

EPIDEMIOLOGY (EPID)

EPID 6601 - A History of Public Health (1 Credit)

This course provides a broad overview of public health history and the political, economic, medical, legal and ethical factors that have shaped the environment in which the public health care professional of today must function.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Spring.

EPID 6605 - Intro to R for Health Science (1 Credit)

This class will introduce students to the basics of using R for public health and other health sciences. R syntax, data wrangling (manipulation, summaries, tables, functions, and loops) and data visualization will be covered. No previous coding experience required. The course will be taught in one two-hour session per week for the first 8 weeks of the Fall semester.

Grading Basis: Letter Grade

Typically Offered: Fall.

EPID 6606 - Obesity and Cardiovascular Disease (1 Credit)

The epidemiology of obesity and cardiovascular disease and basic and clinical mechanisms on the pathophysiology of vascular biology, insulin resistance, and other risk factors for cardiovascular disease as well as behavioral, pharmacological and surgical therapeutic interventions to modify cardiovascular disease risk by weight reduction. Requisite: Cross-listed with IDPT 6006 Obesity and Cardiovascular Disease

Grading Basis: Letter Grade

Typically Offered: Fall, Spring.

EPID 6622 - Cancer Prevention and Control (2 Credits)

Course provides overview of preventable cancers, epidemiology and contributing factors. Phases of cancer control research and appropriate methodologies are discussed. Basic principles of intervention development are reviewed. Psychosocial issues related to cancer are discussed. Students research topic related to course. Prereq: EHOH 6614, EPID 6630. Offered in even years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Summer.

EPID 6624 - Public Health Surveillance (2 Credits)

This course focuses on characteristics, development, uses, and evaluation of major public health surveillance systems. History, goals, public health authority, analysis, interpretation, dissemination and privacy issues are covered. Key surveillance systems (communicable diseases, vital statistics, injury, cancer) are explored. Prerequisites: EPID 6630
Restrictions: Offered odd years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Spring.

EPID 6626 - Research Methods in Epidemiology (3 Credits)

Principles, concepts and methods for conducting ethical, valid and scientifically correct observational studies in epidemiological research are the focus of this class. Lectures and practical experience reinforce hypothesis formulation, study design, data collection and management, analysis and publication strategies. Prereq: BIOS 6601, BIOS 6680, EPID 6630.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Spring.

EPID 6627 - Stigma, Health Inequities, and Global Health (1 Credit)

This course is designed to equip learners with a foundational understanding of structural stigma, how it manifests across a variety of global health contexts, and the social contexts that help explain its relative commonality. Learners who complete the course will also be able to identify descriptive epidemiologic approaches for measuring structural stigma as well as tools used for assessment of anti-stigma interventions.

Grading Basis: Letter Grade

Typically Offered: Summer.

EPID 6628 - Global Health and Disasters (2 Credits)

Preparation for international experiences and future global health work.

The interactive training incorporates readings, lectures, small group problem based learning exercises, journal club discussions, technical skill sessions and a disaster simulation exercise. 2 week M-F training followed by 4 journal club sessions.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Fall.

EPID 6629 - Clinical Epidemiology (2 Credits)

This course provides an overview of the design, conduct and appraisal of clinical research. Topics include study design, issues in randomized trials, measurement error, assessment of diagnostic and screening tests, measurement of health-outcomes, meta-analysis and use of questionnaires. Prerequisites: EPID 6630. Restriction: Offered in odd years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Summer.

EPID 6630 - Epidemiology (3 Credits)

This course provides an introduction to descriptive and analytic methods in epidemiology and their application to research, preventive medicine and public health practice.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Fall, Spring.

EPID 6631 - Analytical Epidemiology (3 Credits)

Fundamental analytical skills for assessing and reporting disease status, determinants of disease and their impact on public health including determining rates of disease occurrence, measures of associations between exposures and disease, and techniques for identifying and correcting for misclassifications, effect modifiers and confounder.

Prerequisites: EPID 6630 and BIOS 6601 or BIOS 6611

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Fall.

EPID 6633 - Clinical Preventive Services: Evidence-Based Practice (1 Credit)

This course introduces students to evidence-based recommendations for (and against) key clinical preventive services; methods for developing evidence-based practice guidelines and implementation of clinical preventive services in diverse practice settings; and effective implementation at the individual, provider, and system levels.

Prerequisite: EPID 6630 or equivalent or permission of instructor. Prior or in-progress clinical degree (MD, DVM, DDS, RN, NP, PA, LPN, PharmD or similar) required. Offered in odd years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.
Typically Offered: Spring.

