

**University of Colorado**  
**Executive MBA in Health Administration**

**Healthcare Management Information Systems**  
**XHAD 6141**  
**Spring, 2006**

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#### 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

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

Bound set of readings for the assignments listed 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: Managing the Digital Firm, Ninth Edition (Upper Saddle River, N.J.: Prentice Hall, 2006, <http://www.prenhall.com/laudon/>). The important thing is to find a very recent text, since this field changes rapidly.

## INTERNET REFERENCE RESOURCES ON INFORMATION SYSTEMS

- 1. HIMSS Solutions Toolkit  
<http://www.solutions-toolkit.com/ASP/SolutionsToolkitHome.asp>

This has become a sales and marketing tool for reports, but you can still get a list of companies offering a type of application and the URL for their website. A good way to get started.

- 2. HIMSS Topics and Tools  
<http://www.himss.org/asp/topicsHome.asp>
- 3. Journals and newsletters:
 

|                               |  |
|-------------------------------|--|
| <u>Health Data Management</u> | <a href="http://www.healthdatamanagement.com/">http://www.healthdatamanagement.com/</a>  |
| <u>iHealthBeat</u>            | <a href="http://www.ihealthbeat.org">http://www.ihealthbeat.org</a> A free daily email from the California Health Care Foundation. |
|                               | <a href="http://www.chcf.org/topics/index.cfm?topic=CL108">http://www.chcf.org/topics/index.cfm?topic=CL108</a>                    |
| <u>Informatics Review</u>     | <a href="http://www.informatics-review.com/">http://www.informatics-review.com/</a>  |
- 4. Learn the Net.com, which offers primers on the Internet at  
<http://www.learnthenet.com/english/html/00start.html>
- 5. Webopedia, an on-line dictionary for computer and Internet terms.  
<http://www.webopedia.com/>

6. TechEncyclopedia <http://www.techweb.com/encyclopedia/>
7. Roger Kropf, "Internet Essentials" A presentation on how to search the Internet for medical information. <http://www.nyu.edu/classes/kropf/presentations.htm>
8. Kropf's Favorite Links at [www.nyu.edu/classes/kropf/favorite\\_links.htm](http://www.nyu.edu/classes/kropf/favorite_links.htm)
9. Pam Pohly's Net Guide <http://www.pohly.com/> (Pam is an alum of this program!)
10. American Medical Informatics Association <http://www.amia.org/>
11. Leapfrog Group <http://www.leapfroggroup.org>
12. Open Directory Project-Medical Informatics <http://dmoz.org/Health/Medicine/Informatics>
13. Alliance for Nursing Informatics <http://www.allianceni.org>
14. Center for Information Technology Leadership <http://www.citl.org/>

## COURSE OUTLINE & READING ASSIGNMENTS

- January 8 Introduction; Information and Technology As Strategic Resources; Internet/Intranet Strategies; HIPAA and Security
1. Roger Kropf, "Information Management" in Kovner and Knickman, Health Care Delivery in the United States, 8<sup>th</sup> Edition (New York: Springer Publishers, 2005). Full-text available at: <http://www.nyu.edu/classes/kropf/>
  2. 2005 Leadership Survey: Healthcare CIO Key Trends Index (Chicago: HIMSS, 2005). Available at: [http://www.himss.org/2005survey/healthcareCIO\\_keytrends.asp](http://www.himss.org/2005survey/healthcareCIO_keytrends.asp)
  3. Denise Grady, "Hospital Files As Open Book," New York Times (March 12, 1997), p. C8.
  4. Roger Kropf, "Using the Internet To Build Relationships With Blood Donors." (Handout - not in reading packet)
- January 9 Improving Service Quality; Improving Clinical Quality
1. Donald Berwick, "Knowledge Always On Call." Modern Healthcare (September 27, 1999), p. 2-4.
  2. Esther Fein, "For Many Physicians, E-Mail Is the High-Tech House Call," New York Times (November 20, 1997), p. A1,B8
  3. David Bates and Atul Gawande, "Improving Safety with Information Technology," New England Journal of Medicine 348:25 (June 19, 2003), p. 2526-2534.
  4. Liz Kowalczyk, "Brigham to adopt barcodes to cut errors," Boston Globe (March 16, 2005).
  5. Roger Kropf, "Service Excellence In Health Care Through The Use of Computers." (Handout - not in reading packet) .
- January 10 Selecting Systems and Implementation Strategies

