Syllabus

Course Overview

In this course, you will learn the importance of system analysis and design, including system development life cycle processes. You will also get the chance to explore how project management and strategic planning are essential aspects of health informatics systems. You will examine how strategic objectives within an organization are main drivers in the development of new approaches to technology adoption.

The course will explore the four phases of the system lifecycle process: planning, analysis, design, and build. These phases are interrelated to clinical workflow considerations and business process reengineering which drive appropriate adoption of technology within health care organizations. To integrate appropriate clinical workflows, we will investigate data collection techniques, which will in turn allow for an understanding of requirements for systems development and design.

The course also provides insight into human computer interaction as well as usability principles. Within this area, you will be able to explain the correlation between the above concepts in order to improve the design of systems being proposed to the organization. Finally, we study data as well as its utilization in the improvement of quality for health care organizations.

Kaltura Activities

This course requires you to record a presentation using Kaltura or similar software in Assessment 1. Refer to <u>Using Kaltura [PDF]</u> for more information about this courseroom tool. You will need an external or built-in microphone to record the audio for your presentation.

Note: If you require the use of assistive technology or alternative communication methods to participate in this activity, please contact <u>DisabilityServices@Capella.edu</u> to request accommodations.

MSN Practicum

- Learners enrolled in the MSN or RN-to-MSN degree program, with a specialization in care coordination or nursing leadership and administration, are required to complete 100 documented hours of hands-on practicum experience.
- Learners enrolled in the MSN or RN-to-MSN degree program, with a specialization in nursing education, are required to complete 100 documented hours of hands-on practicum experience, 20 of the required 100 hours must be completed in a clinical practice setting.
- Learners enrolled in the MSN or RN-to-MSN degree program, with a specialization in nursing informatics, are required to complete 200
 documented hours of hands-on practicum experience.

After you complete all specialization courses in your MSN program, you will be eligible to enroll in your MSN Practicum. In preparation for your practicum experience, review the MSN Practicum page and begin the application process. Your site and preceptor should be approved well before you start your practice immersion course (at least 1–2 months).

The review process may take up to two weeks, so please ensure your program progression is not delayed by submitting all requirements as soon as possible for review and approval.

During your MSN Practicum, you will be required to submit multiple artifacts and documents for successful course completion. This may include items such as time logs, site evaluations, preceptor evaluations, and other projects unique to this course.

Capella has partnered with CORE Higher Education Group to provide a cloud-based experiential learning management system (ELMS) to support learners during practice immersion, practicum, or internship. CORE ELMS, hereafter referred to as CORE, provides a safe and secure repository to house forms and other course work that requires visibility and input from third parties (such as preceptors).

While you will still be submitting assignments to your instructor via the MSN courseroom, you will be instructed specifically where and when content should be submitted to CORE. Read your assignment carefully for directions and contact your instructor with any questions.

Course Competencies (Read Only)

To successfully complete this course, you will be expected to:

- Evaluate how various electronic health record systems are used by nurses across different health care settings.
- 2 Propose health information designs appropriate to health care settings.

- ${\it 3} \quad \hbox{Integrate health information system components into strategic planning for health informatics nurses}.$
- 4 Recommend appropriate workflows to maximize efficiencies for the practice setting.
- 5 Recommend strategies to maximize efficiency, safety, and patient satisfaction using electronic medical records while providing nursing care to patients.
- 6 Communicate as a practitioner-scholar, consistent with the expectations of a nursing professional.

Course Prerequisites

Prerequisite(s): MSN6410.

Syllabus >> Course Materials

Required

The materials listed below are required to complete the learning activities in this course.

Integrated Materials

Many of your required books are available via the VitalSource Bookshelf link in the courseroom, located in your Course Tools. Registered learners in a Resource Kit program can access these materials using the courseroom link on the Friday before the course start date. Some materials are available only in hard-copy format or by using an access code. For these materials, you will receive an email with further instructions for access. Visit the <u>Course Materials</u> page on Campus for more information.

Book

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett. ISBN: 9781284121247

Library

The following required readings are provided in the Capella University Library or linked directly in this course. To find specific readings by journal or book title, use <u>Journal and Book Locator</u>. Refer to the <u>Journal and Book Locator library guide</u> to learn how to use this tool.

