Program Overview

The Master of Science in Health Informatics (M.S.H.I.) offers current and emerging content about the evolving health informatics field with expanding reliance on patient data. The educational objectives of the program are:

- to prepare students for the emerging roles and functions within the health informatics domain,
- to provide graduate level education that will prepare students to develop problem solving skills with the ability to analyze and evaluate systems, technology, regulations, policies, and data needs to assist in creating new methods.
- to provide a broad-based program of coursework that supports the varied aspects of health informatics focusing on the use of health data to inform clinical decisions. Critical skills include data analytics, project management, and compliance.
- to establish a framework for professional behavior and ethical principles to be used to guide decision-making and actions in the expanding role of health informatics professionals, and
- to conduct research that will expand the health informatics body of knowledge.

Immunization Requirements

It is the policy of the College of Health Professions that each student must provide a health report completed by a physician or licensed healthcare provider, and must take specific immunizations before the student can be placed in a clinical or internship assignment. Information on these requirements and the required forms may be obtained through the department office.

Background Check and Drug Screening

As a condition for placement in some professional practice sites, some students are required to have a background check and/or drug screening to meet requirements set by individual sites. Information on the background check/drug screening process will be provided by the department. Previous misdemeanor or felony convictions under various titles of the Texas Penal Code may affect eligibility for practitioner license status following graduation.

Application Requirements

The items listed below are required for admission consideration for applicable semesters of entry during the current academic year. Submission instructions, additional details, and changes to admission requirements for semesters other than the current academic year can be found on The Graduate College's website (http://www.gradcollege.txstate.edu/). International students should review the International Admission Documents page (https://mycatalog.txstate.edu/graduate/admission-documents/international/) for additional requirements.

- completed online application
- $55 nonrefundable application fee

  or

- $90 nonrefundable application fee for applications with international credentials
- baccalaureate degree from a regionally accredited university (Non-U.S. degrees must be equivalent to a four-year U.S. Bachelor's degree. In most cases, three-year degrees are not considered. Visit our International FAQs (https://www.gradcollege.txst.edu/international/faqs.html) for more information.)
- official transcripts from **each institution** where course credit was granted
- a 2.75 overall GPA or a 2.75 GPA in the last 60 hours of undergraduate course work (plus any completed graduate courses)
- GRE not required
- resume/CV
- statement of purpose indicating the student's ability and interest in completing the degree program
- three letters of recommendation from professionals or academics assessing the student's readiness to advance in the field

Approved English Proficiency Exam Scores

Applicants are required to submit an approved English proficiency exam score that meets the minimum program requirements below unless they have earned a bachelor's degree or higher from a regionally accredited U.S. institution or the equivalent from a country on our exempt countries list (http://www.gradcollege.txstate.edu/international/language.html#waiver).

- official TOEFL iBT scores required with a 78 overall
- official PTE scores required with a 52
- official IELTS (academic) scores required with a 6.5 overall and minimum individual module scores of 6.0
- official Duolingo Scores required with a 110 overall
- official TOEFL Essentials scores required with an 8.5 overall

This program does **not** offer admission if the scores above are not met.

Degree Requirements

The Master of Science (M.S.) degree with a major in Health Informatics requires 30 semester credit hours. The program can be completed via Accelerated Online (AOP).

Code	Title	Hours
Required Major Courses:		
HIM 5340	Healthcare Informatics	3
HIM 5342	Information Systems and Technology	3
HIM 5351	Data Security, Privacy, and Confidentiality	3
HIM 5380	Assessing Healthcare Quality	3
HIM 5320	Biostatistics for Healthcare	3
HIM 5311	Health Informatics and Data Visualization	3
HI 5321	Health Systems and Population Health for HIIM	3
HI 5393	Program and Project Management for HIIM	3
HI 5326	Advanced Technology in Health Informatics	3
HI 5327	Advanced Applied Health Informatics	3
Total Hours		**30**

Comprehensive Examination Requirement

Students will complete a final research project and presentation during their last semester in the program that will serve as the comprehensive exam. The comprehensive exam will require the design, development, presentation, and acceptance of an approved research project. Students must pass the comprehensive exam requirement to complete the degree. Students who do not pass the comprehensive exam requirement on the first attempt will receive feedback and remediation from faculty and be allowed a second attempt during the next semester. Two failures will result in dismissal from the program. Students who do not successfully complete the requirements for the degree within the timelines specified will be dismissed from the program.

