PUBH Public Health

PUBH 5520G Introduction to Public Health
2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.
This course is designed to give students a foundation in the core functions of the population-based public health (assessment, policy development and assurance). In addition, this course will examine the 10 essential services of public health within these core functions. Defining effective public health practice and providing knowledge about the technical, social, and political parameters related to public health research and practice are goals for this class. Students will gain an understanding of public health as a broad area of work that applies the benefits of current biomedical, environmental, social, and behavioral knowledge in ways that maximize the health status of all populations.
Cross Listing(s): PUBH 5520.

PUBH 6532 Environmental Health
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course is a survey of specific environmental conditions and factors that contribute to the development of health problems in communities. Health effects, policy issues, intervention strategies and control programs for community environmental health protection are discussed.

PUBH 6533 Epidemiology
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course provides an introduction to many important topics in epidemiology for public health practice, including but not limited to the evolution of the discipline, causal concepts in the natural history of disease, critical features of infectious and chronic diseases, elements of public health screening, basic measures used in epidemiology, design of epidemiologic investigations, consideration of random error and systematic bias, calculation and interpretation of confidence intervals and p values, discussion of confounding and interaction, criteria for evaluation of cause and effect relationships and the implications for ethical public health practice. Students are expected to gain a foundation for the application of epidemiologic methods for exploration of the causes and conditions that influence the origin, propagation, mitigation, and prevention of diseases in population health.

PUBH 6534 Health Policy and Management
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
The course provides a comprehensive introduction and overview to public health management and administration. The course context is based on managerial decision making and the practical knowledge, tools, processes and strategies required by organizational management. This course overviews the basics of administration, including public health law, human resources management, budgeting and financing, health information management, performance measurement and improvement, ethics, leadership, communication, media relations, and legislative relations in public health; introduced as processes are strategic planning, program development and evaluation, budget preparation, and constituency building for collaboration. Emerging areas of public health policy and management are also discussed as contexts to apply practical knowledge, tools and strategies.

PUBH 6535 Social and Behavioral Sciences and Public Health
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course is designed to familiarize students with the history and current applications of social and behavioral sciences as they are applied to public health practice and research. It explores social and behavioral science models, theories, and approaches that inform public health, and their philosophical roots. The course also examines social and behavioral determinants of health equity across the ecological spectrum. Emphasis is placed on critical thinking skills to help students synthesize and utilize information in research and practice. An important contribution of this course is the emphasis on recognizing the contributions of social and behavioral science research and practice to enhanced public health.

PUBH 6541 Biostatistics
4 Credit Hours. 3 Lecture Hours. 2 Lab Hours.
This course examines statistics in public health and related health sciences, including sampling, probability, basic discrete and continuous distributions, descriptive statistics, hypotheses testing, confidence intervals, categorical data analysis, regression, and correlation. Emphasis will be on the development of critical thinking skills and health data analysis applications with computer software.
Cross Listing(s): BIOS 6541.

PUBH 7090 Selected Topics in Public Health
1-3 Credit Hours. 1-3 Lecture Hours. 0 Lab Hours.
Allows the student the opportunity to receive specialized and/or focused instruction in a public health topic not generally offered by the department.
Cross Listing(s): PUBH 7090S.

PUBH 7090S Selected Topics in Public Health
1-3 Credit Hours. 1-3 Lecture Hours. 0 Lab Hours.
Allows the student the opportunity to receive specialized and/or focused instruction in a public health topic not generally offered by the department.
Cross Listing(s): PUBH 7090.

PUBH 7131 Continuous Quality Improvement
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course will use Statistical Process Control and Quality Improvement (QI) techniques to address the pressing need for the adoption of quality improvement methods and techniques in public health today. The course also includes an overview of health quality initiatives in general and the progress of QI in public health systems.

PUBH 7132 Scientific Basis of Public Health
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course explores the scientific basis of 21st century disease processes including a survey of the origins, natural history, factors influencing individual and community risk. Clinical symptoms of diseases impacting humans, both acute and chronic, as well as epidemiologic trends will be also be discussed. Students will obtain an understanding of scientific mechanisms associated with the disease processes with particular focus on using this information in health-related professions and public health decision-making. As such, emphasis will be placed on the understanding and application of proposing community-based solutions designed to break the cycle of disease.