- · American Nurses Association. (2015). Nursing informatics: Scope and standards of practice (2nd ed.), Silver Spring, MD: Author.
- Borum, C. (2018). <u>Barriers for hospital-based nurse practitioners utilizing clinical decision support systems: A systematic review.</u> CIN: Computers, Informatics, Nursing, 36(4), 177–182.
- Brazelton, N. C., Knuckles, M. C., & Lyons, A. M. (2017). <u>Clinical documentation improvement and nursing informatics</u>. *CIN: Computers, Informatics, Nursing*, 35(6), 271–277.
- Charbonneau, D. H. (2016). Privacy practices of health social networking sites: Implications for privacy and data security in online cancer communities. CIN: Computers, Informatics, Nursing, 34(8), 355–359.
- Chen, L. A., & Fawcett, T. N. (2016). <u>Using data mining strategies in clinical decision making: A literature review.</u> CIN: Computers, Informatics, Nursing, 34(10), 448–454.
- Cresswell, K. M., Lee, L., Mozaffar, H., Williams, R., Sheikh, A., Robertson, A., . . . on behalf of the NIHR ePrescribing Programme Team. (2017).
 Sustained user engagement in health information technology: The long road from implementation to system optimization of computerized physician order entry and clinical decision support systems for prescribing in hospitals in England. Health Services Research, 52(5), 1928–1957.
- Dowding, D., Merrill, J. A., Barrón, Y., Onorato, N., Jonas, K., & Russell, D. (2019). <u>Usability evaluation of a dashboard for home care nurses</u>. *CIN: Computers, Informatics, Nursing, 37*(1), 11–19.
- Fang, R., Pouyanfar, S., Yang, Y., Chen, S., & Iyengar, S. S. (2016). Computational health informatics in the big data age: A survey. ACM Computing Surveys (CSUR), 49(1), 1–36.
- Farzandipour, M., Meidani, Z., Riazi, H., & Sadeqi Jabali, M. (2016). <u>Nursing information systems requirements: A milestone for patient outcome and patient safety improvement.</u> *CIN: Computers, Informatics, Nursing, 34*(12), 601–612.
- Francis, I. (2017). Nursing informatics and the metaparadigms of nursing. On Line Journal of Nursing Informatics, 21(1).
- Haque, S. N., Ebron, S., Bailey, R., & Blumenthal, B. (2018). <u>Using health information exchange to support community-based innovations</u>. *Perspectives in Health Information Management*, 1–11.
- Hepp, S. L., Tarraf, R. C., Birney, A., & Arain, M. A. (2018) Evaluation of the awareness and effectiveness of IT security programs in a large publicly funded health care system. Health Information Management Journal, 47(3), 116–124.
- Khokhar, A., Lodhi, M. K., Yao, Y., Ansari, R., Keenan, G., & Wilkie, D. J. (2017;2016). Framework for mining and analysis of standardized nursing care plan data. Western Journal of Nursing Research, 39(1), 20–41.
- Kosmidis, D., Koutsouki, S., Lampiri, K., Nagy, E. O., Papaioannou, V., Pneumatikos, I., & Anastassopoulos, G. (2017). <u>Design and implementation of the intensive care unit quality management registry: Monitoring quality and cost of an adult intensive care unit in a Greek state hospital.</u>
 Computers, Informatics, Nursing: CIN, 35(11), 582–589.
- Manafò, E., Petermann, L., Vandall-Walker, V., & Mason-Lai, P. (2018). <u>Patient and public engagement in priority setting: A systematic rapid review of the literature</u>. *PloS One*, 13(3).
- Moats, S. K., & Richard, B. J. (2017). <u>Application of clinical intelligence to streamline care in aortic emergencies</u>. CIN: Computers, Informatics, Nursing, 35(10), 497–504.
- Mosier, S., & Englebright, J. (2019). The first step toward reducing documentation: Defining ideal workflows. CIN: Computers, Informatics, Nursing, 37(2), 57–59.
- Niimi, Y., & Ota, K. (2017). <u>Examination of an electronic patient record display method to protect patient information privacy.</u> Computers, Informatics, Nursing: CIN, 35(2), 100–108.
- O'Connor, S., Hubner, U., Shaw, T., Blake, R., & Ball, M. (2017). <u>Time for TIGER to ROAR! Technology informatics guiding education reform.</u> *Nurse Education Today, 58*, 78–81.
- Pagulayan, J., Eltair, S., & Faber, K. (2018). <u>Nurse documentation and the electronic health record: Use the nursing process to take advantage of EHRs' capabilities and optimize patient care.</u> *American Nurse Today, 13*(9), 48–54.
- Risling, T. (2017). Educating the nurses of 2025: Technology trends of the next decade. Nurse Education in Practice, 22, 89–92.
- Roberts, S., Chaboyer, W., Gonzalez, R., & Marshall, A. (2017) <u>Using technology to engage hospitalised patients in their care: A realist review.</u> *BMC Health Services Research*, *17*(1), 388–403.
- Ryan, M., Moran, P. S., Harrington, P., Murphy, L., O'Neill, M., Whelan, M., & Teljeur, C. (2017). Contribution of stakeholder engagement to the impact of a health technology assessment: An Irish case study. International Journal of Technology Assessment in Health Care, 33(4), 424–429.
- Seshia, S. S., Bryan Young, G., Makhinson, M., Smith, P. A., Stobart, K., & Croskerry, P. (2018). <u>Gating the holes in the Swiss cheese (part I):</u>

 <u>Expanding professor reason's model for patient safety.</u> *Journal of Evaluation in Clinical Practice*, 24(1), 187–197.
- Shah, G. H., Leider, J. P., Castrucci, B. C., Williams, K. S., & Luo, H. (2016) <u>Characteristics of local health departments associated with implementation of electronic health records and other informatics systems.</u> *Public Health Reports, 131*(2), 272–282.

- Slipka, A. F., & Monsen, K. A. (2018). <u>Toward improving quality of End-of-Life care: Encoding clinical guidelines and standing orders using the omaha system.</u> Worldviews on Evidence-Based Nursing, 15(1), 26–37.
- Staggers, N., & Elias, B. L. (2017). Cross the nursing and HIT divide. Nursing Management, 48(6), 21–23.
- Stimson, C. E., & Botruff, A. L. (2017). <u>Daily electronic health record reports meet meaningful use requirements, improve care efficiency, and provide a layer of safety for trauma patients.</u> Journal of Trauma Nursing: The Official Journal of the Society of Trauma Nurses, 24(1), 53–56.
- Vayena, E., Dzenowagis, J., Brownstein, J. S., & Sheikh, A. (2018). Policy implications of big data in the health sector. Bulletin of the World Health Organization, 96(1), 66–68.
- Wang, Y. C., & DeSalvo, K. (2018). <u>Timely, granular, and actionable: Informatics in the Public Health 3.0 era.</u> *American Journal of Public Health*, 108(7), 930–934.
- Wilbanks, B. A., & Moss, J. (2018). Evidence-based guidelines for interface design for data entry in electronic health records. Computers, Informatics, Nursing, 36(1), 35–44.
- Wynn, S. T. (2019). Limited mental health clinical sites: Telehealth is the answer. The Journal of Nursing Education, 58(3), 187.

Suggested

The following materials are recommended to provide you with a better understanding of the topics in this course. These materials are not required to complete the course, but they are aligned to course activities and assessments and are highly recommended for your use.

Optional

The following optional materials are offered to provide you with a better understanding of the topics in this course. These materials are not required to complete the course.

Unit 1 >> Systems and Decisions

Introduction

It is important to know how healthcare organizations use various system models to make informed decisions when studying informatics. In this unit, you will explore the use of informatics models and systems that support data analysis and help to guide healthcare outcomes.

Learning Activities

u01s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competencies:

- Evaluate various electronic medical record systems used by nurses across different health care settings.
- · Propose health information designs appropriate to health care settings.
- Communicate as a practitioner-scholar, consistent with the expectations of a nursing professional.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.
 - Review standards 7–16.

Systems and Decision Making

- McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.
 - ∘ Chapter 9, "Systems Development Life Cycle: Nursing Informatics and Organizational Decision Making," on pages 175–186.
- Francis, I. (2017). Nursing informatics and the metaparadigms of nursing. On Line Journal of Nursing Informatics, 21(1).

