



COURSE SYLLABUS

COURSE TITLE: Information System Strategies

TERM & YEAR: Summer 2020

COURSE & SECTION NUMBER: HC 363

TIME & PLACE: Online

NUMBER OF CREDIT HOURS: 3

COURSE DESCRIPTION: This course identifies leadership skills to apply to management and decision making of health information technology. The focus is on clinical, business, financial and the strategic use of medical information technology. The use of medical technology to mitigate risk and errors in medical care delivery is explored. Given the rapid change in health informatics the use and application of the newest technology is continuously updated so that the student is equipped to lead in today's business and medical informatics application.

PREREQUISITES: None.

REQUIRED TEXT:

Understanding Health Information Systems for the Health Professions

Jean A. Balgrosky, PhD

ISBN: 9781284148626

Deep Medicine: How Artificial Intelligence Can Make Healthcare Human Again

Eric Topol

ISBN-13: 978-1541644632

ISBN-10: 1541644638

OTHER MATERIALS:

1. Computer with basic audio/video output equipment
2. Internet access
3. Moodle (recommended browsers)
4. Microsoft Office

LEARNING OUTCOMES: Upon completion of this course, the student should be able to:

1. Explain the information technology being utilized in today's medical market.
2. Illustrate the relationship between the business and clinical side of medical informatics.
3. Defend the selection and implementation of the appropriate health care information technology.
4. Construct a plan to manage change from the technology used today to the systems that will support advanced medical delivery in the future.
5. Differentiate which information technology should be utilized to reduce medical risk and errors.

COURSE REQUIREMENTS:

Because this is an online course; significant responsibility falls on you, the student, to keep up with the work and not fall behind! As you expect, we will use Moodle for all aspects of this course. Students are expected to check the site regularly for:

- General Course Announcements and Assignment Updates
- Quizzes, Assignment Submission and Grades
- Discussion Boards
- Course Calendar
- Reference Materials

Course Overview:

Each assignment will begin on Monday and end on the following Sunday. In general, all assignments and discussion posts are due on either Thursday or a Sunday (at midnight). Here is a brief summary of the assignments we will have each week:

- Readings
- Videos
- Homework – a homework assignment based on each week's teachings

Graded Forums:

Because this is an online course, the weekly discussions will form an integral part of your grade. To receive full credit for your participation in our discussions, you need to make at least three posts that add substance to the two weekly conversations. Your posts should demonstrate you understand the materials assigned. Your responses might integrate multiple views and/or motivate other students to respond. You should provide evidence that you are reading the assigned materials and other students' postings and bring out interesting interpretations. Don't just demonstrate that you know the facts but show that you are able to analyze them and handle conceptual ideas. Feel free to contribute from your personal experiences on your own research or interests. Each week you need to make your first post to the discussion forums by Thursday, midnight. Then contribute two additional posts to the forum by Sunday, midnight. Each of your original posts can earn up to 25 points for a maximum of 15 points for your peer responses. The higher quality your post, the more points you will earn. There will be a 10-point penalty for each forum in which you do not make your first post by Thursday. Posts will not be accepted for grading after the week for the discussion has passed. You can post more than 3 times in each forum, especially if you feel that your posts may not be of high quality or you have additional comments to make on the topic.

Assignments:

The purpose of homework is to reinforce the conceptual material from the textbook and additional resources. Weekly assignments are due by Sunday by 11:59 PM. Homework assignments that are submitted:

- On time are eligible for full credit based on the rubric for the assignment.
- Within one week of the due date will be penalized 25%.
- More than a week late receive a 50% penalty.

Exams:

There will be a final examination given the final week of the course. Students are to submit their own work.

- The exam will be open book / open notes.
- You are not permitted to get help from other students when completing exams.
- Exams are to be completed by Friday at 11:59PM on the final day of class.
- The material in this class is cumulative, and so the final exam will be cumulative.

ATTENDANCE/PARTICIPATION: In an effort to comply with U.S. Department of Education policies, attendance is measured by physical class attendance or any submission of a required assignment within the enrollment dates of the course (such as discussion boards, papers, examinations). Regular attendance in online courses is expected throughout the length of the term. Students wishing to withdraw from courses after the official start date should familiarize themselves with the withdrawal policy.