PUBH 7530 Integrated Capstone Experience
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course serves as a culminating experience designed to promote refinement of the hard and soft skills necessary for the public health workforce. Throughout the semester, students acquire skills in the integration of basic public health concepts and refine the application of discipline specific knowledge. This course relies on a case-based format that promotes problem solving and critical thinking in the context of real world public health problems.

PUBH 7790 Practicum in Public Health
1-4 Credit Hours. 0 Lecture Hours. 0 Lab Hours.
Permits the student to receive practical experience in a selected public health-related setting.
Prerequisite(s): Permission of instructor.
Cross Listing(s): PUBH 7790S.

PUBH 7790S Practicum in Public Health
1-4 Credit Hours. 0 Lecture Hours. 0 Lab Hours.
Permits the student to receive practical experience in a selected public health-related setting.
Prerequisite(s): Permission of instructor.
Cross Listing(s): PUBH 7790.

PUBH 7890 Directed Individual Study
1-3 Credit Hours. 1-3 Lecture Hours. 0 Lab Hours.
Provides the student with an opportunity to investigate an area of interest under the direction of a faculty mentor.
PUBH 7991 Public Health Capstone Research Project
1-3 Credit Hours. 0 Lecture Hours. 0 Lab Hours.
Requires the completion of an independent research project in the
preferred field requiring the defense of the design, methods, analysis,
and interpretation of the data. MPH Students may register for more than 3
credits of PUBH 7991 while working on their Capstone Research Project,
but only 3 credits of PUBH 7991 may be applied toward the degree
requirements. Excess PUBH 7991 credits cannot be used for electives
or required coursework. Extra (greater than 3) credits of PUBH 7991 will
simply increase the number of credits the student earns to more than 45.
Cross Listing(s): PUBH 7991S

PUBH 7991S Public Health Capstone Research Project
1-3 Credit Hours. 0 Lecture Hours. 0 Lab Hours.
Requires the completion of an independent research project in the
preferred field requiring the defense of the design, methods, analysis,
and interpretation of the data. MPH Students may register for more than 3
credits of PUBH 7991 while working on their Capstone Research Project,
but only 3 credits of PUBH 7991 may be applied toward the degree
requirements. Excess PUBH 7991 credits cannot be used for electives
or required coursework. Extra (greater than 3) credits of PUBH 7991 will
simply increase the number of credits the student earns to more than 45.
Cross Listing(s): PUBH 7991.

PUBH 7999 Thesis
1-6 Credit Hours. 0 Lecture Hours. 0 Lab Hours.
Requires the completion of an independent research project in the
preferred field requiring the defense of the design, methods, analysis and
interpretation of the data.

PUBH 8130 Advanced Topics in Biostatistics
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course provides an overview of advanced biostatistical descriptive
and inferential methods including multiple regression, logistic regression,
longitudinal data, survival analysis, and repeated measures with
applications to public health and biomedical studies. Emphasis will be
placed on developing statistical reasoning and critical thinking skills in
addition to programming skills using statistical software (SAS) to analyze
public health and biomedical data.

PUBH 8132 Environmental and Occupational Health
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course is designed to reinforce basic concepts of environmental
and occupational health. Students will be exposed to the current impact
of potential environmental and occupational health and safety hazards.
Students will also be exposed to current concepts associated with
environmental and occupational regulatory standards, assessment
protocols, sampling and monitoring techniques, and remediation
strategies.

PUBH 8133 Epidemiologic Methods
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
An advanced epidemiology class designed to reinforce epidemiological
concepts, as well as build a foundation for epidemiologic research in
public health practice. Specific course content includes observational
and experimental epidemiologic research methods. Emphasis will also
be placed on appropriate analytic techniques necessary for biostatistical
inference.

PUBH 8134 Health Economics, Policy and the Political Process
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
Foundational economic and specific health economic theory, trends,
market issues, and applications are presented to include health insurance
and payment theory, processes, and applications. Comparison between
rational and irrational theory is explored. Evolution of health policy,
considering past, current and future major legislation and executive
directives, are explored within the political process.