1. Stephen Badger, Ryan Bosch and Praveen Toteja, "Rapid Implementation of an Electronic Health Record in an Academic Setting," Journal of Healthcare Information Management 19:2 (Spring, 2005), p. 34-40.
2. Ceci Connolly, "Cedars-Sinai Doctors Cling to Pen and Paper," Washington Post (March 21, 2005), p. A01.
3. Vince Ciotti and William Laker, "Towards Eliminating RFPs," Proceedings of the 2002 Annual HIMSS Conference, Session 87 (Chicago: HIMSS, 2002) The full text is available at:  
<http://www.himss.org/content/files/proceedings/2002/sessions/ses087.pdf>
4. Diana McKenzie and Benjamin Kern, "Negotiating Effective Service Level Agreements," Journal of Healthcare Information Management 17:2 (Spring, 2003), p. 9-10. Full-text available at:  
<http://www.himss.org/content/files/jhim/17-2/JHIMSpring2003-4.pdf>
5. Roger Kropf, "Leadership for the Information Technology Function: Why Is It So Difficult?" (Handout - not in reading packet)

April 2-8

Introduction; Information and Technology As Strategic Resources;  
Emerging Technologies: Wireless and Handheld Computing

1. Wager, Ch. 12
2. Jeanne Ross and Peter Weill, "Six IT Decisions Your IT People Shouldn't Make," Harvard Business Review (November 2002), p. 5-11.
3. Joseph M. DeLuca and Rebecca Enmark, The CEO's Guide to Health Care Information Systems, 2<sup>nd</sup> Edition (San Francisco: Jossey-Bass, 2002), Ch. 2.
4. Keith Frey et. al., "The Development and Implementation of a Strategic and Tactical Planning Framework at Mayo Clinic Arizona," Journal of Healthcare Information Management 19:3 (Summer 2005), p. 39-46.
5. Rick Krohn, "RFID: It's About More Than Asset Management." Journal of Healthcare Information Management 19:3 (Summer 2005), p. 20-23.
6. James Cimino and Suzanne Bakken, "Personal Digital Educators," New England Journal of Medicine, 352:9 (March 3, 2005), pp. 860-862.
7. Erick Schonfeld, "Helping Doctors Go Digital," Business 2.0 (June 2005).

Other Resources/Optional Reading (Not in reading packet):

1. Erica Drazen and Jason Fortin, Digital Hospitals Move Off The Drawing Board (California HealthCare Foundation, 2003). Not in reading packet. Full text available at:  
<http://www.chcf.org/documents/ihealth/DigitalHospitalsOffDrawingBoard.pdf>
2. HIMSS, Handheld Healthcare  
<http://www.himss.org/webguides/handheld/index.asp>
3. Journal of Mobile Informatics

- <http://www.rnpalm.com/>
4. [pdaMD.com](http://www.pdamd.com/)  
<http://www.pdamd.com/vertical/home.xml>
  5. Mobile Health Data  
<http://www.mobilehealthdata.com>
  6. Fran Turisco and Paul Steinichen, "Understanding the Wireless Technology and Mobile Computing in Healthcare," Proceedings of the 2002 Annual HIMSS Conference, Session 153 (Chicago: HIMSS,2002) The full text is available at:  
<http://www.himss.org/content/files/proceedings/2002/sessions/ses153.pdf>

April 9-15 Integrating Health Systems Through Technology: Federal and Local Initiatives

1. Wager, Ch. 9
2. David Brailer, The Decade of Health Information Technology: Delivering Consumer-centric and Information-rich Health Care, Framework for Strategic Action: Executive Summary (Washington: Office of the National Coordinator for Health Information Technology, HHS, 2004). <http://www.hhs.gov/healthit/executivesummary.html>  
Full-text of the report is available at:  
<http://www.hhs.gov/healthit/documents/hitframework.pdf>
3. Roger Kropf, "Santa Barbara County Care Data Exchange " June, 2005. Prepared for a case book to be published by the Healthcare Information and Management Systems Society (HIMSS) in 2006.
4. Susannah Patton, "Sharing Data, Savings Lives," CIO (March 1, 2005). Full-text available at: <http://www.cio.com/archive/030105/healthcare.html>
5. Dianne Koval, "Real-World RHIO: A Regional Health Information Organization Blazes a Trail in Upstate New York" Foundation for eHealth Initiative (March, 2005). Full-text available at:  
<http://ccbh.ehealthinitiative.org/communities/community.aspx?Section=105&Category=141&Document=401>

