

**UNIVERSITY OF MASSACHUSETTS DARTMOUTH  
COLLEGE OF NURSING  
RN-BS Online Program  
Summer 2019  
June 17 – August 6, 2019**

<b><u>Course Number/Title:</u></b>	NUR 410: Healthcare Informatics
<b><u>Credits:</u></b>	Three (3) credits – Theory – Online
<b><u>Placement in Curriculum:</u></b>	Level 4 course
<b><u>Pre-requisites:</u></b>	None
<b><u>Co-Requisites:</u></b>	None
<b><u>Faculty:</u></b>	Ouida P. Dowd, MSN, RN, ACNS-BC, CCRN Office: Dion 308      508-910-6444 Online office hours: by appointment E-mail: <a href="mailto:ouida.dowd@umassd.edu">ouida.dowd@umassd.edu</a>

**Add/Drop Deadline:** The last day to add or drop courses is **June 18, 2019**.

**Withdrawal date:** The last day to withdraw from courses is **July 23, 2019**.

**Course Overview:**

This course examines fundamentals of healthcare informatics concepts, contemporary issues, and information management in relation to nursing knowledge and healthcare practice. Healthcare informatics science is a multidisciplinary field utilizing information technology to improve outcomes and safety. This course provides a broad overview of consumer health informatics, electronic health records, security and confidentiality, decision support systems, evidence-based practice, and standards of practice. Trends in healthcare technology, ethical issues, and the role of the nurse in developing and evaluating informatics applications are examined. Contemporary healthcare informatics issues related to quality and patient safety and the role of the nurse as a leader in healthcare are explored. Course development is guided by the AACN *Essentials of Baccalaureate Education for Professional Nursing Practice* (2008) and the ANA (2010) *Scope and Standards of Practice*.

**Course Learning Outcomes:**

The student:

1. Integrates professional responsibility, accountability, knowledge, and ethical decision making as the basis for delivering health care.
2. Synthesizes knowledge and principles from the humanities, the physical and behavioral sciences, and current theoretical scientific and research knowledge into professional practice.
3. Examines healthcare informatics concepts, contemporary issues, and information systems and their impact on healthcare delivery, quality, and safety.
4. Analyzes the social, political, and economic forces that drive healthcare information technology and shape healthcare policy.
5. Integrates inter-professional leadership, advocacy, communication, and collaboration to promote healthcare safety and patient care outcomes.

### **Required Book:**

Nelson, R., & Stagers, N. (2018). *Health informatics: An interprofessional approach* (2<sup>nd</sup> edition). St. Louis, MO: Elsevier Mosby. ISBN: 978-0323402316

Additional readings and course material are available on the myCourses site.

### **Recommended Book:**

American Psychological Association. (2010). *Publication manual of the American Psychological Association*. Washington, D.C.: American Psychological Association.

### **Methods of Evaluation:**

The **minimum** passing grade in the course is 77.

<b>Evaluation method</b>	<b>Number (quantity of)</b>	<b>Percentage of final grade</b>	<b>Learning outcomes accomplished</b>
Reflective Discussion Assignments	6	60%	1, 2, 3, 4, 5
Written Essay	1	40%	1, 2, 3, 4, 5

### **Assignments:**

Please see the detailed overview of assignments further below and in the *Assignment Guidelines* folder on the online course site. All written work in the College of Nursing is presented in APA (American Psychological Association) format. The *APA Publication Manual* is recommended for students. APA resources for professional writing are posted on the course site. Students needing assistance with writing are encouraged to contact the Writing Center early. Students also have access to E-tutor writing services via myCourses.

### **Late papers or assignments:**

Assignments not submitted by the due date will not be accepted, unless the student obtains faculty permission **prior to the assignment due date**.

Students can expect to spend a minimum of 9 hours per week engaged in course activities online, assigned class work, and reading.

Federal credit-hour requirement: one credit-hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

- 1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks (includes exam week) for one semester or the equivalent amount of work over a different amount of time.
- 2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

### **Teaching-Learning Methods:**

Learning is an ongoing, dynamic process. Core concepts and content will be presented to students using a variety of teaching-learning methods including:

- Assigned readings, lectures, videos, and online resources
- Narrated lecture presentations of key concepts and topics

- Module study guides
- Written assignments (including critical thinking exercises, case studies, assignments, and a written essay)
- Discussion forum participation and reflection on knowledge concepts

