SCHOOL OF POPULATION HEALTH

JOSEPH DAKE, chair

The School of Population Health offers a variety of degree options and graduate courses. In health, a master of public health with a specialization in health promotion and education is available as well as the doctor of philosophy degree in health education.

Degrees Offered

- Certificate in Biostatistics and Epidemiology (http://utoledo-public.courseleaf.com/graduate/health-human-services/graduate-programs-schools/population-health/certificate-biostatistics-epidemiology)
- MS in Occupational Health (http://utoledo-public.courseleaf.com/graduate/health-human-services/graduate-programs-schools/population-health/ms-occupational-health)
- PhD in Health Education (http://utoledo-public.courseleaf.com/graduate/health-human-services/graduate-programs-schools/population-health/phd-health-education)

PUBH 5020 Occupational Health
[3 credit hours]
Hazardous materials, mathematics, anatomy, and physiology; hazard recognition for harmful agents; methods, standards, recommendations, and instruments used to evaluate hazards; techniques for hazard control; occupational health programs and regulations; communication and ethics.
Term Offered: Fall

PUBH 5060 Occupational Safety
[3 credit hours]
Safety and health organization, administration, management, services; controlling unsafe conditions/acts relation to construction and buildings, machines, materials handling, pressure vessels, electrical equipment; emergency procedures; communication effectiveness and ethical guidelines/standards.
Term Offered: Fall

PUBH 5160 Environmental Health
[3 credit hours]
Scientific, regulatory and management principles applicable to human disease associated with food, water, air and soil contamination. Focuses on biology and chemistry of contamination and transformation, exposure monitoring and contaminant control.
Term Offered: Spring, Fall

PUBH 5260 Haz Mat and Emerg Response
[3 credit hours]
(terrorism) Disaster preparedness and emergency response; and, personal protective equipment and site assessment/monitoring. This course requires the student to wear personal protective equipment, perform hands on monitoring and sampling, and assess and respond to in class response scenarios.
Term Offered: Spring, Summer, Fall

PUBH 5310 Chemical Agents
[3 credit hours]
Scientific principles and practices applicable to the qualitative and quantitative evaluation of chemical agents associated with human diseases resulting from various environmental exposures. Content includes methods to assess exposures in the workplace.
Term Offered: Spring, Fall

PUBH 5410 Hazard Control
[3 credit hours]
Ventilation; control of indoor and outdoor (ambient) air pollution; operation of dilution and location exhaust ventilation systems; design of ventilation systems; respiratory and other personal protective equipment and programs available or commonly used in the workplace; communication and ethics.
Term Offered: Spring
PUBH 5520 Biological Agents
[3 credit hours]
Scientific principles and practices applicable to the pathogenicity, evaluation and control of microbiological agents, parasitic agents, and some biological vectors associated with human diseases resulting from various environmental exposures. Content includes normal/abnormal human physiology relative to exposure, exposure assessment, and exposure control.
Term Offered: Spring, Summer, Fall

PUBH 5620 Physical Agents
[3 credit hours]
Monitor exposure to physical agents; assessment of exposure to physical agents; appropriate exposure control methods of physical agents; professional reports; laws, regulations, recommendations, standards, services related to physical agents; communication and ethics.
Term Offered: Spring

PUBH 5700 Risk Assessment
[3 credit hours]
Human health risk assessment including hazard identification, dos-response assessment, human exposure assessment, and risk characterization are discussed. Emphasis on practice of risk assessment, management, and communication relative to public, environmental, and occupational health and safety.
Term Offered: Summer, Fall

PUBH 5720 Exposure Assessment Strategies
[3 credit hours]
Exposure assessment is an integral part of occupational and environmental health. This course will focus on the statistics and methods needed to assess exposures in the workplace.
Prerequisites: PUBH 6000 with a minimum grade of D- or PUBH 600 with a minimum grade of D-
Term Offered: Spring, Fall

PUBH 6000 Biostatistics
[3 credit hours]
An introduction to descriptive statistics including measurement of central tendency, dispersion, relative position, correlation, and regression. Inferential statistical theory, selected nonparametric methods, application of computers, and also occupational exposure assessment will be discussed.
Term Offered: Spring, Fall