Other Resources/Optional Reading (Not in reading packet):

1. Sujansky & Associates, Patient Data-Matching Software: A Buyer's Guide for the Budget Conscious (California HealthCare Foundation, 2004). Full text available at:  
<http://www.chcf.org/topics/view.cfm?itemid=104595>
2. Markle Foundation, Financial, Legal and Organizational Approaches to Achieving Electronic Connectivity in Healthcare (New York: Markle Foundation, 2004). Full text available at:  
[www.connectingforhealth.org/assets/reports/flo\\_sustain\\_healthcare\\_rpt.pdf](http://www.connectingforhealth.org/assets/reports/flo_sustain_healthcare_rpt.pdf)
3. Markle Foundation, Achieving Electronic Connectivity in Healthcare (New York: Markle Foundation, 2004). Full-text available at:

- [www.connectingforhealth.org/resources/cfh\\_roadmap\\_final\\_0714.pdf](http://www.connectingforhealth.org/resources/cfh_roadmap_final_0714.pdf)
4. Keith MacDonald and Jane Metzger, Connecting Communities: Strategies for Physician Portals and Regional Data Sharing (Long Beach, CA: FCG, 2004). Full-text available (free registration required) at: <http://www.fcg.com/research/serve-research.asp?rid=101>
  5. Summary of Nationwide Health Information Network (NHIN) Request for Information (RFI) Responses, June 2005 (Washington: Office of the National Coordinator for Health Information Technology, HHS, 2005). Full-text available at: <http://www.hhs.gov/healthit/rfisummaryreport.pdf>
  6. John Morrissey, "The Process Comes First," Modern Healthcare (July 12, 2004). Full-text available (registration required) at: <http://www.modernhealthcare.com/article.cms?articleId=33146>

April 16-22 HIPAA: Security And Privacy

1. Wager, Ch. 10
2. John Ennis, "Information Security Strategy: Questions You Wish the CEO Would Ask," Journal of Healthcare Information Management 17:3 (Summer, 2003), p. 5-8.
- 3.. Beckie Kelly Schuerenberg, "The Best Defense is a Good Offense," Health Data Management (July, 2003), p. 46-51. Full-text available at: <http://www.healthdatamanagement.com/html/current/PastIssueStory.cfm?PostID=15466&PastMonth=July&PastYear=2003>

Additional Resources/Optional Reading:

1. HIMSS Privacy/Security/ resource [http://www.himss.org/asp/topics\\_privacy.asp](http://www.himss.org/asp/topics_privacy.asp)
2. Official HHS websites on HIPAA. <http://www.hhs.gov/ocr/hipaa/> and <http://aspe.hhs.gov/admsimp>
3. Joan Hash et.al., An Introductory Resource Guide for Implementing the Health Insurance Portability and Accountability Act (HIPAA) Security Rule. Computer Security Division, Information Technology Laboratory, National Institute of Standards and Technology, Gaithersburg, MD. (March 2005). Full-text available at: <http://csrc.nist.gov/publications/nistpubs/800-66/SP800-66.pdf>

April 23-29 Improving Service Quality Through Information Technology (Part I)

1. Andrew Grove, "The X Factor," JAMA 280:15 (October 21, 1998), p. 1294.
2. Eric Liederman and Catrina Morefield, "Web Messaging: A New Tool for Patient-Physician Communication," Journal of the American Medical Informatics Association 10:3 (May/June, 2003), p. 260-270. Full-text

- available at: <http://www.jamia.org/cgi/content/full/10/3/260>
3. Medem, "eRisk Working Group on Healthcare's Guidelines for Online Communications, November 2002." Full text at: [http://www.medem.com/corporate/corporate\\_Addendum\\_A\\_eRiskGuidelines.cfm#medem\\_erisk](http://www.medem.com/corporate/corporate_Addendum_A_eRiskGuidelines.cfm#medem_erisk)
  4. Bill Briggs, "Provider's Web Pages Get Personal," Health Data Management (March 2003), p. 54-6. Full-text available at: <http://www.healthdatamanagement.com/html/current/PastIssueStory.cfm?PostID=14317&PastMonth=March&PastYear=2003>
  5. Beckie Kelly Schuereberg, "A Prescription for Information," Health Data Management (November, 2003), p. 50,52. Full-text available at: <http://www.healthdatamanagement.com/html/current/PastIssueStory.cfm?PostID=16419&PastMonth=November&PastYear=2003>
  6. Gayle Shepherd and Pam Dotson, "The Design and Implementation of an Integrated Scheduling Application," Proceedings of the 2002 Annual HIMSS Conference, Session 39 (Chicago: HIMSS,2002) The full text is available at: <http://www.himss.org/content/files/proceedings/2002/sessions/ses039.pdf>

