HCMG 866  eHealth: Business Models and Impact

HIT (health information technology) is a fundamental component to the way health care is delivered and managed, including clinical diagnosis and treatment, claims payment (health insurers), pharmaceutical development and delivery, and consumer behavior. Recognizing this, Federal and State governments have been emphasizing the increased use of HIT. HIT companies are also one of the faster growing segment of the health care market.

This course will introduce students to the main components of HIT, with emphasis on the components that distinguish the health care delivery system from other business enterprises. Although it will not prepare students for primary technology management positions, it will help them understand the role of information in the success of the delivery system and other important healthcare processes. It will provide a foundation that will prepare them as managers and consultants to rely upon or manage information technology to accomplish their objectives.

The course will give special attention to five areas:

- Core health care processes, HIT and the drive for quality and cost improvements,
- The adoption of new clinical information technologies for physician offices and consumers,
- The value of patient-centric and other databases for pharmaceutical marketing and product development, ,
- Emerging HIT enterprises, their strategies and economics.
- A global perspective on how US HIT efforts compare to European initiatives.

The course relies heavily on industry leaders to share their ideas and experiences with students.

Course objectives:

1. Introduce key health information technologies and their current and potential future roles in the health care industry;
2. Link investment in information technology to the market for health care services;
3. Facilitate critical analysis to evaluate the strengths and weaknesses of information technology in health care delivery.
Format:
Traditionally this course meets once per week for three hours in two sessions, the first devoted to discussion of the background reading and the second allocated to a presentation by industry leaders.

Grading:
Students will be evaluated on the write-ups of the two case studies (20% for each), one critical analysis of the presentation of an industry leader (20%) and a final exam (40%).

Readings:
- Articles and selected book chapters posted on the course web site or assembled in a bulk pack.

Prerequisites:
Basic familiarity with the U.S. health care system, as covered in HCMG 841; also, some foundation in mathematical statistics.

Case Study Assignments:

1. **Value of Information for Marketing**: How do healthcare product manufacturers use information produced by healthcare providers to target their marketing planning and selling strategies? What does integrating different information sources explain physician drug prescribing patterns? How can Pharmaceutical firms use this information to target individual physician practices? How does this information allow us to understand the general dynamics of pharmaceutical marketing? Exercise: Use ImpactRx/LPD data for analysis of the US cholesterol therapy (statin) market place.

2. **Comparative HIT—the United States and the Netherlands**: How are different national governments and health systems influencing the advancement of HIT. Answer questions such as: What are the advantages and disadvantages of the US system when it comes to HIT development compared to a specific foreign country such as the Netherlands (or another country the student is familiar with). Where do you see opportunities to leverage specific hardware, software and/or applications solutions from the US in another country such as the Netherlands? What are the key facilitating factors and what are the main barriers?

3. **Analysis of a guest lecturer.** Prepare a separate critical analysis of one guest lecturer. Evaluate the presenter’s main points and conclusions. Answer such questions as: what ideas did the lecturer invoke and how they could impact health services or are there weaknesses in his opinions about the value or adoption rate of a new technology or
compare and contract the lecturer’s approach to one available in one of the course readings.

**HCMG 866 eHealth: Business Models and Impact**

January 20  
**Fundamentals of the health care industry and the economic role of information technology – eHealth evolution and HIT adoption**

**Reading assignment**

January 27  
**Role of Government in HIT and the future of health care.**

**Guest Lecture**: Gene Kroch, PhD, Vice President, Research, Premier

**Reading assignment**

February 3  
**Operations and Decision Support: Hospital information requirements for operational support and improvement - the provider approach to quality and patient safety; pay-for-performance.**

Ron Paulus, MD, MBA, Chief Technology and Innovation Officer, Geisinger Health System

**Reading assignment**
- Ronald A Paulus; Karen Davis; Glenn D Steele, “Continuous Innovation In Health Care: Implications Of The Geisinger Experience,” *Health Affairs*; Sep/Oct 2008; 27, 5;

- Wachter, “Patient Safety Five Years after *To Err is Human,*” *HA*, November, 2004 (W4):534-545.

