Doane University
HealthCare Information Systems
HSI 330-7/NRS 330-7 W-Health Care Information Systems, 3 Course Credits
Fall 2017, October-December 2017, Doane College
http://bb2.doane.edu

Instructor: Nicholas King M.S.
Office Hours: Online
Cell Phone: (816) 510-2013
E-mail: Nicholas.king@doane.edu

Required Text:
> Handbook of Informatics for Nurses & Healthcare Professionals, 5/E
>
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Catalog Description:
This course provides a managerial perspective to the effective use of data and information technology to improve organizational performance in healthcare settings. Information systems and data management fundamentals will be reviewed. Students will learn how databases and other analytical tools are used to structure, analyze, and present information related to complex organizational and health care problems. Upon completion of the course, students will know how to develop strategies to identify operational and strategic information needs and how this information is used for management and decision-making in the context of challenges facing healthcare organizations today. Legal and ethical issues relating to information gathering and application will be explored.

Course Outcomes:
The goal of this Healthcare Information Systems course is for all students to be able to effectively:
- Explain and demonstrate knowledge of basic healthcare information systems concepts and terminology
- Think critically and apply Healthcare Information Systems concepts to real world experiences.
- Understand and Describe the relationship of HIS systems to Hospitals and Clinics
- Identify ways HIS systems are used in the current world of Healthcare and how they will be used in the future.
- Identify healthcare-related resources and tools for further investigation of the field

Learning Strategies Utilized to Accomplish Course Objectives:
- Lecture PowerPoint (to present new and relevant concepts in healthcare, disciplines, and theories)

- Blackboard online discussions (to promote critical thinking and apply Healthcare Information Systems concepts to everyday life)
- Assignments (i.e.,8 case studies and 4 knowledge evaluations will be used to solidify course concepts and material in application, for further investigation of the field.)

Attendance/Participation Policy:
Regular virtual attendance is needed to apply class material that is not in the textbook via class discussion board posting, case study activities, as well as having access to resources posted on the Blackboard site. If you are unable to participate each week on the discussion board, you will be responsible for notifying the instructor and completing all work assigned during your absence.

Late Paper/Assignments Policy:
Due to the nature of this online formatted course, there is some flexibility with submitting some assignments. You will be required to complete all case studies/assignments by the end of the course. Due dates will be posted under the Announcement or Assignment sections on Blackboard. You will be responsible for checking your Blackboard site regularly. The discussion board posts (and the reading assignments that align with the posts) are required on a weekly basis. If you do not post (or only submit an initial **or** one peer response post) by the end of each week, you may not earn full credit. Case Studies not turned in on the biweekly schedule as explained below will be subject to a 2 point subtraction per week the case study is turned in late.

Doane College Academic Integrity Policy
The Doane College Academic Integrity Policy will be adhered to in this class. All projects and tests will represent your own work. Any use of others' ideas and words without proper citation of sources is plagiarism and will result in penalties to be determined by the instructor and/or dean of undergraduate studies.

Academic Accommodations:
Accommodations for Students with Disabilities: If you have a disability for which you are or may be requesting accommodations, please contact both your instructor and the Office of Academic Support Services. You must have documentation from the Academic Support Services office before accommodations can be granted.

Blackboard:
All assignments, announcements, power point lectures, and grades will be found on this website. It is crucial that you utilize this website in order for this class to be effective. Under the Assignment tab, you will find all text chapters with correlating assignments (i.e. lecture notes, articles, videos, discussion board posts, exams, or case study). Not all chapters have a required assignment attached.

Points and Grading:
Your grade for this course will be determined by the number of points you receive in each of the following sections.

A=90%+   B=80-89%   C=70-79%   D=60-69%   F=59% and below

Pre/Post Evaluation	Participation Required-	0 pts
Discussion Board	Ungraded	80 pts
8 Case Studies	10 pts each week	200 pts
4 Knowledge Evaluations	25 pts each	200 pts
	50 pts each	

Course Requirements:

*Discussion Board
     All students will be required to participate with online discussion boards. There will be weekly discussion board posts required. The posts should be written about the week's chapter reading. You will be required to post an initial response as well as response to at least one classmate. I highly encourage each student to make the initial response by Wednesday of each week, allowing for the remaining days of the week to respond to classmate's posts and comments. Please keep the responses professional, using both personal experience/opinion but also information from the course text/material. You will receive credit for both your initial post (5 pts) and your response post (5 pts).