Additional resource/Optional Reading (Not in reading packet):

1. Keith MacDonald, Online Patient-Provider Communication Tools: An Overview (California HealthCare Foundations, 2003). Full text available at: [www.chcf.org/documents/ihealth/PatientProviderCommunicationTools.pdf](http://www.chcf.org/documents/ihealth/PatientProviderCommunicationTools.pdf)

First assignment posted April 28

April 30-May 6 Improving Service Quality Through Information Technology (Part II)

1. Russell C. Coile, Jr., "Call Centers: Managing Demand to Manage Care" Chapter Eight in The Paperless Hospital: Healthcare in a Digital Age (Chicago: Health Administration Press, 2002), p. 177-199.
2. Francesca Cariello, "Computerized Telephone Nurse Triage: An Evaluation of Quality and Cost," Journal of Ambulatory Care Management 26:2 (April-June, 2003), p. 124-137.
3. James Gray et. al. "Videoconferencing and Internet Communication between the NICU and Patient Homes," Proceedings of the 1999 Annual HIMSS Conference, Volume 2,(Chicago: HIMSS, 1999), p. 153-162.

One-page description of a service and a quality objective or problem (for the second assignment) is due on May 6.

May 7-13 Improving Clinical Quality Through Information Technology (Part I)

1. Wager, Ch. 5.
2. Helen Burstin, "Traversing The Digital Divide: On Doctoring With And Without Computers," Health Affairs 19:6 (November/December 2000), p. 245-249. Full-text available at <http://www.healthaffairs.org/>.
3. Edward H. Shortliffe and Leslie E. Perreault, Editors. Medical Informatics: Computer Applications In Health Care. (Reading, MA: Addison-Wesley Publishing Co., 1990), p. 469, 475-480.
4. David Bates et al., "Ten Commandments for Effective Clinical Decision Support: Making the Practice of Evidence-based Medicine a Reality," Journal of the American Medical Informatics Association 10:6 (Nov/Dec, 2003), p. 523-530. Full-text available at: <http://www.jamia.org/cgi/content/full/10/6/523>
5. Paul Dexter et. al., "A Computerized Reminder System To Increase The Use of Preventive Care For Hospitalized Patients," The New England Journal of Medicine 345:13 (September 27, 2001), p, 965-970.

Additional Resources/Optional Reading (Not in reading packet):

1. Fran Turisco and Jane Metzger, Rural Health Care Delivery: Connecting Communities Through Technology (Oakland: California Healthcare Foundation, 2002). Not in reading packet. Full text available at: <http://www.chcf.org/documents/hospitals/RuralHealthCareDelivery.pdf>
2. Jane Metzger and Keith MacDonald, Clinical Decision Support for the Independent Physician Practice (Oakland: California Healthcare Foundation, 2002). Not in reading packet. Full text available at: <http://www.chcf.org/documents/ihealth/ClinicalDecisionSupport.pdf>
3. First Consulting Group (FCG), Computerized Physician Order Entry: Costs, Benefits and Challenges, A Case Study Approach (Long Beach, CA: FCG, 2003). Full-text available (registration required) at: <http://www.fcg.com/Research/Login-Required.aspx?rid=36>

First assignment due May 8.

May 14-20 Improving Clinical Quality (Part II: Managing The Use of Drugs)

1. David W. Bates et. al., "Effect of Computerized Physician Order Entry and a Team Intervention on Prevention of Serious Medication Errors," JAMA 280:15 (October 21, 1998), p. 1311-1316.
2. R. Scott Evans et. al., "A Computer-Assisted Management Program for Antibiotics and Other Antiinfective Agents," New England Journal of Medicine 338:4 (January 22, 1998), p. 232-238.
3. Jonathan Nebeker, et. al., "High Rates of Adverse Drug Events in a Highly

Computerized Hospital,” Archives of Internal Medicine, Vol. 165 (May 23, 2005), pp. 1111-1116.