- Haque, S. N., Ebron, S., Bailey, R., & Blumenthal, B. (2018). <u>Using health information exchange to support community-based innovations</u>. Perspectives in Health Information Management, 1–11.
- Roberts, S., Chaboyer, W., Gonzalez, R., & Marshall, A. (2017) <u>Using technology to engage hospitalised patients in their care: A realist review.</u> BMC Health Services Research, 17(1), 388–403.
- Wilbanks, B. A., & Moss, J. (2018). Evidence-based guidelines for interface design for data entry in electronic health records. Computers, Informatics, Nursing, 36(1), 35–44.

Writing and Research Resources

- · Academic Integrity.
- · MSN Program Library Research Guide.
- · APA Style and Format.
- · Journal and Book Locator.

u01s1 - Learning Components

- Comprehend how informatics contributes to evidence-based practice.
- · Identify how information system functions affect a workplace.
- Comprehend the elements of an electronic health record.

u01d1 - Predictability of Models

When using informatics models in practice to effect change with healthcare outcomes, what do you think is most unpredictable and most predictable and why?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- Offer a suggestion.
- Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

APA Style and Format

MSN Program Library Research Guide

u01d1 - Learning Components

- · Comprehend how informatics contributes to evidence-based practice.
- Comprehend how the predictability of informatics models relate to healthcare outcomes.

u01d2 - Application: Information Systems and Health Outcomes

As you consider data analysis in your practice setting or organization, what is the best evidence you can find to support information system use as a tool to develop the best healthcare outcomes?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- · Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the sour

Course Resources

Graduate Discussion Participation Scoring Guide

u01d2 - Learning Components

- · Comprehend how informatics contributes to evidence-based practice.
- · Identify how information system functions affect a workplace.
- · Identify the relationship between informatics tools and patient satisfaction.
- Identify the relationship between information systems and strategic plans.
- Identify the relationship between informatics systems and organizational workflows.

Unit 2 >> Information Systems in Practice

Introduction

There are a multitude of systems that contribute to the successful integration of nursing informatics to improve healthcare systems today. In this unit, you will examine the multiple information systems used in nursing informatics to affect healthcare decisions.

Learning Activities

u02s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competencies:

- Propose health information designs appropriate to health care settings.
- · Integrate health information system components into strategic planning for health informatics nurses.
- Recommend appropriate workflows to maximize efficiencies for the practice setting.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.
 - Review standards 7–16.

Information Systems

- McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.
 Chapter 10, "Administrative Information Systems," on pages 189–203.
- Chen, L. A., & Fawcett, T. N. (2016). <u>Using data mining strategies in clinical decision making: A literature review</u>. CIN: Computers, Informatics, Nursing, 34(10), 448–454.
- Shah, G. H., Leider, J. P., Castrucci, B. C., Williams, K. S., & Luo, H. (2016) <u>Characteristics of local health departments associated with implementation of electronic health records and other informatics systems</u>. *Public Health Reports*, 131(2), 272–282.
- Slipka, A. F., & Monsen, K. A. (2018). <u>Toward improving quality of End-of-Life care: Encoding clinical guidelines and standing orders using the Omaha system</u>. Worldviews on Evidence-Based Nursing, 15(1), 26–37.

u02s1 - Learning Components

- · Comprehend the elements of an electronic health record.
- · Identify the relationship between information systems and strategic plans.
- · Interpret information system functions into policy and guidelines.

u02s2 - Assignment Preparation

In Unit 3, you will turn in the assignment *Policy and Guidelines for the Informatics Staff: Making Decisions to Use Informatics Systems in Practice.* You should start your preparation for this assignment now by reading the instructions, requirements and grading criteria. You may want to begin locating resources and starting to think through what you will need to know to complete the assignment.

u02d1 - Information Systems and Decision Making

After reading about or experiencing information systems used for decision making, what do you think are important elements that any system should include to provide effective support in practice to make effective decisions?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- Elaborate on a particular point.
- · Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources
Graduate Discussion Participation Scoring Guide
APA Style and Format
Journal and Book Locator

MSN Program Library Research Guide

u02d1 - Learning Components

- · Identify how information system functions affect a workplace.
- · Identify the relationship between informatics tools and patient satisfaction.
- · Identify the relationship between information systems and strategic plans.
- · Identify the relationship between informatics systems and organizational workflows.

u02d2 - Application: IS and Decision Making

As you think about healthcare decisions in your professional world, what have you seen that could be considered best practice when using information systems for decision making? How, if at all, have written policy and guidelines contributed to best practices?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- · Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

u02d2 - Learning Components

- Comprehend how informatics contributes to evidence-based practice.
- · Identify how information system functions affect a workplace.
- Interpret information system functions into policy and guidelines.
- · Interpret informatics analysis into policy and guidelines.
- Identify how workflows created by informatics systems can be translated into policy and guidelines.

Unit 3 >> Humans and Technology

Introduction

Too often, humans and technology are out of sync with each other when the design is developed and then implemented, only to realize issues that were not anticipated for the end-user, are identified. In this unit, you will enhance your knowledge of the critical aspects of the human and technology interface as a framework for information system use in practice.

Learning Activities

u03s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competencies:

- · Evaluate various electronic medical record systems used by nurses across different health care settings.
- · Propose health information designs appropriate to health care settings.
- · Recommend appropriate workflows to maximize efficiencies for the practice setting.
- Recommend strategies to maximize efficiency, safety, and patient satisfaction using electronic medical records while providing nursing care to patients.
- · Communicate as a practitioner-scholar, consistent with the expectations of a nursing professional.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.
 - Review standards 7-16.

Human Factors

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.

- Chapter 11, "The Human-Technology Interface," on pages 207–223.
 - Examines the importance of understanding how people experience technology is to the success of a technology. Stresses the critical need for clinician input into the design process.
- Borum, C. (2018). <u>Barriers for hospital-based nurse practitioners utilizing clinical decision support systems: A systematic review</u>. CIN: Computers, Informatics, Nursing, 36(4), 177–182.
- Wang, Y. C., & DeSalvo, K. (2018). <u>Timely, granular, and actionable: Informatics in the Public Health 3.0 era</u>. *American Journal of Public Health*, 108(7), 930–934.

