NEW YORK UNIVERSITY
WAGNER GRADUATE SCHOOL OF PUBLIC SERVICE
HEALTH POLICY AND MANAGEMENT PROGRAM

P11.2821 - HEALTH CARE MANAGEMENT INFORMATION SYSTEMS
Fall, 2009

Instructor: Roger Kropf, Ph.D.
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Day, Time and Location: Mondays, 6:45-8:25 p.m., 705 Silver
Prerequisites: P11.1833, Health Services Management, or permission of the instructor.

COURSE DESCRIPTION

The major purpose of this course is to provide students with an understanding of how information systems and technology can be used to implement an organization's strategy. How information systems and technology can improve the quality of service provided to consumers and the clinical quality of health care is examined, as well as the technology selection, acquisition and implementation processes.

Issues related to organizing and managing the information services function in a health care organization are discussed, and how they are being resolved. By the end of this course, students should be able to work more productively with information systems professionals to plan, justify, select, and implement an information system. This requires both an understanding of the concepts and techniques used by information systems professionals and the ability to define what information is needed to effectively manage health services.

COURSE OBJECTIVES

At the end of this course, students will be able to:

1. state how information systems and technology can be used to implement an organization's strategy;
2. define one or more information systems and technologies which could improve the satisfaction of consumers receiving a health care service;
3. identify one or more information systems or technologies which could improve the clinical quality of a health care service;
4. describe a process for selecting an information system or technology to help implement a strategy; and
5. state how individual and group responses to information systems and technology can
inhibit implementation, and define techniques for increasing the chances of successful implementation.

REQUIRED COURSE MATERIALS


All other readings are posted on Blackboard, available on-line or handed out in class, as indicated below.

OPTIONAL COURSE MATERIALS

Those of you who feel the need to learn about (or update your knowledge of) information systems topics not specific to health services should review a recent text. An example is: Kenneth C. Laudon and Jane P. Laudon, *Management Information Systems, 11th Edition* (Upper Saddle River, N.J.: Prentice Hall, 2008, [http://www.prenhall.com/laudon/](http://www.prenhall.com/laudon/)). The important thing is to find a very recent text, since this field changes rapidly.

Two excellent reference sources for a range of healthcare IT topics are:


INTERNET REFERENCE RESOURCES ON INFORMATION SYSTEMS

1. HIMSS Topics and Tools
   [http://himss.org/ASP/topicsHome.asp](http://himss.org/ASP/topicsHome.asp)
2. Journals and newsletters:
3. Webopedia, an on-line dictionary for computer and Internet terms.
5. Kropf's Favorite Links at www.nyu.edu/classes/kropf/favorite_links.htm
7. American Medical Informatics Association  http://www.amia.org/
8. Leapfrog Group  http://www.leapfroggroup.org
10. Center for Information Technology Leadership  http://www.citl.org/
11. Connected Health Initiative  http://www.connected-health.org

The Connected Health Initiative focuses on extending the care community beyond the
traditional walls of healthcare institutions by bringing healthcare to the everyday
surroundings of the health consumer and their families.

12. Agency for Healthcare Research and Quality National Resource Center for Health
Information Technology  http://www.healthit.ahrq.gov
15. Software Advice - Medical Software. A vendor supported directory of medical software.
http://www.softwareadvice.com/medical/

CIO Blogs

16. John D. Halamka, MD, MS, is Chief Information Officer of the CareGroup Health
System, Chief Information Officer and Dean for Technology at Harvard Medical School
http://geekdoctor.blogspot.com/

17. Will Weider, CIO of Ministry Health Care and Affinity Health System.
http://candidcio.com/

18. Edward Marx joined Texas Health Resources (THR) in 2007 as senior vice president and

ASSIGNMENTS AND GRADING

All assignments will be graded as Pass or Fail and returned with comments. Grades will be
assigned based on the number of assignments completed

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<thead>
<tr>
<th>Grade</th>
<th>No. of Assignments</th>
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<tbody>
<tr>
<td>A</td>
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<td>B+</td>
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<td>B</td>
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<td>C</td>
<td>2</td>
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<td>F</td>
<td>1 or 0</td>
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The assignments and due dates are:

<table>
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<tr>
<th>Assignment</th>
<th>Date Distributed</th>
<th>Date Returned</th>
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<tbody>
<tr>
<td>Oral presentation (5 min.)</td>
<td>Assigned randomly</td>
<td>One week later</td>
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<tr>
<td>Report to a CIO</td>
<td>October 26</td>
<td>November 2</td>
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<tr>
<td>In-class exam on the readings</td>
<td>December 7</td>
<td>December 7</td>
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<tr>
<td>Quality improvement project (counts as 2 assignments for grading)</td>
<td>One-page proposal due on October 19</td>
<td>December 14</td>
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There will be two major written assignments during the semester which will be completed outside of class and returned, typed double-spaced, on the date shown below.

