



This course supports the assessment for Advanced Information Management and the Application of Technology. It covers 7 competencies and represents 3 competency units.

Introduction

Overview

In the Advanced Information Management and the Application of Technology course, you will examine the interface of technology and nursing experienced by a Masters prepared nurse, and examine the complementary roles of the Masters level-prepared nursing information technology professionals, including informaticists and quality officers. You will analyze current and emerging technologies and information systems that support safe, quality, evidence-based patient care, examine ethical, legal and regulatory Informatics issues related to current healthcare environments, also explore the various roles nursing informatics plays in healthcare.

Watch the following welcome video for an introduction to this course:

Note: To download this video, right-click the following link and choose "Save as...": [download video](#).

Competencies

This course provides guidance to help you demonstrate the following 7 competencies:

- **Competency 744.2.1: Information Management**
The graduate evaluates information management systems that support timely, high quality, patient-centered care.
- **Competency 744.2.2: Leadership in Information Technology**
The graduate integrates knowledge of nursing initiatives, professional organizations, and leadership into strategies for enhancing nursing informatics.
- **Competency 744.2.3: Health Information Systems**
The graduate evaluates features and functions of health information systems necessary to meet the needs of healthcare delivery.
- **Competency 744.2.4: Electronic Health Record**
The graduate evaluates patient data and electronic health records to inform practice.
- **Competency 744.2.5: Information Security**
The graduate evaluates the privacy and security of data within healthcare organizations.
- **Competency 744.2.6: Technology Supporting Quality Improvement**
The graduate analyzes the effectiveness and appropriateness of technology designed to ensure quality patient outcomes.
- **Competency 744.2.7: Current and Future Technologies**
The graduate evaluates the implications of current and emerging technologies for practice, research, education, and administration.

Preparing for Success

The information in this section is provided to detail the resources available for you to use as you



complete this course.

Learning Resources

The learning resources listed in this section are required to complete the activities in this course. For many resources, WGU has provided automatic access through the course. However, you may need to manually enroll in or independently acquire other resources. Read the full instructions provided to ensure that you have access to all of your resources in a timely manner.

Automatically Enrolled Resources

You can access the learning resources listed in this section by clicking on the links provided throughout the course. You may be prompted to log in to the WGU student portal to access the resources.

- Acrobatiq Course - Advanced Information Management and the Application of Technology

Topics and Pacing

This topic and pacing overview suggests a balanced pacing structure for completion of the required learning activities for Advanced Information Management and the Application of Technology.

- Introduction and Information Management:
 - Strategies for Learning; Informatics and Information Science; Nursing and Informatics;
 - Information Management
- Health Information Systems:
 - Influence of Nursing Informatics on Nursing Practice; Features and Functions of Health Information Systems
- Information Security:
 - Security Standards and Regulation; Security Measures
- Technology Supporting Quality Improvement:
 - Meaningful Use; Patient Safety and Care; Using Patient Data to Facilitate Quality Improvement
- Electronic Health Record:
 - Electronic Health Record Essentials; Using and Electronic Health Record
- Current and Future Technologies:
 - Innovation; Telehealth
- Leadership in Information Technology:
 - Leadership in Nursing Informatics; Assessment
- Final Steps

Advanced Information Management and the Application of Technology

Built through a partnership between Acrobatiq, a courseware and learning analytics content provider, this course is centered on the learning outcomes outlined by Western Governors



University. The activities included throughout the course will provide continuous practice opportunities for students. Use the links provided to access the Acrobatiq online course. After each lesson in the course, you are encouraged to participate in interactive student learning community activities. Upon completion of the course, return to the course of study to complete the performance assessment.

Read the course Introduction and Learning Strategies section carefully, before you begin the coursework. There are 7 units total, in this course.

Introduction and Information Management

This section provides an overview of information management to help nurses moving into advanced practice roles to begin integrating informatics into practice.

This topic addresses the following competency:

- **Competency 744.2.1: Information Management**

The graduate evaluates information management systems that support timely, high quality, patient-centered care.

This topic highlights the following objectives:

- Differentiate the principles of the Foundation of Knowledge model.
- Explain the relationship between the foundation of knowledge model and information science.
- Explain how quality indicators are used to improve patient care.
- Differentiate between informatics and information technology.
- Relate the role of nurses as knowledge workers to the role of the beginning nurse, experienced nurse, informatics nurse specialist, and informatics innovator.
- Describe available information system technologies used in the healthcare environment.
- Identify potential barriers to patient-centered care created by the use of various information technologies.
- Apply information gained from patient care technologies, information systems, and communication devices to the nursing process.