Policy and Guidelines

- Moats, S. K., & Richard, B. J. (2017). <u>Application of clinical intelligence to streamline care in aortic emergencies</u>. *CIN: Computers, Informatics, Nursing, 35*(10), 497–504.
- Vayena, E., Dzenowagis, J., Brownstein, J. S., & Sheikh, A. (2018). Policy implications of big data in the health sector. Bulletin of the World Health Organization, 96(1), 66–68.

u03s1 - Learning Components

- · Identify how information system functions affect a workplace.
- · Comprehend how human factors relate to risk.
- Interpret information system functions into policy and guidelines.
- Interpret inter-professional care and patient satisfaction outcomes into policy and guidelines.

u03a1 - Policy and Guidelines for the Informatics Staff: Making Decisions to Use Informatics Systems in Practice

Choose a specific situation in a practice setting related to the use of an informatics tool or system. Write a brief paper analyzing a need for specific policies and guidelines related to the tool or system and place the actual policy and guidelines as appendices to the paper. There are three parts to this assessment.

Part 1: Establish policy and guidelines for the use of an information system or data collection tool to support and apply evidence- based practice. Create a brief 2–3 page paper to address how the policy reflects the following analysis:

- An evaluation of the function of the tool related to evidence-based practice.
- An analysis of the work setting using evidence-based practice.
- · An analysis of how the tool/system supports the strategic plan for evidence-based information use in the organization or practice setting.
- · An analysis of how the tool/system contributes to creating efficient workflows and safe practice within the context of evidence-based practice.
- An assessment of how the tool/system contributes to interprofessional care and patient satisfaction.

Part 2: Create a one page policy with references placed as an appendix to the paper.

Part 3: Create one page with guidelines on how to use the policy in practice placed as an appendix after the policy.

Review the Health Informatics Systems Planning, Analysis, Design, and Build for Nursing scoring guide prior to submission to ensure you address all required grading criteria.

Additional Requirements

- Part 1: Paper
 - Title page: Include your name, course, date, and instructor.
 - · Reference: Five scholarly sources that support the policy and guidelines. Additional references may be used.
 - · Written communication: Written communication is free of errors that detract from the overall message.
 - APA formatting: Resources and citations are formatted according to APA (sixth edition) style and formatting. Use a running head, title on the
 first line of the first page of text, a brief introduction, a minimum of Level 1 headings used for each section of the paper, and conclusion.
 Abstract not required
 - · Length of paper: 2-3 typed, double-spaced pages.
 - · Font and font size: Times New Roman, 12 point.
- Part 2: Policy Statement
 - · Length of paper: One page, double-spaced policy statement with references placed as an appendix.
 - · Font and font size: Times New Roman, 12 point.
- Part 3: Guidelines
 - · Length of paper: One page, double-spaced guideline of steps on how to use the policy in practice placed as an appendix after the policy.
 - · Font and font size: Times New Roman, 12 point.

Submit your paper to the assignment area for grading.

Grading Criteria and Competency Alignment

The assignment instructions correspond to the grading criteria in the Policy and Guidelines for the Informatics Staff. Making Decisions to Use Informatics Systems in Practice scoring guide. You may also want to review the performance level descriptions for each criterion to see how your work will be assessed.

- · Competency 1: Evaluate how various electronic health record systems are used by nurses across different health care settings.
 - · Written policy and guidelines reflect an evaluation of the function of the tool or system related to evidence based practice.
- Competency 2: Propose health information designs appropriate to health care settings.
 - Written policy and guidelines reflect an analysis of work setting using evidence based practice.
- · Competency 3: Integrate health information system components into strategic planning for health informatics nurses.
 - Written policy and guidelines reflect an analysis of how the tool or system supports the strategic plan for evidence based information use in the organization or practice setting.
- · Competency 4: Recommend appropriate workflows to maximize efficiencies for the practice setting.
 - Written policy and guidelines reflect an assessment of workflows to maximize efficiency and safe practice within the context of evidence based practice.
- Competency 5: Recommend strategies to maximize efficiency, safety, and patient satisfaction using electronic health records while providing nursing care to patients.
 - · Written policy and guidelines reflect an assessment of how the tool or system contributes to inter-professional care and patient satisfaction.
- · Competency 6: Communicate as a practitioner-scholar, consistent with the expectations of a nursing professional.
 - · Written communication is error free, employs APA standards and is consistent with the expectations of a nursing professional.

Course Resources

APA Style and Format

Journal and Book Locator library quide

MSN Program Library Research Guide

What are significant considerations when using systems in practice as you think about human factors and risk of error?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- · Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

APA Style and Format

MSN Program Library Research Guide

u03d1 - Learning Components

· Comprehend how human factors relate to risk.

Unit 4 >> Information Security

Introduction

Federal guidelines, Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Health Information Technology for Economic and Clinical Health Act (HITECH), were developed to protect the privacy of patient health information. In this unit, you will be given a guide to the many aspects of security needs for information system applications and use.

Learning Activities

u04s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competencies:

- · Evaluate various electronic medical record systems used by nurses across different health care settings.
- Propose health information designs appropriate to health care settings.
- · Integrate health information system components into strategic planning for health informatics nurses.

Readings

ANA Scope and Standards

American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.

Review standards 7–16

Security

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.

- Chapter 12, "Electronic Security," on pages 279-241.
 - A key decision point in implementing technology related business solutions is maintaining system security. This chapter looks at ways to think
 about encouraging accessibility and availability while maintaining security and privacy.
- Charbonneau, D. H. (2016). <u>Privacy practices of health social networking sites: Implications for privacy and data security in online cancer communities</u>. CIN: Computers, Informatics, Nursing, 34(8), 355–359.
- Hepp, S. L., Tarraf, R. C., Birney, A., & Arain, M. A. (2018) <u>Evaluation of the awareness and effectiveness of IT security programs in a large publicly funded health care system</u>. Health Information Management Journal, 47(3), 116–124.
- Pagulayan, J., Eltair, S., & Faber, K. (2018). <u>Nurse documentation and the electronic health record: Use the nursing process to take advantage of EHRs' capabilities and optimize patient care</u>. *American Nurse Today, 13*(9), 48–54.
- Staggers, N., & Elias, B. L. (2017). Cross the nursing and HIT divide. Nursing Management, 48(6), 21–23.
- Vayena, E., Dzenowagis, J., Brownstein, J. S., & Sheikh, A. (2018). Policy implications of big data in the health sector. Bulletin of the World Health Organization, 96(1), 66–68.