Master's level courses in Health Information Management: HIM (http://mycatalog.txstate.edu/graduate/health-professions/information-management/health-informatics-ms/#HIM), HI (http://mycatalog.txstate.edu/graduate/health-professions/information-management/health-informatics-ms/#HI)

Courses Offered

Health Information Management (HIM)

HIM 2360. Medical Terminology.
This course focuses on building a strong foundation in medical terminology by exploring commonly used prefixes, suffixes, and word roots. Students develop the ability to interpret, construct, and apply medical terms in both oral and written contexts. Emphasis is placed on strengthening comprehension, improving professional communication skills, and increasing confidence when engaging with medical language in clinical or academic settings. Recognizing and understanding the specialized vocabulary used across healthcare professions is essential for clear and accurate communication.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 3301. Hospitals and Health Systems.
This course examines the organization, structure, and delivery of healthcare services within hospitals and health systems in the United States. Students explore how healthcare organizations operate across a variety of care settings, including hospitals, physician practices, long-term care facilities, public health agencies, and mental health systems. Emphasis is placed on healthcare stakeholders, workforce roles, and the functions of health information management professionals. Students also examine healthcare financing, insurance, government payment programs, technology, research, and ethical issues influencing the healthcare industry.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 3350. Legal and Ethical Aspects of HIIM.
This course will examine the legal framework governing health information management, emphasizing statutory and regulatory requirements, case law, and practical application in healthcare settings. Students analyze legal processes affecting health information, including privacy, security, access, disclosure, documentation standards, fraud and abuse, and compliance programs. Through case analysis, applied assignments, and examination of federal and state laws such as HIPAA, learners develop skills to evaluate risk, support legally defensible health records, and promote ethical, compliant practices aligned with the practice standards of a health information and informatics professional.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 3364. Medical Coding I.
This course will introduce students to the principles and application of the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) and Procedure Coding System (ICD-10-PCS). Students learn to apply the Official Guidelines for Coding and Reporting and assign accurate diagnosis and procedure codes to inpatient cases based upon the analysis of clinical documentation. Emphasis is placed on coding conventions, healthcare documentation, and accuracy. Through hands-on exercises and case studies, students develop the foundational skills needed for careers in health information management. Prerequisite: HIM 2360 and BIO 2430 and HIM 3463 and HIM 3367 all with a grade of a "C" or better or instructor approval.
3 Credit Hours. 2 Lecture Contact Hours. 2 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions|Lab Required
Grade Mode: Standard Letter

