

MANAGEMENT OF HEALTH CARE INFORMATION SYSTEMS COURSE OUTLINE

Health Policy and Management 826
Management Information Systems
Spring, 2006

Tuesday, 4:10pm – 7:00pm
Orr-Major 1015
KU Medical School

Michael A. Grasso, Ph.D.
Assistant Professor, Department of Health Policy and Management
University of Kansas Medical Center
5014 Student Services Building / MS 3044
3901 Rainbow Blvd.
Office 913-588-0354
Fax 913-588-8236
Kansas City, KS 66160
mgrasso@kumc.edu
Office Hours are generally on Tuesday, from 3:00 to 4:00pm or by appointment.

TEXT

Required:

Wager, Karen A., Lee, Frances Wickham, Glaser, John P. Managing Health Care Information Systems: A Practical Approach for Health Care Executives. San Francisco, CA: Jossey-Bass Publishers, 2005

Other readings as assigned.

Recommended:

Brown, Gordon D., Stone, Tamara T. and Patrick, Timothy B. Strategic Management of Information Systems in Health Care. Chicago, IL: Health Administration Press, 2005

Schilp, Jill L. and Gilbreath, Roy E. Health Data Quest: How to Find and Use Data for Performance Improvement. San Francisco, CA: Jossey-Bass Publishers, 2000

Goldsmith, Jeff Digital Medicine: Implications for Healthcare Leaders. Chicago, IL: Health Administration Press, 2003

Class presentation outlines will be available in class and on the Angel web-based course management system before each class. Other class information will be provided there as well. It is the student's responsibility to regularly check Angel for new class information. Other handouts will be on reserve at Dykes Library or will be distributed in class or via e-mail.

BACKGROUND

This course is intended for students who are planning a career in health care management. This course will identify and teach basic concepts, techniques and strategies that are used by management to evaluate, plan and purchase healthcare information systems.

COURSE OVERVIEW

This course provides the future health service manager with knowledge of current issues in healthcare computing and information management. The course covers fundamental concepts of management information systems; current and developing health and business information systems of interest to managers in health services organizations; healthcare information system architecture; security and privacy issues; uses of healthcare information for clinical and strategic analysis and decision support; techniques required to develop and evaluate an information system request for proposal; and thoughts on the future of healthcare information systems including community health systems and web-based access to health information.

Students begin the course with lectures and readings on the theoretical foundation and technological structures of management information systems and recent related IT developments in the healthcare field. Instruction then follows on planning, developing and evaluating requests for proposals for information systems. The final area of instruction is based on understanding decision support models. Grading will be based upon class participation, 2 applied papers demonstrating the students understanding of health information management concepts and two group projects – one based upon the evaluation of a clinical or administrative process, and the other based upon an analysis of an information system request for proposal and related research and result presentation.

COURSE LEARNING OBJECTIVES

By The end of the course students should be able to:

- Understand current issues related to healthcare system computing;
- Understand the application of decision support analytical concepts to healthcare data;
- Acquire the skills necessary to effectively assess needs, and to use and evaluate current and future health information systems.

COURSE REQUIREMENTS AND GRADING

This course will include readings, lectures, quizzes, guest presentations, student presentations related to assignment #1, field trips, two group projects, two research papers and a mid-term exam. ***Students are expected to attend and participate in all classes and complete assignments on time.*** Grades will be calculated as follows:

| | |
|--|-------------------|
| Attendance and Class Participation | 70 Points |
| Quizzes | 30 Points |
| Mid-Term Exam | 100 Points |
| Health Information Systems Product Research | 100 Points |
| Health Information Systems Applied Solutions | 100 Points |
| Group Project I – Process Analysis | 100 Points |
| Group Project II – System Analysis | <u>100</u> Points |
| Total Possible Points | 600 Points |

| | |
|----------------|------------------------------------|
| Letter Grades: | A = 90 – 100%.....540 – 600 Points |
| | B = 80 – 89%.....480 – 539 Points |
| | C = 70 – 79%.....420 – 479 Points |
| | Below 420 Points is failing. |

PROFESSIONAL CONDUCT

All University policies, Graduate School policies and HP&M departmental policies regarding academic integrity, including plagiarism, apply and will be enforced in this course.