GRADING/EVALUATION:

A	90-100
B+	86-89
B	80-85
C+	76-79
C	70-75
D+	66-69
D	60-65
F	Below 60

OTHER POLICIES:

LATE ASSIGNMENT POLICY

Course assignments, including discussion boards, papers, and other graded assignments, should be submitted on time.

If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.

Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1. Late assignments submitted within one week after the due date will receive up to a 25% deduction.
2. Assignments submitted more than one week late will receive up to a 50% deduction.
3. Group projects, group discussion board threads and/or replies, and assignments will not be accepted after the due date outside of special circumstances, which will be reviewed on a case-by-case basis by the instructor.

ACADEMIC MISCONDUCT

The University prohibits all forms of academic misconduct. Academic misconduct refers to dishonesty in examinations (cheating), presenting the ideas or the writing of someone else as one's own (plagiarism) or knowingly furnishing false information to the University by forgery, alteration, or misuse of University documents, records, or identification. Academic dishonesty includes, but is not limited to, the following examples: permitting another student to plagiarize or cheat from one's own work, submitting an academic exercise (written work, printing, design, computer program) that has been prepared totally or in part by another, acquiring improper knowledge of the contents of an exam, using unauthorized material during an exam, submitting the same paper in two different courses without knowledge and consent of professors, or submitting a forged grade change slip or computer tampering. The faculty member has the authority to grant a failing grade in cases of academic misconduct as well as referring the case to Student Life.

PLAGIARISM

All work is to be the result of your own individual efforts unless explicitly stated otherwise. Plagiarism, unauthorized cooperation of any form of cheating will be brought to the attention of the Dean for disciplinary action. If you have any uncertainties in this area, see the appropriate sections of the University Manual.

TENTATIVE COURSE CALENDAR/SCHEDULE:

Week	Reading & Study	Assignments	Points
1	Chapters 1 & 2 (Balgrosky)	Class Introductions	5
	Chapter 1 (Topol)	Discussion Board 1 Peer Responses HIS Fundamentals Discussion Questions	25 15 50 25
2	Chapter 3 (Balgrosky)	Discussion Board 2 Peer Responses 2 HIS Planning Framework	25 15 50
	Chapter 2 (Topol)	Discussion Questions	25
3	Chapters 4 (Balgrosky)	Discussion Board 3 Peer Responses 3 HIS Strategic Initiatives and Business Planning	25 15 50
	Chapter 10 (Topol)	Discussion Questions	25
4	Chapter 5 (Balgrosky)	Discussion Board 4 Peer Responses 4 HIS Project 5-yr Cost Estimate & Template	25 15 50
	Chapter 3 (Topol)	Discussion Questions	25
5	Chapters 9 (Balgrosky)	Discussion Board 5 Peer Responses 5 Discussion Question	25 15 25
	Chapter 9 (Topol)	Paper	75

6	Chapters 10 & 11 (Balgrosky) Chapter 4 (Topol)	Discussion Board 6 Peer Responses 6 Discussion Questions	25 15 25
7	Chapters 12 (Balgrosky) Chapter 6 & 7 (Topol)	Discussion Board 7 Peer Responses 7 Discussion Questions Final Paper	25 15 25 100
8	Chapter 14 (Balgrosky)	Discussion Board 8 Peer Responses 8 Discussion Questions Final Exam	25 15 25 100
Total			1000

ADDITIONAL INFORMATION: Week 1 – 7 begin on Monday at 12:00 a.m. (EST) and end Sunday night at 11:59 p.m. (EST). Week 8 begins Monday morning at 12:00 a.m. (EST) and ends Friday night at 11:59 p.m. (EST).

Course Mapping

HC 363 Information Systems Strategies

Course Description: This course identifies leadership skills to apply to management and decision making of health information technology. The focus is on clinical, business, financial and the strategic use of medical information technology. The use of medical technology to mitigate risk and errors in medical care delivery is explored. Give the rapid change in health informatics the use and application of the newest technology is continuously updated so that the student is equipped to lead in today's business and medical informatics application.