PUBH 6010 Public Health Epidemiology
[3 credit hours]
The course will present principles of the epidemiology method including problem solving. Various study designs will be discussed, including prospective and retrospective studies, analytic, and experimental methods.
Term Offered: Spring, Fall

PUBH 6020 Management and Leadership in Public Health
[3 credit hours]
An introduction to the leadership and management principles necessary for the delivery of public health programs, intervention, and outreach, including fostering collaboration, effective communication, consensus building, negotiation, cultural awareness, budget and resource management, evaluation, coalition building, vision creation, mediation, empowering others, and guiding decision making.
Term Offered: Spring, Summer, Fall

PUBH 6030 Advanced Epidemiology
[3 credit hours]
This course covers principles and methods of epidemiology in depth. The topics include causal inference, risk and effect, confounding, interaction, randomization, and matching. Special emphasis is given to design and interpretation of epidemiological studies.
Term Offered: Summer

PUBH 6060 Advanced Biostatistics
[3 credit hours]
Advanced statistical techniques with particular emphasis on problems in public health. Multiple regression, methods of analysis of variance, categorical data analysis including logistic regression, non parametric and survival analysis. Problems whose solution involves using a statistical program (e.g., SPSS).
Term Offered: Spring, Fall

PUBH 6070 Genetic Epidemiology
[3 credit hours]
Introduces genetic epidemiology methods, principles of population genetics including linkage and association studies used in assessing familial aggregatio, and transmission patterns for identifying the genetic basis of common diseases.
Prerequisites: PUBH 6000 with a minimum grade of C or PUBH 8000 with a minimum grade of C and (PUBH 6010 with a minimum grade of C or PUBH 8010 with a minimum grade of C) or (PUBH 600 with a minimum grade of C or PUBH 800 with a minimum grade of C) and (PUBH 601 with a minimum grade of C or PUBH 801 with a minimum grade of C)
Term Offered: Summer

PUBH 6080 Social Determinants of Health
[3 credit hours]
Social determinants of health are social conditions, factors, and systems that place people from different socio-demographic and socioeconomic group (social class, gender, race/ethnicity, and place of birth) at differential risk of poor health and premature mortality. Mechanisms through which these factors are hypothesized to influence health, such as stress and access to health resources and constraints, will be discussed, as well as the ways in which these mechanisms can operate across the life course.
Term Offered: Spring, Fall

PUBH 6090 Issues in Public Health
[3 credit hours]
Examination of various contemporary issues in public health. Includes social, economic, political, and community problems in the provision of health services, health manpower, and payment for health care.

PUBH 6100 Environ/Occup Epidemiology
[3 credit hours]
The course focuses on the application of epidemiological techniques to the study of effects of occupational and environmental exposures. Prerequisite: PUBH600 and 601.
PUBH 6110 Categorical Data Analysis
[3 credit hours]
This course introduces the theory and application of methods for categorical data, with emphasis on biomedical and public health applications. Topics include contingency tables, log-linear, logistic regression and Rasch models, multivariate methods for matched pairs and longitudinal data. The methods are illustrated with SAS and/or SPSS, R.
Term Offered: Spring, Summer

PUBH 6120 Epidemiology Infectious Diseases
[3 credit hours]
Provides an overview of major infectious diseases affecting public health in the U.S. and worldwide; introducing the basic epidemiologic methods for surveillance and investigation of infectious disease outbreaks.
Term Offered: Spring, Fall

PUBH 6130 Molecular Epidemiology
[3 credit hours]
The course focuses on the application of epidemiological techniques to the study of effects of occupational and environmental exposures.
Term Offered: Fall

PUBH 6150 Clinical Epidemiology
[3 credit hours]
This course focuses on epidemiologic concepts and methods in clinical medicine. Topics include clinical measurements and outcomes, risk, prognostic factors, clinical diagnosis, study design, decision analysis, clinical research and meta-analysis.
Term Offered: Spring

PUBH 6160 Reproductive Epidemiology
[3 credit hours]
Reproductive health issues from the pre-conception, prenatal delivery, and postnatal periods and emphasizes health issues affecting women, men, and infants. A focus on current research, controversial issues and methodological issues.
Prerequisites: PUBH 6010 with a minimum grade of D- or PUBH 601 with a minimum grade of D-
Term Offered: Spring

PUBH 6170 Molec and Genomic Epidemiology
[3 credit hours]
Presents concepts and methods of molecular and genetic epidemiology relevant to the study of prevalent diseases in the population. Topics include biomarkers, polymorphism and gene-environment interaction. The evolution and function of the genomics and a synopsis of epidemiological design and analysis are included.