**REPORT TO A CIO**

The first assignment will ask you to apply what you have learned by responding to questions posed by the CIO of a healthcare organization. The assignment is in two parts. Part one will be a memo to the CIO. Part two will be a memo to the instructor explaining how the concepts and knowledge in the course have been applied, and will include appropriate footnotes.

**QUALITY IMPROVEMENT PROJECT**

The Quality Improvement Project will be to present an information systems or technology plan for improving the quality of a health care service. Students will select a service (e.g., ambulatory pediatric services in a small group practice or hospital radiology services) and define an information system (or enhancement to an existing system) that would improve customer satisfaction, clinical quality, or both. The addition of an information technology (e.g., voice data input and output) can also be included.

You will determine client needs (e.g., by interviews, observation), look at systems on the market, and make a recommendation on which one should be considered for a purchase. You will observe at least two software products available for a particular application in operation at two different locations similar to the client organization. With the permission of the instructor, on-line demos can be substituted. Further instructions on what should be included in a plan are on Blackboard. Students should submit a one-page proposal describing the service and the quality objective or problem that they would like to focus on by October 19.

With prior approval, students can work in a team of up to two people. Approval will be based on the complexity of the service selected. Late papers will not be accepted without prior approval by the instructor.
INCOMPLETES

See the Wagner School’s policy on Incomplete Grades at: http://wagner.nyu.edu/current/policies/incompletes.php

STATEMENT OF ACADEMIC INTEGRITY

As members of the NYU Wagner community, we are all expected to adhere to high standards of intellectual and academic integrity. You can view our Academic Code at: http://wagner.nyu.edu/current/policies/. This is a good resource for issues of academic integrity, especially regarding writing.

COURSE OUTLINE & READING ASSIGNMENTS

BB= Blackboard

September 14  Healthcare Information Systems: Vision And Priorities


Other Resources/Optional Reading:


September 21 Government Initiatives to Support Healthcare IT


Additional Resources/Optional Reading:

1. Office of the National Coordinator for Health Information Technology http://healthit.hhs.gov

**September 28 Integrating Health Systems Through Technology: Federal and Local Initiatives**


Other Resources/Optional Reading:

1. Micky Tripathi et. al., “Engaging Patients For Health Information Exchange”

**October 19** Assessing Value Before Implementation

1.“Part One : Assessing Value Before Implementation”, Kropf and Scalzi, Making Information Technology Work

Additional Resources/Optional Reading:


Submit a one-page proposal describing the service and the quality objective or problem that they would like to focus on by October 19.

**October 26** Improving Healthcare Service Quality Through Technology

Additional resource/Optional Reading:


Report to a CIO distributed on October 26. Due on November 2

November 2  Improving Clinical Quality Through Information Technology (Part I)


Additional Resources/Optional Reading:


Report to a CIO due on November 2 by 6:45 pm.

November 9  Improving Clinical Quality (Part II: Managing The Use of Drugs)

November 16  Managing Implementation: Outsourcing and Service Level Agreements

2. “University of Pennsylvania Health System (UPHS) Development and Use of Service Level Agreements (SLAs) in Kropf and Scalzi

Additional Resources/Optional Reading:


Guest Speaker: Guy Scalzi is a Principal with Aspen Advisors, a professional services firm that works with healthcare organizations to optimize the value of their information technology. He was previously Executive Vice President of Veloz Global Solutions. From 1999-2006, he was Senior Vice President and Managing Director of FCG's Group Management Services business. He has held the position of CIO at the New York-Presbyterian Hospital, New York/Cornell Medical Center and the Hospital for Joint Diseases, a division of New York University Medical Center.

November 23  System Selection

2. Other readings TBA
November 30 Project Management

2. Re-read “University Hospitals: IT Governance and Creation of a Project Management Office” from Kropf and Scalzi

Additional Resources/Optional Reading:


December 7 Performance Management After Implementation

2. “Banner Estrella Medical Center: Determining the Benefits of Care Transformation and IT Implementation” in Kropf and Scalzi

In-class exam on the readings.

December 14 Clinician Acceptance And Use of Information Systems

http://www.himss.org/content/files/proceedings/2002/sessions/ses126.pdf

Additional Resources/Optional Reading:

**Quality Improvement Papers Due**