*Case Studies/Assignments
     There will be 8 case study/writing assignments due through out the course worth 25 points each. The assignments are due every 2 weeks to match up with the biweekly knowledge evaluations. These assignments will include individual reflections while applying concepts from the text as well as your own life. A grading rubric will be available on Blackboard. These assignments can be submitted when completed each week or can be submitted as a whole before the biweekly due dates. Each case study should be complete and up to 1 page in length. Students can select their case studies of choice from the end of the chapters that are assigned each week. Students wishing to work ahead may complete the case studies early and turn them in as they are completed as well.

*Knowledge Evaluations
     There will be 4 50 point open book evaluations during this class. I will create an online quiz and load it to the blackboard site for you to complete every 2 weeks. These quizzes will have questions from the chapters that have been assigned during the weeks prior to the evaluation. There will be no comprehensive evaluation, but 4 smaller evaluations.

*Caveat: Due to the nature of this online course, materials and requirements may change upon the discretion of the instructor.

<u>***Weekly Reading and Case Study Assignments**</u>

Week 1/Module 1: General Introduction to Health Care Technology

I.   **Learning Objectives:** **The students will be able to:**

        A.   *Gain general understanding of how technology is being used in the healthcare world.*

        B.   *Define Informatics and how it is being used to shape healthcare.*

        C.   *Become familiar with general technology terminology associated with Health Informatics.*

II.   **Assignments/Assessments**

        A.   *Discussion Board Posts*

                1.   **Initial Weekly Individual Post**

                        a)   **First Post about a question you had about the chapter readings or something you found interesting about the information you read.**

                        b)   **First Post Due by Wednesday**

                2.   **Secondary Response Post to Classmates**

                        a)   **Respond to fellow classmates about their question or statement submitted to the discussion board**

                        b)   **Second Post Due by Sunday 11:59pm**

        B.   *Weekly Case Study*

                1.   **Case Study Selected from the end of chapters in required readings for the week (Student Choice)**

                        a)   **Choose one case study from chapters and submit as it is completed.**

                        b)   **Reflect on chapter reading as well as personal experience related to case study chosen.**

                        c)   **Rubric provided to assist with Case Study needs. Expectation is to not exceed 1 page typed response.**

        C.   *Required Readings from Book*

                1.   **Chapters 1, Informatics in the Healthcare Professions; Chapter 3, Ensuring the Quality and Best Use of Information; Chapter 5, Professional Use of Electronic Resources ***Extra Technology Readings: Chapters 2, Hardware, Software, and the Role of Support Personnel; Chapter 4, The Internet and the World Wide Web: An Overview.**

Week 2/Module 2: Introduction to Healthcare Information Systems

I.   **Learning Objectives**

A.   *Identify the various types of information systems used within healthcare institutions.*

B.   *Explain the functions of a nursing information system.*

C.   *List the phases of the life cycle of an information system*

D.   *Understand the implementation process and all the stages of a project.*

II.   **Assignments/Assessments**

A.   *Discussion Board Posts*

1.   **Initial Weekly Individual Post**

a)   **First Post about a question you had about the chapter readings or something you found interesting about the information you read.**

b)   **First Post Due by Wednesday**

2.   **Secondary Response Post to Classmates**

a)   **Respond to fellow classmates about their question or statement submitted to the discussion board**

b)   **Second Post Due by Sunday 11:59pm**

B.   *Weekly Case Study*

1.   **Case Study Selected from the end of chapters in required readings for the week (Student Choice)**

a)   **Choose one case study from chapters and submit as it is completed.**

b)   **Reflect on chapter reading as well as personal experience related to case study chosen.**

c)   **Rubric provided to assist with Case Study needs. Expectation is to not exceed 1 page typed response.**

C.   *Knowledge Evaluation*

1.   **Bi-Weekly 25 question multiple choice quiz**

a)   **All questions will come from the chapters assigned over the previous 2 weeks/modules of the course.**

D.   *Required Readings from Book*

1.   **Chapter 6, Healthcare Information Systems; Chapter 8, Selecting a Healthcare Information System; Chapter 10, System Implementation and Maintenance**

Week 3/Module 3: Security and Health Information Systems

I.   **Learning Objectives**

        A.   Understand the differences between privacy, confidentiality, information privacy, and information security and the relationships among them.

