

CLINICAL AND HEALTH INFORMATICS, CAPSTONE CERTIFICATE

This online capstone certificate provides students with an interdisciplinary approach to develop innovative solutions and improve current practices in healthcare operations, decision-making, policy, clinical practice, biomedical and health information systems, and data security.

Based in UW–Madison’s Institute for Clinical and Translation Research, this certificate is designed as an academic springboard to meet the growing workforce demand for informaticists. This capstone certificate can be completed in one year, to promptly serve professionals for clinical or information technology-related work in the healthcare industry. Coursework stacks directly into an MS program in Clinical & Health Informatics for learners who want to continue for a graduate degree.

HOW TO GET IN

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Admission Process – Capstone Certificate students are admitted as University Special students by Adult Career and Special Student Services (ACSSS): <https://acsss.wisc.edu/apply/>. An application is received and processed by ACSSS with a final decision held for approval by the Administrative Program Director for Clinical & Health Informatics.

Applicants must meet the minimum requirements for admission to Graduate Programs & Services at the University of Wisconsin–Madison (<https://grad.wisc.edu/apply/requirements/>) as well as the following program requirements:

- 2 Letters of Recommendation – must address the applicant’s professional capacity
- Personal Statement – describing the role of the Capstone Certificate in the applicant’s professional goals. If there is no previous academic or career experience in health, information technology, or similar fields, the statement must provide a plan for how program knowledge will be applied professionally.

Application Deadlines

Spring Term: January 1st

Summer Term: May 1st

Fall Term: August 15th

REQUIREMENTS

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Overall Graduate GPA Requirement: 3.00

- Only courses used for CC-CHI completion count toward overall GPA calculation.

Required Coursework: Students must complete at least 9 credits of coursework. Choose 3–5 courses from the following list:

Code	Title	Credits
B M I 573	Foundations of Data-Driven Healthcare	3
E P D 706	Change Management	1
I S Y E 557	Human Factors Engineering for Healthcare Systems	3
NURSING 702	Health Promotion and Disease Prevention in Diverse Communities	3
NURSING 715	Evaluation of Health Informatics Solutions	3
NURSING 772	Leadership and Organizational Decision-Making in Health Care	3
OTM 753	Healthcare Operations Management ¹	3
PHM PRAC 617	Health System Pharmacy Data Analysis and Informatics	2
POP HLTH 709	Translational and Outcomes Research in Health and Health Care	3
POP HLTH 795	Principles of Population Health Sciences ¹	3

Students in this program may not take courses outside the prescribed curriculum without faculty advisor and program director approval. Students in this program cannot enroll concurrently in other undergraduate, graduate, or certificate programs.

¹ POP HLTH 795 Principles of Population Health Sciences and OTM 753 Healthcare Operations Management must be taken for 3 credits to fulfill the requirement for the Clinical and Health Informatics Capstone Certificate

MINIMUM REQUIREMENTS FOR CAPSTONE CERTIFICATE COMPLETION

- Students must earn a minimum grade of C in each course used to meet Capstone Certificate requirements.
- Courses in which a student elects the pass/fail or audit option will not count toward completion of Capstone Certificate requirements.
- All of the Capstone Certificate credits must be earned "in residence" (which includes on campus and distance-delivered courses) at UW–Madison.
- All of the Capstone Certificate credits must be earned while enrolled in the Capstone Certificate program.

Individual Capstone Certificate programs may have additional requirements for completion, which will be listed above as/if applicable.

LEARNING OUTCOMES

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1. Health: Describe and explain background knowledge of the history, goals, methods and challenges of the major health sciences, including

human biology, genomics, clinical and translational science, healthcare delivery, personal health and population health.

2. Information Science and Technology: Demonstrate background knowledge of concepts, terminology, methods and tools of information science and technology for managing and analyzing data, information and knowledge.
3. Social and Behavioral Science: Evaluate the effects of social, behavioral, legal, psychological, management, cognitive, and economic theories, methods, and models applicable to health informatics from multiple levels including individual, social group, and society.
4. Health Information Science and Technology: Determine concepts and recognize tools for managing and analyzing biomedical and health data, information, and knowledge. Key foci include systems design and development, standards, integration, interoperability, and protection of biomedical and health information.
5. Human Factors and Socio-technical Systems: Apply social behavioral theories and human factors engineering to better understand the interaction between users and information technologies within the organizational, social, and physical contexts of their lives, and apply this understanding in information system design.
6. Social and Behavioral Aspects of Health: Evaluate and apply social determinants of health and patient-generated data to analyze problems arising from health or disease, to recognize the implications of these problems on daily activities, and to recognize and/or develop practical solutions to managing these problems.
7. Social, Behavioral, and Information Science and Technology Applied to Health: Appraise the diverse foundation concepts and facets to develop integrative approaches to the design, implementation, and evaluation of health informatics solutions.
8. Professionalism: Demonstrate conduct that reflects the aims or qualities that characterize a professional person encompassing especially a defined body of knowledge and skills and their lifelong maintenance as well as adherence to an ethical code.
9. Inter-professional Collaborative Practice: Exhibit behavior that reflects the foundations of values/ethics, roles/responsibilities, inter-professional communication practices, and inter-professional teamwork for team-based practice.
10. Leadership: Demonstrate the following characteristics: credibility, honest, competence, ability to inspire, and ability to formulate and communicate a vision.