Complete: Acrobatiq Unit 1, Unit 2 & Unit 3

Access Acrobatiq and complete all readings and activities for Unit 1: Welcome and Acknowledgements, Unit 2: Introduction to Learning Strategies and Unit 3: Information Management

Unit 1: Welcome and Acknowledgements

- [Welcome and Acknowledgements](#)

Unit 2: Introduction to Learning Strategies

- [Module 1: Strategies for Learning](#)



?Unit 3: Information Management

- [Module 2: Informatics and Information Science](#)
- [Module 3: Nursing and Informatics](#)
- [Module 4: Information Management](#)

Watch the following video: Implementing and Maintaining an Informatics System

Note: To download this video, right-click the following link and choose "Save as...": [download video](#).

When you have completed all the unit modules and checkpoints, continue to the next unit.

Health Information Systems

Health information systems are a broad area the informatics nurse needs to understand. The nurse must be able to determine how to utilize the appropriate systems, gather data, and make appropriate recommendations to the health care team. Nurses must be efficient with the web, know how to navigate websites, and how to identify appropriate sites for their organization.

This topic addresses the following competency:

- **Competency 744.2.3: Health Information Systems**
The graduate evaluates features and functions of health information systems necessary to meet the needs of healthcare delivery.

This topic highlights the following objectives:

- Describe issues related to the standardization of nursing terminology.
- Identify standard data set formats.
- Define standard terms relevant to various healthcare information systems.
- Compare various types of health information systems.
- Identify how health information systems meet healthcare delivery needs.

Complete: Acrobatiq Unit 4

Access Acrobatiq, and complete all readings and activities in Unit 4: Health Information Systems.

- [Module 5: Influence of Nursing Informatics on Nursing Practices](#)
- [Module 6: Features and Functions of Health Information Systems](#)

When you have completed all the unit modules and checkpoints, continue to the next unit.

Information Security

As data becomes more electronic, the nurse must understand information security and policies surrounding information. Each patient has the right to have personal and health information be protected and secure. Safeguarding both physical and electronic information must be



considered when creating, following, and enforcing information security policies.

This topic addresses the following competency:

- **Competency 744.2.5: Information Security**

The graduate evaluates the privacy and security of data within healthcare organizations.

This topic highlights the following objectives:

- Identify the principle provisions of the Health Information Portability and Accountability Act (HIPAA) related to information security.
- Relate how the HITECH Act enhanced the security provisions of the HIPAA Act.
- Identify common information security threats.
- Recommend appropriate steps a healthcare organization can take to mitigate information security risks.
- Analyze the nurse's role in mitigating information security risks.
- Evaluate legal and ethical issues related to information security.

Complete: Acrobatiq Unit 5

Access Acrobatiq, and complete all readings and activities in Unit 5: Information Security

- [Module 7: Security Standards and Regulation](#)
- [Module 8: Security Measures](#)

Watch the following video: Network Security Measures

Note: To download this video, right-click the following link and choose "Save as...": [download video](#).

When you have completed all the unite modules and checkpoints, continue to the next unit.

Technology Supporting Quality Improvement

Quality improvement, both on the local and national level, relies on technology to drive change and promote patient safety. The informatics nurse must help to drive the use of technology to promote quality in the health care environment.

This topic addresses the following competency:

- **Competency 744.2.6: Technology Supporting Quality Improvement**

The graduate analyzes the effectiveness and appropriateness of technology designed to ensure quality patient outcomes.

This topic highlights the following objectives:

- Describe how Electronic Health Records (EHRs) can support quality improvement.



- Describe financial implications related to meaningful use of EHRs.
- Describe how meaningful use of EHRs and practice priorities align.
- Explain how human factors can lead to errors in practice.
- Explain how technology can impact the principles of a culture of safety.
- Explain how decision support tools contribute to a supportive practice environment for healthcare providers and promote patient safety.
- Illustrate how patient data can be used to facilitate quality improvement.

