rec. NFSC100
- o **Last offered:** Fa20, Fa22

PLCY388A/FMSC498P (SPECIAL TOPICS IN PUBLIC POLICY; CHILD AND FAMILY POLICY IMPACT)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** none
- o **Last offered:** Sp22

PUBLIC HEALTH SCIENCE OPTIONS

INFECTIOUS DISEASE

BSCI348M (SPECIAL TOPICS IN CELL BIOLOGY AND MOLECULAR GENETICS; EPIDEMIOLOGY OF MICROBIAL PATHOGENS)

Study of infectious bacteria and viruses acting at the population level in humans and animals. Identification of causes and spread of infection.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** BSCI170/171
- o **Last offered:** WT22, Su22

BSCI417 (MICROBIAL PATHOGENESIS)

Current research in microbial pathogenesis and the molecular and cellular basis of bacterial disease. Comprehensive overview of the molecular basis of pathogenesis with a focus on model microbial systems to illustrate mechanisms of disease pathogenesis. Topics covered: how microorganisms attach to and enter cells; how host cells are damaged by microbial products; how the host responds to invasion; and host-pathogen evolution.

- o **Credits:** 3 credits
- o **GenEd:** DSSP – within the major
- o **Pre-requisites:** 60+ credits; BSCI222 and (BSCI223 or BSCI283)
- o **Last offered:** Sp22

BSCI437 (GENERAL VIROLOGY)

Discussion of the physical and chemical nature of viruses, virus cultivation and assay methods, virus replication, viral diseases with emphasis on the oncogenic viruses, viral genetics, and characteristics of the major virus groups.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** 60+ credits; BSCI222
- o **Last offered:** Sp22, Su22, Fa22

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BSCI483 (INSECTS, PATHOGENS, AND PUBLIC HEALTH)

Mosquito- and tick-borne disease transmission poses significant challenges to human health and well-being globally and is on the rise in North America. Arthropod parasites and the pathogens they transmit to humans and animals will be introduced, and the public health significance of these arthropods will be examined. The ecology and behavior of vectors in relation to disease transmission will be emphasized.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** BSCI207
- o **Last offered:** Fa22

EPIB330 (INTRODUCTION TO INFECTIOUS DISEASE EPIDEMIOLOGY)

Introduces students to the study of infectious disease through the application of epidemiologic methods. Students will review how infectious diseases impact global health, and examine epidemiological concepts related to infectious disease. These concepts include infectious disease transmission, prevention and control; study design; and outbreak and epidemic investigations. Infectious disease topics of concern to public health professionals will be covered including the COVID-19 pandemic, sexually transmitted infections, foodborne infections, healthcare-acquired infections and neglected tropical diseases, and future trends in the field of infectious diseases.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; EPIB301
- o **Last offered:** Su21, Fa21, Sp22, Fa22

PHSC420 (VACCINES AND IMMUNOLOGY)

An exploration of immunology and vaccines through a public health lens. We will examine the cells, systems, and molecules that comprise the human immune system and defend your body against disease. In addition, we will discuss the strategies used during vaccine development including the history and future of vaccination and how increased understanding of the immune system has allowed scientists to improve and refine the process. Finally, we will examine the current social and political situation surrounding vaccination and the roles and responsibility of public health practitioners.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; 60+ credits; C- or better in BSCI223
- o **Last offered:** Sp22

PUBLIC HEALTH SCIENCE OPTIONS

DATA ANALYSIS

EPIB463 (BIOSTATISTICAL PROGRAMMING)

An introduction to basic programming principles; data analysis tasks such as the calculation of summary statistics and the creation of graphs; and the implementation of statistical analysis concepts such as T-tests, ANOVA and correlation. Querying and managing data sets using SQL in SAS will also be covered.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major
- o **Last offered:** Sp22, Fa22

GEOG373 (GEOGRAPHIC INFORMATION SYSTEMS)