PUBH 8136 Theoretical Perspectives of the Social and Behavioral
Sciences in Public Health
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course will explore social and behavioral science theories, models,
and approaches that inform public health research and practice, as
well as their philosophical foundations. With emphasis on an ecological
perspective, students will apply relevant theories to understanding
community health issues and to developing interventions. The course
also examines social and behavioral determinants of health equity across
the ecological spectrum. In this course students will gain an enhanced
understanding of the contributions of the social and behavioral sciences to
Public Health.

PUBH 9130 Sampling Methodology
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course focuses on study design and sampling methods as well as
data analysis of small and large, national and local health surveys and
vital statistics in order to gain experience describing data using effective
graphical and numerical methods. Students will use statistical software
(SAS) to analyze data originating from various national surveys such as
the National Crime Victimization Survey, National Survey of Drug Use and
Health, National Assessment of Educational Progress, Behavioral Rish
Factor Surveillance System, an NHANES. Students will be introduced
to sampling design, methods of data collection, nonresponse, writing
and evaluating questions and answers in surveys, survey interviews,
processing survey data and principles and practices related to ethical
research.

Prerequisite(s): A minimum grade of "B" in PUBH 8130.

PUBH 9132 Public Health Perspectives in Community-Based and
Translational Research
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course will familiarize students with concepts, issues, and
skills relevant to translational research approaches in public health,
particularly as it relates to how research is applied across all public health
concentrations (epidemiology, behavioral health sciences, management
and policy, biostatistics, and environmental health). Emphasis will
be placed on utilizing qualitative, quantitative, and mixed methods
approaches within an ecological theoretical framework. Students will
gain an understanding of the Community-Based Participatory Research
(CBPR) approach, as well as issues related to the ethics of community-

PUBH 9134 Professionalism and Ethics in Public Health Practice
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course explores critical issues related to the professional
development of public health practitioners and ethical responsibilities
necessary to assume leadership roles in the field. Leadership roles
include, but are not limited to, recognizing the ecological complexities
of factors influencing quality of life for individuals and health status of
communities. Students will focus on professional attributes, skills, styles,
and strategies required to advance public health goals. In addition,
students will examine ethics associated with professionalism, research
and public health practice.

PUBH 9135 Public Health, Funding and Grantsmanship
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course will review the major sources of funding for public health
programs, including public and private sources, and the components of
successful funding proposals. Students will gain experience in writing
funding proposals and creating program budgets. Students will learn
appropriate techniques to planning and writing research grants for large-
scale and small-scale community projects. As a part of this process,
students will learn effective means of locating and soliciting funding
agencies responsible for financing public health activity.
PUBH 9630  Public Health Doctoral Seminar
3 Credit Hours.  3 Lecture Hours.  0 Lab Hours.
This course is designed to give doctoral candidates the opportunity to
determine and refine their dissertation research topics including identifying
potential dissertation committee members particularly the chair.

PUBH 9790  Doctoral Preceptorship in Public Health
1-3 Credit Hours.  0 Lecture Hours.  0 Lab Hours.
The doctoral preceptorship/field experience consists of 300 hours of field
experience under the joint direction of a public health faculty member and
a qualified specialist working in selected areas of public health. A written
report specifying activities, products, and outcomes of the experience is
required upon completion of the preceptorship.
Cross Listing(s): PUBH 9790S.

PUBH 9790S  Doctoral Preceptorship in Public Health
1-6 Credit Hours.  0 Lecture Hours.  0 Lab Hours.
The doctoral preceptorship/field experience consists of 300 hours of field
experience under the joint direction of a public health faculty member and
a qualified specialist working in selected areas of public health. A written
report specifying activities, products, and outcomes of the experience is
required upon completion of the preceptorship.
Cross Listing(s): PUBH 9790.

PUBH 9999  Dissertation
1-9 Credit Hours.  0 Lecture Hours.  0 Lab Hours.
The doctoral dissertation is a culminating experience that requires the
student to synthesize and integrate knowledge and apply theory and
principles learned to an area of public health practice within the area of
concentration. A written product must be submitted and must take the form
of a manuscript that is suitable for publication in a national-level public
health journal, a grant proposal, a technical report, a case analysis, or
other similar document. The dissertation must also be presented and
successfully defended before the faculty.