HIM 3367. Pathophysiology and Pharmacology for HIIM.
This course will explore the general disease process emphasizing pathophysiology and pharmacology. Students analyze how diseases develop, progress, and affect the body. Emphasis is on the occurrence of disease, the characteristic signs and symptoms that help identify various conditions, and the significance of diagnostic test values and clinical findings. Students also examine therapeutic treatments, focusing on how different interventions address underlying causes, manage symptoms, and support recovery. Students build a foundation for understanding health, illness, and effective clinical decision#making. Prerequisite: HIM 2360 and HIM 3463 with grades of "C" or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 3380. Quality Management for HIIM.
This course will provide an in-depth overview of regulatory requirements, performance measurement frameworks, and continuous quality improvement practices used across healthcare organizations. Students investigate utilization and risk management strategies, accreditation and compliance standards, and data driven approaches for assessing and enhancing care delivery. Through applied assignments, statistical analysis, visualization projects, case studies, and professional engagement activities, students build practical competencies in data interpretation, quality assessment, performance reporting, and process improvement, preparing them to support safe, effective, and compliant healthcare operations.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 3390. Principles of Management in HIIM.
This course will examine the principles and organizational responsibilities of managing Health Informatics and Information Management departments within hospitals and various healthcare delivery systems. Management topics addressed include communication, planning, time management, organizing , delegation and reorganization, staffing, employee selection, performance appraisal and discipline, budgeting, controlling and benchmarking. Presentation skills, interview techniques and soft skills are also studied. Students apply management theory through case studies and scenario-based analysis to link conceptual frameworks with practical HIIM decision-making. Students develop analytical skills that enable them to evaluate managerial challenges, interpret health information resources, and support evidence-based administrative and strategic decisions.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 3463. Foundations of Health Information Management.
This course will introduce foundational principles of health information management, including health record organization, maintenance, retention, numbering and filing systems, forms control and design, and imaging technologies. Students examine the structure and functions of health records within various healthcare delivery settings and analyze the administrative responsibilities of health information professionals. Through case-based analysis and applied exercises, students evaluate health information management practices against industry standards and regulatory requirements, developing competencies essential for entry-level professional practice.
4 Credit Hours. 3 Lecture Contact Hours. 2 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 4101. Problems in Health Informatics and Information Management.
This course will provide a comprehensive study of contemporary problems in health informatics and information management, emphasizing professional practice issues, organizational change, and applied problem solving. Students will analyze challenges involving data governance, privacy, security, regulatory compliance, health information technologies, and information systems. Using management, analytical, and technical skills, they will evaluate real-world healthcare scenarios, develop evidence-based solutions, and formulate professional recommendations that improve data quality, information governance, and decision-making. The course may be repeated with permission of the department chair.
1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing|Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 4320. Principles of Information Governance.
This course will introduce students to the frameworks, policies, and practices that guide the management of electronic health information across complex healthcare environments. It examines data governance, architecture, quality, security, and interoperability while emphasizing the health information professional's expanding role in ensuring data integrity and supporting organizational decision making. Through quizzes, applied assignments, case studies, discussions, and competency based activities, students develop the analytical, technical, and leadership skills required for effective and responsible information governance in modern healthcare settings.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 4331. Research and Data Analytics for HIIM.
This course will examine research methods and data analytics within the health informatics & information management domains. Students investigate research design, probability, and inferential reasoning while developing applied skills in descriptive and inferential statistics, confidence intervals, correlation, and linear regression. Through programming exercises in Python and statistical software, students compile, preprocess, and analyze healthcare datasets to produce evidence-based findings. The course culminates in a collaborative research project in which students formulate a research question, apply appropriate statistical methods, and present data-driven conclusions using professional visualizations relevant to healthcare practice.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 4363. Comparative Record Systems.
This course will examine the structure, management, and regulatory requirements of patient health records across acute and non-acute healthcare settings. Emphasis is placed on documentation standards, data governance, compliance, and operational practices within acute care, long-term care, ambulatory care, behavioral health, rehabilitation, and correctional health environments. The student analyzes variations in record systems and regulatory frameworks and applies professional standards to support accurate, secure, and compliant health information management across the continuum of care delivery systems.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 4364. Medical Coding II.
This course will introduce students to the principles and application of the Current Procedural Terminology (CPT) and the Healthcare Common Procedure Coding System (HCPCS). An overview of the healthcare revenue cycle and the importance of correct and complete code assignment for medical necessity to justify charges is discussed. Students learn to analyze medical documentation and assign accurate diagnosis, procedure and supply codes for professional and outpatient medical records in accordance with official guidelines for coding and reporting. Prerequisite: HIM 3364 with a grade of a "C" or better or instructor approval.
3 Credit Hours. 2 Lecture Contact Hours. 2 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions|Lab Required
Grade Mode: Standard Letter

HIM 4370. Finance and Reimbursement Methodologies for HIIM.
This course will examine healthcare finance and reimbursement methodologies across the revenue cycle, from patient registration through claims billing and payment adjudication. Students analyze prospective and retrospective payment systems, federal and commercial insurance plans, compliance strategies, chargemaster management, and case mix analysis. Through electronic health record simulation and applied billing exercises, students evaluate revenue cycle processes against federal regulatory requirements and assess the financial impact of coding accuracy on reimbursement outcomes. Students also examine budgeting principles and cost-benefit analysis as tools for informed financial decision-making in healthcare organizations.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 4383. Seminar in Health Information Management.
This course will integrate knowledge and skills acquired throughout the Health Information Management program. Emphasis is placed on professional communication, leadership, self-reflection, interprofessional collaboration, and career readiness. Students apply problem solving, time management, and virtual workplace skills while completing RHIA practice exams and a professional digital career portfolio. The course prepares graduates to transition from academic study to professional practice and lifelong learning in health information management across diverse healthcare settings and emerging technologies.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HIM 4385. Practicum for HIIM.
This course will examine the competencies expected of entry-level Health Informatics and Information Management professionals through structured, practice-oriented assignments. Students explore the scope of administrative, management, and problem-solving skills required for professional readiness, project completion, and portfolio development aligned with industry expectations. Applied learning methodologies, including written projects, case-based exercises, and portfolio-focused assignments, to reinforce professional standards and written communication skills are completed. Students develop analytical skills to demonstrate skill competency, evaluate HIIM scenarios, synthesize information, and present professional-quality work suitable for academic and workforce assessment (WI).
3 Credit Hours. 0 Lecture Contact Hours. 8 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions|Writing Intensive
Grade Mode: Standard Letter