EPID 6634 - Applied Global Health Epidemiology (2 Credits)

This course provides the opportunity to apply epidemiologic analysis skills and practice communication of findings using "real world" examples of global public health investigations, research projects, and programs; and explores the ethical, legal, political, and cultural aspects of working in global public health.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 6635 - Infectious Disease Epidemiology (2 Credits)

This course considers the epidemiology of selected communicable diseases. Methods for their prevention and control, and assessment of these methods will be treated primarily through case studies. Prereq: EPID 6630.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 6636 - Chronic Disease Epidemiology (3 Credits)

The major chronic diseases of Western countries will be reviewed including heart disease, cancer, stroke, diabetes, neurological diseases, and selected other conditions. Factual information about epidemiology of these diseases will be provided with the discussion of methodological issues which arise. Prereq: EPID 6630.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 6637 - Injury and Violence Epidemiology and Prevention (2 Credits)

Students will learn the major causes of and risk factors for injuries and violence, identify and use key data sources to characterize injury problems, develop and evaluate injury control and prevention strategies, critically analyze literature and explore injury related research questions. Prereq: EPID 6630 or permission of instructor. Restriction: Offered Even Years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 6638 - Global Cardiovascular Epidemiology (2 Credits)

A review of the major issues in global cardiovascular disease epidemiology, including trends, the extent of the disease nationally and internationally, implications of major epidemiologic studies, and strategies for prevention. Emphasis of the course will be on review and interpretation of the cardiovascular epidemiology literature. Prereq: EPID 6630. Restriction: Offered even years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 6640 - Investigation of Disease Outbreaks (2 Credits)

This course will cover the epidemiologic steps in a disease outbreak investigation and the methods used in detection, investigation and control of disease outbreaks. Outbreak case studies will be used to illustrate concepts and approaches. Students will describe, analyze and interpret outbreak data. Prerequisite: EPID 6630

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 6641 - Epidemiology of Foodborne and Diarrheal Diseases (2 Credits)

Agents causing foodborne and diarrheal diseases have different clinical presentations, environmental niches, and modes of transmission. Students will learn about important foodborne agents, surveillance and epidemiological methods used to investigate risk factors for disease, and prevention and control strategies. Prerequisite: EPID 6630

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 6642 - Genetics in Public Health (2 Credits)

Course introduces public health and research applications in genetics. Topics will include population genetics, genetic epidemiologic principles, screening, ethics, and the effect of genetics on population health. Interactive discussions and lectures will be based on current topics from literature. Prerequisite: EPID 6630. Course is offered in odd years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 6643 - Epidemiology and Prevention of TB/HIV/STDs (2 Credits)

Surveillance and control of tuberculosis, HIV/AIDS, and sexually transmitted diseases require a range of public health and epidemiologic approaches. Students will apply descriptive and analytical epidemiologic methods to the study of these infectious diseases. Prerequisites: EPID 6630

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 6644 - Maternal Child Health Epidemiology (3 Credits)

The purpose of this course is to train public health students to use epidemiologic tools for the appropriate interpretation of data and information to drive MCH program assessment, planning, evaluation and policy development.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 6645 - One Health - EcoHealth - Planetary Health (1 Credit)

This course provides students with a fundamental understanding of One Health, EcoHealth and Planetary Health including synergies, overlap and differences between the concepts, and to provide the ability to evaluate systems health approaches regarding their merits and sustainability.

Grading Basis: Letter Grade

Typically Offered: Spring.

EPID 6646 - Methods for Conducting Systemic Review and Meta-Analysis (2 Credits)

This course provides a broad understanding of the application of systemic reviews to public health, medicine and health policy introducing key steps for performing systemic reviews and meta-analyses through hands-on exercises, including formulating a research questions and hypothesis, developing a search strategy, identifying eligible studies, extracting data, assessing the risk of bias of included studies and synthesizing the evidence qualitatively and quantitatively. Focuses on analytical skills in performing pairwise meta-analyses. Offered odd years. Prereq: EPID 6630

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 6647 - CU Denver in India:Global Health in the Heart of India (3 Credits)

This course is a two-week field-based course in which students will engage directly in a community needs assessment of 60 communities and will observe and participate in outreach activities related to breast and cancer screening of Indian women. Students will acquire knowledge and specific skills on methods and practice.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall, Spring.

EPID 6648 - Theory/Practice Foodborne Disease Outbreak Detection (1 Credit)

This course focuses on the practical basis for developing and implementing methods for foodborne disease outbreak detection, investigation and control; using recent outbreaks to highlight underlying principles.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 6649 - Vaccine Science, Application and Policy (2 Credits)

Processes leading to vaccine development and implementation and the use of immunizations for disease prevention. Emphasis on an in-depth understanding of the vaccines successfully introduced into routine immunization programs and the epidemiologic tools necessary to develop and evaluate vaccines, policy making, safety and effectiveness.

