**HEALTH INFORMATICS (HLIF)**

**Courses**

**HLIF 510. Health-Care Information Systems. 4 Units.**
Development and diffusion of current and futuristic information systems in health-care organizations. Explores an array of systems, from modular applications to enterprise-wide systems. Encompasses the concepts of EHR, PHR, HIE, regulatory movements, system architecture, system theory, and strategic planning for information systems. Course includes weekly laboratory (2-4 hours) focused on demonstrating competency with Microsoft Excel.

**HLIF 515. The U.S. Health-Care System. 3 Units.**
Analysis of health-care delivery in the United States, including organizations that provide health care, health-care professionals, beliefs and values, access issues, medical technology, regulatory requirements, reimbursement methods, and cost containment. Examines the evolution of the health-care delivery system beginning with the preindustrial era and ending with projections for the future of health-care delivery in the United States.

**HLIF 520. Data Management: Modeling and Development. 3 Units.**
Explores the concepts of data and the criticality of appropriate data management to successfully model, develop, and implement health-care information systems. Specific topics include database management, data integrity, knowledge management, data mining, data integration, data visualization, data architecture, and data warehousing.

**HLIF 525. Management of Health-Care Data and Information. 2 Units.**
"Investigates and analyzes standardization movements and reimbursement systems in health informatics. Topics addressed include SDOs, HL7, federal standardization, ANSI, UMLS, EDI, SNOMED CT, and revenue cycle management."

**HLIF 526. Quality and Performance Improvement for Health Care. 2 Units.**
Explores methods, design, and process for quality improvement within health-care organizations. Topics covered include workflow analysis, error prevention, problem detection, problem solving, change management, and systems evaluation.

**HLIF 530. Data Analytics and Decision Support. 3 Units.**
"Studies various data sources available for healthcare data analytics, along with direct application of software tools and techniques to extract, transform, analyze, visualize healthcare data. Review of strategies supporting decision support and knowledge management."

**HLIF 532. Financial Management in Health Care. 2 Units.**
Study of economics and financial management in health-care organizations. Analyses of economic market impacts, various health-care payment mechanisms, ratio analysis, cost-benefit analysis, operational and capital budgeting, and investment strategies.

**HLIF 540. Leadership Perspectives and Practice. 3 Units.**
Examines organizational culture and the various structures, designs, and models as they relate to leadership. Specific topics include change management, personnel management, governance, ethics, group dynamics, and human factor in health informatics.

**HLIF 545. System Design, Implementation, and Management. 3 Units.**
Study of the fundamentals of the system development life cycle (SDLC) —including system analysis assessment, techniques and tools, system design/development strategies, system implementation and operations, and system evaluation.

**HLIF 548. Human Computer Interactions. 2 Units.**
Critical analysis of the cognitive science and human factors related to EHRs, PHRs, and consumer informatics. Topics addressed include user needs, application design concepts, patient empowerment, and human-computer interaction.

**HLIF 555. Health-Care Vendor and Project Management. 2 Units.**
Investigates contemporary health-care information systems vendor offerings and effective techniques for establishing effective vendor relationships. Topics include request for information, request for proposals, contract negotiations, and project management.

**HLIF 560. Policy Development for Privacy and Security in Health-Care Systems. 3 Units.**
Study of the regulatory, social, and ethical issues of privacy and security in health care information systems. Topics covered include HIPAA, breach legislation/reporting requirements, security requirements/defenses, business continuity planning, and other regulatory issues related to privacy and security.

**HLIF 565. Technical Structures in Health Informatics. 3 Units.**
Examines the principles of computer science as related to the development and diffusion of technology supporting health-care information systems. Topics covered include technical infrastructure support of the following: business continuity, daily operations, wireless communication, security, EDI/HIE, networking protocols, system integration, programming languages, and system integration issues. Introduces students to computer programming and software development.

**HLIF 570. Professional Portfolio. 1 Unit.**
Development of a professional e-portfolio that includes a personal video of introduction, the development of personal and professional goals, resume and cover letter writing, major projects completed from each course and from previous work experience, career mapping, reaction papers in response to the University’s core values, publications completed, and other items as developed during the program.

**HLIF 575. Capstone Project and Special Topics in Health Informatics. 2 Units.**
Summative evaluation based on completion of either a systems application business plan or a data-analytics project utilizing competencies gained in the program. Facility-based or theory-based projects. Preparation and presentation of a complete capstone project.

**HLIF 580. Health-Care Policy. 2 Units.**
Analysis of current health-care policy development at a local, regional, state, and national levels. Includes review and critical analysis of proposed policy and contemporary forces impacting various policy agendas.

**HLIF 584. Professional Practicum and Seminar for Health Informatics. 2 Units.**
Experiential learning in health informatics. Students must satisfactorily complete 110 practicum hours. Second year standing in MSHI program; successful completion of all curriculum courses for the first 6 quarters of the program.

**HLIF 599. Health Informatics Independent Study. 1-4 Units.**
Student submits a project or paper on a topic of current interest in an area of health information administration. Regular meetings to provide the student with guidance and evaluation. Elected on the basis of need or interest. May be repeated.