### **Responsibilities of the Student:**

1. To demonstrate commitment to the exploration of ideas and issues related to course content.
2. To be self-directed and communicate learning needs, questions, or concerns.
3. To take accountability for reviewing course content and discussions on a regular basis, weekly or more often, throughout the semester.
4. To take responsibility to contact faculty immediately when experiencing issues/concerns or difficulty related to course content and assignments. Communication with faculty is essential for student's academic success.
5. To engage in the online class and actively participate in on-line discussions.
6. To complete all course assignments on the designated due date.
7. To treat peers and faculty with respect to promote a positive academic atmosphere, to communicate professionally and respectfully, and to use proper on-line etiquette when posting discussions. Discourteous behavior, incivility, or bullying will not be tolerated.
8. To cite all references and sources used and to be mindful of plagiarism and academic dishonesty standards, including dishonesty on examinations.
9. To maintain confidentiality standards and HIPPA laws at all times in online interactions. Individuals will not be discussed online. All persons discussed should be fictitious and anonymous. Course discussions will not be shared in the work place or with any persons outside the course.
10. To submit assignments on time by 1159 p.m. of each due date listed in the Class Schedule. Late assignments will not be accepted, unless the student obtains faculty permission **prior** to the assignment due date.

Due to the nature of online courses, students are highly encouraged to keep copies of all their discussion postings as well as assignments. CITS archives courses at the end of each semester so students do not have access once the course ends.

### **Teaching-Learning Responsibilities of Faculty:**

1. To guide the learner through assignments and discussions.
2. To construct assignments that foster critical thinking and support professional development.
3. To provide written guidelines for assessment of learner performance and timely feedback of discussions and assignments.
4. Faculty are available for virtual office hours weekly or by appointment with students. Students should contact faculty for any assistance.
5. Faculty will respond to student inquiries within 24 hours Monday – Friday and within 48 hours on weekends.
6. ***How to contact faculty:***  
**Course-related questions** should be posted in the Course Q&A Discussion on the course site as this allows everyone in the class to benefit from your question. If you have a **personal concern** that you would like to keep private, please email or message faculty through myCourses. Faculty check their email daily Monday through Friday so you can expect a reply within approximately 24 hours during the work week.

### **Academic Support Services**

Academic support services are available online through the *Academic Resource Center*, the *Writing Center*, and the *Center for Access and Success*. Please use these resources early on to aid you in your academic success early on. Please contact faculty immediately for any concerns regarding your academic progress.

### **Students with Disabilities:**

In accordance with University policy, if the student has a documented disability and requires accommodations to obtain equal access in this course, please contact the instructor at the beginning of the semester and provide the appropriate paperwork from the Center for Access and Success. The necessary paperwork is obtained when the student brings proper documentation to the Center, which is located in Liberal Arts, Room 016; phone: 508-999-8711. Any student with a disability must contact faculty **at the beginning of the semester** if arrangements based on needs are desired.

### **Title IX Statement**

The purpose of a university is to disseminate information, as well as to explore a universe of ideas, to encourage diverse perspectives and robust expression, and to foster the development of critical and analytical thinking skills. In many classes, including this one, students and faculty examine and analyze challenging and controversial topics. If a topic covered in this class triggers post-traumatic stress or other emotional distress, please discuss the matter with the professor or seek out confidential resources available from the Counseling Center, <http://www.umassd.edu/counseling/>, 508-999-8648 or - 8650, or the Victim Advocate in the Center for Women, Gender and Sexuality, <http://www.umassd.edu/sexualviolence/>, 508-910-4584. In an emergency contact the Department of Public Safety at 508-999-9191 24 hrs/day. UMass Dartmouth, following national guidance from the Office of Civil Rights, requires that faculty follow UMass Dartmouth policy as a “mandated reporter” of any disclosure of sexual harassment, abuse, and/or violence shared with the faculty member in person and/or via email. These disclosures include but are not limited to reports of sexual assault, relational abuse, relational/domestic violence, and stalking. While faculty are often able to help students locate appropriate channels of assistance on campus, disclosure by the student to the faculty member requires that the faculty member inform the University’s Title IX Coordinator in the Office of Diversity, Equity and Inclusion at 508-999-8008 to help ensure that the student’s safety and welfare is being addressed, even if the student requests that the disclosure not be shared. For confidential counseling support and assistance, please go to <http://www.umassd.edu/sexualviolence/>

### **Academic Integrity and Ethical Standards:**

Students are expected to maintain high standards of academic integrity and scholarly practice. The University does not tolerate academic dishonesty of any variety, whether as a result of a failure to understand required academic and scholarly procedure or as an act of intentional dishonesty. A student found responsible of academic dishonesty is subject to severe disciplinary action which may include dismissal from the University. Academic dishonesty and plagiarism are serious academic offenses. Please review the University and College of Nursing *Student Handbooks* for policies and procedures and potential options open to the faculty, College of Nursing Dean, and University to address infractions.

