PUBLIC HEALTH (PUHE)

PUHE 5100 Culminating Experience
1 Semester Credit Hour (1 Lecture Hour)
This course addresses current issues in public health. Presentations and discussions focus on the dissemination, synthesis, and application of knowledge acquired through coursework and other public health learning experiences. Enrollment is concurrent with PUHE 5250.

PUHE 5250 Integrative Learning Experience
2 Semester Credit Hours (2 Lecture Hours)
The scholarly project is one component of the MPH Culminating Experience, and enrollment is concurrent with PUHE 5100. Students complete a project that demonstrates the synthesis and application of knowledge acquired through coursework and other public health learning experiences.

PUHE 5300 Biostatistics
3 Semester Credit Hours (3 Lecture Hours)
This course introduces the selection, use and interpretation of basic statistical tests and concepts that may be used in addressing, analyzing, and solving problems in public health and healthcare research.

PUHE 5310 Environmental Health
3 Semester Credit Hours (3 Lecture Hours)
This course explores historic global environmental disasters, and policy while examining exposure assessment and epidemiologic study designs commonly used in environmental health in order to characterize the impact of environmental exposures on population health and our environment. It provides an overview of the major pollutants including detection, impact on health, and principles of remediation. Ethical issues related to environmental health are discussed.

PUHE 5320 Biostatistics II
3 Semester Credit Hours (3 Lecture Hours)
This course continues the introduction to biostatistics begun in PUHE 5300 on the selection, use, and interpretation of basic statistical tests and concepts that may be used in addressing, analyzing, and solving problems in public health and healthcare research. Topics include nonparametric analysis, multiple linear regression, analysis of variance as a special case of multiple linear regression, and introduction to logistic regression.
Prerequisite: PUHE 5300.

PUHE 5321 Social and Behavioral Sciences in Public Health
3 Semester Credit Hours (3 Lecture Hours)
This course introduces social and behavioral sciences theories and methods that are applied to public health problems. It covers: (1) description of social and behavioral determinants of health and health inequalities; (2) individual- and social/ interpersonal-level theories of health behavior and change methods; (3) theories and methods for improving the health of communities and populations; and (4) public health evaluation strategies.

PUHE 5325 Epidemiology
3 Semester Credit Hours (3 Lecture Hours)
This course introduces the basic epidemiologic concepts used to study health and disease in populations including measurement, study design, and related statistical tests. Observational and experimental epidemiologic studies are described, and their advantages and disadvantages are compared. The course provides an overview of the major causes of morbidity and mortality in populations. Ethical issues related to epidemiology are discussed.

PUHE 5330 Advanced Biostatistics
3 Semester Credit Hours (3 Lecture Hours)
This course develops advanced skills in biostatistics, with an emphasis on applied research in public health and medicine. Students learn how to derive quantitative answers to an applies research question by using multivariate statistical modeling. The course covers advanced topics in the analysis of variance, linear and logistic regression, survival analysis, and generalized linear models.
Prerequisite: PUHE 5300 and 5320.

PUHE 5335 Public Health Communication
3 Semester Credit Hours (3 Lecture Hours)
This course introduces communication theories and concepts applied to public health problems. Students will develop the skills necessary to use media strategically to advance public health policies and health. The course covers the planning and development, design and testing of concepts, implementation, and evaluation of media campaigns to promote public health goals.

PUHE 5340 Planning and Management to Promote Health
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the field of public health and develops their appreciation of the unique and important role of public health in promoting health and preventing disease and disability in communities and populations; their understanding of the principles of population health; and their knowledge of how public health functions today, including its organization, financing, policy priorities, and core functions in the United States and other countries.

PUHE 5345 Epidemiology II
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with a critical understanding of intermediate epidemiological principles. This second course of epidemiology is a continuation of the PUHE 5325, which introduced basic epidemiology concepts. PUHE 5345 covers methods and techniques for designing, implementing, analyzing, and interpreting observational studies, including cross-sectional, case-control, and cohort studies. Students will also be introduced to special topics in epidemiology, such as reproductive epidemiology, social epidemiology, and environmental epidemiology, among other topics.
Prerequisite: PUHE 5325.

PUHE 5350 Public Health Leadership and Interprofessional Practice
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to introduce students to major theories and concepts of leadership, and ways of applying these to public health issues requiring leadership and provides an opportunity for students to develop skills and resources for further developing leadership skills. The course focuses on preparing healthcare professionals with the foundational skills needed to work in teams to effectively collaborate and coordinate services in population health management. Key themes focus on interprofessional communication, collaboration, leadership, and professionalism will be ingrained throughout the content.

PUHE 5355 Population Health Research Methods
3 Semester Credit Hours (3 Lecture Hours)
This course provides an overview of the research process including conducting a literature review, formulations, and motivation of a research problem, measurement and management of variables, selection of a sample, description, and graphing of variables, analysis, and interpretation of quantitative and qualitative data, use of statistical software, and writing a research report. Topics include how to identify a research question, reasons, and procedures for reviewing the literature, descriptive statistics, graphing data, inferential statistics, qualitative study design and data analysis, different types of data, commonly used measures in public health-related research, and data mining techniques.

PUHE 5360 Introduction to Public Health Data Management
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the basics of data management using statistical software packages. The course emphasizes the management and manipulation of large data sets using the active learning approach. Data for exemplification will be chosen from the large array of online and publicly available health-related data sets.