Health Information Management and Technology (HIMT) - Courses

Courses

HIMT 300 Cr.3
Survey of Contemporary Computing
This course provides a basic overview of contemporary information technology and computers. Topics include computer concepts (e.g., hardware, system architectures, operating systems), communication technologies, and data organization/structures. It introduces the student to the electronic health record, with a special emphasis on database management systems and data warehousing. Consent of department. Offered Fall, Spring.

HIMT 310 Cr.3
Healthcare Systems and Organizations
This course provides an overview of how healthcare and public health are organized and how their services are delivered in the United States. Topics to be covered include public policy (including U.S. health reform initiatives); organization of healthcare systems; components and operation of healthcare organizations including e-health delivery; professional roles and accreditation; legal and regulatory issues, including licensure requirements. Consent of department. Offered Fall, Spring.

HIMT 320 Cr.3
Survey of Information Technology in Healthcare
In this course essential information technologies in healthcare (HITs) will be surveyed. Many important healthcare information systems (HISs) are built upon three categories of HITs: data processing technologies, information reporting technologies, and decision supporting technologies. Specific subjects pertaining to these technologies will be identified and introduced. Prerequisite: Students cannot earn credit in both HIMT 320 and IS 321. Consent of department. Offered Fall, Spring.

HIMT 330 Cr.3
Healthcare I: Terminology and Body Systems
This course will examine specific terminology and vocabulary used by healthcare providers and support staff. The focus of this course is on medical terminology which covers human anatomy and physiology, body systems, and diagnoses and procedures. The structure of medical terms will be examined - such as prefixes, suffixes, roots, and combined forms. Topics will also include healthcare taxonomies and nomenclatures (ICD-9-CM, ICD-10, etc.). Prerequisite: UW Colleges BIO 101 Concepts of Biology or equivalent. Consent of department. Offered Fall, Spring.

HIMT 340 Cr.3
Ethical Issues, Security Management and Compliance
This course introduces three broad subjects: 1) evidence-based medical ethics pertaining to healthcare information management; 2) framework of healthcare information security management including security principles, policies and procedures, security management models, risk assessment, and protection mechanisms; and 3) healthcare regulations and compliance with focuses on the legislative systems, policies, and legal environment of healthcare in the US and the existing health information laws, regulations and standards. Also addressed are the elements and development of compliance programs. Prerequisite: Students cannot earn credit in both HIMT 340 and IS 340. Consent of department. Offered Fall, Spring.

HIMT 345 Cr.3
Programming and Software Development
Introduction to object-oriented programming paradigm, object-oriented systems analysis and design, fundamental data structures, and n-tier software design. Examination of the role of each in the software development process. Prerequisite: HIMT 300 or concurrent enrollment. Consent of department. Offered Fall, Spring.

HIMT 350 Cr.3
Statistics for Healthcare
This is an introductory course in statistical methods for the health sciences. The course will emphasize the principles of statistical reasoning, underlying assumptions, hypothesis testing, and careful interpretation of results. Some topics covered: major study designs, descriptive statistics, graphical displays of data, probability, confidence intervals and tests for means, differences of means, sample size and power, differences of proportions, chi-square tests for categorical variables, regression, multiple regression, and non-parametric statistics. Prerequisite: UW Colleges MAT 105 Introduction to College Algebra or equivalent. Consent of department. Offered Fall, Spring.

HIMT 355 Cr.3
Principles of Management for HIMT Professionals
This course provides an overview of basic principles involved in management and communication. Topics include basic management principles, communication skills, interpersonal communication, negotiation technique, team/consensus building, professional development, and problem solving/decision-making processes. Consent of department. Offered Fall, Spring.

HIMT 360 Cr.3
Healthcare II: Survey of Disease and Treatments
This course further investigates the topics covered in HIMT 330 Healthcare I. On the basis of each body system, the course will further expand into the topics of human disease, human health issues, and classification of disease/health issues, including diagnostics, treatment, and clinical procedures that are currently in practice. In addition, the course will incorporate pharmacotherapeutic concepts (drugs and therapies to treat/prevent/control human disease/health issues), investigating the variety of drugs used for disease treatment for each body system. This will include the current biologicals that are used for treatment. Topics will include how the drugs and biological work, their limitations, and the current diversity of available drugs and biologicals. Prerequisite: HIMT 330. Consent of department. Offered Fall, Spring.

HIMT 365 Cr.3
Healthcare Economics
Applications of microeconomic theory to analyze the behavior or health and healthcare markets. Topics will include: supply and demand of healthcare services, private health insurance markets, government provision of healthcare services and health insurance, and healthcare policy. Consent of department. Offered Fall, Spring.
HIMT 370 Cr. 3
Healthcare Systems: Analysis and Design
This is the first course in a two-course sequence that addresses methods and techniques of healthcare information system (IS) analysis and design as performed within the system development life cycle. Included will be the definition of the problem, fact gathering, analysis, logical design, selection and evaluation of alternative healthcare information systems solutions from the point of view of the health provider and user. The course focuses on the problem solving process that leads to the development of logical IS solutions to applied healthcare programs. Prerequisite: HIMT 300. Students cannot earn credit in both HIMT 370 and IS 370. Consent of department. Offered Fall, Spring.

HIMT 375 Cr. 3
Database Structures and Management Systems
Analyze and design databases to support computer-based information systems. Develop and implement relational database management systems using SQL. Topics include: data modeling techniques such as entity-relationship modeling, extended entity-relationship modeling, database constraints, database normalization techniques, and basic and advanced features of database query language SQL, etc. Prerequisite: HIMT 345. Consent of department. Offered Fall, Spring.