HIM 4388. Administrative Practicum for HIM.
This course will examine administrative and operational functions within health information management practice. Emphasis is placed on the analysis of personnel roles, interdepartmental relationships, and the use of health information technology to support organizational workflows. Students explore committee participation, communication processes, and coordination across healthcare departments as they relate to effective health information operations. Through structured administrative training experiences, students analyze organizational practices, professional responsibilities, and operational decision-making within healthcare environments to support readiness for advanced professional practice. Prerequisite: Department approval.
3 Credit Hours. 0 Lecture Contact Hours. 8 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions|Time Conflicts Permitted|Writing Intensive
Grade Mode: Credit/No Credit

HIM 4389. Experiential Learning in HIIM.
This course will provide supervised experiential learning in a healthcare or related setting designed for Health Information Technology progression students and post-graduates transitioning into the Bachelor of Science in Health Information Management program. Students participate in administrative, management, technical, and problem-solving activities while demonstrating professional conduct and compliance with organizational policies. Emphasis is placed on integrating prior technical knowledge with baccalaureate-level expectations, strengthening communication skills, and applying industry language correctly. Through structured projects, presentations, and evaluation by a site preceptor, students enhance workplace readiness and prepare for advanced professional roles. (WI) Prerequisite: Department approval.
3 Credit Hours. 1 Lecture Contact Hour. 40 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions|Lab Required|Time Conflicts Permitted|Writing Intensive
Grade Mode: Credit/No Credit

HIM 4390. Contemporary Leadership Principles for HIIM.
This course introduces foundational leadership theories and principles for health informatics and information management professionals. Topics include leadership characteristics and styles, influence, teamwork, coaching and mentoring, motivation, conflict management, and communication skills. The course addresses workforce expectations for professionals who can lead digital health initiatives, manage teams, and navigate organizational change in complex healthcare environments. Students apply leadership theories and principles to demonstrate the competencies expected of HIIM graduates and early-career health professions supervisors.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions|Writing Intensive
Grade Mode: Standard Letter

HIM 4393. Project Management for HIIM.
This course will prepare students to lead and manage health informatics and information management projects across clinical, administrative, and IT settings. Emphasizing practical tools and methodologies, the course covers project lifecycle planning, scope definition, schedule and cost estimation, risk and quality management, stakeholder communication, negotiation, proposal development, technology assessment, and regulatory considerations. Students produce progressive deliverables using industry project management tools and complete a capstone deliverable that may involve evaluating current technologies, proposing new applications, or recommending alternative solutions to improve HIIM operations and data governance.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions|Writing Intensive
Grade Mode: Standard Letter

HIM 4501. Advanced Experiential Learning in HIIM.
This course will provide supervised experiential learning in a healthcare or related organization for HIIM students. Learners engage in complex administrative, management, technical, and problem-solving activities while independently completing projects aligned with entry-level HIIM practitioner standards. Emphasis is placed on informed decision-making, operational evaluation, and proposing improvements consistent with industry standards. Students integrate knowledge from across the curriculum, collaborate with organizational leaders, and deliver a comprehensive final presentation demonstrating professional readiness for practice. (WI) Prerequisite: Department approval.
5 Credit Hours. 1 Lecture Contact Hour. 40 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions|Writing Intensive
Grade Mode: Credit/No Credit

HIM 5199B. Thesis B.
This course provides continued enrollment and faculty supervision for students who have completed the required thesis hours but have not yet finished, defended, or submitted their thesis. Students must remain continuously enrolled in a thesis course each fall and spring semester—and summer if receiving supervision or using university resources—until the thesis is approved by The Graduate College. HIM 5199 provides ongoing supervision and structured progress expectations while students complete remaining research, analysis, revisions, or formatting requirements.
1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit

HIM 5300. Advanced Independent Study in Health Information Management.
This course provides a graduate-level independent study experience focused on the in-depth examination of complex and emerging issues in health information management and health informatics. Students conduct advanced scholarly investigation of a selected problem related to health data governance, health information technologies, healthcare analytics, regulatory compliance, or information management strategy. Emphasis is placed on critical evaluation of current research, synthesis of theory and professional practice, and development of evidence-based recommendations that address organizational or industry challenges. The course requires substantial independent inquiry, scholarly writing, and faculty-guided project development. May be repeated for credit with a different emphasis.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5301. Health Information Technology for Managers.
This course introduces core concepts and competencies in health information technology for healthcare professionals and managers. Topics include healthcare information systems, data governance, privacy and security, systems analysis, project management, clinical informatics, and leadership. Through applied case studies and scenario-based analysis, students examine the use of health information technology to support digital health initiatives and organizational performance. Emphasis is placed on developing strategic, technical, and operational understanding of health IT across healthcare settings.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5302. Clinical Foundations of Health Information Management.
This course will provide a clinical foundation in essential health informatics and information management principles and concepts. Students learn and apply concepts related to medical terminology, pathophysiology, pharmacology, anatomy and physiology, basic statistics, and microcomputer applications used in healthcare. Creation of graphical representations of healthcare data utilizing pie charts, bar graphs, and histograms is included. Students acquire the core knowledge needed to understand health data, utilize microcomputer and information systems to support clinical workflows, and develop competence as health informatics and information management professionals.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from Graduate GPA
Grade Mode: Leveling/Assistantships

