

PUBLIC HEALTH - EPIDEMIOLOGY (PHEP)

Subject-area course lists indicate courses currently active for offering at the University of Louisville. Not all courses are scheduled in any given academic term. For class offerings in a specific semester, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>).

500-level courses generally are included in both the undergraduate- and graduate-level course listings; however, specific course/section offerings may vary between semesters. Students are responsible for ensuring that they enroll in courses that are applicable to their particular academic programs.

Course Fees

Some courses may carry fees beyond the standard tuition costs to cover additional support or materials. Program-, subject- and course-specific fee information can be found on the Office of the Bursar website (<http://louisville.edu/bursar/tuitionfee>).

PHEP 501. Introduction to Epidemiology 3 Units

Term Typically Offered: Fall Only

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: Basic epidemiological methods are presented: terminology; study design; issues of contemporary practice; basic skills for interacting with epidemiologists, reading disease control literature, and drawing on epidemiological concepts.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 602. Epidemiological Methods 3 Units

Prerequisite(s): PHEP 501 and enrollment in the School of Public Health and Information Sciences.

Description: This course reviews the design, performance, and analysis of epidemiological research studies.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 604. Epidemiology of Infectious Disease 2 Units

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: This course will discuss the epidemiology and prevention of infectious disease.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 605. Research in Infectious Disease 1 Unit

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Corequisite(s): Concurrent enrollment in PHEP 604.

Description: This course provides students with an opportunity to expand the content of epidemiology of infectious disease with a research project.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 606. Genetic and Molecular Epidemiology 3 Units

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: The course examines basic principles of Mendelian inheritance in humans and the fundamentals of genetic action in relation to disease etiology.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 607. Epidemiology of Cancer 2 Units

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: This is a survey course of the descriptive epidemiology and clinical studies in practice nationally for research on cancer outcomes in the United States and Europe.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 608. Research in Cancer 1 Unit

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Corequisite(s): Concurrent enrollment in PHEP 607.

Description: This course provides students with an opportunity to expand the content of epidemiology of cancer with a site-specific, directed research experience.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 609. Epidemiology of Cardiovascular Disease 2 Units

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: This course provides an opportunity for students to address the epidemiology and prevention of cardiovascular disease.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 610. Research in Cardiovascular Disease 1 Unit

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Corequisite(s): Concurrent enrollment in PHEP 609.

Description: This course provides students with an opportunity to expand the content of epidemiology of cardiovascular disease with a research project.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 611. Nutritional Epidemiology 3 Units

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: This course examines epidemiologic methodology in relation to nutritional measures and the epidemiology of nutritional diseases and disorders.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

