2019

906 Informatics for Advanced Nursing Practice in Complex Health Systems

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COURSE NUMBER: NURS 906

COURSE TITLE: Informatics for Advanced Nursing Practice in Complex Health Systems

DOCTOR OF NURSING
PRACTICE ESSENTIAL: Essential III and IV

CREDIT HOURS: 3 Semester Hours

PRE-REQUISITE: Admission to the DNP Program

FACULTY: Dietra Watson, MSN Informatics, RN
                               Adjunct Professor

OFFICE, OFFICE HOURS,   watsond4@xavier.edu
CONTACT INFORMATION:

COURSE DESCRIPTION:
This course builds upon knowledge of healthcare technologies and the management of individual and aggregate level data. Leadership, knowledge, project management, and technical skills are applied within an interprofessional healthcare environment to select, use and evaluate population based healthcare information systems. Programs that evaluate and monitor outcomes of care, quality improvement, consumer use of healthcare information systems, and patient care technology will be analyzed. Legal, ethical, global, holistic and interprofessional considerations will be emphasized.

COURSE OBJECTIVES:

1. Analyze emerging patient care technology utilized by healthcare and consumer information systems.
2. Interpret data from population based programs for practice and organizational decision support and dissemination within the interprofessional environment.
3. Employ databases that support evidence based healthcare delivery and improve quality outcome within complex healthcare systems.
4. Evaluate programs that monitor outcomes using design and selection principles
5. Collaborate with the interprofessional team to design a plan for the extraction and analysis of data from healthcare information systems supporting practice and organizational decision making.
6. Demonstrate legal, ethical, and interprofessional principles associated with the provision of technology enhanced healthcare.

REQUIRED TEXTBOOKS:

McGonigle, D & Mastrian, K. *Nursing informatics and the foundation of knowledge,* (3rd ed.). Burlington, MA: Jones & Bartlett Learning. ISBN: 978-1284043518

American Psychological Association. (2009). *Publication Manual of the American Psychological Association*
(6[th]ed.). (or later). Washington, DC: American Psychological Association. ISBN-13: 978-1-4338-0561-5

OTHER RESOURCES:

Course and supplemental materials/links will be made available to students through Canvas. Xavier's Library offers a convenient service of providing direct access to many full text articles online. If an article is not available, you may request the article through our Library's Interlibrary Loan system. Only materials from reputable, professional web sites and journals should be considered.

Additional scholarly sources chosen by the student.

COURSE TIMES: Online Format

TEACHING/LEARNING STRATEGIES: A variety of instructional methods and learning activities will be used in this course, and may include: online discussions; individual readings; external sources and web sites; written assignments; viewing of short audiovisuals; reflections; case studies; review of scholarly articles and current events/news documents, and/or scholarly websites; and an informatics focused paper and presentation. Students should check the course Canvas site for all weekly learning activities and assignments. Early communication with the faculty is essential for any difficulties related to course assignments, requirements and/or technical problems.

EVALUATION STRATEGIES:

Assignment	Percentage Total
• Discussion Posts and Responses in Canvas • Assignments • Project Paper • Project Presentation to Class	40% 15% 25% 20%
TOTAL	100%

GRADING SCALE:

94 and up = A
90-93 = A-
87-89 = B+
84-86 = B
80-83 = B-
77-79 = C+
70-76 = C
69 and
below = F

STRUCTURE of COURSE:

This class uses Canvas to supplement course information and augment the learning environment. The Canvas platform provides faculty information, schedule of assignments, clear links to learning resources and access to Gradebook. Students should access email and Canvas regularly in order to remain informed and to view/submit course assignments.

STUDENT CORPORTMENT: Professional behavior is expected and is cultivated throughout this course, and the DNP curriculum. Appropriate professional behavior is exemplified by, though not limited to, activities such as actively listening to peer/faculty ideas, assuming responsibility for one's own actions, and giving consideration and respect to the ideas of others.

OFFICE of ACADEMIC SUPPORT:

 The Office of Academic Support offers tutoring, Supplemental Instruction (SI), and study groups. For information about these services, contact Stephanie Daniels at 745-3214 or danielss3@xavier.edu. The OAS is located on the fifth floor of the Conaton Learning Commons, Suite 514.