HIMT 380 Cr. 3
Healthcare Billing, Coding, and Reimbursement
This course examines the coding and reimbursement connection; topics include managed care plans, prospective payment systems, Medicare-Medicaid reimbursement, Resource-Based Relative Value Scale, case mix management, and revenue cycle management. Prerequisite: HIMT 330; HIMT 360. Consent of department. Offered Fall, Spring.

HIMT 400 Cr. 3
Healthcare Information and Technology: Data
This course explores the sources and data contents of healthcare information as well as the proper presentation of it for different usage levels. Topics addressed include: (1) data structure and use of health information (individual, comparative and aggregate), (2) type and content of health record, (3) data quality assessment, (4) secondary data sources, (5) healthcare data sets, (6) health information archival systems, and (7) National Healthcare Information Infrastructure (NHII). The course will also cover topics in bioinformatics. Prerequisite: HIMT 360. Consent of department. Offered Fall, Spring.

HIMT 410 Cr. 3
Healthcare Systems: Implementation and Integration
Covers the back-end stages of healthcare systems development life cycle through the procurement route: development of technical design specifications, procurement procedures (RFP, RFQ, vendor evaluation and selection, and contracting), systems configuration and integration, installation, conversion, operation, and maintenance. Pre-installation testing and post-conversion auditing and monitoring will be emphasized to address the upcoming requirements of federal certification of EHR systems. Prerequisite: HIMT 300; HIMT 370. Consent of department. Offered Fall, Spring.

HIMT 415 Cr. 3
Human Resource Management in Healthcare
This course examines the role of HIM professional in managing human resources to facilitate staff recruitment, retention, and supervision. Consent of department. Offered Fall, Spring.

HIMT 420 Cr. 3
Healthcare Systems: Project Management
This course addresses the phenomenal impact information system (IS) projects have had on healthcare delivery. Students learn how IS healthcare projects affect organizations, doctors, patients, and chronic-illness treatments, as well as individuals interested in managing their own healthcare. Concepts and tools for IS healthcare project management, process reengineering and work redesign are introduced. The purpose of this course is to expose students to IS project management activities in healthcare settings. Topics covered include recent IS healthcare project trends, budgeting, scheduling, resource management, scope, risk analysis, and deployment controls. The genesis of healthcare project management is covered using specific cases and examples. Students cannot earn credits in both HIMT 420 and IS 420. Consent of department. Offered Fall, Spring.

HIMT 425 Cr. 3
Data Warehousing and Mining
Examine the concept of the data warehouse and its effectiveness in supporting strategic decision making. Address the process of creating data warehouse/data-mart solutions from the identification of the enterprise informational and analytical needs to producing business intelligence by extracting information from the data warehouse by using data mining methods and models. Prerequisite: HIMT 375. Consent of department. Offered Fall, Spring.

HIMT 430 Cr. 3
Quality Assessment and Improvement
This course examines the quality assessment and quality improvement cycle (plan, do, check, act) and the role of the HIT/HIM professional in the process. Tolls used in quality and risk management processes will be examined. Prerequisite: HIMT 350. Consent of department. Offered Fall, Spring.

HIMT 435 Cr. 3
Data Communications and Computer Networks in Healthcare
This course provides fundamentals of data communications and networking techniques, and examines the linkage of information technology strategies and technological solutions enabling effective communication within and between healthcare organizations. Major topics include fundamental concepts of data communications and applications, network communication devices, basic technologies of the Local Area Network, Wireless Local Area Network, Wide Area Network, Internet and the Web, the OSI stack, healthcare information system standards, and the HIE, RHIN, and the NHIN. Prerequisite: HIMT 300. Students cannot earn credit in both HIMT 435 and IS 435. Consent of department. Offered Fall, Spring.

HIMT 440 Cr. 3
Group Processes, Team Building, and Leadership
This course introduces students to the necessary group/team processes that are at the root of building, developing, and maintaining medical/healthcare work teams and the effective functioning of such teams. The course also provides an overview of leadership development techniques. Also included is a focus on the uses of various communication technologies in the team-building and functioning processes. Consent of department. Offered Fall, Spring.
HIMT 445 Cr.3
**Application of Leadership and Management in Healthcare Technology**
This course assimilates and integrates concepts and applications of management and leadership in healthcare, advancing on the topics covered in HIMT 355, HIMT 365, and HIMT 415. Topics will include strategic leadership concepts, exploring key factors that impact management and planning change management, and critical organizational behaviors for leadership and management, focusing on best practices, organizational accountability, and assessment models. Prerequisite: HIMT 355, HIMT 365, and HIMT 415. Consent of department. Offered Fall, Spring.

HIMT 450 Cr.3
**Healthcare Information and Technology: Standards**
This course will be an introduction to healthcare information technology standards, including standards and regulations for documentation, and will cover health information standards. The course will also investigate software applications and enterprise architecture in healthcare and public health organizations. Prerequisite: HIMT 400. Consent of department. Offered Fall, Spring.

HIMT 490 Cr.3
**Capstone Project**
This course is the capstone course for both tracks of the Health Information Management and Technology Program. Students are required to find an internship site that is related to healthcare and set up a semester long project from which they can gain hands-on experience in the areas of their concentration. Project set-up will be jointly done by the student, site sponsor, and the faculty of this course, whereas internship supervision will be performed by the project supervisor and the course instructor. Course should be taken in the student's last semester of study. Consent of department. Offered Fall, Spring, Summer.