Learning Outcomes:

1. Explain the information technology being utilized in today's medical market. **(LO1)**
2. Illustrate the relationship between the business and clinical side of medical informatics. **(LO2)**
3. Defend the selection and implementation of the appropriate health care information technology. **(LO3)**
4. Construct a plan to manage change from the technology used today to the systems that will support advanced medical delivery in the future. **(LO4)**
5. Differentiate which information technology should be utilized to reduce medical risk and errors. **(LO5)**

Week and Title	Weekly Learning Outcome Alignment	Learning Activities and Materials (LO alignment)	Assessments (LO alignment)
Week One: Introduction to Health Information Systems	Explain the information technology being utilized in today's medical market (LO1) . Illustrate the relationship between the business and clinical side of medical informatics (LO2) .	Read: <ul style="list-style-type: none"> • Chapter 1: HIS Basics – Definitions, Context & Scope (LO1) • Chapter 2: Scope, Definition & Conceptual Model of HIS (LO1) • PowerPoint Presentation: What is Health Informatics (LO1) (LO2) 	Participate: <ul style="list-style-type: none"> • Introductions • Discussion board post (LO1) • Peer responses (LO1) Assignment:

		<ul style="list-style-type: none"> • PowerPoint Presentation: Electronic Health Records (LO1) (LO2) • PowerPoint Presentation: Administrative, Billing, and Financial Systems (LO2) <p>Watch:</p> <ul style="list-style-type: none"> • Health Information Systems (LO1) (LO2) 	<ul style="list-style-type: none"> • HIS Fundamentals (LO1) (LO2)
<p>Week Two: Understanding the relationship between health informatics and a shifting healthcare environment.</p>	<p>Explain the information technology being utilized in today's medical market (LO1).</p> <p>Illustrate the relationship between the business and clinical side of medical informatics (LO2).</p> <p>Defend the selection and implementation of the appropriate health care information technology (LO3).</p> <p>Construct a plan to manage change from the technology used today to the systems that will support advanced medical delivery in the future (LO4).</p>	<p>Read:</p> <ul style="list-style-type: none"> • Chapter 3: Aligning HIS in the Dynamic Healthcare Environment (LO1) (LO2) (LO3) • PowerPoint Presentation: Understanding Information Exchange in HIT Systems (LO1) (LO2) • PowerPoint Presentation: The Effective IT System (LO3) • PowerPoint Presentation: Health IT in the Future (LO1) (LO4) <p>Watch:</p> <ul style="list-style-type: none"> • The HITECH Act: Electronic Health Records and Meaningful Use (LO1) (LO2) (LO3) • What is the HITECH Act: An Overview (LO1) (LO2) (LO3) 	<p>Participate:</p> <ul style="list-style-type: none"> • Discussion Board post (LO2) • Peer responses (LO2) <p>Assignment:</p> <ul style="list-style-type: none"> • HITECH Meaningful Use and the Changing Healthcare Landscape (LO1) (LO2) (LO3)

Week Three:	Defend the selection and implementation of the	Read:	Participate:
Identify the process of strategic planning	<p>appropriate health care information technology (LO3).</p> <p>Construct a plan to manage change from the technology used today to the systems that will support advanced medical delivery in the future (LO4).</p> <p>Differentiate which information technology should be utilized to reduce medial risk and errors (LO5).</p>	<ul style="list-style-type: none"> • Chapter 4: HIS Strategic Planning (LO4) (LO5) • PowerPoint Presentation: Overview of the IT Strategic Planning Process (LO3) (LO4) (LO5) <p>Watch:</p> <ul style="list-style-type: none"> • Next Steps in Health and Medicine – Where Can Technology Take Us? (LO3) (LO4) (LO5) 	<ul style="list-style-type: none"> • Discussion Board post (LO3) • Peer responses (LO3) <p>Assignment:</p> <ul style="list-style-type: none"> • HIS Planning Framework (LO3) (LO4) (LO5) • HIS Strategic Initiatives and Business Planning (LO3) (LO4) (LO5)
Week Four: Working together as a team in a collaborative environment	<p>Construct a plan to manage change from the technology used today to the systems that will support advanced medical delivery in the future (LO4).</p> <p>Differentiate which information technology should be utilized to reduce medical risk and errors (LO5)</p>	<p>Read:</p> <ul style="list-style-type: none"> • Chapter 5: HIS Tactical Planning (LO4) (LO5) <p>Watch:</p> <ul style="list-style-type: none"> • 6 Strategies: Competitiveness in Healthcare (LO3) (LO4) (LO5) 	<p>Participate:</p> <ul style="list-style-type: none"> • Discussion Board post (LO5) • Peer responses (LO5) <p>Assignment:</p> <ul style="list-style-type: none"> • HIS Project 5-yr Cost Estimate and Template (LO4) (LO5)