<http://www.umassd.edu/studentaffairs/studenthandbook/>

<http://www.umassd.edu/media/umassdartmouth/collegeofnursing/NursingUndergradHandbook.pdf>

Students should be aware that suspect assignments (e.g., those without works cited, reference pages, or with large departures in style) will be submitted to Safe Assign by the instructor for the purpose of detecting possible plagiarism. Submitted assignments will be included in the UMass Dartmouth dedicated databases of assignments. The databases of assignments will be used solely for the purpose of detecting possible plagiarism during the grading process during this term and in the future.

### **Reflective Discussion Assignments**

*Assignments assist students in accomplishing course learning outcomes 1, 2, 3, 4, and 5.*

Six (6) reflective discussion assignments, totaling 60% of student's final course grade, will be assigned (see class schedule for due dates). Reflective discussions are an online seminar format where learning is shared and enhanced by the full participation of all students in the discussions. This is an opportunity for students to convey understanding and knowledge of content topics and participate in discussion of topics and ideas with classmates. Learning is enhanced by participation and feedback from others on ideas generated by class discussions. Students are expected to be professional and respectful in all communication.

### ***Assignment Guidelines***

1. Each student will post an initial reflective discussion on the topic for the discussion assignment and respond to at least one (1) post from another student. Specific discussion topics and focused questions are posted in the online module assignment directions.
2. Students will post their initial reflective discussion (500 words minimum) by 11:59 p.m. Thursday.
3. Students will post a response (250 words minimum) to at least one (1) post from other students by 11:59 p.m. Saturday on weeks a response is required.
4. On-line discussion should be professional, demonstrate engagement in the topic discussion of the issues, and contribute to the development of knowledge understanding.
5. Discussion format should include:
  - a. Proper on-line etiquette and respectful, professional communication in postings
  - b. Posting a thoughtful content-related question or insight on the topic and its pertinence to current issues
  - c. Participation in a follow-up conversation
  - d. Posting a relevant example of the topic of discussion
  - e. Responding to a classmate's posting in a substantive manner
  - f. Substantive participation should:
    - 1) add value to the discussion
    - 2) avoid simply repeating, agreeing with, or answering yes/no to peer's comments
    - 3) ask insightful questions
    - 4) answer other people's questions
    - 5) make comments that are relevant to the course content and objectives
    - 6) give insight gained from readings
6. Two (2) scholarly journal or textbook references (not web links) and appropriate APA citations are required to support your discussion
7. See the attached Grading Rubric at the end of the syllabus

### **Written Essay**

*The written essay assists students in accomplishing course learning outcomes 1, 2, 3, 4, and 5.*

One (1) written APA format essay, totaling 40% of student's final course grade, will be due at the end of the semester (see class schedule for due date). Students will synthesize knowledge learned in this course and their university curriculum studies to create the essay. Students will independently complete the written essay on a pertinent informatics issue or topic that the student has identified during the semester through required course readings or additional scholarly articles.

### ***Assignment Guidelines***

1. Introduction (15 %)  
Includes an introduction to the topic of interest and a concise, detailed definition and overview of the scope of the topic, concept, or issue and its pertinence.
2. Significance of the topic (25 %)  
Detailed discussion and summary of the issue and its impact on healthcare informatics for individuals and society. Significant factors and issues are included. Discussion

demonstrates knowledge of the topic and integrates learning from the textbook, scholarly literature, and class discussions. References are cited to support discussion.

3. Application (30 %)

Identification of evidence-based implications for application is present. Discussion demonstrates development of insight into the importance of healthcare informatics. Includes critical evidence-based interventions that need to be addressed. Key references are cited to support discussion and reflect critical evaluation.

4. Summary (20 %)

Summarize the impact of the topic to healthcare informatics. Key points of the topic discussion and findings are summarized in the conclusion paragraphs. Key references are cited to support discussion and reflect critical evaluation.