PUBH 6180 Cancer Epidemiology
[3 credit hours]
Focuses on a number of cancers, including the most incident cancers in the United States. Provides a broad overview of cancer epidemiology and basic substantive knowledge regarding many cancers and their risk factors, prevention, and biology and pathogenesis.
Term Offered: Spring, Summer, Fall

PUBH 6190 Statistical Packages for Public Health
[3 credit hours]
The purpose of this 3 credit course is to develop analysis skills using the SAS statistical package, SPSS, and R for students that already have a basic knowledge of biostatistics.
Prerequisites: PUBH 6000 with a minimum grade of D- or PUBH 8000 with a minimum grade of D-
Term Offered: Fall

PUBH 6200 Methods, Materials for PUBH
[3 credit hours]
Introduces students to resource materials and methods appropriate for public health education. Students will use various mediums of instruction in direct application to public health programs.
Term Offered: Spring, Fall

PUBH 6250 Nutritional Epidemiology
[3 credit hours]

PUBH 6300 Community Health Organization
[3 credit hours]
Focuses on techniques to bring about change in a community’s health status through assessment, public advocacy, coalition building, decision-making, planning, policy development, and political influence. Applications will be emphasized.
Term Offered: Spring

PUBH 6310 Public Health Assessment and Planning
[3 credit hours]
This course introduces the principles of health promotion program assessment and planning. Students learn the process of community health assessment, precursors to program planning, as well as the purposes, procedures, terminology, and specific techniques in the planning process.
Term Offered: Fall

PUBH 6320 Implementation of Public Health Programs
[3 credit hours]
This course is designed to prepare students to implement health education programs in the community. Emphasis will be placed on a variety of health education methods and strategies to plan, promote, present and evaluate health promotion activities.
Prerequisites: PUBH 6310 with a minimum grade of D-
Term Offered: Spring

PUBH 6330 Public Health and Aging
[3 credit hours]
Examines public health and aging issues in contemporary society. Introduces physical, cognitive and affective function from a public health perspective. Prevention and health promotion models are included.
Term Offered: Summer
PUBH 6410 Global Perspectives on Public Health and Disaster Preparedness
[3 credit hours]
This course introduces the introductory healthcare learner (including but not limited to MD, MPH, PA, MSN, MSBS, OT, PT) to specific principles of global perspectives on disaster management and response. Covers epidemiology of various diseases and population health issues from a global and domestic perspective. Employs an all-hazards framework, providing essential skills to function in the event of a catastrophe. Guest speakers from healthcare disciplines who work internationally will present first-hand experiences in managing disasters.
Term Offered: Spring

PUBH 6420 Social Marketing in Health
[3 credit hours]
The Centers for Disease Control and Prevention (CDC) identify social marketing as a practice allied with Health Education and Health Promotion. The CDC encourages programs to apply the principles of social marketing to health behavior change efforts in order to increase the effectiveness of interventions. Social marketing uses audience research to determine target audience segmentation into groups with common risk behaviors, motivations, and information channel preferences. Key audience segments are then reached with the mix of intervention strategies formed by the “4 P’s” of social marketing, namely product, price, place, and promotion. The final product is designed based on the needs and desires of the consumer and persuasive messages promoting behavior change are promoted to the target audience. Continuous evaluation and message revision allows for ongoing refinement on the basis of consumer feedback.
Term Offered: Spring

PUBH 6430 Community Mental Health
[3 credit hours]
In this course, mental health is examined from a public health perspective with a focus on epidemiological, behavioral, sociological and cultural issues. Particular emphasis is placed on the prevention of mental illness, social responses to illness, as well as the social determinants of mental health. Mental health, mental health promotion and community mental health issues are analyzed at individual and population level.
Term Offered: Summer

PUBH 6460 Health Promotion Programs
[3 credit hours]