Characteristics and organization of geographic data; creation and use of digital geospatial databases; metadata; spatial data models for thematic mapping and map analysis; use of geographic information system in society, government, and business. Practical training with use of advanced software and geographic databases.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** none
- o **Last offered:** Fa21, WT22, Sp22, Su22, Fa22

HLTH434 (INTRODUCTION TO PUBLIC HEALTH INFORMATICS)

Provides an overview of the field of public health informatics and the influence of technology on the public's health and well-being. Emphasizes the application of various technologies and computer/internet applications to support public health research and practice, including strategies to address new and emerging threats.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major (0201); 60+ credits
- o **Last offered:** Fa21, Sp22, Fa22

INST408A (SPECIAL TOPICS IN INFORMATION SCIENCE; CONSUMER HEALTH INFORMATICS)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** C- or better in INST126, INST201, STAT100, MATH115, and PSYC100
- o **Last offered:** Fa21, Fa22

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INST462 (INTRODUCTION TO DATA VISUALIZATION)

Exploration of the theories, methods, and techniques of visualization of information, including the effects of human perception, the aesthetics of information design, the mechanics of visual display, and the semiotics of iconography.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** INST major; C- or better in STAT100, (INST201, INST301, or BSOS233), (INST126 or GEOG276), (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100), and (ECON230, GEOG306, GVPT201, INST314, PSYC100, or SOCY201)
- o **Last offered:** Fa21, WT22, Sp22, Su22, Fa22

PUBLIC HEALTH SCIENCE OPTIONS

HEALTH EDUCATION

PEER311 (PEER EDUCATION MENTAL HEALTH & WELLNESS)

- o **Credits:** 3 credits
- o **GenEd:** DVCC
- o **Pre-requisites:** [application required](#)
- o **Last offered:** Fa20

PEER312 (PEER EDUCATION: PREVENTING POWER-BASED VIOLENCE)

Designed to train students to become Peer Educators who are responsible for presenting to members of the campus community about the complex dynamics surrounding issues of power-based personal violence. This includes sexual assault, relationship violence, stalking, bystander intervention, consent, and rape culture. Students fully learn the on and off-campus resources for victim/survivors. Programming is done in classroom settings, residence halls, Greek life spaces, and at tables during special events.

- o **Credits:** 3 credits
- o **GenEd:** DVCC
- o **Pre-requisites:** [application required](#)
- o **Last offered:** Fa21, Fa22

PEER314 (PEER EDUCATION: SEXUAL HEALTH AND WELLNESS)

- o **Credits:** 3 credits
- o **GenEd:** DVCC
- o **Pre-requisites:** [application required](#)
- o **Last offered:** Fa19

PEER318 (CARE PEER ADVOCACY)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** [application required](#)
- o **Last offered:** Fa21, Sp22, Fa22

PEER338 (PEER LEADERSHIP AND EDUCATION)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** [application required](#)
- o **Last offered:** Sp21

PUBLIC HEALTH SCIENCE OPTIONS

PROFESSIONAL SCHOOL PREPARATION

BCHM462 (BIOCHEMISTRY II)

A continuation of BCHM 461. Metabolic pathways and metabolic regulation, energy transduction in biological systems, enzyme catalytic mechanisms.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** C- or better in BCHM461
- o **Last offered:** Sp22, Su22, Fa22

BCHM463 (BIOCHEMISTRY OF PHYSIOLOGY)

A one-semester introduction to general biochemistry. A study of protein structure, enzyme catalysis, metabolism, and metabolic regulation with respect to their relationship to physiology.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** C- or better in (CHEM271/272 or CHEM276/277)
- o **Last offered:** Sp22, Su22, Fa22

BSCI330 (CELL BIOLOGY AND PHYSIOLOGY)

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

- o **Credits:** 4 credits
- o **GenEd:** none
- o **Pre-requisites:** C- or better in CHEM131/132 and BSCI170/171
- o **Last offered:** Sp22, Su22, Fa22

BSCI353 (PRINCIPLES OF NEUROSCIENCE)