HIM 5311. Health Informatics and Data Visualization.
This course provides an introduction to the fundamental concepts of data analytics and decision support. Students learn how data is collected, organized, analyzed, and transformed into meaningful insights that guide strategic decisions. A major focus is on quality#driven, data#based decision#making systems applied in business intelligence, consumer informatics, and health information exchanges. Students build practical skills for evaluating health data quality, interpreting analytical results, creating data visualizations and applying findings to provide information for effective organizational decision-making processes.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5320. Biostatistics for Healthcare.
This course will provide an introduction to biostatistics research methods and to the descriptive and inferential statistical techniques required to conduct research studies in healthcare. Students examine foundational approaches for compiling, analyzing, interpreting, and displaying biostatistical information used to report, evaluate, and monitor healthcare outcomes. Students develop practical skills for applying statistical reasoning, selecting analytical methods, and presenting results clearly to support evidence#based decision making across diverse clinical and organizational environments that reflect current practice standards.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5340. Healthcare Informatics.
This course will examine health informatics as a discipline concerned with the acquisition, management, and application of data, information, and knowledge across healthcare settings. Students analyze health information systems, data governance frameworks, and information protection strategies within the context of individual health, population health, public health, and health-related research. Through case-based inquiry, collaborative discussion, and a culminating project, students evaluate informatics solutions for healthcare delivery challenges and assess compliance considerations across the health information life cycle.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5341. Healthcare Terminologies and Vocabularies.
This course provides a comprehensive overview of healthcare terminologies, vocabularies, code sets, classification schemes, and the standards that support their effective use in clinical and administrative settings. Students examine mapping concepts and explore how the Systematized Nomenclature of Medicine (SNOMED) relates to administrative classification systems such as the International Classification of Diseases (ICD). Students analyze the purpose, challenges, and differences encountered when mapping a detailed terminology to a broader classification structure. Students apply data interchange standards such as HL7 and FHIR in healthcare applications.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5342. Information Systems and Technology.
This course will examine the foundational concepts, structures, and strategic uses of health information systems within contemporary healthcare organizations. Students analyze how information technologies support data quality, interoperability, compliance, and organizational performance. Emphasis is placed on system design, database development, project management methodologies, and the evaluation of emerging technologies, including artificial intelligence. Through applied assignments, team projects, and system focused analyses, students learn to assess requirements, recommend solutions, and support the selection, implementation, and governance of data driven health information systems.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5343. Machine Learning for Healthcare Artificial Intelligence.
This course will introduce foundational concepts of machine learning as applied to healthcare artificial intelligence, emphasizing how analytical techniques can be used to extract meaningful insights from complex clinical healthcare data sets. Students learn to evaluate and apply supervised and unsupervised learning algorithms, including decision trees, clustering methods, and related approaches commonly used in healthcare analytics. Students discover the practical considerations for preparing data, selecting appropriate models, and interpreting results to support informed and responsible decision-making processes.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5344. Healthcare Database Management Systems.
This course will introduce essential methods for healthcare database management, emphasizing how structured data supports accurate and timely decision making. Students learn principles of physical data modeling and explore techniques for creating databases, populating tables, optimizing data queries, and maintaining strong integrity controls. Additional topics include designing effective database security systems, analyzing data relationships, and generating meaningful reports that help healthcare organizations manage information responsibly to improve clinical and operational outcomes across a variety of settings and processes.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5351. Data Security, Privacy, and Confidentiality.
This course will provide an in depth examination of the legal, regulatory, ethical, and technological frameworks that govern the privacy, security, and confidentiality of protected health information across the healthcare continuum. Students analyze federal and state laws, including HIPAA Privacy and Security Rules, evaluate organizational policies, and develop strategies for compliance, risk mitigation, and fraud prevention. Through case studies, policy development, team projects, and applied assessments, students learn to identify vulnerabilities, design safeguards, and support organizational accountability in managing health information.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5352. Introduction to Healthcare Information Security.
