NNI-Nursing-Informatics

NNI 621. Conceptual Basis for Informatics Practice. 3 Hours.
This course is based on the concepts underpinning nursing informatics practice as delineated in the American Nurses Association s Scope and Standards of Nursing Informatics Practice. Students will explore theories of adult education, communication, systems, decision making, human-computer interaction and the concepts of data, information and knowledge. They will have the opportunity to learn how these theories and concepts are utilized in informatics practice.Prerequisite: NUR 643.
Prerequisites: NUR 643 [Min Grade: C](Can be taken Concurrently)

NNI 622. The Information System Life Cycle. 3 Hours.
This offering is designed to be the culminating course of the nursing informatics specialist curriculum. This course ties together all previous course work together in an application based review of the information system life cycle from systems analysis to system evaluation and maintenance. The course is designed to be taken in conjunction with a clinical experience in which the student will be exposed to aspects of the hands on application of course content.
Prerequisites: NUR 643 [Min Grade: C] and NNI 621 [Min Grade: B]

NNI 625. Organizational Process and Behavior. 3 Hours.
This course will assist the Nurse Informatician to understand and evaluate how organizations change and innovate with new information technologies to compete in the marketplaces, collaborate with partners, serve customers, motivate employees, and improve operations. This course provides the students with the opportunities to: learn the main theoretical perspectives on managing IT change through innovations: familiarize with current best practices and models of change of innovation through IT: and develop innovation skills in various organizational settings and within the framework of project management.
Prerequisites: (NUR 610 [Min Grade: C] or NUR 610 [Min Grade: C]) and (NHSA 631 [Min Grade: C] or NHSA 631 [Min Grade: C]) and NUR 643 [Min Grade: C](Can be taken Concurrently)

NNI 630. Biomedical Informatics Research. 3 Hours.
This course provides an overview of the field of biomedical informatics, including subfields ranging from bioinformatics to public health informatics, from the perspective of research accomplishments and challenges. Each topic will be taken from a historical perspective-where are we now and how did we get here 0 and then explore the current research directions. There will be emphasis on underlying concepts, theories and methods. Although this course can serve as a survey of the field, it is also intended for students who will pursue research in some area of biomedical informatics. This course would be useful for any students doing research using healthcare data.

NNI 631. Foundations ofNursing Informatics-Scope of Practice, Models, Standards, and Theories. 3 Hours.
In this course, the graduate nursing informatics student will be grounded in the Scope and Standards of Nursing Informatics (NI)Practice beginning with forming an understanding of the foundational model of all informatics: data to information to knowledge to wisdom (DIKW). NI students will then apply the DIKW model to an examination of concept oriented, standardized terminologies and the impact of this on evidence formation, outcomes, evaluation, and the calculation of the value of nursing. The graduate nursing informatics student will explore standards guiding interoperability, security, and data transfer. Lastly, the nursing informatics student will analyze and evaluate the role of the Informatics Nurse Specialist in leading change using relevant informatics theories.
Prerequisites: NHSL 604 [Min Grade: B] and NHSL 610 [Min Grade: B]

NNI 632. Nursing Informatics Systems Analysis and Design. 4 Hours.
Information systems development and implementation is a process in which technical, organizational, and human aspects of a system are analyzed with the goal of creating an improved and more efficient system. The process of systems analysis and design contains best practice process but is still largely an art. There is a high dependence on the skills of individual analysts and designers even though there are established principles, methods, and tools. This course will give nursing informatics graduate students an understanding of the most common tools, techniques, and theories currently used in healthcare information systems analysis and design.
Prerequisites: NNI 631 [Min Grade: B]

NNI 633. Informatics and Information Technology Review to Advance Care. 3 Hours.
In this course, the graduate informatics nurse student will be presented with the latest federal policies directing the infusion of technology at the point of care and the broad goals of expected impact on the health of the nation. A survey and critical appraisal of the latest technologies used in administrative, clinical, research, educational, and consumer spaces will be facilitated along with best practice implementation strategies and research to support optimal outcomes and quality.
Prerequisites: NNI 631 [Min Grade: B]