Complete: Acrobatiq Unit 6

Access Acrobatiq, and complete all readings and activities in Unit 6: Technology Supporting Quality Improvement

- [Module 9: Meaningful Use](#)
- [Module 10: Patient Safety and Care](#)
- [Module 11: Using Patient Data to Facilitate Quality Improvement](#)

Watch the following video: CMS Quality Reporting/Payment Regulations Impacting Electronic Health Records

Note: To download this video, right-click the following link and choose "Save as...": [download video](#).

Watch the following video: Technology: Supporting Quality Improvement and Patient Safety

Note: To download this video, right-click the following link and choose "Save as...": [download video](#).

Watch the following video: Implementing EHRs to Improve Healthcare Quality

When you have completed all the unit modules and checkpoints, continue to the next unit.

Electronic Health Record

Electronic health records (EHRs) contain patient health information and provide the healthcare team with a broad view of the patient's care. EHRs focus on the total health and care of the patient and help to streamline processes in care delivery.

This topic addresses the following competency:

- **Competency 744.2.4 Electronic Health Record**
The graduate evaluates patient data and electronic health records to inform practice.

This topic highlights the following objectives:



- Describe essential components of an electronic health record.
- Identify the various functions performed within an electronic health record system.
- Distinguish between an electronic health record and a health information system.
- Assess the benefits of using an electronic health record system.
- Summarize the challenges in developing a universal electronic health record.
- Retrieve specific patient data from an electronic health record.
- Analyze given patient data for appropriate nursing interventions.
- Use and EHR to develop a comprehensive patients care plan/map.
- Use EHR data to evaluate patient care outcomes.

Complete: Acrobatiq Unit 7

Access Acrobatiq, and complete all readings and activities in Unit 7: Electronic Health Record

- [Module 12: Electronic Health Record Essentials](#)
- [Module 13: Using an Electronic Health Record](#)

When you have completed all the unit modules and checkpoints, continue to the next unit.

Current and Future Technologies

Information management is an ever-changing field. Nurses should be evaluating and exploring future trends and practices based on emerging technologies and practices.

This topic addresses the following competency:

- **Competency 744.2.7: Current and Future Technologies**
The graduate evaluates the implications of current and emerging technologies for practice, research, education, and administration.

This topic highlights the following objectives:

- Identify the key elements of Roger's Diffusion of Innovation model.
- Analyze the role of interdisciplinary collaboration in the adoption of innovation.
- Evaluate the potential impact of emerging technologies on healthcare delivery.
- Identify the principle characteristics of telehealth.
- Determine how telehealth technologies support nursing practice.
- Identify ethical and legal issues related to the use of telehealth.

Complete: Acrobatiq Unit 8

Access Acrobatiq, and complete all readings and activities in Unit 8: Current and Future Technologies

- [Module 14: Innovation](#)
- [Module 15: Telehealth](#)

Watch the following video: Emerging Technologies: Telehealth



Note: To download this video, right-click the following link and choose "Save as...": [download video](#).

When you have completed all the unit modules and checkpoints, continue to the next unit.

Leadership in Information Technology

Nursing information management is an important field for an organization. The informatics nurse moving into an advanced practice role must be the leader to help identify trending data, help organize systems, and influence change. Such a nurse must learn and embrace leadership practices.

This topic addresses the following competency:

- **Competency 744.2.2: Leadership in Information Technology**

The graduate integrates knowledge of nursing initiatives, professional organizations, and leadership into strategies for enhancing nursing informatics.

This topic highlights the following objectives:

- Identify nursing initiatives and professional organizations supporting nursing information.
- Describe obstacles nurses encounter in assuming a leadership role in technology-based decision-making.

Complete: Acrobatiq Unit 9

Access Acrobatiq, and complete all readings and activities in the Unit 9: Leadership and Information Technology

- [Module 16: Leadership in Nursing Informatics](#)

Watch the following video: The Nurse's Role in Informatics

Note: To download this video, right-click the following link and choose "Save as...": [download video](#).

Read the following article:

- [Science of Improvement: Forming the Team](#)

Complete: Assessment

Complete the following task in Taskstream:

- Advanced Information Management

For details about this performance assessment, see the "Assessment" tab in this course.

Final Steps



Congratulations on completing the activities in this course! This course has prepared you to complete the assessment associated with this course. If you have not already been directed to complete it, complete the assessment now.

- [PowerPoint: the Basics](#)