This course will introduce foundational concepts, principles, and practices in healthcare information security, emphasizing the protection of electronic protected health information across a variety of technical and organizational environments. Students examine major security threats, vulnerabilities, and attack vectors while evaluating methods for preventing breaches, strengthening authentication, and hardening systems. Topics include confidentiality, integrity, availability, encryption, malware, ransomware, intrusion detection and prevention, social engineering, and risk management. Through applied assignments and team projects, students assess organizational safeguards and develop strategies to enhance security readiness and resilience.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5353. Risk Analysis of Healthcare Systems.
This course will focus on the methods, tools, and analytical frameworks used to evaluate and manage security risks within healthcare information systems. Students examine computer systems, networks, and security technologies to identify vulnerabilities and understand how weaknesses can compromise electronic health record environments. Coursework emphasizes risk analysis methodology, HIPAA related considerations, penetration testing concepts, wireless security, and audit requirements. Through team based assessments and applied exercises, students learn to analyze threats, determine potential impacts, prioritize risks, and recommend controls that strengthen organizational security posture.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5363. Health Data Content Structure and Standards.
This course will provide an in depth exploration of health data content, structure, and standards across the healthcare continuum. Students examine documentation requirements, data governance principles, interoperability frameworks, and classification systems used to support accurate, reliable health information. Through applied activities, coding technologies, and analysis of electronic health records, learners develop competencies in data integrity, health information exchange, and information governance. Emphasis is placed on critical thinking, communication, and the evolving role of HIIM professionals in advancing an interoperable health IT ecosystem.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5370. Healthcare Finance and Revenue Cycle Management.
This course will examine financial and revenue cycle management issues that affect the practice of Health Information Management in contemporary healthcare organizations. Topics include the healthcare financial environment, reimbursement methodologies, coding compliance, case mix index, and revenue cycle processes. Financial statement analysis, operating indicators, and regulatory compliance frameworks are analyzed in relation to organizational performance and financial sustainability. Emphasis is placed on the interaction between coding accuracy, reimbursement systems, and financial outcomes. The course also analyzes regulatory and payer requirements that shape revenue cycle operations and financial management practices within healthcare systems.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5380. Assessing Healthcare Quality.
This course will provide an in#depth examination of quality improvement methodologies, including data retrieval, display, outcomes analysis, and key elements of risk management across healthcare sectors. Students explore mechanisms that encourage organization#wide involvement in achieving high#quality patient care aligned with accreditation and regulatory standards. Students develop and apply practical strategies for evaluating performance, interpreting quality indicators, and applying improvement tools that support safer, more efficient clinical, technical, and administrative processes throughout various healthcare environments and operational areas.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5382. Healthcare Compliance.
This course will examine the principles and practices of healthcare compliance with an emphasis on developing, implementing, and evaluating effective compliance programs across healthcare organizations. Students explore regulatory requirements, legal processes affecting health information, risk management strategies, policy implications, and methods for detecting and preventing healthcare fraud. Through applied activities, learners analyze external forces shaping compliance, design training initiatives, and recommend organizational strategies that promote ethical conduct and regulatory adherence. The course prepares graduate health information professionals to support compliance infrastructure and lead initiatives that strengthen accountability and organizational integrity.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5390. Contemporary Leadership Principles for HIIM.
This course will analyze leadership and organizational management principles relevant to health information management professionals in complex healthcare environments. Topics include leadership theory, organizational change, strategic planning, stakeholder engagement, information governance, workforce development, and professional ethics. Leadership roles and decision-making processes are examined in relation to healthcare policy, organizational strategy, and data-driven management practices. Students also analyze approaches for developing strategic alliances, managing organizational change, and integrating ethical and responsive leadership practices within health information management departments and healthcare organizations.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HIM 5397. HIIM Directed Practicum.
This course will provide structured, supervised experiential learning in a healthcare or related organization, enabling students to apply advanced health informatics and information management competencies in a real world setting. Each student participates in an orientation to the host site, engages in supervised professional activities, and completes a project that addresses an organizational need and is suitable for implementation. The practicum reinforces prior coursework, strengthens professional readiness, and supports the transition from academic learning to applied practice. Prerequisite: Department approval.
3 Credit Hours. 0 Lecture Contact Hours. 10 Lab Contact Hours.
Grade Mode: Credit/No Credit