Principles of nervous system function, ranging from molecular and cellular basis of neuron function through nervous system integration.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** C- or better in BSCI207 or BSCI330; coreq. PHYS122, PHYS142, or PHYS132
- o **Last offered:** Sp22, Su22, Fa22

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MIEH325 (INTRODUCTION TO CLINICAL RESEARCH METHODS)

Introduction to Clinical Research Methods will provide students an opportunity to learn about both the development and implementation of a clinical research study and a variety of methods utilized for sample collection. Students will review topics including an overview of bioethics in research, especially as pertains to use of human subjects, the basics of study design, and data entry and the importance of good record keeping in an in-person, discussion-based class portion. Students will also be trained in and have the opportunity to practice basic clinical research methods including phlebotomy, taking nose and throat swabs, taking basic vitals, and other methods. By the end of the course, students will be certified to perform phlebotomy at the University of Maryland with the potential to become a certified Phlebotomy Technician.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** none
- o **Last offered:** Sp22

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FAMILY HEALTH

FMSC310 (MATERNAL, CHILD, AND FAMILY HEALTH)

Overview of the major issues in Maternal, Child, and Family Health in the U.S. and the world. The course will cover the social, political, environmental, and economic factors that shape the health of women, children, and families throughout the life course. It will employ the core disciplines of public health -- 1) epidemiology/biostatistics, 2) environmental health, 3) health policy and administration, and 4) social and behavioral health -- to examine these factors. The course introduces specific issues and interventions and places these issues and interventions within their broad sociohistorical context.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** none
- o **Last offered:** Fa21, WT22, Sp22, Su22, Fa22

FMSC330 (FAMILY HEALTH: HEALTH HAPPENS IN FAMILIES)

The objective of this gateway course is to help you understand and apply basic theories and empirical data on family health. The course is designed to provide you with skills to think critically about theories including: Life Course Theory, the Bio-Ecological and Social-Ecological Models, and Systems Theory. We will ask questions about the distinct qualities and intersections of contexts and characteristics that impact the functioning of families. We will apply theory and research to topical issues in family health that are impacted by social structures such as conflict, crisis, migration, incarceration and inequalities.

- o **Credits:** 3 credits
- o **GenEd:** DSHS, DVUP
- o **Pre-requisites:** 60+ credits
- o **Last offered:** Sp23

FMSC332 (CHILDREN IN FAMILIES)

A family life education approach to the study of children and families. Emphasis on the interaction of children with parents, siblings, extended kin, and the community.

- o **Credits:** 3 credits
- o **GenEd:** DSHS
- o **Pre-requisites:** PSYC100 or FMSC105
- o **Last offered:** Fa21, Sp22, Su22, Fa22

FMSC460 (VIOLENCE IN FAMILIES)

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Theories of child, spouse, and elder abuse in the family setting. Emphasis on historical, psychological, sociological and legal trends relating to physical, emotional, and sexual abuse. Introduction to methods for prevention and remediation.

- o **Credits:** 3 credits
- o **GenEd:** DSHS, DVUP
- o **Pre-requisites:** SOCY100, SOCY105, or PSYC100
- o **Last offered:** Fa21, WT22, Sp22, Su22, Fa22

PLCY388A/FMSC498P (SPECIAL TOPICS IN PUBLIC POLICY; CHILD AND FAMILY POLICY IMPACT)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** none
- o **Last offered:** Sp22

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NUTRITIONAL HEALTH

NFSC315 (NUTRITION DURING THE LIFE CYCLE)

A study of how development throughout life, including prenatal development, pregnancy, lactation, adolescence and aging, alter nutrient requirements. Students will apply this knowledge to the dietary needs and food choices of these different groups.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** C- or better in NFSC100
- o **Last offered:** Sp22

PHSC412 (FOOD, POLICY, AND PUBLIC HEALTH)

Broad overview of the impact of food and food policy on public health. Course covers topics such as access to food, food systems, influence of food policies on the individual, the cost of food, influences on food selection, food safety risks and responses, nutrition-related health challenges, and a comparison of US food/nutrition issues with those of other nations.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; 60+ credits; C- or better in HLSA300; rec. NFSC100
- o **Last offered:** Fa20, Fa22

