

Official Program Outline



POST MASTER'S CERTIFICATE IN NURSING INFORMATICS

PROGRAM DESCRIPTION

The Post Master's Certificate in Nursing Informatics program will provide students with academic knowledge, skills, and expertise in healthcare data management, clinical information systems, healthcare technologies, interoperability, and AI applications in healthcare. Students will integrate nursing science, computer science, and information science to analyze healthcare data, leverage AI-driven tools and analytics, optimize clinical and operational workflows, collaborate with interdisciplinary and community partners, and support data-informed decision-making to improve patient, population, and organizational outcomes. This program is for licensed registered nurses (current, unrestricted license) with a Master of Science in Nursing degree interested in advancing their careers to become nurse informaticists and leaders in healthcare technology, interoperability, AI integration, and data-informed practice.

Prior to enrollment, individuals considering a Post Master's Certificate program should check with their applicable state board of nursing before enrolling in any graduate nursing program for any specific state requirements.

NURSING INFORMATICS PROGRAM LEARNING OUTCOMES

Upon completion of this program, the student should be able to:

1. Integrate nursing science, information science, computer science, interoperability principles, and healthcare data exchange processes into professional nursing informatics practice to support system design, communication, and clinical decision-making.
2. Analyze health data to support decision-making, quality improvement, patient outcomes, and population health initiatives while applying principles of data governance, privacy, and security.
3. Evaluate the impact of healthcare technologies, AI, interoperability, and information systems on patient safety, quality of care, care coordination, and organizational outcomes.
4. Design strategies to coordinate healthcare information system implementation, optimization, and governance across interdisciplinary healthcare environments.
5. Apply evidence-based practice, regulatory standards, ethical use of AI and health information, and data management principles to support safe, equitable, and compliant nursing informatics practice.
6. Develop leadership, communication, change management, and interprofessional collaboration strategies to support healthcare innovation, AI adoption, workflow improvement, technology adoption, and data sharing across healthcare and community organizations.

SPECIAL ADMISSIONS REQUIREMENTS

Please refer to the "Special Nursing Program Requirements for Admission" policy in the Admissions Information section of this catalog for nursing program admission requirements. Students enrolling in the PMCNI program must complete NU 610, NU 621, and NU 636 prior to acceptance. In most instances, these courses would be included in a Master of Science in Nursing program.

PROGRAM CONTENT

A minimum of 16.00 semester credit hours, in addition to 9 semester credit hours that may be transferred in (NU 610, NU 621, and NU 636), are required for completion of the certificate.

REQUIRED SPECIALTY COURSES

All courses, 16.00 semester credit hours, are required.

Course Number	Course Name	Prerequisites/Corequisites	Semester Credit Hours
NU 686	Nursing Informatics Principles and Practice	NU 700, NU 760	3.00
NU 687	Healthcare Informatics Systems, Interoperability, and Data Governance	NU 686	3.00
NU 688	Applied Clinical Informatics and Workflow Optimization	NU 700, NU 760	3.00
NU 689	Professional Practice in Nursing Informatics	NU 688	3.00
NU 725 Or NU 730	Technology and Nursing Informatics in Advanced Practice Or Systems-Based Practice	None	3.00
PD 600	Applied Scholarship	None	1.00

DISTRIBUTION OF CONTACT HOURS BY COURSE

Course Number	Lecture Hours	Lab Hours	Clinical Hours	Total Contact Hours	Credits
NU 686	45.00	0.00	0.00	45.00	3.00
NU 687	45.00	0.00	0.00	45.00	3.00
NU 688	30.00	0.00	45.00	75.00	3.00
NU 689	15.00	0.00	90.00	105.00	3.00
NU 725 or NU 730	45.00	0.00	0.00	45.00	3.00
PD 600	15.00	0.00	0.00	15.00	1.00
Totals	195.00	0.00	135.00	330.00	16.00

NEW COURSE DESCRIPTIONS

Course	Course Description
NU 686 Nursing Informatics Principles and Practice	This course introduces students to the role of the nurse informaticist, foundational informatics principles, healthcare technologies, clinical information systems, AI applications, ethical and legal considerations, data literacy, and evidence-based informatics practice. Upon completion, students will demonstrate an understanding of nursing informatics and its application in leveraging information technology to improve patient outcomes.
NU 687 Healthcare Informatics Systems, Interoperability, and Data Governance	This course prepares students to analyze interoperability frameworks, data governance structures, and clinical information systems that drive effective health data management. Students will evaluate the impact of healthcare technologies and AI on quality outcomes, apply systems and workflow design principles, and develop leadership strategies for technology implementation, governance, policy development, and ethical data-sharing initiatives.
NU 688 Applied Clinical Informatics and Workflow Optimization	This course prepares students to apply nursing informatics principles within complex organizational environments, with emphasis on evaluating clinical workflows, information systems, and health data to drive quality improvement and patient-centered outcomes. Students will examine interoperability, data-driven decision-support tools, and stakeholder requirements to inform technology implementation, workflow design, and user education initiatives. Ethical, legal, regulatory, and security standards governing healthcare information and AI are integrated throughout, culminating in the design of evidence-based informatics strategies that support organizational improvement and innovation.
NU 689 Professional Practice in Nursing Informatics	This course prepares advanced practice nurses and nursing informatics professionals to integrate nursing science, information science, and computer science principles within complex healthcare environments. Students evaluate healthcare data, analytics, AI applications, and quality metrics to inform strategic planning and population health initiatives, while assessing the impact of healthcare technologies, AI, and interoperability frameworks on clinical and organizational outcomes. The course addresses interdisciplinary leadership, stakeholder engagement, and the ethical, legal, and governance dimensions of informatics practice. Students apply these competencies to design evidence-based strategies that drive data-sharing, workflow improvement, and organizational transformation.