OFFICE of DISABILITY SERVICES:

Any student who feels he/she may need an accommodation based on the impact of a documented disability should notify the course instructor and contact Cassandra Jones in the Office of Disability Services at 745-3280 or e-mail jonesc20@xavier.edu to coordinate reasonable accommodations.

CAVEAT: The schedule and procedure in this course are subject to change in the event of extenuating circumstances as well as class learning needs and desires.

COURSE OUTLINE:

   I.   Information and Knowledge Needs of Nurses in the 21st Century

  II.   Nursing informatics and Organizational Decision Making

 III.   Information Science and Information Systems

 IV.   Nursing Research: Data Collection, Processing and Anaylsis

  V.   Mobile Computing, Telenursing and Remote Access Health

 VI.   Project Management and Interprofessionalism in IS

VII.   Practice and Organizational Decision Making

VIII.   The Empowered Consumer and the Electronic Health Record

 IX.   Interoperability at the Organization, System, National and International Level

  X.   Electronic Healthcare Information Systems

 XI.   Promoting Population Health with Informatics

XII.   Administrative Information Systems: Improving Workflow and Meaningful Use

XIII.   The Role of Technology in Quality Measures and Improvement

XIV.   Translational Research: Generating Evidence for Practice

 XV.   Legislative Aspects of Nursing Informatics: HITECH and HIPAA

XVI.   Applying Ethics to Informatics

XVII.   Holistic and Global Issues

XVIII.   Emerging Technologies and the Generation of Knowledge

ASSIGNMENT DESCRIPTIONS & RUBRICS

INFORMED DISCUSSION:

Students are expected to actively engage in informed discussion and sharing with other students. These discussions should demonstrate active involvement with the material and understanding of the concepts being considered. Students will share their perspectives and consider the ideas of others. Students will have a shared responsibility for learning and for creating and sustaining the learning community that will be developed within the context of this course.

Initial posts in the discussions must be between 250 – 500 words in length. Use external sources and be sure to reference the source (e.g. APA). Provide any observations and **ask the other students a question**. Initial posts must be **posted by Wednesdays 11:59p.m.**

Respond to a minimum of two (2) other students' posts. The responses need to be more than, "I agree". Your first two responses should be greater than 250 words. Your response should continue to **stimulate the discussion**, perhaps adding your own observation and **question to the class.** Be sure to site and references in APA style formatting. Do your best to reply to all responses to your posting. Answering any questions and again trying to **stimulate more discussion.** All responses must be **completed by Sundays 11:59 p.m.**

INFORMED DISCUSSION RUBRIC

Criteria					
	Excellent	**Good**	**Satisfactory**	**Unsatisfactory**	**No Credit**
Quality of Posting (40% Weighting)	100 percent/40 pts The entry is focused and coherently integrates examples with explanations and/or analysis. This entry includes references to assigned course material (videos, readings, lectures, etc.). The entry also includes references to information from reputable, current, and scholarly outside sources that pertain to the topic at hand. The entry demonstrates awareness of its own limitations or implications, and considers multiple perspectives when appropriate. All positions or insights are fully developed and supported. There is evidence of an in-depth engagement with the topic.	85 percent/34 pts The entry is reasonably focused; explanations or analyses are primarily based on examples or other evidence. This entry includes references to assigned course material (videos, readings, lectures, etc.). The posting is an informed commentary; however, there is less evidence of connections between concepts and ideas. Though new insights may be offered, they are not fully developed. There is evidence of moderate engagement with the topic.	75 percent/30 pts The entry is primarily descriptive or summative and lacks consideration of alternative perspectives; few connections are made between concepts and ideas. This entry includes references to assigned course material (videos, readings, lectures, etc.). There is a passing engagement with the topic.	60 percent/24 pts The entry is unfocused or simply repeats previous comments that were made by other students; there is no demonstration of engagement with the topic. This entry does not include references to assigned course material (videos, readings, lectures, etc.). Student's position is not sufficiently supported.	0 percent/0 pts The entry consists of disconnected thoughts and does not include references to assigned course material (videos, readings, lectures, etc.). There is no reflection in the posting.