- PHEP 613. Epidemiology of Aging and Disability** 3 Units
Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.
Description: This course covers the principles and methods of epidemiology as applied to the study of aging. Major research issues in aging epidemiology and methods to study them will be presented. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 614. Introduction to Clinical Epidemiology** 2 Units
Prerequisite(s): Enrolled in the School of Public Health and Information Sciences or the Certificate in Clinical Investigation Sciences.
Description: This course introduces the student to the basic concepts of clinical epidemiology, including epidemiological study designs and methods applied in clinical research for determining the sensitivity and specificity of diagnostic criteria, efficacy of treatments and interventions, and evaluating prognosis and outcomes. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 615. Foundations of Global Maternal and Child Health** 3 Units
Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.
Description: This course provides an overview of global maternal and child health (MCH), including both international and U.S. contexts. The course introduces the main components of MCH, MCH history, programs and policies, data sources, epidemiologic issues, and specific MCH challenges for the future. The primary goals of the course are to introduce masters and doctoral students to the issues that affect the health of women and children. This course will incorporate various theories and perspectives, such as the life course perspective; human growth and development; biological, environmental, and social factors related to maternal and child health. This is a survey course that will cover MCH theory, policy, programs, epidemiology, child growth and development, maternal health, and environmental aspects of health. Cross-cutting themes will include socioeconomic aspects, data and epidemiology, and policy. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 616. Disease Surveillance and Health Statistics** 3 Units
Prerequisite(s): PHEP 501 and enrollment in the School of Public Health and Information Sciences.
Description: This course reviews the basic concepts and terminology of disease surveillance and covers the spectrum of health statistics, including population censuses, health surveys and disease reporting systems. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 617. Field Epidemiology** 3 Units
Prerequisite(s): PHEP 501 and enrollment in the School of Public Health and Information Sciences.
Description: This course focuses on the practical aspects of doing field epidemiology. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 618. Epidemiologic Methods II** 3 Units
Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.
Description: This course reviews epidemiological methods including stratified and logistic regression analysis, survival and proportional hazards modeling and strategies for model building in multivariate analysis. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 619. Biology of Disease in Populations** 3 Units
Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.
Description: This course provides an overview of the biology and basic pathophysiology of common acute and chronic diseases and conditions from the epidemiologic perspective. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 620. Environmental and Occupational Epidemiology** 3 Units
Prerequisite(s): PHEP 621 and enrollment in the School of Public Health and Information Sciences.
Description: This course offers an overview of selected topics in environmental and occupational epidemiology and methods for studying environmental and occupational determinants of disease. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 621. Statistical Foundations for Epidemiology** 3 Units
Term Typically Offered: Fall Only
Prerequisite(s): Enrollment in the MS program in Epidemiology or the Public Health Sciences PhD program with specialization in Epidemiology.
Description: This course introduces essential statistical concepts and foundations for epidemiology students to exercise statistical theory as applied to epidemiologic problem-solving. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 622. Population Pathology** 3 Units
Prerequisite(s): Enrollment in the MS program in Epidemiology or the Public Health Sciences PhD program with specialization in Epidemiology.
Description: This course introduces students to the physiologic measures and biomarkers that are used by public health researchers and practitioners to assess the health status of populations. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)
- PHEP 623. Theoretical Foundations of Epidemiology** 3 Units
Prerequisite(s): Enrollment in the MS program in Epidemiology or the Public Health Sciences PhD program specialization in Epidemiology.
Description: This course provides an overview of the history of epidemiology, the development of theory, study designs and methods, and ethical and legal issues in the translation of epidemiologic findings into public health policy. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 624. Methods in Reproductive and Perinatal Epidemiology 3 Units

Prerequisite(s): Successful completion of, or concurrent enrollment in, PHEP 501.

Description: This course allows students to pursue foundational studies in the epidemiology of reproduction and maternal/child health with an emphasis on the biology of reproduction, epidemiological studies, and maternal and perinatal health.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 625. Child Health & Development 3 Units

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: This course focuses on the core processes of human health and development from infancy through adolescence in global contexts covering the developed and developing worlds. This course covers developmental theories, issues and research findings related to physical growth and cognitive, emotional, and social development. This course also covers evaluation and efficacy of popular early intervention programs and policies designed to enhance development in at risk populations of children. Cross-cutting themes will include socioeconomic and cultural aspects of growth and development, epidemiology of disease, data sources, and policy considerations.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 626. Introduction to Social Epidemiology 3 Units

Term Typically Offered: Occasionally Offered

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: This course is an introduction to Social Epidemiology, with an emphasis on the theoretical underpinning of social epidemiology and methodologic issues, including definition/measurement of social constructs, appropriate research designs, and analytic approaches.

Topics used as lens for understanding social epidemiologic theory and methods focus on global and domestic maternal and child health.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 627. Survey Research Methods 3 Units

Term Typically Offered: Fall Only

Prerequisite(s): Enrollment in the MPH program in the School of Public Health and Information Sciences and PHEP 501.