u04s1 - Learning Components

- · Identify how information system functions affect a workplace.
- · Comprehend the risks associated with information security and safe use.
- · Comprehend how human factors relate to risk.

u04s2 - Assignment Preparation

In Unit 6, you will turn in the assignment, "Presentation to the Organization." You should start your preparation for this assignment now by reading the instructions, requirements and grading criteria. You may want to begin locating resources and starting to think through what you will need to know and do to complete the assignment.

u04d1 - Information Security

With regard to information systems and security, what are three top priorities you think any organization should consider to provide controlled and safe use of data?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- Elaborate on a particular point.
- · Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Graduate Discussion Participation Scoring Guide

u04d1 - Learning Components

• Comprehend the risks associated with information security and safe use.

u04d2 - Application: Information Security in Your Workplace

Using a specific example, what should be enhanced in your practice setting or organization when you consider information system security and the use of data?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- · Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

u04d2 - Learning Components

• Comprehend the risks associated with information security and safe use.

Unit 5 >> Knowledge Development: Measurement, Assessment and Outcome

Introduction

Workflow analysis encompasses all areas of functionality including process analysis and has become a critical aspect to the Nurse Informaticist. In this unit, you will explore the collection, determination, and analysis of data to produce knowledge.

Learning Activities

u05s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competency:

• Evaluate various electronic medical record systems used by nurses across different health care settings.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.
 - Review standards 7–16.

Data and Analysis

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.

- Chapter 21, "Nursing Research: Data Collection, Processing and Analysis," on pages 443–473.
 - This chapter examines the importance of information literacy as a research tool and the relationship of informatics generated data to knowledge generation.
- Khokhar, A., Lodhi, M. K., Yao, Y., Ansari, R., Keenan, G., & Wilkie, D. J. (2017;2016;). <u>Framework for mining and analysis of standardized nursing care plan data</u>. Western Journal of Nursing Research, 39(1), 20–41.
- Kosmidis, D., Koutsouki, S., Lampiri, K., Nagy, E. O., Papaioannou, V., Pneumatikos, I., & Anastassopoulos, G. (2017). <u>Design and implementation of the intensive care unit quality management registry: Monitoring quality and cost of an adult intensive care unit in a Greek state hospital.</u>
 Computers, Informatics, Nursing: CIN, 35(11), 582–589.
- Stimson, C. E., & Botruff, A. L. (2017). <u>Daily electronic health record reports meet meaningful use requirements, improve care efficiency, and provide a layer of safety for trauma patients</u>. *Journal of Trauma Nursing: The Official Journal of the Society of Trauma Nurses*, 24(1), 53–56.

u05s1 - Learning Components

- Describe the relationship between data collection, data analysis and strategic goals.
- · Describe the relationship between information system workflows, safe practice, and quality outcomes.
- Identify how data collection needs contribute to altered workflows within the organization.

u05s2 - Assignment Preparation

Continue to plan for your Unit 6 presentation assignment. If you haven't already, begin locating resources and starting to think through what you will need to know and do to complete the assignment.

u05d1 - Determining What Data to Collect

As a knowledge worker and user of data, how should organizations determine what data to collect, analyze, and trend within the context of healthcare outcomes and why?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Graduate Discussion Participation Scoring Guide

u05d1 - Learning Components

- · Comprehend how informatics contributes to evidence-based practice.
- Describe the relationship between data collection, data analysis and strategic goals.
- · Identify how data collection needs contribute to altered workflows within the organization.

u05d2 - Application: Measuring Outcomes

Consider how you interpret analyzed data to measure outcomes in your professional setting. What would you change related to what and how outcomes are measured and why?

Response Guidelines

- · Ask an analytical question.
- · Offer a suggestion.
- Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.
- Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

Unit 6 >> Workflow and Results

Introduction

The Healthcare Information Management Systems Society (HIMSS) is a nonprofit organization that promotes improved health through information and technology. In this unit, you will examine the role of nursing informatics related to workflow, information, and technology to produce outcomes.

Learning Activities

u06s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competencies:

- · Evaluate various electronic medical record systems used by nurses across different health care settings.
- Propose health information designs appropriate to health care settings.

- · Recommend appropriate workflows to maximize efficiencies for the practice setting.
- Recommend strategies to maximize efficiency, safety, and patient satisfaction using electronic medical records while providing nursing care to natients
- Communicate as a practitioner-scholar, consistent with the expectations of a nursing professional.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.
 - Review standards 7–16.

Workflow

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.

- Chapter 13, "Workflow and Beyond Meaningful Use," on pages 245-260.
 - · This chapter deals with workflow analysis and design.
- Dowding, D., Merrill, J. A., Barrón, Y., Onorato, N., Jonas, K., & Russell, D. (2019). <u>Usability evaluation of a dashboard for home care nurses</u>. CIN: Computers, Informatics, Nursing, 37(1), 11–19.
- Fang, R., Pouyanfar, S., Yang, Y., Chen, S., & Iyengar, S. S. (2016). Computational health informatics in the big data age: A survey. ACM
 Computing Surveys (CSUR), 49(1), 1–36.
- Mosier, S., & Englebright, J. (2019). The first step toward reducing documentation: Defining ideal workflows. CIN: Computers, Informatics, Nursing, 37(2), 57–59.

Presentation Resources

- · Using Kaltura.
- · Kaltura Basics Tutorial [Video].

u06s1 - Learning Components

- · Comprehend the importance of workflows to information systems.
- Comprehend how organizational workflows support the strategic goals of quality outcomes.
- Identify how data collection needs contribute to altered workflows within the organization.

u06a1 - Presentation to the Organization

For the assignment you will create a presentation showcasing your ability to make decisions as a leader in practice. This presentation will be for multiple levels of leadership and staff to inform them of specific changes to workflow that improve overall efficiency, safety and quality in the organization.

