HERZING UNIVERSITY

Course Syllabus

Course Title: Technology and Nursing Informatics in Advanced Practice

Course Code: NU 725

Contact Hours: 45/0/0/45

Credit hours: 3.0

Course Description:

This course will explore information and communication technologies and informatics processes used to provide care, gather data, drive decision making, and manage and improve the delivery of safe, high-quality, and efficient healthcare services in accordance with best practice and professional and regulatory standards. Students will perform an information technology analysis of their practice and develop strategic planning to direct the selection and implementation of new information and communication technologies for their practice setting.

Program: Graduate Nursing

Core Graduate Nursing Outcomes:

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

- Integrate scientific evidence from nursing and biopsychosocial disciplines, genetics, public health, quality improvement, and organizational sciences when designing and implementing outcome measures in diverse settings and through the lifespan.
- Demonstrate leadership skills that emphasize ethical and critical decision-making, fiscal responsibility, inter-professional relationships that promote safe, quality care within a systems framework.
- Apply methods, tools, performance measures, and evidence-based standards when evaluating quality indicators within an organizational system.
- Synthesize theories, models and research findings inherent to nursing practice, education and management to guide an organization or healthcare system towards achieving successful outcomes.
- Apply client/patient care technologies and informatics to coordinate and ensure safe quality care and promote effective communication among members of the interprofessional healthcare team.
- Analyze ethical, legal and sociocultural factors to influence policy development and healthcare delivery systems that promote the health of individuals and populations.
- Articulate a leadership role within interprofessional teams through effective communication, collaboration and consultation with other professionals to manage, coordinate care and provide safe, quality family-centered and population-based care.
- Incorporate organizational and culturally sensitive client and population centered concepts in the planning, delivery, management and evaluation of direct and indirect evidence-based health promotion care and services to specified individuals, families and populations.
- Implement scholarly activities in selected individuals, populations, and systems.

Course Learning Objectives:

1. Complete an assessment of communication, technology, and informatics processes from practice.
2. Explore and evaluate technology for practice.
3. Propose an innovative technology-based improvement for practice which addresses communication, quality, safety, or efficiency.
4. Examine legal and ethical issues related to technology and healthcare.
5. Evaluate technology between health systems and consumers.

Topics & Learning Activities

Unit	Topics & Activities	Points Possible
1 Introduction to Healthcare Technology	**Topics:** • Policy – HIPAA, HITECH • Education – TIGER, AACN • Legal – privacy, confidentiality • Ethical issues **Reading:** • Articles and videos presented in the unit **Discussion(s):** • Discussion board - Describe a legal or ethical issue in technology you have encountered.	**100**
2 Information Systems – Selecting/ Design	**Topics:** • Project Management • Waterfall method • Agile Method • Patient care support systems • Interoperability **Reading:** • Articles and videos presented in the unit **Discussion(s):** • Discussion board – Discuss the risks and benefits of interoperability.	**100**

3 **Information System – Implementing Evaluating**	**Topics:** • Workflow Analysis • Implementation • Evaluation • Standardized Data **Reading:** • Articles and videos presented in the unit **Assignment(s):** • Presentation – Using the Waterfall or Agile method describe adding a technology to your current practice setting.	**150**
4 **Data Evaluation/ Quality Improvement**	**Topics:** • Value Based programs • Quality Measures – healthcare domains, benchmarking • Metrics – MIPS, MACRA, Meaningful use • Big data • Blockchain **Reading:** • Articles and videos presented in the unit **Discussion(s):** • Discussion Board – Discuss the value of accessing data relative to metrics/benchmarks and analyzing those for improving healthcare delivery.	**100**
5 **Patient Care**	**Topics:** • Organizational Information Systems • EHR • Telehealth • Patient Safety • Community Health **Reading:** • Articles and videos presented in the unit **Assignment(s):** • Technology Integration 1: Gap Analysis Presentation - Identify a practice process which could be improved by a technology integration or that could be/has been incorporated into a graduate scholarship project	**150**
6 **Patient Use**	**Topics:** • Consumer information – digital health, health literacy • Social Media • IoT • mHealth • Remote monitoring	

	Reading: • Articles and videos presented in the unit **Assignment(s):** • Technology Integration 2: Concept Map - Assess barriers to the technology integration for the practice/graduate scholarship project	**150**
7 Emerging Technology	**Topics:** • Data Science • Bioinformatics/ Biomedical informatics • Precision medicine/ Genomics • AI • Future **Reading:** • Articles and videos presented in the unit **Assignment(s):** • Technology Integration 3: PDSA - Design and describe the process for the technology integration into the practice/graduate scholarship; describe how the selected technology could/will be evaluated.	**150**
8 Reflection	**Topics:** • Reflection **Discussion(s):** • Reflection on course objectives	**100**

*Pass rates may vary by program requirement- Refer to the University Catalog

A	90.00% - 100.00%
B	80.00% - 89.99%
F	0.00% - 79.99%

Grade Summary	Points Possible	Weight out of 1000 pts.	Method of Scoring Points Rubric
Assignments (4 x 150 pts)	600	60%	Rubric
Discussions (4 x 100 pts)	400	40%	Rubric
Total	1000	100%	

THIRD-PARTY TESTING

Assessment and remediation are critical components of nursing education. Students in the nursing program may be required to take third-party, standardized exams in an electronic format throughout the curriculum. These standardized tests are valid and reliable predictors of success on the NCLEX examination and provide valuable feedback concerning student strengths and weaknesses. Student learning outcome data identifies content areas that require remediation, allowing faculty to personalize student support and intervention. Courses that utilize third-party exams will incorporate the points earned on the test as a percentage of the final grade earned for the course as specified in the course syllabus.

POLICIES

*University policies, such as attendance philosophy, notification of absences, extenuating circumstances, accommodation requests, academic dishonesty, late policy, grading and grading symbols, and student conduct are included in the University catalog. Students should reference the catalog for the complete listing of policies.

**Note: In some cases, program and/or course specific information may be appended to the syllabus as an addendum. In these instances, students must consider the syllabus to be inclusive of any appended information, and as such, students must adhere to all course requirements as described in the document in its entirety.*