PUBH 6500 Disaster Preparedness/Response
[3 credit hours]

PUBH 6510 Issues in Pandemic Preparedness and Response
[3 credit hours]
By means of synchronous, asynchronous, audiovisual, and simulation platforms, the learner will develop an in-depth knowledge concerning how the healthcare infrastructure of a community must plan for, respond to, and recover from a pandemic. The course is divided into four topic areas: 1) introduction; 2) preparedness; 3) response; and 4) recovery.
Term Offered: Spring

PUBH 6520 Public Health Nutrition
[3 credit hours]

PUBH 6530 Public Health Advocacy
[3 credit hours]
An examination of the importance of advocacy for the individual, community, and public health professionals. Special emphasis will be placed on developing advocacy-based skills to effectively advocate at the micro and macro level. In addition, students will participate in advocacy efforts external to the university to gain experience that enriches the student’s training.
Term Offered: Fall

PUBH 6540 Interdisciplinary Crisis Management for Medical and Public Health Professionals
[3 credit hours]
The purpose of this semester course is to introduce the interdisciplinary healthcare learner (including but not limited to MD, PA, MPH, MSN, OT and PT students) to specific principles of epidemiology and disaster medicine employing an all-hazards framework and to provide essential skills enabling proper functioning in the event a catastrophe arises in the near future. The course will include lectures, simulation exercises and independent web-assisted content.
Term Offered: Spring, Fall

PUBH 6550 Chronic Disease Epidemiology
[3 credit hours]
Epidemiology of selected chronic diseases and non-infectious conditions: cancer, cardiovascular diseases, musculoskeletal diseases and other chronic diseases. Emphasis on classification, rates, associations, etiology, prevention and control.
Prerequisites: PUBH 6010 with a minimum grade of C or PUBH 601 with a minimum grade of C
Term Offered: Spring, Summer, Fall

PUBH 6560 Interdisciplinary Crisis Management for Medical and Public Health Professionals
[3 credit hours]
Preparedness
PUBH 6520 Public Health Nutrition
[3 credit hours]
PUBH 6730 Research Environmental Health
[3 credit hours]
Students will participate in selected ongoing research programs of members of the faculty. May be repeated for credit.
Term Offered: Spring, Summer, Fall

PUBH 6790 Indep Study in Biostatistics
[0-3 credit hours]
This course addresses areas of biostatistics not covered by a regular course offering. It is intended to provide students the knowledge and experience needed in that area. This course is designed for public health students and could be beneficial to Ph.D. students, specifically those who need advanced statistical techniques for their dissertation. Topics include survival analysis, statistical models in carcinogenesis, statistical genetics, nonparametric statistics and multivariate techniques. May be repeated for credit.
Term Offered: Spring, Summer, Fall

PUBH 6800 Evaluation of Health Programs
[3 credit hours]
An exploration of types of program evaluation, evaluation models, data collection, types of data, data quality, evaluation reports, standard data collection instruments and ethical issues in health program evaluation (UT-Main). Prerequisites: HEAL 6460/HEAL 8460; co-requisite: HEAL 6750.
Term Offered: Spring, Fall

PUBH 6890 Indep Study in Public Health
[1-3 credit hours]
The student and instructor will agree on a program of study that will enable the student to achieve specific learning objectives in environmental health. May be repeated for credit.
Term Offered: Spring, Fall

PUBH 6950 Integrative Learning Experience
[2 credit hours]
Seminar course which serves as the culminating experience of the MPH program. Students are required to produce a high-quality written product that is appropriate to the student’s educational and professional objectives and that must demonstrate both Foundational and Major Competencies.
Term Offered: Spring, Summer, Fall

PUBH 6960 Internship in Public Health
[1-4 credit hours]
Comprehensive or focused practical training in environmental and occupational health at a designated agency, organization, or company.
Term Offered: Spring, Summer, Fall

PUBH 6970 Project in Public Health
[1-4 credit hours]
Independent development by a student with approval and guidance by a Major Advisor, of a paper, manual, software, etc. applicable to a specific area of environmental and occupational health.
Term Offered: Spring, Summer, Fall

PUBH 6980 Seminar in Public Health
[1-3 credit hours]
A systematic study of selected topics in public health. Course meets for three consecutive semesters. Students may begin any semester, but must complete in sequence. Students register for one credit each term for a cumulative total of three consecutive semesters. May be repeated for credit.