- Present the topic in a Kaltura presentation that is 10 minutes or less in length. The presentation should consist of no more than 10–12 PowerPoint slides, which should include the following with speaker notes:
 - · Title slide.
 - Describe the overall workflow/system change within the context of evidence-based practice and analyze the reasons behind this necessary change.
 - Assess how this new workflow supports the strategic plan of the organization related to quality outcomes and decision making with the use of informatics.
 - Describe your rationale as a decision maker for the workflow changes for each group of stakeholders/practitioners/end users who will
 experience the change.
 - Analyze how the new workflow related to evidence-based practice contributes to efficiency gains for specific stakeholders.
 - Assess the overall efficiency, safety, and satisfaction driven use of the workflow change to provide quality outcomes for the organization or practice setting.
 - Reference slide.
- Include the following in your assignment submission:
 - · A narrated Kaltura presentation of your PowerPoint slides.
 - The full PowerPoint presentation as a separate .ppt or .pptx file, including speaker's notes in the slides. Note: The speaker's notes will act as a transcript for your presentation.

• When finished, paste the Kaltura link to your presentation in the assignment comment box, and include the full PowerPoint presentation (with speaker's notes for the slides) as an attachment. You may submit the assignment only once, so make sure all the components are present before submitting.

Presentation Requirements

- · Format: Slide presentation with audio narrative.
- Kaltura is the preferred presentation platform for Capella University. All Capella learners have access to Kaltura. You will want to have an external or built-in webcam and microphone available and tested. Refer to Using Kaltura [PDF] for instructions as needed, listed in Resources.
- Audio should be 10 minutes or less.
- Title slide: Include your name, course, date, and instructor.
- Reference Slide: Five scholarly sources that support the policy and guidelines. Additional references may be used. Including APA formatted scholarly sources.
- Presentation Length: 10-12 Slides with a maximum of five bullets per line. All information for each bullet stays on one line.
- Graphics: You may use professional looking graphics.
- Speaker Notes: Speaker notes are required in place of a narrative paper.
- · Written communication: Written communication is free of errors that detract from the overall message.
- · APA formatting: Resources and citations are formatted according to APA (sixth edition) style and formatting.

Review the Presentation to the Organization scoring guide prior to submission to ensure you address all required grading criteria.

Grading Criteria and Competency Alignment

The assignment instructions correspond to the grading criteria in the Presentation to the Organization scoring guide. You may also want to review the performance level descriptions for each criterion to see how your work will be assessed.

- · Competency 1: Evaluate how various electronic health record systems are used by nurses across different health care settings.
 - Presentation assesses the workflow/system change within the context of evidence based practice.
- Competency 2: Propose health information designs appropriate to health care settings.
 - · Presentation explains the decision-making rationale for the workflow changes.
- · Competency 3: Integrate health information system components into strategic planning for health informatics nurses.
 - Presentation analyzes how this workflow supports the strategic plan of the organization related to quality outcomes and the use of informatics
- · Competency 4: Recommend appropriate workflows to maximize efficiencies for the practice setting.
 - Presentation outlines the workflow change for each group of stakeholders affected by the change and assess the efficiency gains of the change.
- Competency 5: Recommend strategies to maximize efficiency, safety, and patient satisfaction using electronic health records while providing nursing care to patients.
 - Presentation summarizes the overall efficiency, safety, and satisfaction driven use of the electronic health record workflow change to provide
 quality outcomes for the organization or practice setting.
- · Competency 6: Communicate as a practitioner-scholar, consistent with the expectations of a nursing professional.
 - · Presentation is free of grammar and spelling errors, employs APA standards and is consistent with the expectations of a nursing professional.

Course Resources

APA Style and Format

Kaltura Basics Tutorial [Video]

MSN Program Library Research Guide

u06d1 - Workflow Contribution to Outcomes

As you consider the end-user/stakeholders of information systems, how can workflow contribute to positive and negative healthcare outcomes? Provide your supported rationale.

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- Offer a suggestion.
- Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

u06d1 - Learning Components

- · Identify how information system functions affect a workplace.
- · Comprehend the importance of workflows to information systems.
- · Comprehend how workflow changes brought about by information systems contribute to efficiency gains.
- · Comprehend how organizational workflows support the strategic goals of quality outcomes.

Unit 7 >> Health Information Systems

Introduction

Many consider the basic understanding of electronic health records and nursing informatics a minimum requirement for entry into the nursing informatics specialty. It is with this knowledge that nursing's role in facilitating the safe integration of an electronic health records (EHR) is focused on. In this unit, you will develop an understanding of the multiple components that contribute to an electronic health record.

Learning Activities

u07s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competencies:

• Evaluate various electronic medical record systems used by nurses across different health care settings.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association. I
 - Review standards 7–16.

Electronic Health Records

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.

• Chapter 14, "The Electronic Health Record and Clinical Informatics," on pages 267–287.

- This chapter explores electronic health records and the contribution of the nursing profession to the success of the technology as well as the
 accountability such systems require of nursing staff.
- Brazelton, N. C., Knuckles, M. C., & Lyons, A. M. (2017). <u>Clinical documentation improvement and nursing informatics</u>. CIN: Computers, Informatics, Nursing, 35(6), 271–277.
- O'Connor, S., Hubner, U., Shaw, T., Blake, R., & Ball, M. (2017). <u>Time for TIGER to ROAR! Technology informatics guiding education reform</u>. *Nurse Education Today*, *58*, 78–81.
- Risling, T. (2017). Educating the nurses of 2025: Technology trends of the next decade. Nurse Education in Practice, 22, 89–92.

u07s1 - Learning Components

- · Comprehend the elements of an electronic health record.
- · Determine what information system workflows contribute to inter-professional communication.
- · Identify the relationship between information systems and strategic plans.

u07s2 - Assignment Preparation

In Unit 9, you will turn in the assignment *Manuscript for Publication*. You should start your preparation for this assignment now by reading the instructions, requirements and grading criteria. You may want to begin locating resources and starting to think through what you will need to know to complete the assignment.

u07d1 - Communication Elements of an EHR

What are essential elements that an electronic healthcare record (EHRs) should include that contribute to successful interprofessional communication with healthcare delivery?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

u07d1 - Learning Components

- · Comprehend the elements of an electronic health record.
- Determine what information system workflows contribute to inter-professional communication.
- · Identify the stakeholders associated with an information system implementation.

u07d2 - Application: Information Flow

As you think about your use of an EHR, what do you envision for seamless information flow with an interprofessional team and how does this contribute to knowledge development about daily practice?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- · Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

u07d2 - Learning Components

- · Comprehend how informatics contributes to evidence-based practice.
- · Comprehend the elements of an electronic health record.
- Determine what information system workflows contribute to inter-professional communication.

