New England College
School of Graduate and Professional Studies

Master of Science in Health Information Management : Course descriptions

Principles of Health Informatics (2 credits)
This course introduces the history and current status of information systems in health care, and introduces students to the study of information technology and information management concepts relevant to the delivery of high quality and cost-effective healthcare. Theoretical frameworks such as data management, decision support, strategic planning and implementation, change management, knowledge management and privacy and other ethical aspects of health informatics are included.

Research and Evaluation (2 credits)
Research and development projects in the broad field of biomedical informatics can take many forms, from field studies that improve understanding of the tasks and information needs of users, to development projects that design, build, and deploy information systems, to studies that assess the impact of information systems on health care processes and outcomes. This course provides an overview of the concepts, vocabularies, and strategies needed to design and evaluate projects in biomedical informatics, including a breadth of methodologies drawn from qualitative research, quantitative research, and software engineering.

Healthcare Technology and Systems (4 credits)
An in-depth study of the basic concepts surrounding clinical information systems, with emphasis on electronic health records - terminology and standards, clinical configuration, user interface design, computerized physician order entry, clinical decision support, and clinical reporting. The course then focuses on the practical application of these concepts, including implementation, clinical workflow, privacy and security, certification, medical device integration, and community health information exchange.

Knowledge Management in Healthcare (4 credits)
This course explores the relationship between clinical data and clinical knowledge and how organizations develop and deploy them to support improvements in patient care and research. The course content includes topics such as available medical data and how it should be accessed, analyzed, and organized to support evidence-based medicine and research. Throughout the course, students will analyze current and prospective approaches to clinical decision support and expert system development and how to deploy them via new or existing knowledge-management infrastructures.

The Business of Informatics in Healthcare (4 credits)
The goal of this course is to provide skills and knowledge in the area of business practices relating to Healthcare Information Technology. This includes departmental design and management, capital and operating budgeting, the art of the budget planning process, infrastructure design and strategic planning. Also included in this class is the process of defining system requirement, determination of return on investment, delivery modes (ASP vs. in-house), evaluation of vendors, vendor selection, contractual matters, risk analysis, project management, implementation and support strategies. Within this discussion, the pros and cons of "buy vs. build" will be evaluated. The various types of information systems will be discussed. This will include enterprise systems, developmental systems, data warehouse and decision support systems. It will also include challenges presented by various regulatory agencies and laws that have been enacted.

MG 6110 Managing Projects (4 credits)
This course will define terminology, describe the stages of the project life cycle, and introduce the various techniques available and principles underlying managing new programs and projects. Topics include: the management of human resources and team building, planning and control, scope management, time and cost management, quality and risk management, and technical tools including GANTT and PERT charting.

MG 5110 Organizational Management and Leadership Development (4 credits)
This course combines theory and practice by encouraging students to learn traditional and contemporary leadership theories and apply them to the analysis of the behavior or leaders, colleagues, and subordinates. Through a variety of readings, cases, and exercises, students will examine numerous effective leadership models. Topics include the evolution of leadership; the leadership roles of strategy, vision and transformational change; the development of leaders; the leadership responsibilities of creating effective teams, organizations and cultures; the exploration of different leadership styles; and current popular approaches to leadership theory.

MG 5410 Organizational Communication, Negotiations & Conflict Resolution (4 credits)
This course will focus on strategies and tactics revolving around successful negotiation and mediation to improve individual and organizational effectiveness. Topics include: preparing for a negotiation, understanding individual preferences, identifying ethical and cross-cultural issues that might arise, and when and what kind of outside resources may be necessary. Students will examine the daily negotiations required in managing employees and working well with colleagues and teams.

Seminar Series: Emerging Technologies and Current Issues in Health Informatics (4 credits)
Specific topics in these series will vary from year to year.

Capstone Project (4 credits)
In this course, each student will undertake a major investigation of a major leadership and management challenge in the workplace as it connects to the field of health informatics. This capstone experience requires students to integrate principles, theories, and methods learned in courses required through their program. Students creatively analyze, synthesize, and evaluate learned knowledge in the project having a professional focus and communicate the results of the project effectively at a professional level. Written and oral component required.