HIM 5399A. Thesis A.
This course will begin the graduate thesis sequence. Students develop a formal thesis proposal, establish a thesis committee, and initiate supervised research. Students refine their research question, conduct a literature review, and prepare the official Thesis Proposal Form required by The Graduate College. Activities include defining the study's scope, selecting appropriate research methods, and completing any required compliance processes such as Institutional Review Board (IRB) or Institutional Animal Care and Use Committee (IACUC) approval. Successful completion of HIM 5399A demonstrates readiness to conduct independent research and provides the foundation for continued thesis work in HIM 5399B.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Credit/No Credit

HIM 5399B. Thesis B.
This course will continue the thesis sequence in which students conduct, analyze, and complete their approved research project. Under the supervision of their thesis committee, students collect and analyze data, interpret findings, and prepare the thesis manuscript according to the Thesis & Dissertation Resource Guides. Students must demonstrate sustained progress each semester of enrollment and remain continuously enrolled in a thesis course until the thesis is defended, approved by the committee, and submitted to The Graduate College. HIM 5399B culminates in the thesis defense and final submission for Graduate College approval.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit

Health Informatics (HI)

HI 3310. Health Informatics.
This course will provide an introduction to health informatics and health information management, emphasizing the foundational technologies, systems, and standards that support modern digital healthcare delivery. Students examine hardware components, systems architecture, operating systems, software applications, artificial intelligence and electronic health record (EHR) systems while exploring information integrity, data quality, clinical vocabularies, and health information exchange. Through applied learning activities, including data analysis with Excel, evaluation of administrative and clinical information systems, and discussions on security and consumer informatics, students develop competencies in health data literacy, data structure, health informatics, and analytics.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HI 3311. Databases in Healthcare.
This course will introduce healthcare professionals to information integrity, data types, data quality and accuracy, different types of data analytics, data dictionary development, data repositories, and data warehouses. Various data sources that populate the electronic health record and examples of data mining are presented. The American Health Information Management Association data quality management model characteristics and how they apply to data collection are examined. Fundamental database concepts are taught using a widely adopted desktop database platform as a practical learning tool to facilitate hands-on application of concepts. Students create a database, tables, entity relationship diagrams, queries, forms, reports, and basic SQL commands. Prerequisite: [ISAN 1323 OR CS 1308] AND [HP 3302 OR PSY 2301 OR MATH 2328 OR SOCI 3307 OR CJ 3347] with a grade of "D" or better.
3 Credit Hours. 3 Lecture Contact Hours. 2 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HI 3321. Population, Public, and Precision Health Informatics.
This course will provide an overview of how informatics principles and practices apply to three similar, but distinct areas of population health, public health, and precision health. Students will explore how health informatics and data analytics apply to foundational topics including health disparities, social determinants of health, behavior change strategies, and digital patient engagement. Students will examine how Augmented Intelligence (AI) is being used to improve efficiency and health outcomes in many different aspects of health care.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 3323. Electronic Health Records & Clinical Decision Support.
This course explores clinical decision support (CDS) systems and electronic health records (EHR), focusing on the role of information in healthcare delivery and decision-making by providers and patients. Students examine key electronic health record tools and techniques, knowledge base development and maintenance, usability considerations, and evaluation methods for CDS systems. Students also examine the various ethical and legal challenges in CDS implementation, patient portals and consumer informatics, as well as best practices for optimizing system effectiveness.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 3324. Change Management & Workflows in HIIM.
This course examines change management principles and workflow analysis methods within health informatics and health information management contexts. Students analyze organizational change frameworks, including Kotter, ADKAR, and Lewin models, to assess their application in health information technology implementations. Through hands-on exercises using process mapping tools, students create workflow diagrams, conduct stakeholder analyses, and develop communication strategies for technology adoption initiatives. Students apply workflow analysis techniques to evaluate clinical and administrative processes, identifying opportunities for improvement in electronic health record and health information system implementations.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 4325. Health Data Standards and Interoperability.
This course will focus on the standards, architectures, and policies that enable the secure, accurate, and meaningful exchange of health information across systems and organizations. Students examine the structure and application of core interoperability standards, including Health Level Seven (HL7) Version 2, HL7 Version 3, Fast Healthcare Interoperability Resources (FHIR), and the Clinical Document Architecture (CDA). Supporting terminologies such as the Systematized Nomenclature of Medicine–Clinical Terms (SNOMED CT) and Logical Observation Identifiers Names and Codes (LOINC) are introduced in the context of semantic interoperability. Emphasis is on interoperability models, health information exchange (HIE), application programming interfaces (APIs), data mapping, and national frameworks such as the Trusted Exchange Framework and Common Agreement (TEFCA). Students apply interoperability principles to evaluate system capabilities, data quality, and compliance with industry and federal expectations.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 4326. Advanced Health Data Analytics.
This course introduces contemporary methods and advanced technologies used in health informatics and health data analytics. Students examine how emerging analytic tools and digital health technologies support data-driven healthcare delivery and improved patient outcomes. Topics include big data analytics, predictive analytics, cloud computing, mobile health, telemedicine, clinical decision support systems, machine learning, and artificial intelligence. Emphasis is placed on applying informatics technologies to analyze healthcare data, support clinical decision-making, and evaluate remote models of care delivery. Through applied activities and case studies, students develop practical skills in using cloud-based analytics tools and emerging informatics technologies to interpret health data, improve care processes, and support evidence-based healthcare management.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 4327. Applied Health Informatics.
This course examines the practical application of health informatics principles across healthcare delivery settings. Students analyze electronic health record systems, clinical decision support tools, and health information exchange standards to evaluate their implementation in clinical and operational workflows. Through hands-on exercises with informatics technologies, students apply data analytics techniques to healthcare datasets and assess interoperability solutions using industry-standard protocols. Students also examine population health informatics, telehealth applications, and information governance strategies, developing the technical and analytical competencies required for health informatics practice in various organizational contexts.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 4401. Advanced Health Informatics and Security.
This course examines the integrated use of health information technologies across healthcare organizations and analyzes their influence on clinical and administrative operations. Students evaluate how information systems support workflow, decision making, and organizational performance while assessing planning, assessment, and implementation processes for health information technology, including system selection and integration. Additional emphasis is placed on identifying vulnerabilities, applying risk assessment methods, and evaluating security controls and compliance frameworks that safeguard electronic health information across various organizational environments.
4 Credit Hours. 3 Lecture Contact Hours. 2 Lab Contact Hours.
Course Attribute(s): Dif Tui- Health Professions
Grade Mode: Standard Letter