CLASS ATTENDANCE AND PARTICIPATION

Regular attendance and participation in class is expected of each student. If you are not able to make class, please let me know **before** class begins so I may excuse the absence. Consistent tardiness or absences will result in a loss of class participation points. Students are expected to be prepared for each class. The participation grade will be determined by your attendance and your active, informed involvement in class discussions. More than two unexcused absences, or 4 total absences, from class will result in a loss of 40 Attendance and Class participation points.

PREREQUISITES

Working knowledge of word processing and use of the Internet for research is assumed.

HEALTH INFORMATION SYSTEM PRODUCT RESEARCH

Each student will be assigned a particular computerized health system application (product). The student will research the particular application and write a paper (not to exceed 5 pages double spaced) that will 1) define the application; 2) identify key features and functions of the application; 3) key vendors offering the product; and 4) benefits of the application to a health care provider. The student will also make a class presentation on the assigned subject (**not to exceed 10 minutes**). **Be sure to put the information in your own words and to identify all references. DUE DATE – 2/14/06**

PAPER ON HEALTH INFORMATION SYSTEM APPLIED SOLUTIONS

The student will select four articles from recent health care journals that identify particular problems experienced by healthcare providers. Within 1 to 2 pages (double spaced) for each problem, the student should briefly describe the problem, identify a computerized health care system application that would help mitigate the particular problem, and identify how the system application would do this. If the article identifies both a problem and a solution, you may use it, but you must come up with another solution. Please attach copies of the articles. **DUE DATE – 3/7/06**

GROUP PROJECT - PROCESS ANALYSIS – (Details to be distributed) - **DUE DATE 4/4/06**

GROUP PROJECT - IT ISSUE IDENTIFICATION AND VENDOR EVALUATION – DUE DATE – 5/2/06

The class will be broken into 5 teams. Each team will identify issues related to a computerized Patient Care System for a hospital. Each member of the team will take one of the following roles: Administrative / Finance, Information Systems (technical), VP Clinical Services, Nursing Director, or Medical Director. Each team will be provided with a response to an RFP by a major information system vendor. A team report will be developed that will include key information about the team's hospital; key issues to be addressed by the new computerized information system for each of the areas identified above; and an analysis of how well the vendor addresses these issues. The team report is **due by May 2**. Teams will present their findings on May 9. Each member of the team will present his or her own section. Up to 50 points will awarded to each student based upon the overall grade the team achieves on the project, and up to an additional 50 points will be awarded each student based upon the grade earned on the individual presentation and also upon the information analysis for their section. A team peer evaluation will also be included in the grading process.

DISABILITY STATEMENT

Any student in this course who, because of a disability, needs an accommodation in order to complete the course requirements should contact the instructor or the ADA/504 Coordinator (913-588-7813; TDD 913-588-7960).

SCHEDULE OF CLASS TOPICS AND READINGS

January 24 **Lecture Topics:** Course Introduction / History of Information Technology / Health Care Data Management

Readings: Wager Introduction and Chapter 4

January 31 **QUIZ on Previous Week**

Lecture Topic: Information Process and Value

Readings: Wager Chapters 1, 2 & Appendix A
Brown Chapter 3 (to be distributed)
Not Required - Brown Chapter 5 (to be distributed)

February 7 **QUIZ on Previous Week**

Lecture Topics: Information System Components / EMR / CPOE / Health Care Services and Systems Integration / Strategic Alignment

Readings: Wager Chapters 5 & 12

EMR's – Why Their Time Has Come (On Angel)

The High-Tech Cure: The University of Pittsburgh Medical Center (WSJ – On Angel)

February 14 **NO CLASS – HIMSS in San Diego**

Assignment #1 - HIS Product Research Due (Please email)

February 21 **Field Trip to Cerner Corporation's Vision Center, North Kansas City**

Vision Center Presentation 4:30 – 6:30 – Ms. Francie McNair-Stoner, Vice-President, Cerner Corporation (Directions on Angel)

Readings: FCG – The Hospital of the Future (on Angel)

February 28 **Lecture Topic:** Technology

Student Presentations: HIS Products (3)

Readings: Wager - Chapters 8 & 9

March 7 QUIZ on Previous Week

Lecture Topic: Aligning Information Strategy

Guest Speaker: **Phil Smith, MD (tentative)
VP of Medical Affairs, Med Dir of Clinical Informatics
East Pasco Medical Center, Zephyrhills, FL

Student Presentations: HIS Products (3)

Readings: Wager - Chapters 13 & 14 and Brown – Chapter 6
Assignment #2 - HIS Applied Solutions Due

