Introduction to Health Informatics within Nursing

N2240f/g NRSG7064

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

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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 Safety Competencies (CPSI, 2008)

- Domain 1: Contribute to a culture of patient safety
- Domain 3: Communicate effectively for 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:


Weekly Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Concept</th>
<th>Course Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction: What is Health Informatics?</td>
<td>1,2,3,4,5,9,10,18</td>
<td>2,6,8</td>
</tr>
<tr>
<td>2</td>
<td>Ethical Practice &amp; a Virtual Healthcare World</td>
<td>1-5,9,12-15</td>
<td>1-3,6</td>
</tr>
<tr>
<td>3</td>
<td>Ethical Practice &amp; a Virtual Healthcare World (continued)</td>
<td>1-5,9,12-15,18</td>
<td>1-3,6-8</td>
</tr>
<tr>
<td>4</td>
<td>Evidence-Informed Practice and Informatics</td>
<td>1,10,13-18</td>
<td>3-6,8</td>
</tr>
<tr>
<td>5</td>
<td>Client and Digital Health</td>
<td>1-4,9,10,14,15,17-18</td>
<td>All</td>
</tr>
<tr>
<td>6</td>
<td>Client and Digital Health (continued) and Group Project Presentation</td>
<td>1-4,9,10,14,15,17-18</td>
<td>All</td>
</tr>
<tr>
<td>7</td>
<td>Electronic Health Technologies: eHealth Records</td>
<td>1,5,7-9,12-13,17</td>
<td>3,4,7,8</td>
</tr>
<tr>
<td>8</td>
<td>Electronic Health Technologies: eHealth Records (continued)</td>
<td>1,5,7-9,12-13,17</td>
<td>3,4,7,8</td>
</tr>
</tbody>
</table>
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 the opportunity to facilitate at least 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 two stimulating questions online (Sakai/FOL), based on the assigned readings and course topics. The responsibility of the facilitator is to post discussion questions 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 questions 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 facilitator will have to include rationale and evidence to support their evaluations. The facilitator 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 a minimum of four to five quality posts per week (Monday to Sunday at midnight), distributed over the week (i.e. the posts cannot all be made on one or two days, as discussion requires ongoing monitoring and responding to other student posts). Students will be graded on involvement and contribution to the discussion forum (see marking rubric for more guidance).

Reflections/discussion posts will be required for predetermined weeks (to be identified in first class).

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

<table>
<thead>
<tr>
<th></th>
<th>Technology Enabled Models of Care</th>
<th>1,5,7,10-18</th>
<th>2-4,7,8</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Digital Health Policy</td>
<td>all</td>
<td>3-6,8</td>
</tr>
<tr>
<td>11</td>
<td>Digital Health &amp; Social Justice</td>
<td>all</td>
<td>3-6,8</td>
</tr>
<tr>
<td>12</td>
<td>Future directions of health informatics in nursing</td>
<td>all</td>
<td>3-6,8</td>
</tr>
</tbody>
</table>
• 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)?
• 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 an assigned topic pertaining to weeks 1-6 of the course. Your course Professor will review/assign potential topics for this project. Working in your assigned student group, and based on evidence found in the literature, you will review, analyse, and critique the impact of the assigned topic on health, and/or health care, and/or the profession of nursing. This group project consists of two parts:

(a) Each student group will deliver their analysis and engage the class in a meaningful presentation. The presentation will be 5-7 minutes in length and will take place during class in Week 6.

(b) Each student group will submit a 2-page executive summary of their analysis. To be submitted by 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.
• Topics for the assignment will be discussed in Week 2.

Criteria for evaluation:

• Scholarly writing and use APA (6th ed.) formatting, referencing, and presentation
• Use of evidence-informed literature and other sources of knowledge to justify direction, approach, and outcomes
• Analysis related to the impact on health, and/or health care, and/or the profession of nursing
• Part A: Presentation length, 5-7 minutes.
• Part B: Executive summary, 2 pages, not including references
• See rubric for more detail
• Due date: Part A- in Class Week 6; Part B- Week 6 class, 0900hrs

Group Grade: 15% (Please see the marking rubric for this assignment for further guidance)

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 encouraged to use a variety of creative methods within their Integrative Reflective Paper, such as the inclusion of media relevant to analysis (e.g., images, video), and other digital artefacts that can be linked into the Paper. In summary, Integrative Reflective Paper should reflect a collection of key ‘learnings’ and scholarly reflections related to the assigned course content and emergent class and online discussions, and include evidence of:

• learning ‘artefacts’ (e.g., video, images, reflections, documents, material generated in class)
• journal article references and other scholarly publication citations to reinforce your arguments/analysis
• course content linked to current world events
• critical thinking
• professional composition
• innovation / creativity

The purposes of this assignment are for you to:

• synthesize course material by generating creative reflections on content and development of other learning artefacts.
• 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 develop scholarly reflections of your learning based on the assigned readings, material presented, online, class, and group discussions, as well as scholarly literature. You will choose 2-3 topics stemming from course material as the focus of your Integrative Reflection Paper. You will choose these topics from weeks 1-9 (inclusive). This is a scholarly reflection paper that integrates key learning from these weeks.
• Be prepared to share and present your emergent Paper with others during class time.
• 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, 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:

• Choose 2-3 topics from course material arising from weeks 1-9 (inclusive).
• Maximum of 2000 words (not including images, other media or references).
• Due Date: Week 10

Grade:

  o 40% of overall grade

4. Learning Portfolio Presentation

Learning Portfolio Presentation is a group assignment. Your assigned group will synthesize knowledge from 2-3 course topics from Weeks 7-11 into an artefact and present to the 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.

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

Summary of Opportunities to Demonstrate Learning

<table>
<thead>
<tr>
<th>OPPORTUNITIES TO DEMONSTRATE LEARNING</th>
<th>COURSE GOAL(S) ADDRESS ED</th>
<th>VALUE</th>
<th>DUE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Online Discussion (Facilitation and Contribution)</td>
<td>1-8</td>
<td>TOTAL: 30% Facilitation: 10% Contribution: 20%</td>
<td>Weeks 3, 4, 5, 7, 8–predetermined facilitation for each group member – see schedule.</td>
</tr>
<tr>
<td>2. Group Project</td>
<td>1-4, 8</td>
<td>15%</td>
<td>Part A- in class Week 6 Park B- Week 6*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*by 0900hrs of Week 6’s class</td>
</tr>
<tr>
<td>3. Integrative Reflective Paper</td>
<td>1-8</td>
<td>40%</td>
<td>Week 10</td>
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<td></td>
<td></td>
<td></td>
<td>*by 23:59EST of Week 10’s class</td>
</tr>
<tr>
<td>4. Learning Portfolio Presentation, (Group)</td>
<td>1-8</td>
<td>15%</td>
<td>Week 12 (in class)</td>
</tr>
</tbody>
</table>

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

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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.fanshawonline.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/](http://www.uwo.ca/uwocom/mentalhealth/)

Fanshawe College iCopeU [http://icopeu.com/fanshawe/home.html](http://icopeu.com/fanshawe/home.html)