PUBH 6990 Thesis Research
[1-4 credit hours]

PUBH 8000 Biostatistics
[3 credit hours]

PUBH 8010 Public Health Epidemiology
[3 credit hours]
This course will present principles of the epidemiology method including problem solving. Various study designs will be discussed, including prospective and retrospective studies, analytical, and experimental methods.
Term Offered: Spring, Fall

PUBH 8020 Management and Leadership in Public Health
[3 credit hours]
An introduction to the leadership and management principles necessary for the delivery of public health programs, intervention, and outreach, including fostering collaboration, effective communication, consensus building, negotiation, cultural awareness, budget and resource management, evaluation, coalition building, vision creation, mediation, empowering others, and guiding decision making.
Term Offered: Spring, Summer, Fall

PUBH 8030 Advanced Epidemiology
[3 credit hours]
The course covers both the major theoretical and practical issues of the epidemiology method in depth. The topics include causal inference, risk and effect, confounding, interaction, randomization, and matching. Special emphasis is given to design and interpretation of epidemiological studies.
Term Offered: Summer

PUBH 8060 Advanced Biostatistics
[3 credit hours]

PUBH 8090 Issues in Public Health
[3 credit hours]
Examination of various contemporary issues in public health. Included are social, economic, political and community problems in the provision of health services, health manpower and payment for health care.

PUBH 8110 Categorical Data Analysis
[3 credit hours]

PUBH 8120 Epidemiology Infectious Disease
[3 credit hours]
Provides an overview of major infectious diseases affecting public health in the U.S. and worldwide; introducing the basic epidemiologic methods for surveillance and investigation of infectious disease outbreaks.
Term Offered: Fall

PUBH 8130 Molecular Epidemiology
[3 credit hours]
This course covers both the major theoretical and practical issues of conducting an epidemiology study involving molecular and genomic techniques. The course will emphasize from infectious disease, chronic disease, and cancer research literature.
Term Offered: Fall

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PUBH 8150 Clinical Epidemiology
[3 credit hours]
This course focuses on epidemiologic concepts and methods in clinical medicine. Topics include clinical measurements and outcomes, risk, prognostic factors, clinical diagnosis, study design, decision analysis, clinical research and meta-analysis.
Term Offered: Spring

PUBH 8160 Reproductive Epidemiology
[3 credit hours]
Additional assignments are here for students who will take this course as PUBH 8160. Covers broad reproductive health issues from the pre-conception, pre-natal, delivery, and post-natal periods and emphasizes how these issues affect women, men, babies, and infants. Relevant methodological and programmatic issues will be presented with practical illustrations from domestic and international settings. Guest speakers, including health care providers, will give real world experience and insight to these topics of study.
Prerequisites: PUBH 6010 with a minimum grade of D- and PUBH 8010 with a minimum grade of D-
Term Offered: Spring

PUBH 8170 Molecular and Genomic Epidemiology
[3 credit hours]
Focuses on a number of cancers, including the most incident cancers in the United States. Provides a broad overview of cancer epidemiology and basic substantive knowledge regarding many cancers and their risk factors, prevention, and biology and pathogenesis.
Term Offered: Summer, Fall

PUBH 8180 Cancer Epidemiology
[3 credit hours]
Examines public health and aging issues in contemporary society. Introduces physical, cognitive, and affective function from a public health perspective. Prevention and health promotion are included.
Term Offered: Summer

PUBH 8330 Public Health and Aging
[3 credit hours]
Covers cancer epidemiology employing an all-hazards framework, and provides essential skills enabling proper functioning in the event a catastrophe arises in the near future. The course will include lectures, simulation exercises and independent web-assisted content.
Term Offered: Spring, Fall

PUBH 8330 Public Health and Aging
[3 credit hours]
Examines public health and aging issues in contemporary society. Introduces physical, cognitive, and affective function from a public health perspective. Prevention and health promotion are included.
Term Offered: Summer