PHSC440 (PUBLIC HEALTH NUTRITION)

Engages students in conceptual thinking about the relationship between public health and nutritional health. Students will analyze and interpret "A Framework for Public Health Nutrition." Students will identify determinants of nutritional health, assess nutritional health in individuals and populations, develop strategies to mitigate these issues, and analyze and evaluate public health nutrition policies.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; C- or better in BSCI170/171, CHEM131/132, and EPIB301
- o **Last offered:** Fa21, Fa22

PUBLIC HEALTH SCIENCE OPTIONS

CAREER PREPARATION

PHSC389 (INDEPENDENT RESEARCH STUDY IN PUBLIC HEALTH SCIENCE)

- o **Credits:** 1-6 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; permission of PHSC Research Coordinator
- o **Last offered:** Fa21, Sp22, Su22, Fa22

PHSC399 (PUBLIC HEALTH SCIENCE INTERNSHIP)

- o **Credits:** 1-6 credits
- o **GenEd:** none
- o **Pre-requisites:** PHSC major; permission of PHSC Internship Coordinator
- o **Last offered:** Fa21, Sp22, Su22, Fa22

SPAN371 (SPANISH FOR THE HEALTH PROFESSIONS)

Exploration of cultural and linguistic skills for the health professions including vocabulary, listening, speaking, reading and strategies. No experience in the professional area necessary. Taught in Spanish.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** SPAN303 and (SPAN311 or SPAN316)
- o **Last offered:** Fa21, Sp22, Fa22

PUBLIC HEALTH SCIENCE OPTIONS

EMERGENCY MANAGEMENT

BSST334 (STATES OF EMERGENCY)

Students will explore the manner in which crises unfold from the perspective of a variety of emergency response disciplines, including emergency management, law enforcement, intelligence analysis, cyber analysis, risk communication, health and human services, and emergency psychiatry/psychology. Students will participate in a semester-long simulation of an unfolding terrorist attack.

- o **Credits:** 3 credits
- o **GenEd:** DSHS, SCIS
- o **Pre-requisites:** none
- o **Last offered:** Fa22

PHSC388B (SPECIAL TOPICS IN PUBLIC HEALTH SCIENCE; STATES OF EMERGENCY IN PUBLIC HEALTH)

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** none

PUBLIC HEALTH SCIENCE OPTIONS

HEALTH CARE DELIVERY

HLSA465 (REDESIGNING MENTAL HEALTH SERVICES)

Students will use Design Thinking to create, reshape, redesign and transform the ways in which mental health and wellness is perceived and addressed on the campus. This course will incorporate students and the UMD community as stakeholders in designing, planning and contributing to developing solutions that leverage existing mental health resources or create new pathways to improve mental health and wellness at UMD. Students will learn and use design thinking skills to enhance public health practice skills in project proposals and grant writing.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** HLTH366; rec. EPIB301
- o **Last offered:** Fa21, Sp22, Fa22

HLSA484 (REDESIGNING HEALTH CARE: DEVELOPING A CLINIC TO MEET COMMUNITY NEEDS)

Provides an opportunity for students to learn a key entrepreneurial skill, Design Thinking, while helping to build, reshape, redesign and transform delivery of health care in the Mona Center, a new community center and clinic in Prince George's County. This new, modern vision for a health and wellness clinic embraces student involvement in designing, planning and contributing to innovative programs, solutions, and processes to improve the clinic's ability to meet community and patient needs by addressing the social determinants of health as well as traditional clinical health status. Students in the class will develop empathy for patients, providers and other stakeholders, define problems, select a specific problem for intervention, understand problems based on stakeholder input, ideate, reframe and suggest options to solve or address the problem, prototype solutions, test ideas, and make recommendations to inform implementation and ongoing measurement and monitoring of impact.

- o **Credits:** 3 credits
- o **GenEd:** none
- o **Pre-requisites:** 60+ credits
- o **Last offered:** Fa21, Sp22, Fa22