	100 percent/35 pts	85 percent/30 pts	75 percent/26 pts	60 percent/21 pts	0 percent/ 0 pts
Engagement with Peers (35% Weighting)	The student successfully engaged peers in his or her original posting. He or she posted more than the minimum required response to a peer, and the response was insightful and thoughtful. The student's peer responses offered significant new information or a different perspective. This student may have also answered any questions that peers may have posted and posed questions for peers in his or her original post.	The student successfully engaged peers in his or her original posting. He or she posted the minimum required response to a peer with some level of insight and thoughtfulness. The student's peer responses may not have offered significant new information or a different perspective.	The student may have unsuccessfully attempted to engage peers in his or her original posting. He or she posted the minimum required response to a peer with little thought or insight involved. The content in the response post was lacking substance. The student's peer responses did not offer new information or provide a different perspective.	The student may have unsuccessfully attempted to engage peers in his or her original posting, and posted a minimal response with little content to a peer posting.	The student did not respond to any peer postings or engage peers in his or her original posting.
Grammar/ Writing/APA Format (25% Weighting)	100 percent/25 pts The entry follows grammatical rules, there are no spelling errors, and citations are correct.	85 percent/21 pts The entry follows grammatical rules, there are minimal spelling errors, and citations are correct.	75 percent/19 pts The entry follows grammatical rules, but there are spelling errors, and citations are incorrect.	60 percent/15 pts The entry does not follow grammatical rules, there are several spelling errors, and citations are incorrect.	0 percent/0 pts The entry does not follow grammatical rules, there are spelling errors, and citations are not used at all.

- Avoid using 'just', as it devalues your statement.
- What *is… it, this, that* or *those* (e.g. workstation, printer, stretchers, chairs, etc.).
- Do *not* use contractions. We live and work in a global environment and contractions are not always understood (e.g. don't, can't, won't, etc.). You should use 'do not', cannot, will not, etc.).
- A final thought is 'that' is not 'that' necessary. In many of the sentences, that is an unnecessary additional word. Please define 'that' (e.g. that car = the blue car).

GRADING GUIDELINES:
- Initial postings are completed early in the week, **by Wednesday 11:59 p.m.**
- Follow up posts (generally more than the minimum) are timely

- Content is complete, on-point, thoughtful and offers new ideas
- Supporting detail is abundant and appropriate (references from the pieces read and/or other sources)
- Content should encourage further discussion on the topic or follows up on other student's thoughts
- Postings are characterized by originality, engagement and relevance to the topic
- Postings demonstrate an understanding of the material assigned and familiarity with the ideas of the students partner and group members (in other words, it is obvious you have read and understood both the required reading assigned and what your peers have written in their postings)

All of the above will be considered in your total points for the assignment.

NURS 906 Informatics Course Calendar & Assignment Due Dates (tentative)

Module 1

Date:	Type of Item Due:	Title of Item Due:
Week 1		
Wed, May 22, 2019	Discussion (initial post)	Introduce Yourself
Fri, May 24, 2019	Discussion (1st Response)	Introduce Yourself
Sun, May 26, 2019	Discussion (All Responses)	Introduce Yourself
Week 2		
Sun, June 2, 2019 *(Time Management)*	Assignment	Read & Summarize Article
Wed, May 29, 2019	Discussion (Initial Response)	Artificial Intelligence
Fri, May 31, 2019	Discussion (1st Response)	Artificial Intelligence
Sun, June 2, 2019	Discussion (All Responses)	Artificial Intelligence
Sun, June 2, 2019	Assignment	Read & Summarize Article
Week 3		
Wed, June 5, 2019	Discussion (Initial Response)	HITECH
Fri, June 7, 2019	Discussion (1st Response)	HITECH
Sun, June 9, 2019	Discussion (All Responses)	HITECH

Module 2

Date:	Type of Item Due:	Title of Item Due:
Week 4		
Wed, June 12, 2019	Discussion (Initial Post)	Information & Knowledge
Fri, June 14, 2019	Discussion (1st Response)	Information & Knowledge
Sun, June 16, 2019	Discussion (All Responses)	Information & Knowledge
Sun, June 16, 2019	Pick Your Paper	Paper Topic
Week 5		
Wed, June 19, 2019	Discussion (Initial Post)	Security Article
Fri, June 21, 2019	Discussion (1st Response)	Security Article
Sun, June 23, 2019	Discussion (All Responses)	Security Article
Sun, June 23, 2019	Assignment: Videos	Ransomware, Phishing
Week 6		
Wed, June 26, 2019	Discussion (Initial Post)	Workflow & Meaningful Use
Fri, June 28, 2019	Discussion (1st Response)	Workflow & Meaningful Use
Sun, June 30, 2019	Discussion (All Responses)	Workflow & Meaningful Use