5. Format, grammar, timeliness, and paper requirements (10 %)

- a. APA format, including correct grammar and spelling, is followed. The paper is logically organized with an introduction, discussion, and conclusions sections.
- b. APA format headings are used appropriately throughout paper.
- c. References are cited to support student's reflection, insight, argument, and discussion. A minimum of four (4) scholarly references are required.
- d. Essay length is 4-5 pages, not including the title or reference pages. An abstract page is not required.
- e. Paper is submitted on or before the due date.
- f. See the attached Grading Rubric at the end of the syllabus

### **Grading Rubric for Reflective Discussion Assignments**

Objective/Criteria	Performance Indicators			
	Low Performance (0%)	Below Average (50%)	Acceptable (75%)	Exemplary (100%)
<b>Assignment Length &amp; Timely Submission</b> 10%	Assignment not posted on time and does not meet length criteria as outlined in assignment guidelines.	Assignment not posted on time or does not meet length criteria as outlined in assignment guidelines. Parts of assignment are missing.	Assignment posted slightly late but meets length criteria. One component of assignment needs further development.	Assignment posted on time and meets length criteria. Fully completed all assignment components.
<b>Discussion Quality</b> 40%	Initial post did not reflect depth of thought, insight or knowledge of topic. Discussion consists of personal opinions or beliefs. No reflection on or reference to readings.	Many opinions expressed. Little or no reflection on topic significance. Little reference to readings. Poor development of ideas. Comments are not clearly connected to assigned readings.	Ideas need more development and reference to readings to support discussion. Reflection needs more development.	Discussion demonstrates thoughtful analysis of readings. Reflected on readings in relation to contemporary healthcare informatics issues. Effectively used references.
<b>Engagement with Peers</b> 40%	Little or no engagement with other students. Did not communicate respectfully or professionally to others in online activities.	Responses to other students' are brief, incomplete, and did not include reference to readings or application to healthcare informatics. May not have communicated respectfully or professionally.	Engagement with other students needs further development. Few references or examples were given to support responses. Communicated respectfully and professionally.	Fully engages in discussion with others. Response shows depth of thought, insight, and reference to readings. Uses examples to show how topic connects to healthcare. Communicates effectively, respectfully, and professionally.
<b>Grammar/Writing/ APA Format</b> 10%	APA format not used. Used more than 4 incomplete sentences and/or misspelled or improperly used words. Did not cite 2 references.	Used 3 or 4 incomplete sentences and/or misspelled or improperly used words. APA format, citations, and references are incorrect. Did not cite 2 references.	Used 2 - 3 incomplete sentences and/or misspelled or improperly used words. Minor APA format errors. Cited some references correctly.	Used correct grammar and sentences. No more 1 or 2 misspelled or improperly used words. Correct APA format. Cited 2 or more references correctly.
100 points possible				

## Grading Rubric for Final Written Paper

Objective/Criteria	Performance Indicators			
	Low Performance (0%)	Below Average (50%)	Acceptable (75%)	Exemplary (100%)
<b>Introduction (15 %)</b>	Topic introduction, definition, and overview are not discussed and/or are missing key components.	Topic introduction, definition, and overview are presented but missing key components and need more development.	Topic introduction, definition, and overview are presented but need more development.	Introduction to the topic of interest and a concise, detailed definition and overview of the scope of the topic, concept, or issue and its pertinence is presented.
<b>Significance (25 %)</b>	Discussion of the issue and concept ideas is not development. Key concepts are missing. References are not cited to support discussion.	Discussion of the issue and concept ideas needs more development. Key concepts are missing or not fully developed. References are needed to support discussion.	Discussed the issue and its impact but concept ideas need more development. Discussion demonstrates knowledge of the topic but needs more development and/or citations to support discussion.	Detailed discussion and summary of the issue and its impact are present. Significant factors and issues are included. Discussion demonstrates knowledge of the topic and integrates learning. References are cited to support discussion.
<b>Application (30 %)</b>	Implications for application are not developed. Reflection and insight are not developed. Key concepts are missing or not fully developed. References are not cited to support discussion.	Implications for application need more development, discussion, and linkage to the readings. Reflection and insight needs more development. Key concepts are missing or not fully developed. References are needed to support discussion.	Implications for application need more development and discussion. Reflection needs more development. Discussion demonstrates knowledge of the topic but needs more development and/or citations to support discussion.	Identification of evidence-based implications for application is present. Reflection and insight into the topic impact are present. Includes critical evidence-based interventions. Key references are cited to support discussion and reflect critical evaluation.
<b>Summary (20%)</b>	Discussion and conclusions are missing. Citations and critical reflection are missing. Key concepts are missing or incomplete.	Discussion and conclusions are missing several key components or are incomplete. Citations and critical reflection are missing or incomplete.	Discussion and conclusions need more development. Critical reflection and citations need more development.	Topic discussion and findings are summarized in the conclusion paragraphs. The impact of the topic to healthcare informatics is summarized. Key references are cited to support discussion and reflect critical evaluation.
<b>APA format/ Grammar/ Timeliness/ Paper Requirements (10%)</b>	APA format was not used. More than 5 incomplete sentences and/or more than 6 misspelled or improper words are used. Discussion is not communicated effectively, concisely, or in logical format. Discussion is too brief or incomplete. Did not meet length criteria. Did not submit on time.	Communicated ineffectively in areas of discussion. APA format, citations, and references are incorrect. 3 – 5 incomplete sentences and/or 4 – 6 misspelled or improper words used. Did not meet length criteria. Did not submit on time.	Communicated in an effective, concise, and logical format in most of paper. Paper format, headings, citations, and references in APA format with minor errors. 2 - 4 incomplete sentences and/or 3-5 misspelled or improper words were used. Met length criteria and deadline.	Communicated fully in an effective, concise, and logical format. APA format is correct. Citations and references in APA format. May have 1 incomplete sentence and/or 2 or more misspelled or improperly used words. Paper is logically organized with APA headings, introduction, body, and conclusions. Met length criteria and deadline.
<b>TOTAL</b>				100 points possible