Unit 8 >> Promoting Safety and Quality with Strategy

Introduction

The Nurse Informaticist (NI) has an ethical obligation to promote patient safety and quality of care through the use of research, data collection, processing, and data analysis. In this unit, you will strategize to produce a culture of safety using nursing informatics to affect quality outcomes.

Learning Activities

u08s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competency:

• Recommend appropriate workflows to maximize efficiencies for the practice setting.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.
 - Review standards 7–16.

Safety and Quality

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.

- Chapter 15, "Informatics Tools to Support Patient Safety and Quality," on pages 293-315.
 - This chapter examines patient safety from the strategic perspective of creating a safety culture. It discusses how error analysis can point to
 workflow changes that mitigate safety risks. It looks at the role of the nurse informaticist in collaborating with other stakeholders.
- Farzandipour, M., Meidani, Z., Riazi, H., & Sadeqi Jabali, M. (2016). <u>Nursing information systems requirements: A milestone for patient outcome and patient safety improvement</u>. *CIN: Computers, Informatics, Nursing, 34*(12), 601–612.
- Niimi, Y., & Ota, K. (2017). Examination of an electronic patient record display method to protect patient information privacy. Computers, Informatics, Nursing: CIN, 35(2), 100–108.
- Seshia, S. S., Bryan Young, G., Makhinson, M., Smith, P. A., Stobart, K., & Croskerry, P. (2018). <u>Gating the holes in the Swiss cheese (part I):</u> Expanding professor reason's model for patient safety. *Journal of Evaluation in Clinical Practice*, 24(1), 187–197.

u08s1 - Learning Components

- · Comprehend the contribution an information system make to a culture of safety.
- Describe the relationship between information system workflows, safe practice, and quality outcomes.
- · Comprehend how various information systems support the strategic plan of an organization.
- · Identify the relationship between information systems and improved outcomes.

u08s2 - Assignment Preparation

Continue to plan for your Unit 9 assignment. If you haven't already, you may want to begin locating resources and starting to think through what you will need to know and do to complete the assignment.

u08d1 - A Culture of Safety

What important concepts are essential to the initial development and then sustainability for a culture of safety? How might a health information system contribute to this culture?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- Ask an analytical question.
- Offer a suggestion.
- Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

u08d1 - Learning Components

· Describe the relationship between information system workflows, safe practice, and quality outcomes.

u08d2 - Application: Supporting a Culture of Safety

When you think about the development and sustainability of a culture of safety in your practice setting or organization, what roles and/or structures would you add or modify to support a culture of safety?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- Elaborate on a particular point.
- · Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

u08d2 - Learning Components

- Comprehend the contribution an information system make to a culture of safety.
- Describe the relationship between information system workflows, safe practice, and quality outcomes.

Unit 9 >> Stakeholders and Engagement

Introduction

The Knowledge Age has influenced healthcare by trending consumer and patient empowerment for a need for greater information supporting their healthcare needs. In this unit, you define the many aspects of engaging patients to promote enhanced connections that support health literacy and knowledge.

Learning Activities

u09s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competencies:

- · Evaluate various electronic medical record systems used by nurses across different health care settings.
- Propose health information designs appropriate to health care settings.
- Recommend appropriate workflows to maximize efficiencies for the practice setting.
- Recommend strategies to maximize efficiency, safety, and patient satisfaction using electronic medical records while providing nursing care to patients.
- Communicate as a practitioner-scholar, consistent with the expectations of a nursing professional.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.
 - Review standards 7–16.

Stakeholder Considerations

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.

- Chapter 16, "Patient Engagement and Connected Health," on pages 323–337.
 - Health technology has the ability to connect consumers to their own health care in a way that has never happened before. This chapter
 examines the importance of developing inclusive and engaging educational materials to enable consumers to make the most of the access
 technology offers to them.
- Chapter 17, "Using Informatics to Promote Community/Population Health," on pages 341–352.
 - · The chapter takes a look at how federal, state and local public health agencies are involved developing public health informatics.
- Cresswell, K. M., Lee, L., Mozaffar, H., Williams, R., Sheikh, A., Robertson, A., . . . on behalf of the NIHR ePrescribing Programme Team. (2017). Sustained user engagement in health information technology: The long road from implementation to system optimization of computerized physician order entry and clinical decision support systems for prescribing in hospitals in England. Health Services Research, 52(5), 1928–1957.
- Manafò, E., Petermann, L., Vandall-Walker, V., & Mason-Lai, P. (2018). Patient and public engagement in priority setting: A systematic rapid review of the literature. PloS One, 13(3).
- Ryan, M., Moran, P. S., Harrington, P., Murphy, L., O'Neill, M., Whelan, M., & Teljeur, C. (2017). Contribution of stakeholder engagement to the impact of a health technology assessment: An Irish case study. International Journal of Technology Assessment in Health Care, 33(4), 424–429.

u09s1 - Learning Components

- · Comprehend how informatics contributes to evidence-based practice.
- · Identify the relationship between informatics tools and patient satisfaction.
- · Describe the relationship between information system workflows, safe practice, and quality outcomes.
- Identify the stakeholder need associated with an implementation.

u09a1 - Manuscript for Publication

For this assessment, you will development a manuscript for publication that describes your EHR initiative and its outcomes and provides recommendation for further improvements. Examine several informatics journals and determine where your ideas fit best. Develop a scholarly conversation in the form of an APA paper for submission to a specific informatics journal of your choosing.

Your manuscript should include the following sections:

- Title page.
- · Brief introduction as to the purpose of the discussion.
- · Body of paper addressing:
 - · In the context of a practice setting, evaluate the use of an electronic health record (EHR) for an inter-professional care team/stakeholders.
 - · Focus your analysis on how the use of the information system enhances workflows to promote safe practice and quality outcomes.
 - Evaluate how this initiative supports the strategic plan of the organization or practice setting while considering the inter-professional care team/ end user stakeholders.
 - Produce recommendations to improve current EHR use to support stakeholder needs, improve outcomes and patient satisfaction for the
- · Conclusion a synthesis of your paper.
- References.