Module 3

Date:	Type of Item Due:	Title of Item Due:
Week 7		
Sun, July 7, 2019	Assignment: Video Questions	Telehealth
Sun, July 7, 2019	Assignment: Final Paper	Health Informatics
Week 8		
Sun, July 14, 2019	Assignment: Video Presentation	Health Informatics

Discussion Board Rubric

Your participation in each discussion board assignment is an important contribution to our learning community. All students are expected to be active participants, providing both initial posts and response posts based on assignment directions. Your posts will be graded based on both the content, and the extent to which your posts generate and support discussion among your fellow students. Timely posts are considered an important component of the discussion process.

Criteria					
	Excellent	**Good**	**Satisfactory**	**Unsatisfactory**	**No Credit**
Quality of Posting (40% Weighting)	100 percent/40 pts The entry is focused and coherently integrates examples with explanations and/or analysis. This entry includes references to assigned course material (videos, readings, lectures, etc.). The entry also includes references to information from reputable, current, and scholarly outside sources that pertain to the topic at hand. The entry demonstrates awareness of its own limitations or implications, and considers multiple perspectives when appropriate. All positions or insights are fully developed and supported. There is evidence of an in-depth engagement with the topic.	85 percent/34 pts The entry is reasonably focused; explanations or analyses are primarily based on examples or other evidence. This entry includes references to assigned course material (videos, readings, lectures, etc.). The posting is an informed commentary; however, there is less evidence of connections between concepts and ideas. Though new insights may be offered, they are not fully developed. There is evidence of moderate engagement with the topic.	75 percent/30 pts The entry is primarily descriptive or summative and lacks consideration of alternative perspectives; few connections are made between concepts and ideas. This entry includes references to assigned course material (videos, readings, lectures, etc.). There is a passing engagement with the topic.	60 percent/24 pts The entry is unfocused or simply repeats previous comments that were made by other students; there is no demonstration of engagement with the topic. This entry does not include references to assigned course material (videos, readings, lectures, etc.). Student's position is not sufficiently supported.	0 percent/0 pts The entry consists of disconnected thoughts and does not include references to assigned course material (videos, readings, lectures, etc.). There is no reflection in the posting.

Engagement with Peers (35% Weighting)	100 percent/35 pts The student successfully engaged peers in his or her original posting. He or she posted more than the minimum required response to a peer, and the response was insightful and thoughtful. The student's peer responses offered significant new information or a different perspective. This student may have also answered any questions that peers may have posted and posed questions for peers in his or her original post.	85 percent/30 pts The student successfully engaged peers in his or her original posting. He or she posted the minimum required response to a peer with some level of insight and thoughtfulness. The student's peer responses may not have offered significant new information or a different perspective.	75 percent/26 pts The student may have unsuccessfully attempted to engage peers in his or her original posting. He or she posted the minimum required response to a peer with little thought or insight involved. The content in the response post was lacking substance. The student's peer responses did not offer new information or provide a different perspective.	60 percent/21 pts The student may have unsuccessfully attempted to engage peers in his or her original posting, and posted a minimal response with little content to a peer posting.	0 percent/ 0 pts The student did not respond to any peer postings or engage peers in his or her original posting.
Grammar/ Writing/APA Format (25% Weighting)	100 percent/25 pts The entry follows grammatical rules, there are no spelling errors, and citations are correct.	85 percent/21 pts The entry follows grammatical rules, there are minimal spelling errors, and citations are correct.	75 percent/19 pts The entry follows grammatical rules, but there are spelling errors, and citations are incorrect.	60 percent/15 pts The entry does not follow grammatical rules, there are several spelling errors, and citations are incorrect.	0 percent/0 pts The entry does not follow grammatical rules, there are spelling errors, and citations are not used at all.

FINAL PAPER & PRESENTATION GUIDELINES:

Submit a health informatics related topic to the course instructor by Week 4 of the semester for approval as the topic of your final paper and presentation. Feel free to browse the topics in your textbook to choose your topic. You can also select a topic related to your DNP project. Review the final paper and presentation rubrics in this syllabus for additional information about the content that should be included.