Prerequisite: EPID 6630 or Permission of Instructor

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 6650 - MPH Research Paper (1-2 Credits)

Independent research project resulting in a publishable paper. All projects will involve the analysis of primary or secondary data. Permission of Department required.

Grading Basis: Letter Grade with IP

Repeatable. Max Credits: 2.

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall, Spring, Summer.

EPID 6651 - EPID MS Research Paper (1-6 Credits)

Masters research paper in epidemiology is completed under this course.

Grading Basis: Letter Grade with IP

A-PUBH1 Graduate students and public health certificate students only.

Additional Information: Report as Full Time.

Typically Offered: Fall, Spring, Summer.

EPID 6652 - Fundamentals of Clinical and Epidemiological Research (1 Credit)

Designed for clinicians who are interested in rapidly learning fundamental research principles appropriate to developing new research on child abuse. Non-clinicians by permission. Creating a study question, formulating hypotheses, study designs and basics of statistical inference.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Summer.

EPID 6653 - Challenges/Opportunities Child Maltreatment Research (1 Credit)

Course is designed for trained researchers interested in examining topics related to child abuse. It will provide basic background on the child abuse problem from multiple perspectives and facilitate cross-disciplinary exploration of controversies and related unanswered research questions.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Summer.

EPID 6654 - Child Abuse/Neglect Prev Rsrch/Eval Public Health Lens (1 Credit)

This course will provide an overview of key concepts underlying prevention of child abuse and neglect from a public health perspective with an emphasis on eliminating disparities, principles of public health research and practice applied to child abuse and neglect prevention and different aspects of prevention research and evaluation.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Summer.

EPID 6655 - Infectious Diseases Causing Chronic Diseases (1 Credit)

The burden of chronic disease that is currently thought to be associated with infectious diseases exposures covering both accepted causal relationships as well as diseases where infectious diseases are discussed as a contributing factor or assumed to play a role without formal proof at this point. Prerequisites: EPID 6635 or EPID 6640 and EPID 6630 and BIOS 6601 or permission of instructor.

Grading Basis: Letter Grade

Typically Offered: Spring.

EPID 6656 - Environmental Data Science for Public Health (3 Credits)

Introduction to acquisition, organization and analysis of geospatial data relevant to public health. Data sources covered will include ground-based air quality and weather sensors, remote sensing (satellite) products, climate and weather model output and data on water quality, traffic and mobility, and housing and socio-demographics. Pre-requisite: BIOS 6601/BIOS 6602 or BIOS 6611/BIOS 6612 or a year of equivalent graduate level statistics or permission of instructor. Cross-listed with EHOH 6656.

Grading Basis: Letter Grade

Typically Offered: Fall.

EPID 6657 - Concepts and Methods of Infectious Disease Epidemiology (2 Credits)

Deeper understanding of concepts and methods specific to infectious disease epidemiology, building upon principles of general epidemiology, and knowledge of specific infectious diseases. The course builds on the central principle of dependent happenings. Prerequisite: EPID 6630

Grading Basis: Letter Grade

Typically Offered: Spring.

EPID 6670 - Special Topics: Epidemiology (1-3 Credits)

Special interest areas of current epidemiology research and practice are presented and analyzed. The course format is lecture and discussion or seminar. Check the CSPH website for offerings and topics for this course each semester.

Grading Basis: Letter Grade

Repeatable. Max Credits: 999.

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall, Spring, Summer.

EPID 6840 - Independent Study: Epidemiology (1-3 Credits)

Faculty directed independent study in topics related to epidemiology.
Restriction: Department permission required.

Grading Basis: Letter Grade

Repeatable. Max Credits: 999.

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall, Spring, Summer.

EPID 6950 - Masters Thesis (1-6 Credits)

Epidemiology thesis work is completed under this course.

Grading Basis: Letter Grade

Repeatable. Max Credits: 6.

A-PUBH1 Graduate students and public health certificate students only.

Additional Information: Report as Full Time.

Typically Offered: Fall, Spring, Summer.

EPID 6990 - MPH Capstone Preparation - EPID (1 Credit)

MPH Capstone Preparation will focus on developing the basis for a strong capstone project, culminating in the finalization of the capstone proposal that meets the expectations of the concentration.

Grading Basis: Satisfactory/Unsatisfactory w/IP

This course is restricted to students with a MPHD-MPH plan of study only.