Description: This course will provide students with a comprehensive understanding of survey research methods. It will focus on all aspects of the survey research process, from sampling, design of instruments prior to data collection, including online instruments, and including analysis of survey data and reporting. Students will learn about sources of bias, psychometrics (assessing validity and reliability), measurement theory, and ethical issues. They will also gain first-hand experience of survey analysis using applied techniques.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 647. Epidemiology Data Management & Analytics Lab 2 Units

Term Typically Offered: Spring Only

Prerequisite(s): PHEP 602 or concurrently.

Description: Graduate student in public health services will learn to analyze epidemiologic data using the Epi info and SAS statistical packages for Windows.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 648. Data Management and Analysis for Epidemiology I 1 Unit

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: Students learn how to capture, recode, transform, store, and retrieve epidemiologic data, and generate descriptive statistics, using Microsoft Access and Base Statistical Analysis System (SAS/BASE) for Windows.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 649. Data Management and Analysis for Epidemiology II 1 Unit

Prerequisite(s): PHEP 648 and enrollment in the School of Public Health and Information Sciences.

Description: Public health science students learn how to analyze epidemiologic data using the statistical package of Statistical Analysis System (SAS/STAT) for Windows.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 650. Advanced Topics in Epidemiology 1-3 Units

Prerequisite(s): Enrollment in the School of Public Health and Information Sciences.

Description: The purpose of this course is to provide an opportunity to address issues in Epidemiology not covered in the regularly offered curriculum.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 655. Emerging Issues in Epidemiology 3 Units

Prerequisite(s): PHEP 501 and enrollment in the School of Public Health and Information Sciences.

Description: This course is an overview of emerging topics in epidemiology. Emphasis is on the role that practicing epidemiologists have played or are playing in current public health events.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 666. Master's Independent Study in Epidemiology and Population Health 1-6 Units

Term Typically Offered: Fall, Spring, Summer

Prerequisite(s): Enrolled in the MS in Epidemiology or the MPH concentration in Epidemiology and Population Health.

Description: Course allows master's students to pursue advanced study with faculty guidance on a topic related to epidemiology and population health.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 701. Advanced Epidemiologic Methods 3 Units

Prerequisite(s): Enrollment in the MS program in Epidemiology or the Public Health Sciences PhD program with specialization in Epidemiology.

Description: This course covers advanced statistical methods used in epidemiologic research including: multivariable logistic regression, Cox Proportional Hazards, multivariate analysis, meta-analysis, longitudinal data analysis, and structural equation models.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 702. Epidemiologic Research Management 3 Units

Prerequisite(s): Enrollment in the Public Health Sciences PhD program with specialization in Epidemiology.

Description: This course provides a comprehensive introduction to the practical methods necessary for conducting epidemiologic research including study design, regulations, databases, sampling, recruitment and tracking, instrument design, and data quality control.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 703. Computational Epidemiology 3 Units

Term Typically Offered: Fall, Spring, Summer

Prerequisite(s): PHEP 621, PHEP 623, PHEP 618, and PHEP 701; instructor permission is required for MS Epidemiology students.

Description: This course provides an intensive review of common and statistical and machine learning techniques used in computational epidemiology with hands-on application to existing or simulated datasets under a variety of study designs.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 750. Seminars in Epidemiology 3 Units

Prerequisite(s): Enrollment in the Public Health Sciences PhD program with specialization in Epidemiology.

Description: Doctoral students engage with faculty as junior-peers to develop skills such as research proposal writing, grant budgeting, peer review, manuscript preparation, oral and poster presentation.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 777. Dissertation Research 3 Units

Prerequisite(s): Completion of Doctoral Qualifying Examination for Public Health Sciences PhD program with specialization in Epidemiology.

Description: This course is for mentored dissertation research in the PhD Program in Epidemiology.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

PHEP 778. Doctoral Independent Study in Epidemiology and Population Health 1-6 Units

Term Typically Offered: Fall, Spring, Summer

Prerequisite(s): Enrollment in the PhD program in Public Health Sciences with specialization in Epidemiology.

Description: Course allows doctoral students to pursue advanced study with faculty guidance on a topic related to epidemiology and population health.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)