

HIMT 320

Survey of Information Technology in Healthcare System

Course Description and Overview

The course is an introduction to essential health information technology (HIT) and management concepts (HIM) that are used in the electronic health record (EHR) environment. Popular EHR topics include electronic medical record systems (EMRs), which maintain patient records; computerized provider order entry systems, which record the history of the procurement of medicine and other medical necessities; telemedicine; telehealth and e-prescribing; medication administration; and nursing and ancillary service systems. Critical attributes of all EHRs are health data, federal and state regulations, accreditation and licensure requirements, payment process and systems, privacy and security policies and procedures, organization and management of the information technology services, strategic planning, and systems valuation. HIMT is a very complex and extensive professional field. This course will introduce you to the key stakeholders, technology, practices, and trends in the profession.

Prerequisite(s): None

Course Objectives

The broad objective of this course is to provide you with a sound conceptual, practical, and ethical foundation in healthcare information systems. After completing this course, you will be able to do the following:

- Understand the role of healthcare information systems.
- Identify the types of healthcare information systems.
- Understand database management systems for healthcare information systems.
- Understand telecommunication technology for healthcare information systems.
- Understand health care information systems standards.
- Evaluate the implementation of information technology to manage healthcare-related data elements, data sets, and databases.
- Evaluate strategic and managerial issues of healthcare information systems.
- Establish and defend opinions on the ethical, legal, and moral challenges in the use of healthcare information systems.

HIM Curriculum Competencies

This course presents the content, knowledge, and skills required for the following 2014 AHIMA bachelor's degree competencies:

III.A.1. - Utilize technology for data collection, storage, analysis, and reporting of information.

III.A.2. - Assess systems capabilities to meet regulatory requirements.

III.F.1. - Educate consumers on patient-centered health information technologies.

III.G.1. - Collaborate in the development of operational policies and procedures for health information exchange.

III.G.2. - Conduct system testing to ensure data integrity and quality of health information exchange.

III.G.3. - Differentiate between various models for health information exchange.

III.H.1. - Discover threats to data integrity and validity.

III.H.2. - Implement policies and procedures to ensure data integrity internal and external.

III.H.5. - Model policy initiatives that influence data integrity.

Course Materials

Required Textbook:

Course Outline

Lesson 1: Introduction to Health Care Information

Lesson 2: Health Care Data Quality

Lesson 3: Health Care Information Regulation, Laws, and Standards

Lesson 4: History and Evolution of Health Care Information Systems

Lesson 5: Clinical Information Systems

Lesson 6: Enhancing Quality of Patient Care with Health Care IT

Lesson 7: System Acquisition, Implementation, and Support

Lesson 8: Technologies that Support Health Care Information Systems

Lesson 9: Midcourse Activities (Project and Exam)

Lesson 10: Health Care Information Standards

Lesson 11: Security of Health Care IT

Lesson 12: Organizing Information Technology Services

Lesson 13: IT Alignment and Strategic Planning and Considerations

Lesson 14: IT Governance and Management

Lesson 15: Management's Role in Major IT Initiatives

Lesson 16: Final Activities (Project and Exam)

Course Activities

The course is divided into 16 modules including midterm and final examinations and projects. Each module contains the following:

<i>Activity</i>	<i>Assessment</i>
1. Reading the textbook	D2L quizzes with immediate scoring in D2L
2. Reading a current article or white paper (AHIMA)	
3. Viewing topic videos (as available)	
EHR Simulation activities (Neehr Perfect Assignments)	Instructor evaluation
Midterm and Final Projects	Instructor evaluation
Midterm and Final Exams	D2L quizzes with immediate scoring in D2L

Quizzes

Quizzes are given for each lesson of the course to validate that you have read and reviewed the videos. The quizzes are based on the assigned textbook chapter and AHIMA reading for that lesson. You must score an 80% or higher to receive credit for a given quiz. You have 3 attempts to take each quiz and score 80% or higher. Please note that each time you take the quiz, the questions and answers will change. You will not be given the correct answers until you have completed taking and submitted your score. The three quiz approach is utilized to engage you with the readings and their content.

To prepare:

- Many of the questions are “critical thinking” questions which not be taken directly from the text in the readings. They require an understanding of the content and will require some reflection. There may not be a “right” answer, but there will be a “best” answer.
- Read all of the materials and watch the audio/video presentation.

- Review the Key Terms listed at the ending of the chapter in the text. The Key Terms will be either part of the question or the answers in the quiz.
- Take the quiz. If you do not score 80% or higher, review the readings again - concentrating on the topics that you had difficulty answering - before making another attempt.

EHR Simulation

Each student will participate in an electronic health record project simulation hosted through [Neehr Perfect](#). Neehr Perfect stands for (Networked Educational Electronic Health Record) and is built on the most widely-used EHR system in the world (VistA). VistA is the US government's EHR that is currently used in a Veterans Administration health care facilities. Neehr Perfect is an exactly-as-seen-in-practice EHR. The underlying technology infrastructure that is used in the VistA system is the same technology that is employed in the EPIC, Cerner and Meditech EHRs that dominate the commercial market. Students will complete a series of modules throughout the course to introduce and gain valuable experience using an in-practice EHR system. All Neehr Perfect activities will be submitted to D2L by the assigned due date. Follow the instructions given below on how to enroll.