Review the Manuscript for Publication scoring guide prior to submission to ensure you address all required grading criteria.

Example assignment: You may use the assignment example, linked in the Resources, to give you an idea of what a Proficient or higher rating on the scoring guide would look like.

Additional Requirements

- Title page: Include your running head, name, course, date, and instructor.
- References: Five scholarly sources that support the policy and guidelines. Additional references may be used.
- · Written communication: Written communication is free of errors that detract from the overall message.
- APA formatting: Resources and citations are formatted according to APA (sixth edition) style and formatting. Use a running head, title on the first line of the first page of text, a brief introduction, a minimum of Level 1 headings used for each section of the paper, and conclusion. Abstract not required.
- Length of paper: 6-8 typed, double-spaced pages.
- Font and font size: Times New Roman, 12 point.

Submit your paper to the assignment area for grading.

Grading Criteria and Competency Alignment

The assignment instructions correspond to the grading criteria in the Manuscript for Publication scoring guide. You may also want to review the performance level descriptions for each criterion to see how your work will be assessed.

- · Competency 1: Evaluate how various electronic health record systems are used by nurses across different health care settings.
 - Evaluate the use of an electronic health record (EHR) for an inter-professional care team/stakeholder.
- Competency 2: Propose health information designs appropriate to health care settings.
 - · Analyze how enhanced information system workflows will promote safe practice and quality outcomes.
- Competency 3: Integrate health information system components into strategic planning for health informatics nurses.
 - · Evaluate how this situation supports the strategic plan of the organization or practice setting.
- · Competency 4: Recommend appropriate workflows to maximize efficiencies for the practice setting.
 - · Produce recommendations that improve the current EHR use to support stakeholder needs, improve outcomes and patient satisfaction.
- Competency 5: Recommend strategies to maximize efficiency, safety, and patient satisfaction using electronic health records while providing nursing care to patients.
 - Synthesize information into a clear summary of how to strategize for maximum efficient, and safe care supporting patient satisfaction using the EHR.
- · Competency 6: Communicate as a practitioner-scholar, consistent with the expectations of a nursing professional.
 - · Written communication is error free, employs APA standards and is consistent with the expectations of a nursing professional.

APA Style Paper Template [DOCX]

APA Style Paper Tutorial [DOCX]

APA Style Paper Tutorial [DOCX]

Journal and Book Locator library guide

MSN Program Library Research Guide

Unit 9 Assignment Example [PDF]

u09d1 - Human Computer Interaction and Usability

Discuss two ways in which you can support the growth of healthcare literacy in the Unites States and your community through the use of information systems. Describe two ways in which the system would have to perform to be successful.

Response Guidelines

Course Resources

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- · Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

APA Style and Format

u09d1 - Learning Components

- · Describe how information systems can contribute to health care literacy in the outside community.
- · Identify the stakeholder need associated with an implementation.

Unit 10 >> The Present and Future of Informatics

Introduction

The Foundation of Knowledge Model is critical to nursing in understanding how public health and telehealth can be used to transform healthcare. In this unit, you will reflect upon telehealth and the future of nursing informatics as an evolutionary science to affect healthcare outcomes.

Learning Activities

u10s1 - Studies

Competency Alignment

The activities in this unit have been designed to facilitate your understanding of the following course competency:

· Integrate health information system components into strategic planning for health informatics nurses.

Readings

ANA Scope and Standards

- American Nurses Association. (2015). <u>Nursing informatics: Scope and standards of practice (2nd ed.)</u>. Silver Spring, MD: American Nurses Association.
 - Review standards 7–16.

Future Trends

McGonigle, D., & Mastrian, K. (2018). Nursing informatics and the foundation of knowledge (4th ed.). Burlington, MA: Jones & Bartlett.

- Chapter 18, "Telenursing and Remote Access Telehealth," on pages 359–387.
 - This chapter applies the Foundation of Knowledge Model to telenursing and telehealth. In addition to describing current use, it examines related legal, ethical and regulatory issues.
- O'Connor, S., Hubner, U., Shaw, T., Blake, R., & Ball, M. (2017). <u>Time for TIGER to ROAR! Technology informatics guiding education reform</u>. *Nurse Education Today*, *58*, 78–81.
- Risling, T. (2017). Educating the nurses of 2025: Technology trends of the next decade. Nurse Education in Practice, 22, 89–92.
- Wynn, S. T. (2019). Limited mental health clinical sites: Telehealth is the answer. The Journal of Nursing Education, 58(3), 187.

u10s1 - Learning Components

- · Comprehend the elements of an electronic health record.
- · Describe how information systems can contribute to health care literacy in the outside community.
- · Identify the relationship between information systems and strategic plans.

u10d1 - Telehealth

What can you envision with telehealth and information system use in the future to create improved healthcare outcomes in your community, as a nation, and from a global perspective?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- · Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).

You must make reference to the work of another writer (either as a quotation, paraphrase, or summary) to provide support for your ideas. The source can be the course text, another relevant book, any assigned readings, or an article you find on your own through the Capella Library. When you incorporate the other writer's ideas in your work, use APA citation style to give credit to that writer. Remember that an APA citation includes both the in-text citation (the author's last name and the year of publication) and the full reference for the source.

Course Resources

Graduate Discussion Participation Scoring Guide

u10d1 - Learning Components

- Comprehend the elements of an electronic health record.
- Comprehend the contribution an information system make to a culture of safety.
- · Describe how information systems can contribute to health care literacy in the outside community.

u10d2 - Reflections

Reflecting on this quarter's course, what was most significant to you, as a healthcare professional developing knowledge about Nursing Informatics, to apply in practice?

Response Guidelines

Review the posts of your fellow learners and respond according to the FEM guidelines. In your response, you must do one or a combination of the following:

- · Ask an analytical question.
- · Offer a suggestion.
- · Elaborate on a particular point.
- Provide an alternative opinion supported with scholarly references.

Initial Discussion and Response Guidelines: Remember to adhere to the requirements for unit discussion postings and peer responses addressed in the School of Nursing and Health Sciences Faculty Expectations Message (FEM).