        B.   Discuss the similarities and differences between the EHR, EMR, and the CPR.

        C.   Understand the term PHR and how they are used and maintained.

II.   **Assignments/Assessments**

        A.   Discussion Board Posts

                1.   Initial Weekly Individual Post

                        a)   First Post about a question you had about the chapter readings or something you found interesting about the information you read.

                        b)   First Post Due by Wednesday

                2.   Secondary Response Post to Classmates

                        a)   Respond to fellow classmates about their question or statement submitted to the discussion board

                        b)   Second Post Due by Sunday 11:59pm

        B.   Weekly Case Study

                1.   Case Study Selected from the end of chapters in required readings for the week (Student Choice)

                        a)   Choose one case study from chapters and submit as it is completed.

                        b)   Reflect on chapter reading as well as personal experience related to case study chosen.

                        c)   Rubric provided to assist with Case Study needs. Expectation is to not exceed 1 page typed response.

        C.   Required Readings from Book

                1.   Chapter 12, Information Security and Confidentiality; Chapter 14, The Electronic Health Record; Chapter 16, Personal Health Records

Week 4/Module 4: Introduction and Application of Healthcare Information Systems

I.   **Learning Objectives**

   A.   *Identify and understand the uses and needs to complete information systems training.*

   B.   *Recognize the importance of system integration and interoperability for healthcare delivery.*

   C.   *Understand what standardized healthcare terminology is and why it is important.*

   D.   *List ways computer technology may be used to support and enhance nursing education in clinical and academic settings.*

II.   **Assignments/Assessments**

   A.   *Discussion Board Posts*

      1.   **Initial Weekly Individual Post**

         a)   **First Post about a question you had about the chapter readings or something you found interesting about the information you read.**

         b)   **First Post Due by Wednesday**

      2.   **Secondary Response Post to Classmates**

         a)   **Respond to fellow classmates about their question or statement submitted to the discussion board**

         b)   **Second Post Due by Sunday 11:59pm**

   B.   *Weekly Case Study*

      1.   **Case Study Selected from the end of chapters in required readings for the week (Student Choice)**

         a)   **Choose one case study from chapters and submit as it is completed.**

         b)   **Reflect on chapter reading as well as personal experience related to case study chosen.**

         c)   **Rubric provided to assist with Case Study needs. Expectation is to not exceed 1 page typed response.**

   C.   *Knowledge Evaluation #2*

      1.   **Bi-Weekly 25 question multiple choice quiz**

         a)   **All questions will come from the chapters assigned over the previous 2 weeks/modules of the course.**

   D.   *Required Readings from Book*

      1.   **Chapter 13, System Integration and Interoperability; Chapter 15, The Role of Standardized Terminology and Language in Informatics; Chapter 11, Information Systems Training; Chapter 23, Integrating Technology, Informatics and the Internet into Nursing Education;**

Week 5/Module 5: Governing of Healthcare Information Systems

I.   **Learning Objectives**

      A.   Examine the role of informatics groups, healthcare professionals and informatics professionals in shaping local, state, national, and global policies for the integration of health information technology into healthcare delivery.

      B.   Discuss legislative efforts to stimulate the adoption of healthcare information technology.

      C.   Gain an understanding the many ways healthcare is being paid for by the many entities involved in care.

      D.   Discuss the influence of major accrediting agencies on the design and use of healthcare information systems.

II.   **Assignments/Assessments**

      A.   Discussion Board Posts

            1.   Initial Weekly Individual Post

                  a)   First Post about a question you had about the chapter readings or something you found interesting about the information you read.

                  b)   First Post Due by Wednesday

            2.   Secondary Response Post to Classmates

                  a)   Respond to fellow classmates about their question or statement submitted to the discussion board

                  b)   Second Post Due by Sunday 11:59pm

      B.   Weekly Case Study

            1.   Case Study Selected from the end of chapters in required readings for the week (Student Choice)

                  a)   Choose one case study from chapters and submit as it is completed.

                  b)   Reflect on chapter reading as well as personal experience related to case study chosen.

                  c)   Rubric provided to assist with Case Study needs. Expectation is to not exceed 1 page typed response.

      C.   Required Readings from Book

            1.   Chapter 18, Health Policy and Health Information Technology; Chapter 19, Legislation; Chapter 20, Regulatory and Reimbursement Issues; Chapter 21, Accreditation Issues for Information System Design and Use

Week 6/Module 6: Implementation and Planning for a Healthcare Information System

I.   Learning Objectives

A.   Describe how strategic planning is related to an organization's mission, scope, vision, goals, and objectives.

B.   Identify the major components of human–computer interaction models.

C.   Understand the continuity life cycle.

D.   Discuss the relationship between continuity planning and disaster recovery.

II.   Assignments/Assessments

A.   Discussion Board Posts

    1.   Initial Weekly Individual Post

      a)   First Post about a question you had about the chapter readings or something you found interesting about the information you read.

      b)   First Post Due by Wednesday

    2.   Secondary Response Post to Classmates

      a)   Respond to fellow classmates about their question or statement submitted to the discussion board

      b)   Second Post Due by Sunday 11:59pm

B.   Weekly Case Study

    1.   Case Study Selected from the end of chapters in required readings for the week (Student Choice)

      a)   Choose one case study from chapters and submit as it is completed.

      b)   Reflect on chapter reading as well as personal experience related to case study chosen.

      c)   Rubric provided to assist with Case Study needs. Expectation is to not exceed 1 page typed response.

C.   Knowledge Evaluation #3

    1.   Bi-Weekly 25 question multiple choice quiz

      a)   All questions will come from the chapters assigned over the previous 2 weeks/modules of the course.

D.   Required Readings from Book

    1.   Chapter 7, Strategic Planning; Chapter 9, Improving the Usability of Health Informatics Applications; Chapter 22, Continuity Planning and Management (Disaster Recovery)

Week 7/Module 7: Other Topics in the World of Health Information Systems

I.   **Learning Objectives**

 A. *Define the concept of health information exchanges.*

 B. *Describe the ways HIEs will impact healthcare delivery in the future.*

 C. *Recognize driving factors behind the development of consumer health informatics.*

 D. *Compare and contrast ways that consumer health informatics is changing the way that health advice and care is sought and delivered.*

 E. *Review the implications of telehealth for nursing and other health professions.*

 F. *Discuss implications of public health informatics to improve patient and population outcomes.*

 G. *Understand role of evidence based medicine and its impact healthcare.*

II.   **Assignments/Assessments**

 A. *Discussion Board Posts*

  1. **Initial Weekly Individual Post**

   a) **First Post about a question you had about the chapter readings or something you found interesting about the information you read.**

   b) **First Post Due by Wednesday**

  2. **Secondary Response Post to Classmates**

   a) **Respond to fellow classmates about their question or statement submitted to the discussion board**

   b) **Second Post Due by Sunday 11:59pm**

 B. *Weekly Case Study*

  1. **Case Study Selected from the end of chapters in required readings for the week (Student Choice)**

   a) **Choose one case study from chapters and submit as it is completed.**

   b) **Reflect on chapter reading as well as personal experience related to case study chosen.**

   c) **Rubric provided to assist with Case Study needs. Expectation is to not exceed 1 page typed response.**

 C. *Required Readings from Book*

  1. **Chapter 17, Health Information Exchanges; Chapter 24, Consumer Education and Informatics; Chapter 25, Telehealth; Chapter 26, Public Health Informatics; Chapter 27, Evidence Based Practice and Research**

Week 8/Module 8: Final Case Study – Open (Personal Evaluation and Self Reflection)

I.   **Learning Objectives**

      A.   *Final Identification of broad impact of Information Systems on Healthcare.*

      B.   *Reflection of course and understanding of HIS projects*

II.   **Assignments/Assessments**

      A.   *Discussion Board Posts*

            1.   **Initial Weekly Individual Post**

                  a)   **Final thoughts on Healthcare Information Systems. Describe impact of technology on your field of work.**

                  b)   **First Post Due by Wednesday**

            2.   **Secondary Response Post to Classmates**

                  a)   **Respond to fellow classmates about their question or statement submitted to the discussion board**

                  b)   **Second Post Due by Sunday 11:59pm**

      B.   *Weekly Case Study*

            1.   **Open Case Study Week**

                  a)   **Complete a Self-Evaluation case study describing what you have learned over the past 8 weeks and how you will take this information and apply it to your current job or your future job.**

                  b)   **Reflect on chapter reading as well as personal experience related to case study chosen.**

                  c)   **Rubric provided to assist with Case Study needs. Expectation is to not exceed 1 page typed response.**

      C.   *Knowledge Evaluation #4*

            1.   **Bi-Weekly 25 question multiple choice quiz**

                  a)   **All questions will come from the chapters assigned over the previous 2 weeks/modules of the course.**

      D.   *Required Readings from Book*

            1.   **No New Readings. Please review old chapters to prepare for final case study and final knowledge evaluation.**