HI 5321. Health Systems and Population Health for HIIM.
This course examines the structure and function of health systems and their impact on population health informatics. Students explore key topics including the business of healthcare, health disparities, social determinants of health, and the roles of public and population health informatics initiatives. Additional focus is placed on applying health data for behavior change strategies, patient engagement, case management, and disease management. The course also covers behavioral health, substance use, and the integration of healthcare technology and research in improving health outcomes from a health informatics perspective.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 5326. Advanced Technology in Health Informatics.
This course examines advanced technologies used in health informatics and health data analytics. Students explore safe information exchange, big data and predictive analytics, mobile health, telemedicine, clinical decision support, cloud computing, machine learning, and artificial intelligence. Emphasis is placed on how these tools enhance clinical decision-making, streamline workflows, and improve healthcare outcomes. Through applied activities and case-based learning, students gain practical experience using innovative digital health solutions to address complex challenges in contemporary healthcare environments.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 5327. Advanced Applied Health Informatics.
This course examines advanced health informatics practice with emphasis on enterprise system analysis, strategic leadership, and organizational transformation. Students analyze health information architecture requirements and propose integration approaches using standards-based methods to support enterprise-wide data sharing. Through applied projects, students evaluate artificial intelligence and machine learning approaches for clinical decision support, create governance frameworks for health information management, and formulate strategies for digital health transformation. Students synthesize informatics evidence to produce strategic recommendations that align technology initiatives with organizational objectives and advance health outcomes across populations.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 5345. Geospatial Data Analysis for Healthcare.
This course introduces key concepts and terminology and explore fundamental and advanced methods for geospatial data analysis in healthcare. Students learn to analyze healthcare data sets using geospatial programming languages and software tools to monitor and evaluate health outcomes. Key topics include geospatial analytics, data visualization techniques, spatial pattern identification, and mapping for decision#support. Emphasis is placed on applying geospatial methods to real#world health challenges to enhance understanding of population health trends, resource allocation, and healthcare accessibility.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

HI 5393. Program and Project Management for HIIM.
This course will examine program and project management principles within health informatics and health information management contexts. Students evaluate project management methodologies, including PMBOK, Agile, and hybrid approaches, to assess their application in healthcare technology implementations. Through case-based analysis and applied exercises, students develop project charters, risk management frameworks, and stakeholder communication strategies for complex health IT initiatives. Students also analyze IT governance structures and portfolio management approaches, formulating strategic recommendations that align technology investments with organizational objectives and support successful program outcomes across healthcare enterprises.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter