Introduction to Health Informatics within Nursing

N2240F/G - NRSG7064

2019-2020

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Calendar Description:

This course will extend students' knowledge and skills related to information literacy and knowledge acquisition skills necessary for professional nursing practice. Through active learning, students will determine appropriate knowledge sources for nursing practice.

Course Description:

This course introduces the *knowledge, skills and attitudes* necessary for the use of information technology by nurses in relation to client care, health care administration, client teaching, nursing education and research. This course was designed to make students aware of professional, legal and ethical issues associated with the use of informatics within nursing. Students will explore the professional application of information technology in nursing education, professional practice and research.

Course Goals:

Students will:

1. enhance information literacy knowledge and skills to critique and inform personal and professional practice.
2. build upon year one learning to deepen understanding of the multiple components that create evidenced-informed practice.
3. understand and critique how information technology has shaped, and will continue to shape nursing practice.
4. begin to comprehend the socio-technological relationship among the health care system, the nursing profession and client-centred health care teams.
5. recognize how information technology influences health (care) issues including social justice.
6. explore the CNO Practice Standards and Guidelines in relation to information technology, client centred care and professional practice.
7. explore information technology use in relation to the personal/professional context to develop the skill set required to establish a professional presence online.
8. be self-directed and accept responsibility for own learning.

Major Concepts in the course:

1. Clients
2. Context/culture
3. Health
4. Health promotion
5. Technology/informatics
6. Safety
7. Interprofessional collaborative practice
8. Health care system
9. Caring
10. Client-centred care
11. Social justice
12. Professionalism
13. Ethical practice
14. Communication
15. Critical reflection
16. Evidence informed practice
17. Health information literacy
18. Political influences

National Nursing Entry-to-Practice Competencies (CNO, 2009) addressed in the course:

- Professional Responsibility and Accountability: 2, 5, 8, 9, 13, 18
- Knowledge-Based Practice: 27, 31, 32, 34, 35, 36, 42, 44, 49, 51, 55, 61, 67, 68, 69, 84
- Ethical Practice: 88,89, 92, 93, 94, 95, 99, 100
- Service to the Public: 107, 108, 111, 112, 113
- Self-Regulation: 115, 116, 121, 123

Interprofessional Competencies addressed in the course:

- Interprofessional communication
- Role clarification
- Patient/Client/Family/Community-centred care
- Team functioning

Nursing Informatics Competencies (CASN, 2012) addressed in the course:

- Uses relevant information and knowledge to support the delivery of evidence-informed patient care
- Uses ICTs in accordance with professional and regulatory standards and workplace policies
- Uses information and communication technologies in the delivery of patient/client care

National Entry-To-Practice Mental Health and Addiction Competencies (CASN, 2015) addressed in this course include:

- The nurse provides care in accordance with professional and regulatory standards when promoting mental health and preventing or managing mental health conditions and/or addiction.
- Acts in accordance with the CNA Code of Ethics when working with persons experiencing a mental health condition and/or addiction.
- Develops and maintains competencies through self-reflection and new opportunities working with persons experiencing a mental health condition and/or addiction.

The Learning Outcomes for Patient Safety in Undergraduate Nursing Curricula (CASN & CPSI, 2018)
- Domain 2: Work in Teams for Patient safety
  - Use evidence-informed team communication tools to facilitate the improvement of patient safety
  - Use appropriate shared clinical documentation to facilitate continuity of care
- Domain 3: Communicate effectively for patient safety
  - Uses team communication tools
- Domain 5: Optimize Human and Environmental Factors
  - Identify environmental factors such as light and sound, work interruptions and technology on personal and patient safety

How this course will contribute to your development as a professional nurse:

Health informatics in nursing will contribute to students' development as professional nurses by introducing students to the emerging importance of health(care) facilitated by information and communication technologies. Similarly, this course will provide students with the basis from which to critique how knowledge is generated and circulated with respect to information literacy. Students will learn how to effectively use social technologies to develop an online professional presence. Through engagement with course learning activities, students will begin to build their knowledge and vocabulary of health informatics for the nursing profession.

How this course will contribute to your development as an interprofessional team member:

This course will provide students with the basis to understand how health informatics and health information technologies are transforming participation and participants within the health care team. Through active engagement with course learning activities, students will begin to understand how health informatics and health information technologies are influencing how knowledge is generated, shared, and distributed within the interprofessional health team and consumers/patients/clients. Similarly, students will be introduced to the professional practice benefits and challenges created by the intersection of health informatics, the media, vendors of technology, and the regulatory/government organizations. Other insights into how health

informatics can be used to assist in interprofessional collaboration and sharing will also be considered and illustrated using case studies, and other learning materials and activities.

How we will work together:

In this course, learning and teaching are a ***shared*** responsibility. The instructor's role is to guide, facilitate and support your learning. As a student, it is expected that you will be prepared to actively engage in weekly dialogue and reflective, critical thought. The course and accompanying learning activities are designed to foster discussion, debate, and critical examination of concepts relevant to health informatics within nursing. *Weekly attendance is expected since small group and class discussions will facilitate learning, and your active participation will support not only your own but your colleagues' learning*. In order to create an interactive learning environment, students will be asked to share within groups, and at times with the larger class, their understanding of course material, their experiences and to engage in reflection on their learning. Completing assigned weekly readings / learning activities prior to classes will enhance your success in the course.

Textbooks and other resources:

There is no required textbook for this course. Required reading materials in the form of journal articles can be located electronically through the Western/Fanshawe library systems. Other material that we can share electronically (e.g., podcasts, videos, images) will typically be hyperlinked from the weekly learning activities or housed online in the appropriate Sakai or FanshaweOnline weekly folder.

Recommended Resource:

American Psychological Association. (2010). *Publication manual of the American Psychological Association*. (6th ed.). Washington, DC: American Psychological Association.

Weekly Schedule

Week	Topic	Concept	Course Goals
1	Introduction: What is Health Informatics?	1,2,3,4,5,9,10,18	2,6,8
2	Ethical Practice & a Virtual Healthcare World	1-5,9,12-15	1-3,6
3	Ethical Practice & a Virtual Healthcare World (continued)	1-5,9,12-15,18	1-3,6-8
4	Evidence-Informed Practice and Informatics	1,10,13-18	3-6,8
5	Client and Digital Health	1-4,9,10,14,15,17-18	All

6	Client and Digital Health (continued) and Group Project Presentation	1-4,9,10,14,15,17-18	All
7	Electronic Health Technologies: eHealth Records	1,5,7-9,12-13,17	3,4,7,8
8	Electronic Health Technologies: eHealth Records (continued)	1,5,7-9,12-13,17	3,4,7,8
9	Technology Enabled Models of Care	1,5,7,10-18	2-4,7,8
10	Digital Health Policy	all	3-6,8
11	Digital Health & Social Justice	all	3-6,8
12	Future directions of health informatics in nursing	all	3-6,8

Opportunities to Demonstrate Learning

1. Online Discussion: Facilitation and Contribution

This opportunity to demonstrate learning consists of two parts: a) online discussion facilitation, and, b) online discussion contribution.

a) **Facilitation:** Each student will have at least one opportunity to facilitate one week of online discussion within their assigned group. That is, the facilitation role is rotated among each member of the group. The student facilitating will pose one stimulating question online (Sakai/FOL), based on the assigned readings and course topics. The responsibility of the facilitator is to post the discussion question on the first day of the assigned week, engage the group members in the online forum and respond to members' discussion posts throughout the week. The discussion question should be posted by the facilitator on Monday by 4pm. The facilitator is also responsible to complete peer evaluations for each group member based on their contribution (please see rubric for more guidance). The facilitators will also submit a self-evaluation of their facilitation. See marking rubric for facilitation for more guidance.

b) **Contribution:** All students will contribute in predetermined weekly discussions responding to the facilitator's posed questions and integrating course readings and material. Discussion contribution should include three quality posts per week (Monday to Sunday at midnight), ideally distributed over the week. Contributions posted after the deadline will not be considered. The three contribution posts will consist of:

1. **One personal reflection post**: refers to the sharing of one's own knowledge/ experience/observation as it relates to the assigned readings

2. **One evidence-informed post:** refers to the integration of evidence from the assigned readings to support ideas/views/opinions
3. **One interactive post**: refers to students' ability to thoughtfully and respectfully interact with and respond to fellow group members' ideas/views/opinions

For the purposes of this reflection, please use the following prompts to help generate your response (but not limited to):

- what did the readings make you think about?
- how can this concept/construct apply to nursing?
- what was the most challenging part of the reading(s)?
- how did a fellow group member's post contribute to your understanding/learning?
- was/is there a new way to look at the information or ideas presented in the readings?
- how does the knowledge derived from the readings inform your current or future personal/professional activities?

Further instructions and expectations regarding the quality of discussion will be discussed in class, including the location for posting on Sakai or FanshaweOnline.

Due Date: Weeks 3, 4, 5, 7, 8 (*note there is NO facilitation/contribution for week 6)

Grade:

- TOTAL: 30% of overall grade
  - Facilitation: 10%
  - Contribution: **Each weekly reflection contribution is worth 5% (5% x 4 weeks = 20% of overall grade).** Reflections developed by students that fail to demonstrate critical reflection and/or are extremely superficial or students who do not submit reflection (or are late/insufficient in submitting) will forfeit their grade for that given week.

2. **Group Project**

The purpose of this group assignment is for students to review, analyse, and critique a topic pertaining to weeks 1-6 of the course. Your course Professor will review potential topics for this project with you. Working in your assigned student group, and based on evidence found in the literature, you will review, analyse, and critique the impact of the topic on health, and/or health care, and/or the profession of nursing. This group project consists of two parts: (a) an annotated bibliography, and (b) an in-class presentation.

PART A: Each student group will submit an annotated bibliography that demonstrates the use of evidence pertaining to their chosen topic and to appraise its fittingness and relevance to inform the analysis. To be submitted by Week 6 at 0900hrs.

PART B: Each student group will engage the class in a meaningful presentation based on their topic and informed by the evidence and analysis completed for the annotated bibliography. The presentation will be 5-7 minutes in length and will take place during class in Week 6.

Assignment Process:

- During class two (Week 2), a small group charter will be developed by each group and posted to Sakai/FanshaweOnline. This group guideline document will detail how each small group plans to work together effectively to complete the assignment, roles to be undertaken by each group member (e.g. recorder, coordinator), how conflict will be resolved within the group, and basic expectations of each participant.
- At regular intervals over the semester time will be set aside for groups to work on their group project and seek guidance in class as necessary.
- Potential topics will be discussed weeks 2 and 3
- The annotated bibliography will inform your presentation.
  - Each group will choose **5-7 research articles** (peer reviewed) to inform understanding and analysis of the chosen topic.
  - Based on the articles, each group will explain the significance of the articles in informing your presentation topic, and the potential implications of this topic on health, healthcare, and/or nursing.

Criteria for evaluation:

- Be sure to review the rubric for more detail before beginning project
- Analysis of the topic is to be focused on its impact on health, and/or health care, and/or the profession of nursing
- Part A: Annotated Bibliography
- Part B: Presentation length, 5-7 minutes.
- Use of scholarly articles and other sources of knowledge to justify analysis
- Quantity and quality of sources to inform project:
  - 5-7 scholarly articles
  - All sources can be considered reliable and/or trustworthy
  - All sources are peer-reviewed
  - Published within the past 5-7 years
- Scholarly writing and use APA (6th ed.) formatting, referencing, and presentation

Due date: Part A- Week 6 class, 0900hrs; Part B- in Class Week 6

Group Grade: 15%

3. Integrative Reflective Paper

The Integrative Reflective Paper is an assignment that enables a student to critically reflect on course concepts explored and discussed in the course. During the first class a further description of the Integrative Reflective Paper will be presented. Students are expected to use a variety of creative methods within their Integrative Reflective Paper, with the inclusion of at least two to three specific outcomes or products of various learning activities conducted in class. These outcomes or products may include (but are not limited to) collaborative summaries, diagrams, posters, class consensus generation results, and other types of media-like images and videos generated by students in their small groups over various weeks of the course. In summary, the Integrative Reflective Paper should reflect on *at least two to three specific outcomes/products of various learning activities conducted in class, complemented with any relevant emergent class discussions (both online and within the physical class).* Use of scholarly literature to support and extend your analysis and interpretation is necessary.

The purposes of this assignment are for you to:

- synthesize two to three outcomes or products of various learning activities conducted in class, by generating creative reflections on content, complemented and extended by scholarly literature
- critically analyze course content related to health informatics within nursing.
- develop creativity and innovation in thinking and problem solving

Assignment Process:

- For this assignment, you will draw on your knowledge from the assigned readings, material presented, and discussion stemming from class, to develop scholarly reflections of learning. You will choose two to three outcomes or products of various learning activities conducted in class, and generate an Integrative Reflective Paper which will analyse and interpret key learnings derived from these materials.
- The Integrative Reflective Paper will be submitted as a Microsoft Word document.

Criteria for evaluation:

- **Scholarly writing** and use APA (6th ed.) formatting and referencing (when applicable).
- Use of evidence-informed literature and other sources of knowledge to justify your responses and critiques.
- Integration of course reading, two to three outcomes or products of various learning activities conducted in class, group and online discussions.
- Creativity and cohesiveness of the assignment.
- Please see the marking rubric for this assignment for further guidance.