March 14 QUIZ on Previous Week

Lecture Topics: Process Improvement / System Life Cycle

Student Presentations: HIS Products (3)

Guest Speakers: Process Improvement - KU Med

Readings: The CEO's Guide to Health Care Information Systems –
Chapter 4a – The Systems Life Cycle (On Angel) Pg. 83 - 97

“HFMA – Strategic Planning for Healthcare Information Technology” (on Angel)

“Returns, not burns: How to ensure successful health IT investments” (on Angel)

Review for Mid-Term

March 21 No Class – Spring Break

March 28 Mid-Term Exam 4:15 – 5: 30 – Proctored by _____

April 4 Lecture Topic: Decision Support / Data Warehousing / Physician
Practice Variation / Genome Medicine

Guest Speaker: **Cerner Corporation - Demonstration of PowerInsight™

Student Presentations: HIS Products (3)

Readings: Health Data Quest – Chapter 4 The Health Care Information
Processing Environment: The Technical Infrastructure (to be distributed)

- April 11** **QUIZ on Previous Week**
- Lecture Topic:** System Acquisition
- Student Presentations:** HIS Products (3)
- Readings:** Wager - Chapters 6 & 7
-
- April 18** **QUIZ on Previous Week**
- Lecture Topic:** System Acquisition
- Field Trip: (Tentative) **** St. Luke's Hospital East – Lee Summit
Visit to the fully automated hospital and tour of the information center.
- Student Presentations:** HIS Products (3)
- Readings:** Wager – Chapter 16
The CEO's Guide to Health Care Information Systems –
Chapter 4b – The Systems Life Cycle (On Angel) Pg. 97 - 110
-
- April 25** **QUIZ on Previous Week**
- Lecture Topics:** HIPAA / Information System Security / e-Medicine
- Student Presentations:** HIS Products (3)
- Guest Speaker:** ** Tom Field, HIPPA Coordinator, KU Med
- Readings:** Wager – Chapter 10 & Brown – Chapter 11
-
- May 2** **Topic:** IT Department / Role of the CIO / Effectiveness and Value of IT
- Student Presentations:** HIS Products (3)
- Readings:** Wager – Chapters 11 & 15
The CEO's Guide to Health Care Information Systems –
Chapter 5 – Managing Health Care Information Technology (On Angel)
-
- May 9** Student Team Presentations (2)
- **indicates speaker is not yet confirmed.**

Writing Guidelines

1. Use 12-point font, with one-inch margins on all sides. For purposes of this course, **double-spacing** is generally acceptable.
2. Know your objective, and state it early in your writing.
3. Organize your thoughts and your research before you begin writing.
4. Use headings and subheadings, if length of what you writing is a full page or more. Make your formatting attractive and readable. You may use lists/bullet points, where appropriate.
5. Paginate each assignment you submit, beginning with the second page.
6. Use short sentences and paragraphs. Do not use one-sentence paragraphs.
7. Do not use contractions.
8. When using an abbreviation or acronym (e.g., HMO, PPO, AHA, CEO), write the complete name or phrase the first time you use it, followed by the abbreviation or acronym in parentheses. Subsequent references may use the abbreviation or acronym.
9. Do not begin a sentence with an abbreviation or an acronym.
10. Use active verbs.
11. Write in your own voice; be natural. Use simple language. Avoid jargon. Do not use a phrase when a word will do, a sentence when a phrase will do, or a paragraph when a sentence will do.
12. Use gender-neutral language.
13. Write term “health care” as two separate words. Do not write it as “health-care” or “healthcare.”
14. Always use proper grammar and correct spelling. **Use Spell-Checker**
15. Eliminate “widows-orphans.”
16. Edit and proofread. Review your writing carefully for readability, spelling, grammar, and typographical errors. Your writing should flow smoothly and coherently.
17. Provide appropriate citations in an accepted format. Provide references for all concepts, thoughts, ideas, quotations, etc., from other sources (e.g., books, journal articles, personal interviews). Identify direct quotations appropriately.
18. Acquire a collection of references on writing that can help you. In addition to a good dictionary and thesaurus, here are a few suggestions.
 - Alred, Brusaw, and Oliu. *The Business Writer’s Handbook*.
 - Munter. *Guide to Managerial Communication: Effective Business Writing and Speaking*.
 - Shertzer. *The Elements of Grammar*.
 - Strunk and White. *The Elements of Style*.
 - Walsh. *Plain English Handbook*.