- Paper should be seven to ten pages
- APA format
- Minimum of five (5) resources
- Paper due Week 7
- Presentation due Week 8

Rubric - Final Paper

5 - 7 Page Paper

For this assignment, your paper will be graded on content (development of the topic or thesis), organization (organization and flow of the paper), clarity (grammar and spelling) as defined in the rubric. Timeliness of the assignment is also considered an important component.

	4—Excellent	3— Good	2—Fair	1—Needs Improvement
Content	- Includes all content required by assignment - Primary topic point is clear and fully developed. - Arguments are compelling and supported including reasons why argument point is valid, evidence supporting each point, and an estimate of significance of each argument point	- Includes most important content required by assignment - Primary point is clear but not fully developed. - Arguments are supported but some key elements like rationale, data or significance may be missing or weak.	- Significant required content is not included. - Primary theme is not clear or is poorly developed. - Assertions are weakly or not supported.	- Little or none of the required content included - Primary Theme is unknown - Assertions not supported
Organization	-Paper flows well with appropriate beginning, development and conclusion. -Well-organized paragraph structure with clearly	-Paper flows logically with identifiable beginning, development and conclusion.	-Paper does not flow; lacks logical sequencing. -Poor paragraph structure with no clear order to sentences.	- Paper poorly organized, no clear logical sequencing - No paragraph structure - Little to no citations

	ordered sentences and easily read. -Citations are included and properly formatted.	-Good paragraph structure but with some problems with the order of sentences. -Citations are included but not in appropriate format.	-Lacks appropriate citations.	
	4—Excellent	**3— Good**	**2—Fair**	**1—Needs Improvement**
Clarity	-Central theme of paper is easily identified. -Ideas are clearly stated and flow in a sequential pattern which makes the paper easy to read. -Writer shows originality in the expression of how ideas and theme are relevant to class content. The content easily holds the interest of the reader. -Topic development and description shows higher levels of learning and can contribute to real life application techniques.	-Central theme of paper is identified. -Ideas are clearly stated and flow in a sequential pattern. -Originality in the development of ideas is present and interesting. -Topic selection relates to class content.	-Central theme of paper is not easily identified. -Ideas do not flow in a sequential pattern and/or the concept is not developed. -Lacks originality. -Topic selection does not relate to class content.	- Poor central theme to paper - Ideas are not clear - No originality - Topic does not relate to class content.

Timeliness	A point is lost for every day the paper is late.

Rubric – Presentation
The presentation will be based on your paper and should include appropriate photographs, graphs and charts. The final project should be uploaded during the appropriate week in Canvas.

	4—Excellent	3— Good	2—Fair	1—Needs Improvement
Delivery	- Holds attention of entire audience with the use of direct eye contact, seldom looking at notes - Speaks with fluctuation in volume and inflection to maintain audience interest and emphasize key points	- Consistent use of direct eye contact with audience, but still returns to notes - Speaks with satisfactory variation of volume and inflection	- Displays minimal eye contact with audience, while reading mostly from the notes - Speaks in uneven volume with little or no inflection	- Holds no eye contact with audience, as entire report is read from notes - Speaks in low volume and/ or monotonous tone, which causes audience to disengage
Content/ Organization	- Demonstrates full knowledge by answering all class questions with explanations and elaboration - Provides clear purpose and subject; pertinent examples, facts, and/or statistics; supports conclusions/ideas with evidence	- At ease with expected answers to all questions, without elaboration - Has somewhat clear purpose and subject; some examples, facts, and/or statistics that support the subject; includes some data or evidence that supports conclusions	- Is uncomfortable with information and is able to answer only rudimentary questions - Attempts to define purpose and subject; provides weak examples, facts, and/or statistics, which do not adequately support the subject; includes very thin data or evidence	- Does not have grasp of information and cannot answer questions about subject - Does not clearly define subject and purpose; provides weak or no support of subject; gives insufficient support for ideas or conclusions
Enthusiasm/ Audience Awareness	- Demonstrates strong enthusiasm about topic during entire presentation - Significantly increases audience understanding and knowledge of topic; convinces an audience to	- Shows some enthusiastic feelings about topic - Raises audience understanding and awareness of most points	- Shows little or mixed feelings about the topic being presented - Raises audience understanding and knowledge of some points	- Shows no interest in topic Presented - Fails to increase audience understanding of knowledge of topic

	recognize the validity and importance of the subject			
Timeliness	A point is lost for every day the paper is late.			