

HEALTH CARE INFORMATICS (HI)

Health Care Informatics Courses

HI 537 Health Information Technology and Management

3 cr. Undergraduate/Graduate.

Introduction to origins, sources and content of healthcare data; technologies used to manage and control healthcare databases. Introduction to key components of healthcare databases, telecommunications technology, electronic medical record (EMR), project management, and systems evaluation.

Prerequisites: junior standing in Health Sciences program or minor in HCA or HCI cert or cons instr; HS 224(P), INFOST 110(P), or BUS ADM 230(P).

Course Rules: Previously HCA 537.

Last Taught: Fall 2025.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 537G Health Information Technology and Management

3 cr. Undergraduate/Graduate.

Introduction to origins, sources and content of healthcare data; technologies used to manage and control healthcare databases. Introduction to key components of healthcare databases, telecommunications technology, electronic medical record (EMR), project management, and systems evaluation.

Prerequisites: junior standing in Health Sciences program or minor in HCA or HCI cert or cons instr; HS 224(P), INFOST 110(P), or BUS ADM 230(P).

Course Rules: Previously HCA 537.

Last Taught: Fall 2025.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 700 Introduction to Health Care Informatics

3 cr. Graduate.

An introduction to the history, theory, applications, and organizational context of health informatics.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 700.

Last Taught: Fall 2025, Fall 2024, Fall 2023, Fall 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 721 Health Information Technology Procurement

3 cr. Graduate.

A study of the concepts related to acquisition of information technology, including evaluation, selection, and contracts. Emphasis on integration of information technology and strategic planning.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 721.

Last Taught: Spring 2017, Spring 2016, Summer 2015, Spring 2015.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 722 Legal, Ethical and Social Issues in Health Care Informatics

3 cr. Graduate.

Legal, ethical and social issues in the use of health care computer-based technology and information systems.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 722.

Last Taught: Fall 2025, Fall 2024, Fall 2023, Fall 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 723 Health Care Systems Applications - Administrative and Clinical

3 cr. Graduate.

A study of the administrative and clinical applications of health information systems with emphasis on content, functional and technical requirements.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 723.

Last Taught: Spring 2025, Spring 2024, Spring 2023, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 740 Introduction to Biomedical Database Applications

3 cr. Graduate.

The course surveys the emerging field of biomedical database applications, which includes recurrent themes in biomedical database design.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 740.

Last Taught: Spring 2025, Spring 2024, Spring 2023, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 741 Essential Programming for Health Informatics

3 cr. Graduate.

Study of programming topics and skills necessary to perform commonly encountered computational tasks in the field of biomedical and health informatics.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 741.

Last Taught: Spring 2025, Spring 2024, Fall 2023, Fall 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 742 Computational Intelligence in Health Informatics

3 cr. Graduate.

Study of computational intelligence as applied to biomedical and health care informatics.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 742.

Last Taught: Fall 2025, Fall 2024, Fall 2023, Fall 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 743 Predictive Analytics, Machine Learning, and AI in Health

3 cr. Graduate.

Study of predictive analytics methods and their healthcare applications.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 743.

Last Taught: Spring 2025, Spring 2024, Spring 2023, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 744 Text Retrieval and Its Applications in Biomedicine

3 cr. Graduate.

Fundamental issues and current research in text retrieval, text classification and their biomedical applications; programming and use of indexing, query processing, and document retrieval methods.

Prerequisites: graduate standing or consent of instructor.

Course Rules: COMPSCI 744 and HI 744 are jointly offered and count as repeats of one another. Not open to students who have cr in COMPSCI 744, COMPSCI 444 or HCA 444.

Last Taught: Fall 2025, Fall 2024, Fall 2016, Fall 2015.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 745 Big Data and Machine Learning in Health and Beyond

3 cr. Graduate.

Study of big data processing techniques in healthcare.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 745.

Last Taught: Spring 2025, Spring 2024, Spring 2023, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 760 Biomedical and Healthcare Terminology and Ontology

3 cr. Graduate.

Theory and application of ontology, controlled terminology, and coding to health information systems.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 760.

Last Taught: Fall 2024, Fall 2023, Fall 2022, Fall 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 776 Biomedical Natural Language Processing

3 cr. Graduate.

Study of basic and essential concepts, techniques, and tools of Natural Language Processing for its application to the biomedical domain.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 776.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 789 Biomedical Information Extraction

3 cr. Graduate.

Applications of Natural Language Processing Methods to Biomedical Information Extraction Tasks.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 789.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 890 Health Care Informatics Research and Thesis

1-6 cr. Graduate.

Preparation of a thesis under the direction of the student's major professor.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 890. Satisfactory/Unsatisfactory only.

Last Taught: Fall 2025, Spring 2025, Summer 2024, Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 891 Health Care Informatics Professional Project

3 cr. Graduate.

Preparation of a professional project under the supervision of the student's major professor.

Prerequisites: graduate standing or consent of instructor.

Course Rules: Previously HCA 891. Satisfactory/Unsatisfactory only.

Last Taught: Fall 2025, Summer 2025, Spring 2025, Fall 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

HI 990 Research and Dissertation

1-6 cr. Graduate.

Research in Health Care Informatics.

Prerequisites: graduate standing.

Course Rules: Repeatable.

Last Taught: Fall 2025, Summer 2025, Spring 2025, Fall 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>