<p>Week Five: Innovation in health informatics: new technologies and existing problems</p>	<p>Illustrate the relationship between the business and clinical side of medical informatics (LO2).</p> <p>Defend the selection and implementation of the appropriate health care information technology (LO3).</p>	<p>Read: Chapter 9: Adopting New Technology</p> <ul style="list-style-type: none"> • (LO2) (LO3) (LO4) PowerPoint Presentation: Achieving External Alignment (LO4) Forming and Developing a Team for HIT (LO4) <p>Watch:</p>	<p>Participate:</p> <ul style="list-style-type: none"> • Discussion Board post (LO2) (LO3) (LO4) • Peer responses (LO2) (LO3) (LO4) <p>Assignment:</p> <ul style="list-style-type: none"> • Discussion Questions: 9-1, 9-
	<p>Construct a plan to manage change from the technology used today to the systems that will support advanced medical delivery in the future (LO4).</p>	<ul style="list-style-type: none"> • Technology in Healthcare (LO2) (LO3) (LO4) • How is Technology Changing the Healthcare Sector? (LO2) (LO3) (LO4) 	<p>3,9-4, 9-6 (LO2) (LO3) (LO4)</p>
<p>Week Six: Leveraging data for healthcare innovation</p>	<p>Explain the information technology being utilized in today's medical market (LO1).</p> <p>Illustrate the relationship between the business and clinical side of medical informatics (LO2).</p>	<p>Read:</p> <ul style="list-style-type: none"> • • Chapter 10: Data (LO1) (LO2) • Chapter 11: Analytics, Business Intelligence (LO2) PowerPoint Presentation: Introduction to Health Care Data Analytics (LO1) (LO2) PowerPoint Presentation: Working with Data (LO1) (LO2) <p>Watch:</p> <ul style="list-style-type: none"> • <p>Data Driven Healthcare – it's personal (LO1) (LO2)</p>	<p>Participate:</p> <ul style="list-style-type: none"> • Discussion Board post (LO1) (LO2) • Peer responses (LO1) (LO2) <p>Assignment:</p> <ul style="list-style-type: none"> • Discussion Questions: 103, 10-5, 10-9, 11-3 (LO1) (LO2)

<p>Week Seven: Measuring global health systems and HIS effectiveness</p>	<p>Explain the information technology being utilized in today's medical market (LO1).</p> <p>Illustrate the relationship between the business and clinical side of medical informatics (LO2).</p> <p>Differentiate which information technology should be utilized to reduce medical risk and errors (LO5).</p>	<p>Read:</p> <ul style="list-style-type: none"> • Chapter 12: HIS and Digital World (LO1) (LO2) (LO5) • Chapter 13: HIS Around the Globe (LO1) (LO2) (LO5) <p>Watch:</p> <ul style="list-style-type: none"> • Telemedicine Key Legal and Business Issues (LO1) (LO2) (LO5) 	<p>Participate:</p> <ul style="list-style-type: none"> • Discussion Board post (LO3)(LO4)(LO5) • Peer responses (LO3)(LO4)(LO5) <p>Assignment:</p> <ul style="list-style-type: none"> • Discussion Questions: 12-1,12-2, 12-3, 13.1, 13.3 (LO1) (LO2) (LO5)
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<p>Week Eight: Demonstration of HIS knowledge and business acumen</p>	<p>Explain the information technology being utilized in today's medical market (LO1).</p> <p>Illustrate the relationship between the business and clinical side of medical informatics (LO2).</p> <p>Defend the selection and implementation of the appropriate health care information technology (LO3).</p> <p>Construct a plan to manage change from the technology used today to the systems that will support advanced medical delivery in the future (LO4).</p> <p>Differentiate which information technology should be utilized to reduce medical risk and errors (LO5).</p>	<p>Read:</p> <ol style="list-style-type: none"> 1. Chapter 14: Future HIS – Key issues and opportunities (LO1)(LO2)(LO3) 2. PowerPoint Presentation: Health IT in the Future (LO4) (LO5) 	<p>Participate:</p> <ul style="list-style-type: none"> • Discussion Board post (LO1) (LO2) (LO3) • Peer responses (LO1) (LO2) (LO3) <p>Assignment:</p> <ul style="list-style-type: none"> • Final Paper: Putting it all Together: Forecasting for the Future (LO1) (LO3) (LO4) • Final Exam (LO1) (LO2) (LO3) (LO4) (LO5)
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