## **PUBLIC HEALTH (MPH)**

**MPH 5511 Biostatistics.** (Formerly 511) Applies statistical reasoning and methods in addressing, analyzing, and solving problems in public health, healthcare, and biomedical, clinical and population-based research. Prerequisite: Algebra or equivalent. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Fall and Winter Terms)

MPH 6001 Behavioral and Social Aspects of Public Health. (Formerly 601) Addresses behavioral and social factors and theories related to individual and population health. Cross listed with HLED 4381. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Fall and Summer Terms)

MPH 6002 Public Health System. (Formerly 602) Explores the history, basic structures and operations of public health and health care delivery systems based on Essential Public Health Services. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Fall, Winter, and Spring Terms)

MPH 6003 Ethical and Political Issues. (Formerly 603) Applies basic principles of ethical analysis (e.g. Public Health Code of Ethics, human rights framework, other moral theories) to issues of public health practice and policy. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Offered online only)

**MPH 6004 Epidemiology.** (Formerly 604) Studies the patterns of disease and injury in human populations and applies findings to the control of health problems. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Fall, Winter, and Spring Terms)

**MPH 6005 Environmental Health.** (Formerly 605) Studies environmental factors including biological, physical, and chemical factors that affect the health of the community. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Winter and Spring Terms)

MPH 6006 Methods of Research in Public Health. (Formerly 606) Explores research design, collection and reporting of data, interpretation of findings, inferential procedures and current public health research. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Fall Term)

**MPH 6009 Cultural Context of Health.** (Formerly 609) Addresses cultural factors related to individual and population health and health disparities over the life course. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Offered online only)

MPH 6010 Health Policy. (Formerly 610) Addresses the development and advocacy processes for public health policies; provides tools for policy analysis; and application to important public health issues. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Fall and Summer Terms)

MPH 6011 Biological Aspects of Public Health. (Formerly 611)

Explores the biological and molecular context of public health and its incorporation into public health practice and articulates how biological, chemical and physical agents affect human health. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Fall and Spring Terms)

MPH 6032 Public Health Education Methods. (Formerly 632) Presents evidence-based methods of health education and promotion addressing major risk factors for death, injury and disability. 4 quarter credit hour/s. Campus: LISLE (Typically Offered: Offered online only)

MPH 6034 Public Health Programs and Skills. (Formerly 634) Focuses on health education programs and the skills required for the Certified Health Educator Specialist (CHES) examinations. Pre-requisites: MPH 6001. 4 quarter credit hour/s. Department Consent Required.

Campus: LISLE (Typically Offered: Offered online only)

MPH 6050 Emergency Preparedness and Planning. (Formerly 650) Introduces the core principles and practices of emergency response and recovery from all types of hazards, threats and disasters. Typically offered: Online only. 4 quarter credit hour/s.

Campus: LISLE

MPH 6054 Psychology and Sociology of Disasters. (Formerly 654) Examines the immediate and long-term effects that natural and man-made disasters have on survivors, their communities and first responders; and methods to assist survivors in their recovery. Typically offered: online only. 4 quarter credit hour/s.

Campus: LISLE

MPH 6056 Emergency Response and Recovery. (Formerly 656) Focuses on the role of the public health system in responding to all types of hazards, threats, and disasters. This course builds upon the concepts learned in MPH 6050 and MPH 6054. Typically offered: Online only. 4 quarter credit hour/s.

Campus: LISLE

MPH 6062 Management of Health Services Organizations. (Formerly 662) Explores basic management principles and practical tools for health management professionals in a variety of public health and health care organizations. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Winter and Spring Terms)

MPH 6064 Marketing of Public Health. (Formerly 664) Explores concepts of marketing theory, planning, strategy, research and implementation of marketing plans including social media plans. Typically offered: online only. 4 quarter credit hour/s.

Campus: LISLE

MPH 6080 The Business of Healthcare. (Formerly 680) Explores current topics in the business of delivering health services including insurance, privacy of information, accountable care organizations, and financing structures and implications of the U.S. Affordable Care Act of 2010. Typically offered: online only, 4 guarter credit hour/s.

Campus: LISLE

MPH 6093 Global Health. (Formerly 693) Explores issues in global health including the burden and distribution of disease, mortality and social and cultural risk factors. Emphasizes the challenges of population health in developing countries. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Annually)

**MPH 6094 Grantwriting for Public Health.** (Formerly 694) Provides an overview of the grant writing process and funding sources for research, practice, and administration/planning grants; and requires development of a full grant proposal. 4 quarter credit hour/s.