Due date and requirements:
- Maximum of 2000 words (not including images, other media or references).
- Due Date: Week 10

Grade:
- ○ 40% of overall grade

4. **Learning Portfolio Presentation**

Learning Portfolio Presentation is a group assignment. For this assignment, your assigned small group will synthesize knowledge from 2-3 course topics into an artefact that can be presented to the entire class on Week 12. Guest adjudicators may be brought into review and offer feedback on the assignment during Week 12's class. Possible examples for the Learning Portfolio include the development of a comprehensive mind-map diagram(s), online re-representation of the week's content, or some other form of creative delivery. Please check with your instructor related to the suitability of your group's potential delivery style of the Learning Portfolio on/by week 10.

Due Date: Week 12, in-class
Group Grade: 15% of your overall course grade (Please see the marking rubric for this assignment for further guidance).

Summary of Opportunities to Demonstrate Learning

OPPORTUNITIES TO DEMONSTRATE LEARNING	COURSE GOAL(S) ADDRESSED	VALUE	DUE DATE
1. Online Discussion (Facilitation and Contribution	1-8	TOTAL: 30% Facilitation: 10% Contribution: 20%	Weeks 3, 4, 5, 7, 8– predetermined facilitation for each group member – see schedule.
2. Group Project	1-4, 8	15%	Park A- Week 6* Part B- Week 6 in class *by 0900hrs of Week 6's class
3. Integrative Reflective Paper	1-8	40%	Week 10

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			*by 23:59EST of Week 10's class
4. Learning Portfolio Presentation, (Group)	1-8	15%	Week 12 (in class)

Policies
All policies related to assignments are in the Undergraduate BScN Programs Manual on the Western web site at owl.uwo.ca and on the Fanshawe College web site in the Program manual located in the Virtual Home Room at www.fanshaweonline.ca

Attendance
Due to the significance of theoretical and practice knowledge in developing professional competence, students are expected to demonstrate professional responsibility through regular attendance at, and participation in, all scheduled learning activities. Much of the learning that takes place in this course is a result of preparation and engagement with the material, and active dialogue with colleagues and faculty. Content discussed in class will be particularly important in the development of your Integrative Reflections and Learning Portfolio.

Scholarly Requirements
In this program, scholarly writing is a requirement. Therefore, all scholarly papers will follow the sixth edition of the Publication manual of the American Psychological Association (2010), which includes guidelines for both content and format. In addition, all other writing will follow APA (revised 6th ed.) format when citing or referring to an author's work or ideas. Failure to do so is unethical and is plagiarism.

Plagiarism
Student work is expected to be original. Plagiarism is a serious academic offence and could lead to your expulsion from the nursing program. You are plagiarizing if you insert a phrase, sentence or paragraph taken directly from another author without acknowledging that the work belongs to him/her. Similarly, you are plagiarizing if you paraphrase or summarize another author's ideas without acknowledging that the ideas belong to someone else. All papers must be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University and the College for the detection of plagiarism. All papers submitted will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University, Fanshawe College, and Turnitin.com (www.turnitin.com). For further information, please see the BScN Program Manual for the policy on plagiarism. Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence,

at the following web site(s):
http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf.

http://www.fanshawec.ca/sites/default/files/assets/policies/pdf/2g04.pdf

Assignments and Exams
Please refer Undergraduate Programs Manual for information on penalties for late assignments, re-grading of assignments, and the protocol for missed mid-term or final exams.
Western at owl.uwo.ca and Fanshawe in Virtual Home Room www.fanshaweonline.ca

Electronic devices
Electronic devices are useful in assisting with the teaching/learning process in both classroom and professional practice settings. In the classroom or praxis setting, devices should be used in a manner that is not distracting to others or oneself. In professional practice placement settings, please abide by the policies set by the agency in regards to use of social media, internet, and handheld devices. Additionally, technology use in the presence of clients or agency staff may require explanation as to its use as part of professional practice (e.g., a drug guide on a smart phone).

 It is essential that client privacy and confidentiality be maintained when using electronic devices. When students and Clinical Instructors (CIs) are communicating via electronic devices, client information must not be included. Students and CIs are accountable for responsible use of electronic communication, this includes; using professional language, setting device to silent/vibrate mode in the practice setting, and refraining from personal communications when at their practice placement.

Mental Health
Students who are in emotional/mental distress should refer to the following links for a complete list of options about how to obtain help.
MentalHealth@Western http://www.uwo.ca/uwocom/mentalhealth/

Fanshawe College iCopeU http://icopeu.com/fanshawe/home.html
and Counseling Services http://www.fanshawec.ca/counselling/