Typically Offered: Fall, Spring, Summer.

EPID 7030 - DrPH Directed Reading (1-2 Credits)

This course will prepare DrPH students for comprehensive exams and dissertation research by becoming an expert in specific areas of research, including understanding of the historical development of specific areas, current research findings in specific areas, and current practice. Requires permission of course director and Instructor consent. Cross-listed with CBHS 7030.

Grading Basis: Satisfactory/Unsatisfactory w/IP

Repeatable. Max Credits: 2.

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall, Spring, Summer.

EPID 7605 - Research Methods with Secondary Data Sources (3 Credits)

Principles and methods for research design and analysis of secondary data sources including those designed for surveillance and those derived from practice. Students evaluate whether specific research questions can be answered with secondary data. Offered Spring of even years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 7615 - Pharmacoepidemiology (2-4 Credits)

This course builds upon fundamental concepts and methods of epidemiology, applied to the study of pharmaceuticals. Topics include: The FDA approval process, mechanisms of adverse drug effects, methods and data systems for studying drug-effect relationships, and evaluating published pharmacoepidemiology studies. Prereq: EPID 6630, 2 course biostatistics series (BIOS 6601-6602 or BIOS 6611-6612). Restriction: Offered odd years, NA for 2 credit section.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 7631 - Advanced Epidemiology 1 (3 Credits)

Fundamental and analytical tools of epidemiology through lectures, real-world examples and applied exercises using statistical software and demonstration datasets. Focus will be on the application of analytical and statistical approaches to determine causal relationships between exposures and disease. Requisite: EPID 6630 or equivalent and BIOS 6611 (may be taken concurrently) or BIOS 6602 with consent of instructor.

Grading Basis: Letter Grade

Typically Offered: Fall.

EPID 7632 - Advanced Epidemiology 2 (3 Credits)

This is an advanced course on epidemiologic methods designed to improve the student's ability to conduct and interpret observational epidemiologic studies. Prereq: EPID 6630, EPID 6631, BIOS 6601

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 7640 - Genetic Epidemiology (2 Credits)

This course will be a problem-based class, covering basic genetic principles and teaching epidemiologic methods employed in the investigation of the genetic susceptibility to chronic disease.

Prerequisite: EPID 6630; BIOS 6601. Course is offered in odd years.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Spring.

EPID 7911 - Epidemiologic Field Methods (1-4 Credits)

PhD students have the opportunity to work with faculty on current epidemiologic projects to develop skills in field research, proposal writing, budget development, staff hiring and training, protocol and instrument development and implementation, and specific methods topics. Prereq: EPID 6626, EPID 6630, EPID 6631, EPID 6632, BIOS 6611, BIOS 6612.

Restriction: Enrollment in Epidemiology PhD program or permission of instructor is required.

Grading Basis: Letter Grade

Repeatable. Max Credits: 4.

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall, Spring, Summer.

EPID 7912 - Developing a Research Grant (3 Credits)

PhD/DrPH students prepare high quality, successful, research grant applications through development of cogent research questions & appropriate study designs. Students familiarize themselves with grant writing and review process and improve critical thinking skills and quality of scientific writing. Prerequisites: Enrollment in a doctoral program and permission of Instructor.

Grading Basis: Letter Grade

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall.

EPID 7915 - Analytic Methods in Epidemiology (1-4 Credits)

Advanced treatment of techniques in the analysis of epidemiological studies, including longitudinal, time-dependent, survival data, casualty, missing data, etc. Students will analyze data sets currently on file using contemporary epidemiological methods. Prereq: EPID 6626, EPID 6630, EPID 6631, EPID 6632, BIOS 6601/6602 or BIOS 6611/6612.

Grading Basis: Letter Grade

Repeatable. Max Credits: 4.

A-PUBH1 Graduate students and public health certificate students only.

Typically Offered: Fall, Spring, Summer.

EPID 8990 - Doctoral Thesis (1-10 Credits)

Doctoral thesis work Epidemiology. Prereq: Permission of Instructor.

Grading Basis: Letter Grade with IP

Repeatable. Max Credits: 10.

A-PUBH1 Graduate students and public health certificate students only.

Additional Information: Report as Full Time.

Typically Offered: Fall, Spring, Summer.

EPID 8991 - DrPH Dissertation work in Epidemiology (1-10 Credits)

DrPH Dissertation work in Epidemiology

Grading Basis: Letter Grade with IP

Repeatable. Max Credits: 10.

A-PUBH1 Graduate students and public health certificate students only.

Additional Information: Report as Full Time.

Typically Offered: Fall, Spring, Summer.