Campus: LISLE (Typically Offered: Annually)

MPH 6096 Applied Epidemiology. (Formerly 696) Focuses on the processes involved in epidemiologic investigations with application to sample cases. Prerequisite: 6004. Typically offered Online only. 4 quarter credit hour/s.

Campus: LISLE

MPH 6097 Advanced Research Methods. (Formerly 697) Focuses on the process and implementation of research in the field through a variety of possible mechanisms: secondary data analysis, original data collection, or meta-analysis, using statistical methods and software. Students will develop a professional-level conference abstract and poster presentation, and an optional manuscript prepared for journal submission. Prerequisites: MPH 5511, MPH 6004, and MPH 6006. Typically offered Online only. 4 quarter credit hour/s. Department Consent Required.

Campus: LISLE

MPH 6098 Community Health Analysis. (Formerly 607) Demonstrates the collection of data on and setting priorities for improving the health of a defined population. It involves field work and utilization of research skills. This culminating experience requires the synthesis and integration of knowledge from previous coursework. Pre-requisites: all core courses with a grade of A or B. 4 quarter credit hour/s. Department Consent Required.

Campus: LISLE

MPH 6099 MPH Internship/Capstone. (Formerly 690) The internship is a capstone experience that allows students to integrate knowledge and skills developed in the classroom and apply them in a professional setting. 2-6 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 6. Department Consent Required.

Campus: LISLE (Typically Offered: Fall, Winter, Spring, and Summer)

MPH 6101 Advanced Epidemiology. Focuses on applying epidemiologic study designs and methods to design research studies and interventions to control disease among populations. Prerequisites: MPH 6004. 4 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 4.

Campus: LISLE (Typically Offered: Annually)

MPH 6110 Applied Linear Models. The course commences with matrix algebra as a basic foundation for regression, and progresses to the general linear model (simple and multivariable linear regression) and hypothesis, one- and two-way ANOVA, ANCOVA, diagnostics, model building, statistical power for the linear model and a brief introduction to binary response regression methods. Prerequisites: MPH 5511. 3 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 3. Campus: LISLE (Typically Offered: Annually)

MPH 6111 Applied Linear Models Computing and Data Lab. Computing and data lab accompanying the course Applied Linear Models, covering techniques and strategies in SAS, R, SPSS and Stata for carrying out the general linear model (simple and multivariable linear regression), hypothesis testing, one- and two-way ANOVA, ANCOVA, diagnostics, and model building. Prerequisites: MPH 5511. 1 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 1.

Campus: LISLE (Typically Offered: Annually)

MPH 6112 Categorical Data Analysis. Computing and data lab accompanying the course Categorical Data Analysis. Instruction in how to perform categorical data analysis primarily in SAS, but also R, SPSS, and Stata. Topics covered will include estimation and inference for contingency tables, Generalized Linear Models (GLM) for categorical and ordinal data, McNemar's Test, and Cochran-Mantel-Haenszel methods. Prerequisites: MPH 5511. 3 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 3.

Campus: LISLE (Typically Offered: Annually)

MPH 6113 Categorical Data Computing Lab. This course will dive deeper into methods for analyzing categorical and ordinal data. We will explore estimation and inference for contingency tables, build Generalized Linear Models (GLM) for categorical and ordinal data, as well as employ McNemar's Test and Cochran-Mantel-Haenszel methods. Emphasis will be placed on interpreting test and model results within the context of epidemiology and public health. Prerequisites: MPH 5511. 1 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 1.

Campus: LISLE (Typically Offered: Annually)

MPH 6300 Approaches and Issues in Public Health Leadership and Management. Apply the values, traits, knowledge base, and competencies of effective public health leaders to pressing problems such as substance abuse, cancer, climate change, health care delivery, and population health. Explore alternative styles of leadership and identify personal leadership style. 4 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 4.

Campus: LISLE (Typically Offered: Annually)

MPH 6301 Strategic Planning and Decision Making. Apply basic tools for the collection, analysis, and presentation of data in support of managerial planning, marketing, and decision making. Build a long-term strategic plan including mission, values, and vision to guide decision making. Apply systematic tools to make thoughtful, informed decisions that have a positive impact on organizational goals. 4 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 4.

Campus: LISLE (Typically Offered: Annually)

MPH 6600 Independent Study. (Formerly 600) Arranged on a specific topic by teaching/learning contract with instructor. 1-4 quarter credit hour/s. Course Repeatable. Maximum number of units allowed: 16. Department Consent Required.

Campus: LISLE