*This syllabus is a guide and every attempt is made to provide an accurate overview of the course. However, circumstances and events may make it necessary for faculty to modify the syllabus during the semester and may depend, in part, on the progress, needs, and experiences of the students. Changes will be made with advance notice to the students.*

Class	Content	Learning Activities
Week 1 June 16 – 22	<b>Introduction to Healthcare Informatics</b> What is <i>Informatics</i> ? Introduction to healthcare informatics Overview of informatics Informatics concepts and terminology Basic informatics systems and unified language Basic knowledge discovery and data mining	Read Ch. 1 and 2 and pp. 54-57 (Ch. 4) Complete other readings and course activities <b>Discussion 1 post</b> due Thursday Post your <b>Introduction</b> by Saturday
<b>Last day to add/drop courses: JUNE 18, 2019</b>		
Week 2 June 23 - 29	<b>Information Science</b> Biomedical informatics Clinical information management systems Clinical decision support systems Meaningful Use HCI infrastructure and interoperability	Read Ch. 10 and 12 Complete other readings and course activities Begin to identify a topic of interest for your essay Find literature references on your topic <b>Discussion 2 post</b> due Thursday <b>Response to peers</b> due Saturday
Week 3 June 30 – July 6	<b>HCI Ethics, Safety, and Regulation</b> Human-technology interface Privacy, confidentiality, security, and data integrity Safety and quality initiatives Meaningful Use Ethical considerations and legal issues Federal regulations and accreditation	Read Ch. 19, 20, and 24 Complete other readings and course activities <b>Discussion 3 post</b> due Saturday <b>Response to peers</b> is optional this week <b>Topic Proposal</b> due Saturday
Week 4 July 7 – 13	<b>HCI Trends</b> EHRs in the management of care and promotion of health outcomes Telehealth applications and potential for advancing health care Community and public health informatics Consumer health informatics and information literacy and credibility	Read Ch. 6, 8, and 11 and pp. 147-151 (Ch. 9) Complete other readings and course activities Begin to outline your essay rough draft <b>Discussion 4 post</b> due Thursday <b>Response to peers</b> due Saturday
<b>Last day to withdraw from courses: JULY 23, 2019</b>		
Week 5 July 14 – 20	<b>HCI - EBP, Healthcare Reform &amp; Policy</b> HCI applications for promoting EBP initiatives HCI legislation trends and policy issues Healthcare reform and policy The role of nursing in informatics What is a Nurse Informaticist?	Read Ch. 3, 22, and 25 and pp. 417-422 (Ch. 26) Complete other readings and course activities Work on your essay rough draft <b>Discussion 5 post</b> due Thursday <b>Response to peers</b> due Saturday
Week 6 July 21 – 27	<b>HCI Consumers</b> The empowered healthcare consumer Healthcare consumers, informatics and PHRs Information processing, literacy and credibility Health care knowledge on the internet	Read Ch. 13, 14, and 15 Complete other readings and course activities Complete draft 1 of your essay <b>Discussion 6 post</b> due Thursday <b>Required Course &amp; Faculty Evaluations due</b>
Week 7 July 28 – August 4	<b>Emerging and Future Trends in HCI</b> Reflections on healthcare technology trends Research in health informatics Exploring future HCI applications Emerging technologies and professional roles	Read Ch. 30 and 31 and pp. 462-469 (Ch. 29) Complete other readings and course activities <b>Written essay due Monday August 5, 2019</b>

*Any changes to the Class Schedule will be made with advance notice to students*