Department of Health Informatics

Master of Public Health Program in Informatics (iMPH)

Course Descriptions

Course Subject	Description	Course Number	Course Name	Credit Hrs.	Lecture Hrs.	Contact Hrs.	Course Title (long)	Course Description
IMPH	Public Health	7101	Health Care Mgmt Principles	3	3	3	Health Care Management Principles	Applied study of the managerial functions of planning, organizing, leading and controlling. Students work through specific issues related to operational and strategic planning, organizational structures and relationships, motivation leadership theories and application, as well as fiscal and non-fiscal control processes, work standards, work measurement, and productivity. Special attention is given to the concept of health systems management and techniques of health systems analysis. Includes office ergonomics, information management and equipment procurement.
IMPH	Public Health	7102	Human Resources Mgmt	3	3	3	Human Resources Management	A comprehensive human management course which develops students understanding of the employer-employee relationship. Includes the major human resources management functions. Topics include job analysis, job descriptions, employee recruitment, selection and training, salary administration, performance appraisals and collective bargaining.
IMPH	Public Health	7104	Healthcare Financial Mgmt	3	3	3	Healthcare Financial Management	The purpose of this course is to provide the student with a practical understanding of the basic financial and budgeting concepts and tools used by health care organizations. The student will b e provided with a basic refresher on accounting terminology and principles. Additionally the student will learn about cost concepts, the financial market, financial analysis, management of capital institutional budgeting, decision analysis, and emerging issues in health care finance.
IMPH	Public Health	7209	Health Law and Ethics	3			Health Law and Ethics	Overview of the law and its administration as it applies to questions of policy and procedure development for health data requirements in a health care setting. Includes basic ethical principles and situations of ethical dilemma and ethical decision-making processes.

IMPH	Public Health	7210	Healthcare Performance Imp	3	3	3	Healthcare Performance Improvement	Introduces concepts in quality management. Areas discussed include continuous quality improvement, utilization and risk management, accrediting functions, six-sigma and statistical process control, balanced scorecards, outcomes and disease management.
IMPH	Public Health	8000	Computerized Health Info	3	3	3	Computerized Health Information Systems	This course explores information systems theory, current and emerging technology, applications in the healthcare industry, health information systems strategic planning, and computer-based patient record theory.
IMPH	Public Health	8001	Public Health Informatics	3	3	3	Public Health Informatics	An overview of the field of public health informatics, integrating themes from information sciences, public health, computer science and medical science. Topics include: utilization of health information services, organization and management of online current and emerging public health technology collections, automation of information technology, and public health professional knowledge as a component of evidence-based practice.
IMPH	Public Health	8100	Healthcare Info Requirement	3	3	3	Healthcare Information Requirements and Standards	Healthcare information standards are addressed with emphasis on current healthcare regulations and standards. The effective use of networks to share health care data is explored; emphasis is placed on developing the expertise to apply standards effectively in a health care facility to achieve full integration of organizational health information systems.
IMPH	Public Health	8200	Healthcare Data Content	3	3	3	Healthcare Data Content and Structures	This course teaches the skills necessary for identifying and using appropriate clinical classifications systems and medical vocabularies within health information systems.
IMPH	Public Health	8400	Health Data Mgmt and Know	3	3	3	Health Data Management and Knowledge Discovery	This course focuses on the acquisition and use of patient level data to support population, administrative and clinical decision-making in health care organizations. Course emphasis is in data mining and knowledge discovery techniques including the advanced treatment of statistical analysis and methods of communicating the outcomes of health interventions.

IMPH	Public Health	8500	Health Information System A	3	3	3	Health Information Systems Analysis and Project Management	This course explores the aspects of strategic planning, analysis, design, evaluation, and implementation of effective healthcare information systems. It teaches the principles, techniques, and tools for successful project management. Emphasis is placed on the skills required to lead technical and professional team members through work process design activities within a health care organization.
IMPH	Public Health	8600	Fundamentals of Health Pror	3	3	3	Fundamentals of Health Promotion	An overview of theories and principles of social and behavior determinants of health, the social-ecological approach to public health, an overview of health promotion and disease prevention models of success, and the challenges of Healthy People 2010 objectives and health promotion informatics.
IMPH	Public Health	8700	Introduction to Environ Healtl	3	3	3	Introduction to Environmental Health	Major environmental health problems, including water quality, wastewater, and occupational health, trace elements in the environment, municipal, hazardous, and medical waste, food protection, vector control, and air quality are discussed. Introduction to the concept of environmental health informatics
IMPH	Public Health	8722	Internship	2	2	2	Internship	All MPH degree candidates in the informatics MPH programs are required to complete a minimum of 2 credit hours (on average 20 hours per week for 10 weeks) in a summer internship experience. The summer internship is a field experience which integrates professional academic preparation and public health practice. Public health and health informatics knowledge and skills taught in the core and discipline-specific courses are used in an organizational setting under the supervision and guidance of an experienced preceptor. A faculty internship advisor will assist the student in locating a position. At the completion of the internship, the student will provide a final report to document the practicum. Under certain circumstances, the internship requirement may be waived for some students.
IMPH	Public Health	8800	Health Decision Support Sys	3	3	3	Health Decision Support Systems	This course presents an overview of automated decision systems used in clinical care, health administration and public health. The intensive format of the course allows for topic discussion, on-site observation of clinical, managerial, and population-based decision support systems.

IMPH	Public Health	8999	Capstone Course	3	3	3	Capstone Course	The goal of the course is to facilitate the student's transition from graduate school to life as a public health professional. The course takes two concurrent pedagogical methods to accomplish this goal: 1) Seminar lectures and exercises designed to aid the integration of public health practice principles to enhance job performance and future careers, and to introduce some concepts by which students can expect to be managed and can use to manage others, and 2) the "Capstone Project" which provides an opportunity to integrate both technical and professional knowledge into comprehensive web-enabled oral and written reports on a student's selected public health topic.
STAT	Statistics	7010	Biostatistics I	3	3	3	Biostatistics I	This course offers an introduction to the basic statistical techniques used to analyze and interpret data in the health sciences and related fields. Emphasis is on application of these methods, with the following topics covered: graphical methods, probability, discrete and continuous distribution, inferential statistics (estimation and hypothesis testing) for numeric and categorical data, non-parametric methods, analysis of variance, regression, correlation and critical reading of the research literature. Prerequisites: College Algebra (Calculus highly recommended).
STAT	Statistics	8130	Intro to Epidemiology	3	3	3	Introduction to Epidemiology	This course serves as an introduction to epidemiology. Topics include basic concepts, types of studies, description and analysis of epidemiologic data, and epidemiology in disease control.