**Supplemental Reading:**

**February 10** Managed Care: Managed Care, Pharmaceutical Managed Care Outcomes, Disease Management and Consumer Directed Health Care.

**Guest Lecture:** Archelle Georgiou, MD, Georgiou Consulting, LLC and Senior Fellow of the Center for Health Transformation.

**Reading assignment**

**February 17** The Investment Banking Perspective and Provider Based Systems

**Guest Lectures:** Ben Rooks, Wm. Blair and Company; Peter Gabriel, Medical Director, Clinical Information Systems, University of Pennsylvania

**Reading assignment**
February 24 Integrated Clinical Systems: Linking the hospital to physician practices and other cross sites-of-care.

Guest Lecture: C. Martin Harris, MD, MBA, Chief Information Officer, Cleveland Clinic Foundation

Reading assignment
- Justin Graham, MD, MS, “By focusing too narrowly on EHR adoption, are we missing the point?”, *Healthcare Informatics*, 4/18/06

March 3 Payment Processes: A Start-up firm in Practice Management Services.

Guest Lecture: Jamo Rubin, MD, MBA, Founder and President, Medical Present Value

Reading assignment
- “The Need for Fairness and Transparency in Health Care Contracting and Payment; Testimony before the National Association of Insurance Commissioners Health Insurance and Managed Care Committee”, *American Medical Association*, June 13, 2005.

March 10 SPRING BREAK

March 17 The EMR and Patient management in physician offices.

Guest Lecture: Glen Tullman, CEO, Allscripts.

Reading assignment
**March 24  **  Patient Information Databases and the Pharmaceutical Development Process.

**Guest Lecture:** Bruce Wong, MD, Bruce Wong and Associates, Inc.

**Reading assignment:**

**March 31  **  The Use of Information in Pharmaceutical Marketing.

**Guest Lecture:** Stephen Fox, America’s Practice Leader, Sales and Account Management, IMS America

**Reading assignment**
- Stavrakas and DeWitt, Leveraging Patient Centric Information for Market Success, *In Vivo*, November 2005

**April 7  **  Supply Chain: IT as an enabler of the Supply Chain management: Hospital and Manufacturers and other business-to-business commerce.

**Guest Lecture:** Dave Zimba, Vice President, West Penn Allegheny Health System

**Reading assignment**

April 14  Clinical Development: IT as an enabler for Product Development: Clinical Trials and Pharmaceutical R&D

**Guest Lecture:** Gregg Fromell, Executive Director, Office of Human Research, University of Pennsylvania Medical School;

**Reading assignment**

April 21  Role of HIT in the future of health care.

**Guest Lecture:** Changing Use of Information by Consumers: Informing consumer/patients, and telemedicine.

**Guest Lectures:** David C. Kibbe, MD MBA, Director, Center for Health information Technology, American Academy of Family Physicians and Stephen Zollo, Vice-President of Marketing and Sales - Consumer/Personal Products Group, JNJ.

**Reading assignment**
- MinuteClinic announces Continuity of Care Record, *Yahoo Online*, October 2006.
- Endsley et al., An Introduction to Personal Health Records”, http://www.aafp.org/fpm/20060500/57anin.html
- Viterion, “Reduce Health care Expenditures and increase Quality of Patient Care with Comprehensive Telehealth Solutions,” September 2004.

April 28  HIT Globally: European vs. US Experiences.

**Guest Lecture:** Pieter Van Hoeven, Principal, TFG Partners, LLC

**Reading assignment:**
- Alain Enthoven, "A Living Model Of Managed Competition: A Conversation With Dutch Health Minister Ab Klink." [Health Affairs 27, no. 3 (2008): w196–w203 (published online 8 April 2008;10.1377/hlthaff.27.3.w196)
- Gautam Naik, "In Holland, Some See Model For U.S. Health-Care System", The Wall Street Journal, September 6, 2007