4. Ross Koppel, et. al., “Role of Computerized Physician Order Entry Systems in Facilitating Medication Errors,” JAMA 293:10 (March 9, 2005), 1197-1203.
5. Steve Lohr, “Doctors' Journal Says Computing Is No Panacea,” New York Times (March 9, 2005).

May 21-27      Selecting Systems and Implementation Strategies; Organizing IT Services; Outsourcing

1.      Wager, Ch. 6, 11, 15, Appendix A
2.      Victoria Bradley, et. al. “System Selection: If We Knew Then What We Know Now,” Proceedings of the 2001 Annual HIMSS Conference, Session104 (Chicago: HIMSS,2001) The full text is available at: <http://www.himss.org/content/files/proceedings/2001/sessions/ses104.pdf>
3.      Bill Briggs, “The Main Event: Best-of-Breed vs. Single Source,” Health Data Management (June, 2003), p. 41-48. Full-text available at: <http://www.healthdatamanagement.com/html/current/PastIssueStory.cfm?PostID=15123&PastMonth=June&PastYear=2003>
4.      Russell Sachs, “The Economic Justification for Electronic Medical Records Systems,” Chapter 21 in Kevin Beaver (ed.), Healthcare Information Systems (Boca Raton, FL: Auerbach Publishers, 2003), p. 287-301.
5.      Rose Ann Laureto-Ward, “Healthcare Information Systems Outsourcing,” Chapter 27 in Kevin Beaver (ed.), Healthcare Information Systems (Boca Raton, FL: Auerbach Publishers, 2003), p. 369-389.

Additional Resources/Optional Reading (Not in reading packet):

1.      Roger Kropf, “How Shall We Meet Online? Choosing Between Videoconferencing and Online Meetings,” Journal of Healthcare Information Management, Vol. 16, No. 4 (Fall, 2002), p. 68-72. Full-text available at: <http://www.himss.org/content/files/jhim/16-4/Section%2018%20-%20OriginalContrib3.pdf>
2.      Keith MacDonald and Jane Metzger, Achieving Tangible IT Benefits in Small Physician Practices (Oakland: California Healthcare Foundation, 2002). Full text available at: <http://www.chcf.org/documents/ihealth/AchievingITBenefits.pdf>
3.      GAO, Information Technology: Benefits Realized for Selected Health Care Functions, Report GAO-04-224 (Washington, D.C.: GAO, 2003). Full-text available at: <http://www.gao.gov/new.items/d04224.pdf>
4.      Certification Commission for Healthcare Information Technology <http://www.cchit.org/>

May 28- June 3            Managing Implementation

1.     Wager, Ch. 7, 13,14, Appendix B
2.     William Bria and Richard Rydell, "Chapter 1: A Road Map to a Successful Patient Care Information Systems," The Physician-Computer Conundrum: Get Over It! (Chicago: HIMSS, 2004), p. 1-21.
3.     John A. Worthley and Philip DiSalvio, "Chapter 6: Managing Resistance" in Managing Computers In Health Care, Third Edition (Ann Arbor, MI: Health Administration Press, 1995), pp. 147-157.
3.     Eric Poon, David Blumenthal, Tonushree Jaggi, Melissa Honour, David Bates and Rainu Kaushal. Overcoming Barriers To Adopting and Implementing Computerized Physician Order Entry Systems in U.S. Hospitals. Health Affairs, 2(4), ( July/August 2004), p. 184-190.
5.     Beckie Kelly Schuerenberg, "Is There a Doctor in the I.T. Department?," Health Data Management (April, 2003), p. 42,44,46. Full-text available at: <http://www.healthdatamanagement.com/html/current/PastIssueStory.cfm?PostID=14602&PastMonth=April&PastYear=2003>
6.     Gary F. Braley, "Underutilization of Complex Systems: Are You Getting Your Money's Worth?" Proceedings of the 1993 Annual HIMSS Conference, Volume 4 (Chicago: American Hospital Association, 1993), p.199-208.
7.     Marvene M. Eastham, "CIO: From Technology Wizard to Strategic Advisor," Proceedings of the 1993 Annual HIMSS Conference, Volume 3 (Chicago: American Hospital Association, 1993), p. 229-241.

Second assignment is due June 5

## ASSIGNMENT DESCRIPTIONS

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. In addition, there will be a number of ungraded exercises during the on-site sessions designed to test your understanding of concepts and techniques.