- Go to <http://my.neehrperfect.com/guides/Student%20Guide%20to%20Neehr%20Perfect.pdf>
- Use this activation code: HFHFJ-GN4R3-74649
- UW HIMT Program Key: S63G66

Neehr Perfect Activities

- Level I Scavenger Hunt
- Level II Scavenger Hunt
- Level III Scavenger Hunt
- Introducing HITECH and the History of EHRs
- Data Entry
- Quality Improvement Utilizing the EHR
- Commercial EHR Vendors
- Clinical Decision Through Orders
- Level IV Scavenger Hunt
- Structured and Unstructured Data
- Introduction to Privacy, Security & Confidentiality
- Understanding TJC's Tracer Methodology
- Retrieval of Data

- Case Study Review
- Assessment of Neehr Perfect
- Neehr Perfect Evaluation and Revision

Course Policies

Completing the Modules

This is an asynchronous course. All modules will be accessible for the first half of the course will be open on the first day of class. You may complete the modules (in sequence) as quickly as your time allows. If you are going to be away, due to work or family/personal events (i.e. springbreak) it is suggested you be proactive and complete the assignments ahead of time to avoid losing credit for late submissions.

Assignment Submission

All assignments are due by 11:59 pm Central Standard Time (CST) on the Wednesday following lesson assignment. The first quiz and dropbox assignment are due Wednesday, January 27, 2016 at 11:59 pm. Quizzes/assignments will be due every Wednesday afterwards. This will provide you the opportunity to work on the modules over the weekend and submit any questions on Monday.

Late Assignment Submission

Late submission of assignments is not acceptable.

Statement of Student Time Commitment

For each course credit, students are expected to spend a minimum of 3 hours/week on course work. This is a general guideline which may vary depending on the assignments and/or quizzes.

Grading

Determination of Final Grade

This is how the required work in the course will contribute to your course grade:

Assignment	% of Course Grade
Reading Quizzes for each lesson	35
Neehr Perfect Activities	35
Midterm and Final Projects	20
Midterm and Final Exams	10
Total	100

Grading Scale

Grades	Percentage Range
A	> 90 %
B	80 - 89.99%
C	70 - 79.99%
D	60 - 69.99%
F	< 60.00%
IC	

Course Calendar

All assignments for a lesson by 11:59 pm Central Standard Time on the date at the end of the each week/lesson.

Lesson #	Textbook	Course Activity
Lesson 1 (1/19-1/27)	Ch. 1: Introduction	<ul style="list-style-type: none"> • Lesson 1 Quiz • Neehr Perfect Activity 1
Lesson 2 (1/20-2/3)	Ch. 2: Data quality	<ul style="list-style-type: none"> • Lesson 2 Quiz • Neehr Perfect Activity 2
Lesson 3 (2/2-2/10)	Ch. 3: Regulation, law, and standards	<ul style="list-style-type: none"> • Lesson 3 Quiz • Neehr Perfect Activity 3
Lesson 4 (2/9-2/17)	Ch. 4: History	<ul style="list-style-type: none"> • Lesson 4 Quiz • Neehr Perfect Activity 4
Lesson 5 (2/16-2/24)	Ch. 5: Clinical Information Systems	<ul style="list-style-type: none"> • Lesson 5 Quiz • Neehr Perfect Activity 5

Lesson 6 (2/23-3/2)	Ch. 6: Federal Efforts to Enhance Quality of Patient Care Through Use of Health Care IT	<ul style="list-style-type: none"> • Lesson 6 Quiz • Neehr Perfect Activity 6
Lesson 7 (3/1-3/9)	Ch. 7: System Acquisition Ch. 8: System Implementation and Support	<ul style="list-style-type: none"> • Lesson 7 Quiz • Neehr Perfect Activity 7
Lesson 8 (3/8-3/16)	Ch. 9: Technologies that Support Health Care Information Systems	<ul style="list-style-type: none"> • Lesson 8 Quiz • Neehr Perfect Activity 8
Lesson 9 (3/15-3/23)	None assigned	<ul style="list-style-type: none"> • Midterm Project • Midterm Exam
Lesson 10 (3/22-3/30)	Ch. 10: Health Care Information System Standards	<ul style="list-style-type: none"> • Lesson 10 Quiz • Neehr Perfect Activity 10
Lesson 11 (3/29-4/6)	Ch. 11: Security of Health Care Information Systems	<ul style="list-style-type: none"> • Lesson 11 Quiz • Neehr Perfect Activity 11
Lesson 12 (4/5-4/13)	Ch. 12: Organizing Information Technology Services	<ul style="list-style-type: none"> • Lesson 12 Quiz • Neehr Perfect Activity 12
Lesson 13 (4/12-4/20)	Ch. 13: IT Alignment and Strategic Planning Ch. 14: Strategy Considerations Ch. 15: IT Governance and Management	<ul style="list-style-type: none"> • Lesson 13 Quiz • Neehr Perfect Activity 13
Lesson 14 (4/19-4/27)	Ch. 16: Management's Role in Major IT Initiatives	<ul style="list-style-type: none"> • Lesson 14 Quiz • Neehr Perfect Activity 14
Lesson 15 (4/26-5/4)	Ch. 17: Assessing and Achieving Value in HCIS	<ul style="list-style-type: none"> • Lesson 15 Quiz • Neehr Perfect Activity 15
Lesson 16 (4/30-5/6)	None assigned	<ul style="list-style-type: none"> • Final Project • Final Exam