HCM450: HEALTHCARE INFORMATION SYSTEMS

Credit Hours: 3

Contact Hours: This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading materials, interacting on the discussion boards, writing papers, completing projects, and doing research.

COURSE DESCRIPTION AND OUTCOMES

COURSE DESCRIPTION:
This course will allow students to explore the concepts of information management systems, as well as the clinical and administrative applications used in providing medical care to targeted populations. Topics include the examination of the processes used in the selection, application, and evaluation of information technology assets. Methods and processes, to make informed business decisions related to the application and use of technology, will provide an understanding of technology and its impact within healthcare management. Students will understand the opportunities and challenges in implementing robust and effective information management systems in a healthcare setting.

COURSE OVERVIEW:
This course is designed to introduce students to the core knowledge to understand the use of information technology in a healthcare environment. This includes identifying and solving organizational problems affecting the design, implementation, and use of health information management systems. In this course, you will gain knowledge on how healthcare administrators lead, manage, develop, and motivate staff toward meeting the changing needs being driven by regulatory changes and the push to provide healthcare to all. We will discuss the functions and interoperability of various systems including how to assure the security and confidentiality of patient information and respond to the recent trends in the changing healthcare landscape.

COURSE LEARNING OUTCOMES:
1. Explain the functions and tasks of computerized information systems in healthcare management and administration.
2. Assess the skills required to integrate computers, secondary storage devices, and communications networks to support healthcare systems.
3. Evaluate the information systems and their applications within an organization.
4. Assess the costs, set-up, and operational issues associated with technology-based systems.
5. Understand the opportunities and challenges in implementing robust and effective information management systems in a healthcare setting.

PARTICIPATION AND ATTENDANCE

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first seven days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.
Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

**COURSE MATERIALS**

Textbook Information is located in the CSU-Global Booklist on the Student Portal.

**COURSE SCHEDULE**

Due Dates
The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- **Discussion Boards:** The original post must be completed by Thursday at 11:59 p.m. MT, and peer responses posted by Sunday 11:59 p.m. MT. Late posts may not be awarded points.
- **Opening Exercises:** Take the Opening Exercise before reading each week’s content to see which areas you will need to focus on. You may take these exercises as many times as you need. The Opening Exercises will not affect your final grade.
- **Mastery Exercises:** Students may access and retake Mastery Exercises through the last day of class until they achieve the scores they desire.
- **Critical Thinking:** Assignments are due Sunday at 11:59 p.m. MT.

**WEEKLY READING AND ASSIGNMENT DETAILS**

**Module 1**

**Readings**
- Chapter 1 and 2 in *Healthcare Information System*

**Opening Exercise (0 points)**
**Discussion (25 points)**
**Mastery Exercise (10 points)**
**Critical Thinking (70 points)**
Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

**Option #1: Patient-Centric Healthcare**
Review the following article on a patient-centric environment:

Then create an infographic of the author’s key points using Canva that assesses the value and challenges of changing the payer model to an evidence-based approach, and defends the rationale and benefits for sharing information across systems.

Your infographic should meet the following requirements:

- Portray key points visually—show, do not tell. For tips on how to create an effective infographic, review the following resources:
  o 12 Infographic Tips That You Wish You Knew Years Ago
  o Creating Infographics: 10 Tips and Tricks for Infographic Designers
  o Canva is a free tool that can be used to create infographics. For tutorials on how to use this tool, review the following videos:
    ▪ Beginner’s Challenge
    ▪ Less is More
    ▪ Essential Canva Tools.
- Support your infographic with citations from the article, course text, and a minimum of two additional sources. The CSU-Global library is a good place to find these references. Include a reference section at the bottom of the infographic that includes APA references for all cited sources. Format your citations and references according to the CSU-Global Guide to Writing and APA.

Download your completed infographic from Canva as a PDF and submit the PDF for grading. Review the grading rubric in the Module 1 folder for specific grading criteria.

**Option #2: Value-Based Healthcare**

Review the following article from this week’s required reading:


Then create an infographic of the author’s key points using Canva that assesses the value and challenges of changing the payer model to an evidence-based approach and defends the rationale and benefits for sharing information across systems.