PUBH 8410 Global Perspectives on Public Health and Disaster Preparedness
[3 credit hours]
This course introduces the introductory healthcare learner (including but not limited to MD, MPH, PA, MSN, MSBS, OT, PT) to specific principles of global perspectives on disaster management and response. Covers epidemiology of various diseases and population health issues from a global and domestic perspective. Employs an all-hazards framework, providing essential skills to function in the event of a catastrophe.
Guest speakers from healthcare disciplines who work internationally will present first-hand experiences in managing disasters.
Term Offered: Spring

PUBH 8420 Social Marketing in Health
[3 credit hours]
The Centers for Disease Control and Prevention (CDC) identify social marketing as a practice allied with Health Education and Health Promotion. The CDC encourages programs to apply the principles of social marketing to health behavior change efforts in order to increase the effectiveness of interventions. Social marketing uses audience research to determine target audience segmentation into groups with common risk behaviors, motivations, and information channel preferences. Key audience segments are then reached with the mix of intervention strategies formed by the “4 P’s” of social marketing, namely product, price, place, and promotion. The final product is designed based on the needs and desires of the consumer and persuasive messages promoting behavior change are promoted to the target audience. Continuous evaluation and message revision allows for ongoing refinement on the basis of consumer feedback.
Term Offered: Spring

PUBH 8430 Community Mental Health
[3 credit hours]
In this course, mental health is examined from a public health perspective with a focus on epidemiological, behavioral, sociological and cultural issues. Particular emphasis is placed on the prevention of mental illness, social responses to illness, as well as the social determinants of mental health. Mental health, mental health promotion and community mental health issues are analyzed at individual and population level.
Term Offered: Summer

PUBH 8500 Disaster Preparedness/Response
[3 credit hours]
By means of synchronous, asynchronous, audiovisual, and simulation platforms, the learner will develop an in-depth knowledge concerning how the healthcare infrastructure of a community must plan for, respond to, and recover from a pandemic. The course is divided into four topic areas: 1) introduction; 2) preparedness; 3) response; and 4) recovery.
Term Offered: Spring

PUBH 8510 Issues in Pandemic Preparedness and Response
[3 credit hours]
Epidemiology of selected chronic diseases and non-infectious conditions: cancer, cardiovascular diseases, musculoskeletal diseases and other chronic diseases. Emphasis on classification, rates, associations, etiology, prevention and control.
Prerequisites: PUBH 6010 with a minimum grade of C or PUBH 601 with a minimum grade of C
Term Offered: Summer

PUBH 8550 Chronic Disease Epidemiology
[3 credit hours]
Covers broad reproductive health issues from the pre-conception, pre-natal, delivery, and post-natal periods and emphasizes how these issues affect women, men, babies, and infants. Relevant methodological and programmatic issues will be presented with practical illustrations from domestic and international settings. Guest speakers, including health care providers, will give real world experience and insight to these topics of study.
Prerequisites: PUBH 6010 with a minimum grade of D- and PUBH 8010 with a minimum grade of D-
Term Offered: Spring

PUBH 8550 Interdisciplinary Crisis Management for Medical and Public Health Professionals
[3 credit hours]
The purpose of this semester course is to introduce the interdisciplinary healthcare learner (including but not limited to MD, PA, MPH, MSN, OT and PT students) to specific principles of epidemiology and disaster medicine employing an all-hazards framework and to provide essential skills enabling proper functioning in the event a catastrophe arises in the near future. The course will include lectures, simulation exercises and independent web-assisted content.
Term Offered: Spring, Fall
PUBH 8620 Introduction to Health Policy and Health Systems  
[3 credit hours]  
In this course, mental health is examined from a public health perspective with a focus on epidemiological, behavioral, sociological and cultural issues. Particular emphasis is placed on the prevention of mental illness, social responses to illness, as well as the social determinants of mental health. Mental health, mental health promotion and community mental health issues are analyzed at individual and population level.  
Term Offered: Fall

PUBH 8630 Public Health Advocacy  
[3 credit hours]  
An examination of the importance of advocacy for the individual, community, and public health professionals. Special emphasis will be placed on developing advocacy-based skills to effectively advocate at the micro and macro level. In addition, students will participate in advocacy efforts external to the university to gain experience that enriches the student’s training.  
Term Offered: Spring