NNI 634. Informatics Project Evaluation/Human Factors. 3 Hours.
In this course, the graduate student informatics nurse will gain the knowledge and skills to effectively develop an evaluation protocol for the implementation of a health information technology. This course will assist the student to understand the challenges of evaluation in this specialization. Stude3nts will: determine objectives for study; design a study methodology; offer possible measurement tools; and will compare and contrast analyses. This course will include a review of human factors as part of the measurement process.
Prerequisites: NNI 632 [Min Grade: B] and NNI 633 [Min Grade: B] and NHSA 631 [Min Grade: B]

NNI 635. Essentials of Project Management for Nursing Information Specialists. 3 Hours.
This course emphasizes the application of nursing informatics theories, models, and skill to the role of the informatics nurse specialist as a project manager. In this course, students will demonstrate the application of the concepts, principles, and practices of formal informatics project management through the knowledge, skills, and competencies of an informatics nurse specialist. An informatics project will be planned, implemented and evaluated in a selected healthcare-related setting.
Prerequisites: NNI 632 [Min Grade: B] or NNI 633 [Min Grade: B] or NHSA 631 [Min Grade: B]

NNI 636. Data Analytics for the Informatics Nurse Specialist. 3 Hours.
The purpose of this course is to provide the informatics nurse specialist graduate students with an overarching knowledge of Big Data, Data Lifecycle, and the use of advanced technologies with Big Data in healthcare while considering the current challenges. The focus of the course will be to master the domain knowledge and appropriate theories while mastering the use of analytics software using a real-life large dataset. The emphasis of this course will be for the students to apply this knowledge through the use and application of data visualization software to answer healthcare questions/problems. students will: propose study questions/problems; visually display data results through a data visualization software (Tableau); and synthesize their questions and answers. A presentation of results will be the culminating experience.
Prerequisites: NNI 631 [Min Grade: B] and NNI 632 [Min Grade: B]

NNI 685L. Nursing Informatics: Practicum I. 2 Hours.
This course provides an experimental base for students to develop and implement the role of the informatics nurse specialist. Emphasis is placed on the synthesis and application of the theories and concepts that provide the basis of informatics practice. Students will develop the ability to collaborate in multidisciplinary groups, identifying areas for the design and implementation of administrative and clinical technological applications. Students will spend 100 hours during the semester working with a clinical informatics specialist in practice.

NNI 686L. Nursing Informatics: Practicum II. 2 Hours.
This course provides an experimental base for students to develop and implement the role of the informatics nursing specialist at the organizational level. Students will be paired with a nursing informatics specialist working on aspects of system analysis, design, implementation and evaluation. This experience requires the student synthesize knowledge gained in all previous courses in the curriculum. This course includes 100 hours of clinical practice and is designed to function as the clinical capstone to the NNI curriculum. A comprehensive examination is given during this residency course. Failure to pass the comprehensive examination will delay graduation.
Prerequisites: NNI 685L [Min Grade: P]

NNI 687. Supplemental Nursing Course for Support. 1 Hour.
The purpose of this course is to introduce a structured format for students to review concepts and processes related to a specific patient population. This course focuses on the content presented throughout the program including pathophysiology, pharmacology, health assessment, evidence-based practice, leadership, and all specialty track content according to the program of study. The emphasis of this course is on test-taking strategies and the strengthening of the student's knowledge base.

NNI 730. Biomedical Informatics Research. 3 Hours.
This course provides an overview of the field of biomedical informatics, including subfields ranging from bioinformatics to public health informatics, from the perspective of research accomplishments and challenges. Each topic will be taken from historical perspective- where are we now and how did we get here- and then explore the current research directions. There will be emphasis on underlying concepts, theories and methods. Although this course can serve as a survey of the field, it is also intended for students who will pursue research in some area of biomedical informatics. This course would be useful for any student doing research using healthcare data.