Your infographic should meet the following requirements:

- Portray key points visually—show, do not tell. For tips on how to create an effective infographic, review the following resources:
  o 12 Infographic Tips That You Wish You Knew Years Ago
  o Creating Infographics: 10 Tips and Tricks for Infographic Designers
  o Canva is a free tool that can be used to create infographics. For tutorials on how to use this tool, review the following videos:
    ▪ Beginner’s Challenge
    ▪ Less is More
    ▪ Essential Canva Tools.
- Support your infographic with citations from the article, course text, and a minimum of two additional sources. The CSU-Global library is a good place to find these references. Include a reference section at the bottom of the infographic that includes APA references for all cited sources. Format your citations and references according to the CSU-Global Guide to Writing and APA.
Download your completed infographic from Canva as a PDF and submit the PDF for grading. Review the grading rubric in the Module 1 folder for specific grading criteria.

Module 2

Readings
- Chapter 3 and 5 in Healthcare Information System

Opening Exercise (0 points)
Discussion (25 points)
Mastery Exercise (10 points)
Portfolio Milestone (50 points)
Choose one of the following two milestones to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Annotated Bibliography
Determine which option you will research for your final project. For Option #1, research the development of a project plan. Identify five recent resources (no more than five years old) that will be used to support your final project. The CSU-Global library is a good place to find these references. Then create an annotated bibliography that includes:

- The APA reference for each resource you have selected, formatted according to the CSU-Global Guide to Writing and APA.
- A one-paragraph summary of each resource that explains both the information presented the resource and how that information will be used to support your final portfolio project. (List the reference, then the summary—an additional reference page is not required.)

Option #2: Annotated Bibliography
Determine which option you will research for your final project. For Option #2, research emerging technologies and healthcare reform for the 21st century. Identify five recent resources (no more than five years old) that will be used to support your final project. Then create an annotated bibliography that includes:

- The APA reference for each resource you have selected, formatted according to the CSU-Global Guide to Writing and APA.
- A one-paragraph summary of each resource that explains both the information presented the resource and how that information will be used to support your final portfolio project. (List the reference, then the summary—an additional reference page is not required.)

Module 3

Readings
- Chapter 6 and Case Study #9 (p. 492) in Healthcare Information Systems
- Review Chapter 5 in Healthcare Information Systems
program for introduction of new health technologies and clinical practices in a local healthcare setting. BMC Health Services Research, 15, 575-592.


Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (80 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Personal Interview – Hospital Employee

Identify a person who works in any department of a hospital of any size—it could also be someone from this class who works in a hospital, so review the introductions from the beginning of class as a starting point.

Develop five to six interview questions focused on the challenges that they face with the use of technology in their department, how they get work done, what has improved, and what needs improving, for example. For instance, in an interview with a nurse you might ask how he or she annotates on a patient’s chart and communicates with other nurses or other departments in the hospital; in an interview with an administrator you may ask how he or she measures performance of the department and what information is maintained within the department versus shared. Prepare a summary of your discussion highlighting how this person uses technology today, what works well or not, and what the interviewee would like to see regarding technology for the future of their role/job function. Then create a recommendation for the implementation of a new technology that would resolve one of the issues identified by the interviewee. The recommendation should assess the setup and costs that would be required for the new system.

Your paper should meet the following requirements:

- Three to four pages in length, not including the title page.
- Include the list of your questions asked during the interview.
- Summarize your findings: What did you learn from the discussion? Were you surprised by the information?
- Include your recommendation for the implementation of a new technology that would resolve one the issues discussed during the interview.
- Format your paper according to the CSU-Global Guide to Writing and APA.

Review the grading rubric in the Module 3 folder for specific grading criteria.

Option #2: Personal Interview – General Practitioner Employee

Identify a person who works in a general practitioner’s office, surgery center, or urgent care.

Develop five to six interview questions focused on the challenges that they face with developing strategies for their systems: What is working well? What is not working well? How do they see their products developing over the next two years? Prepare a summary of your discussion highlighting how this person makes product decisions based upon customer feedback or the voice of the customer today. Identify what kinds of applications or functions customers are asking for now and predicted in the future. Then create a recommendation for the implementation of a new technology that would resolve
one of the issues identified by the interviewee. The recommendation should assess the setup and costs that would be required for the new system.

Your paper should meet the following requirements:

- Two to three pages in length, not including the title page.
- Include the list of your questions asked during the interview.
- Summarize your findings: What did you learn from the discussion? Were you surprised by the information?
- Include your recommendation for the implementation of a new technology that would resolve one the issues discussed during the interview.
- Format your paper according to the CSU-Global Guide to Writing and APA.

Review the grading rubric in the Module 3 folder for specific grading criteria.

**Module 4**

**Readings**

- Chapters 7 and 8 in *Healthcare Information Systems*

**Opening Exercise (0 points)**

**Discussion (25 points)**

**Mastery Exercise (10 points)**

**Critical Thinking (70 points)**

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

**Option #1: EMR Training Plan**

Review the Kondo article from your required reading:


Then design a training plan that addresses the following:

- Identify various challenges that are present for small practices in implementing an electronic medical record. Are these different from those affecting a large healthcare system? Explain why you think so.
- Identify the key stakeholders—who could benefit from training on the implementation of EMR?
- Outline a training strategy that will build the skills needed to effectively support and utilize an EMR.
• Determine and explain key elements to be included in the training and frequency of training.

Your training plan should meet the following requirements:

• Four to five pages in length, not including the title and reference pages.
• Support your plan and points with a minimum of three sources in addition to the course text. Remember, you must support your thinking/opinions and prior knowledge with references; all facts must be supported, and in-text citations used throughout the assignment must be included in an APA-formatted reference list. The CSU-Global library is a good place to find these references.
• Format your plan, citations, and references according to the CSU-Global Guide to Writing and APA.

Review the grading rubric in the Module 4 folder for specific grading criteria and reach out to your instructor if you have questions about the assignment.

Option #2: Threats to HIT Training Plan
Data accuracy and security are crucial to the administration of electronic medical records. Threats to the use of electronic medical records include physical loss or damage, crimes, viruses, and unauthorized access.

Select one of the following topics as it relates to electronic medical records:

• Health Systems Security
• Health Systems Quality
• Health Systems Privacy.

Then design a training plan that focuses on this topic and addresses the following:

• Identify various challenges that are present for small practices in implementing an electronic medical record. Are these different from those affecting a large healthcare system? Explain why you think so.
• Identify the key stakeholders—who could benefit from training on the threat you selected, particularly as it relates to EMR?
• Outline a training strategy that will build the skills needed to effectively support and utilize an EMR.
• Determine and explain key elements to be included in the training and frequency of training.

Your training plan should meet the following requirements:

• Four to five pages in length, not including the title and reference pages.
• Support your plan and points with a minimum of three sources in addition to the course text. Remember, you must support your thinking/opinions and prior knowledge with references; all facts must be supported, and in-text citations used throughout the assignment must be included in an APA-formatted reference list. The CSU-Global library is a good place to find these references.
• Format your plan, citations, and references according to the CSU-Global Guide to Writing and APA.
Review the grading rubric in the Module 4 folder for specific grading criteria and reach out to your instructor if you have questions about the assignment.

**Module 5**

**Readings**
- Chapters 9 and 10 in *Healthcare Information Systems*

**Opening Exercise (0 points)**

**Discussion (25 points)**

**Mastery Exercise (10 points)**

**Critical Thinking (70 points)**
Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

**Option #1: Emerging Technologies and Their Uses in Healthcare**
Review the Privacy and Security page on the HealthIT.gov website.

Choose at least four of the reading or video options focused on securing patient information using mobile devices. Then prepare a presentation in PowerPoint, Prezi, or another online tool that meets or exceeds the following requirements:

- Read or watch the chosen content.
- Evaluate the value of these devices in your healthcare setting.
- Analyze how you would protect such technology and the information that it contains, using this week’s reading and your own research.
- Evaluate the importance of these products to healthcare delivery and the management of chronic diseases such as asthma and diabetes.

Your presentation should include the following:

- Eight to ten slides, not including the cover and reference slide.
- Include a voiceover recording of your presentation that describes the content and how you would present the information to others within the healthcare system. (Screencast-O-Matic is a tool that pairs nicely with PowerPoint.)
- Support your presentation with a minimum of three sources in addition to the course text. Remember, you must support your thinking/opinions and prior knowledge with references; all facts must be supported, and in-text citations used throughout the assignment must be included in an APA-formatted reference list. The CSU-Global library is a good place to find these references.
- Format your citations and references according to the CSU-Global Guide to Writing and APA.

Review the grading rubric in the Module 5 folder for specific grading criteria and reach out to your instructor if you have questions about the assignment.
**Option #2: Texas Health Case Study**

Read the Davies Interoperability Case Study from Texas Health Resources.

Prepare a presentation in PowerPoint, Prezi, or another online tool that meets or exceeds the following requirements:

- Summarize the strategy employed by Texas Health.
- Compare and contrast the value and challenges addressed by Texas Health. (Include the pros and cons of linking electronic health records (EHR) and how they addressed those challenges.)
- Evaluate how the meaningful use of information systems affected the decisions made and strategies employed by Texas Health.

Your presentation should include the following:

- Eight to ten slides, not including the cover and reference slide.
- Include a voiceover recording of your presentation that describes the content and how you would present the information to others within the healthcare system. (Screencast-O-Matic is a tool that pairs nicely with PowerPoint.)
- Support your presentation with a minimum of three sources in addition to the course text. Remember, you must support your thinking/opinions and prior knowledge with references; all facts must be supported, and in-text citations used throughout the assignment must be included in an APA-formatted reference list. The CSU-Global library is a good place to find these references.
- Format your citations and references according to the CSU-Global Guide to Writing and APA.

Review the grading rubric in the Module 5 folder for specific grading criteria and reach out to your instructor if you have questions about the assignment.

**Module 6**

**Readings**
- Chapters 4, 12, and 13 in *Healthcare Information Systems*

**Opening Exercise (0 points)**

**Discussion (25 points)**

**Mastery Exercise (10 points)**

**Critical Thinking (80 points)**

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

**Option #1: Apps for the Management of Chronic Illness**

Research three applications available for your mobile phone or tablet related to the management of chronic illnesses. Then prepare a presentation using PowerPoint, Prezi, or another online tool that
describes what the apps are meant to monitor, defines the goals of the app, and describes the features or functions that allow it to manage information. Conclude with an evaluation and explanation of whether or not you would find it useful if you suffered from this chronic illness.

Your presentation should include the following:

- Eight to ten slides, not including the cover and reference slide.
- A two- to four-minute voiceover recording of your presentation that describes the content and how you would present the information to others within the healthcare system. (Screencast-O-Matic is a tool that pairs nicely with PowerPoint.)
- Support your presentation with a minimum of three sources in addition to the course text. Remember, you must support your thinking/opinions and prior knowledge with references; all facts must be supported, and in-text citations used throughout the assignment must be included in an APA-formatted reference list. The CSU-Global library is a good place to find these references.
- Format your citations and references according to the CSU-Global Guide to Writing and APA.

Review the grading rubric in the Module 6 folder for specific grading criteria and reach out to your instructor if you have questions about the assignment.

Option #2: Online Patient Education
Research a large health system that offers patient education online (i.e., the Cleveland Clinic, Johns Hopkins, or Mayo). Then prepare a presentation in PowerPoint, Prezi, or another online tool that describes what education content is available for patients. Focus in on three areas for chronic illnesses such as asthma, COPD, smoking cessation, or obesity. As a patient, would you find the information useful? Why or why not? Did you find the information easy to understand? What changes would you propose for the usability and effectiveness of the website?

Your presentation should include the following:

- Eight to ten slides, not including the cover and reference slide.
- A two- to four-minute voiceover recording of your presentation that describes the content and how you would present the information to others within the healthcare system. (Screencast-O-Matic is a tool that pairs nicely with PowerPoint.)
- Support your presentation with a minimum of three sources in addition to the course text. Remember, you must support your thinking/opinions and prior knowledge with references; all facts must be supported, and in-text citations used throughout the assignment must be included in an APA-formatted reference list. The CSU-Global library is a good place to find these references.
- Format your citations and references according to the CSU-Global Guide to Writing and APA.

Review the grading rubric in the Module 6 folder for specific grading criteria and reach out to your instructor if you have questions about the assignment.

Module 7

Readings
- Chapter 11 and Case Study #12 (p. 497) in Healthcare Information Systems

**Opening Exercise (0 points)**

**Discussion (25 points)**

**Mastery Exercise (10 points)**

**MODULE 8**

**Readings**

- Chapter 4 and Case Study #1 (p. 468) in *Healthcare Information Systems*

**Opening Exercise (0 points)**

**Discussion (25 points)**

**Mastery Exercise (10 points)**

**Portfolio Project (300 points)** Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

**Option #1: Project Plan for Choosing and Implementing a Departmental-Level Information System**

Review Chapter 6 in your text (Wager, Lee, & Glaswer, 2017) for a complete guide to system implementation. Based upon the information provided, prepare a project plan that addresses the following requirements:

- Identify a problem in a healthcare setting that could be solved by the implementation of a new information management system. (The problem could be from your current workplace or a problem that was identified through course readings and research.)
- Identify the stakeholders—who is impacted by the problem? How?
- Propose a solution to the problem and the system that would support this solution. Be sure to identify the scope and goals of the project.
- Evaluate the costs, set-up, and operational issues that would be part of the technology-based system.
- Explain in detail the project management process that will be utilized by your project and the stakeholders involved in each step of its implementation.
- Analyze which steps in your plan are the most critical and which are the most time-consuming. What strategies will be employed to manage these aspects of the project?
- Determine the criteria that will be used to measure whether or not the project is successful.
- Conclude with a summary of the ongoing maintenance, training, and support that will be needed in order to make your project a continued success.

Your paper should include the following:
Option #2: Healthcare Reform and 21st Century Healthcare Information Systems

Prepare a paper that addresses the following requirements:

- Analyze and evaluate the implications of three to five major initiatives associated with healthcare reform on the designing and planning of 21st century healthcare information systems (healthcare reform, mobile health, and telemedicine, for example).
- Evaluate the challenges associated with each trend and ways to overcome them.
- Assess the impact each initiative may have on the following:
  - Leadership, governance, and the role of a healthcare CIO
  - Strategic HMIS planning and organizational culture
  - Characteristics and capabilities of an enterprise resource planning system.
- Examine legislation and regulations that could influence the implementation of health information management systems.
- Explain how CIOs might assess the merits of each initiative on vision, mission, and strategy.
- Predict the global trends in the adoption of major standards and use of HMIS over the next five years.

Your paper should include the following:

- Eight to ten pages in length, including the title and reference pages.
- Support your paper and points with a minimum of five sources in addition to the course text. Remember, you must support your thinking/opinions and prior knowledge with references; all facts must be supported, and in-text citations used throughout the assignment must be included in an APA-formatted reference list. The CSU-Global library is a good place to find these references.
- Format your paper, citations, and references according to the CSU-Global Guide to Writing and APA.

Review the grading rubric in the Module 8 folder for specific grading criteria and reach out to your instructor if you have questions about the assignment.
**Course Policies**

**Course Grading**

- 20% Discussion Participation
- 0% Opening Exercises
- 8% Mastery Exercises
- 37% Critical Thinking Assignments
- 35% Final Portfolio Project

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IN-CLASSROOM POLICIES

For information on late work and incomplete grade policies, please refer to our In-Classroom Student Policies and Guidelines or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

Academic Integrity
Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing / repurposing your own work (see CSU-Global Guide to Writing and APA for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and Internet resources.

Citing Sources with APA Style
All students are expected to follow the CSU-Global Guide to Writing and APA when citing in APA (based on the APA Style Manual, 6th edition) for all assignments. For details on CSU-Global APA style, please review the APA resources within the CSU-Global Library under the “APA Guide & Resources” link. A link to this document should also be provided within most assignment descriptions in your course.

Disability Services Statement
CSU-Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

Netiquette
Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults, or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.