

Graduate Certificate in Informatics

The **University of Utah Informatics Certificate Program** is designed for interdisciplinary team members who desire to develop skills and expertise in health informatics.

As defined by the U.S. National Library of Medicine, *health informatics is the interdisciplinary study of the design, development, adoption, and application of IT-based innovations in healthcare services delivery, management, and planning*. (January, 2014). This includes everything from quality improvement and safety to workflow analysis, clinical documentation, clinical decision support, wearable devices, patient engagement and patient-centered care across all disciplines.

Students who gain knowledge and expertise in health informatics to complement their major programs of study have the opportunity to:

- Distinguish expertise in an increasingly competitive marketplace
- Expand career opportunities
- Increase salary
- Validate knowledge, competency and credibility
- Gain skills and tools to make a difference in organizations and communities
- Demonstrate commitment to continuing professional development
- Gain a sense of personal and professional achievements
- Lead quality improvement and safety initiatives
- Lead projects for implementation and workflow improvement

Students may select from a variety of courses and “tailor” their learning and skills development according to their individual interests, primary programs of study and specialty. Students from ALL Health Science Graduate Programs are encouraged to consider the Informatics Graduate Certificate.

The 15 credit-hour certificate is co-facilitated by the College of Nursing Informatics Specialty and the School of Medicine (Department of Biomedical Informatics) Programs.

The list below provides an overview of some of the available informatics- specific courses offered through the College of Nursing. Many of these courses are co-taught with the Department of Biomedical Informatics. Other courses are available from Biomedical Informatics or other related Departments on campus if approved. Sample course descriptions can be found on the reverse side.

NURS 6102/BMI 6102	Human Systems Interaction
NURS 6120/BMI 6120	Standards in Biomedical Informatics
NURS 6075	Statistics for Health Informatics
NURS 6661	Project Management in Health Informatics
NURS 6702	Foundations of health Informatics (8 week course)
NURS 6802/BMI 6300	Clinical Decision Support
NURS 6803	Clinical Database Design
NURS 6806	Computer Science Fundamentals for Clinicians
NURS 6807	Systems Analysis and Implementation
NURS 6950	Independent Study/Practicum (student-specific experience)

NURS 6102/BMI 6102 Human Systems Interaction Students will be exposed to socio-technical perspectives regarding human-computer interactions across various healthcare contexts. Cognitive models, theories, and methods pertinent to human-systems interactions frame the course. The over-all perspective of dual process models will provide the theoretical foundation.

NURS 6120/BMI 6120 Standards in Biomedical Informatics Course focuses on vocabularies and standards commonly used in clinical and public health systems, particularly those required for information exchange and meaningful use of data.

NURS 6661 Project Management in Health Informatics Prepares students to use formal, state-of-the-art project management techniques in health informatics projects. Course content includes: Project initiation, planning, implementation and project termination.

NURS 6702 Foundations of Health Informatics Overview of basic concepts for health informatics, including the process of generating knowledge from data and information in clinical settings.

NURS 6075 Statistics for Health Informatics Introduction to statistics with an emphasis on problems encountered in the field of informatics and using commonly used software

NURS 6802/BMI 6300 Clinical Decision Support
Decision-making theories and strategies related to clinical reasoning discussed.

NURS 6803 Clinical Database Design
Development and maintenance of clinical databases or application in solving clinical problems. Topics include: Design methods, database structures, indexing, data dictionaries, retrieval languages, and data security.

NURS 6806 Computer Science Fundamentals for Clinicians
Introduction of computer science concepts, intended for students with a clinical background without prior programming experience.

NURS 6807 Systems Analysis and Implementation
Course focuses on clinical systems analysis and design, for development and implementation of health information systems that support practice in health care settings. Concepts related to the whole systems life cycle are applied.

NURS 6950 Independent Study/Practicum
Course focuses on individual student interests.

Questions? Please contact:

Dr. Catherine Staes
Nursing Informatics Specialty Director
catherine.staes@hsc.utah.edu

Ashley Cadiz
MS & Certificate Program Manager
ashley.cadiz@nurs.utah.edu