The first assignment will test your knowledge of the readings by asking you to apply what you have learned to carry out a series of tasks. Students will be given a case study and will prepare a written case analysis. The case analysis will be in two parts. Part one will be a report to the senior manager of the organization under discussion. Part two will be memo to the instructor explaining how the concepts and knowledge in the course have been applied, and will include appropriate footnotes.

The second assignment 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. Further instructions on what should be included in a plan will be provided by the instructor. Students should submit a one-page proposal describing the service and the quality objective or problem that they would like to focus on by May 7.

## GRADING POLICIES

|                               | % of Course Grade | Date Due |
|-------------------------------|-------------------|----------|
| 1. First assignment           | 40%               | May 8    |
| 2. Second assignment          | 40%               | June 5   |
| 3. Conferencing participation | 20%               | -        |

## CONFERENCING EXPECTATIONS

Learning to think in a new way is not accomplished by reading alone. It requires the student's active participation. You should be testing your own interpretations and conclusions against those of others in the class as we go along. This is the major objective of the computer conferencing portion of the course and its importance is reflected in the weight attached to class participation in the grading policy.

In this course, the computer conferencing will take the form of discussions of issues raised in the reading assignments. I will pose questions to initiate discussion related to each block of readings, but you should not feel limited to those questions. I will consider conferencing a success only if you communicate with each other, as well as with me.

If you do not understand the readings or feel that the important issues are different from the ones I have raised, you should say so. Discussing your reactions to the readings is more important than my elaborating on the material.

You are not required to respond to every question. You will sometimes feel that your views have been well expressed by your colleagues. They may appreciate a word of support, but lengthy repetitions waste everyone's time.

I expect each of you to make one substantive contribution to the discussion each week. You could present the response of your group to the assigned question, answer a response, reply to another group, or make an individual contribution to the discussion. A "substantive" response

could be a single paragraph, but it should be a thoughtful response to what has been said.

Messages should be a MAXIMUM of two screens long. There is no need for lengthy introduction, e.g., a summary of what is said in the readings. I suggest you state at the beginning the point you wish to make and then explain your reasoning.

For computer conferencing, you will be divided into your usual study groups. Each Friday, a question will be placed on the system for each group. You should post your response by Monday evening. No one can respond to the question until the designated group has posted its response.

Do not be afraid to ask questions. This is your opportunity to ask a “stupid” question. If you don’t, you may face a situation in your career when you need to know the answer, but feel too uncomfortable to ask. Your conferencing responses are not answers to exam questions where questions to me or your colleagues would be inappropriate. Rather, the conferencing sessions will be, I hope, the equivalent of a lively class discussion.

[My thanks to Rich Foster for authoring most of this section.]

## **Roger Kropf, Ph.D.**

Roger Kropf is a Professor in the Health Policy and Management Program at New York University's Robert F. Wagner Graduate School of Public Service, where he teaches courses on healthcare management information systems and management.

Dr. Kropf has also been a Visiting Professor since 1997 at the University of Colorado at Denver, where he teaches in the Executive MBA Program in Health Administration. The Executive Program uses faculty from the Network for Healthcare Management, an educational collective consisting of fourteen universities across the U.S.

He received his doctorate from the Maxwell School at Syracuse University. His doctoral dissertation, **Information Systems in Health Maintenance Organizations: A Study of Data Collection and Analysis in Community Group-Practice HMOs**, explored how HMOs collected and used information for decision making.

Dr. Kropf was a Faculty Fellow in the Health Insurance Industry in 1992. He was selected by the Health Insurance Association of America and worked with the corporate office of the Managed Care Services Group of Metropolitan Life Insurance during 1992-3 on a number of projects in the area of strategic planning and information systems development. He studied Independent Practice Associations (IPAs) in the Los Angeles area to better understand how physicians were managing themselves.

One of his principal interests is in helping health-care professionals to use strategic planning and management information systems to achieve their organizations' goals and objectives. This is the major subject of his book, **Strategic Analysis for Hospital Management**, written with James Greenberg, Ph.D. and published by Aspen Systems in 1984.

Dr. Kropf has conducted research on how computer and telecommunications systems can be used in innovative ways in the strategic management of health-care services, and in improving patient and physician satisfaction. It is the subject of his book **Service Excellence in Health Care through the Use of Computers**, published by the American College of Health-Care Executives in 1990.

His book, **After E-Mail: New Internet Tools That Can Save Time and Improve Your Performance** (New York: YBK Publishers, 2001) is aimed at the individual trying to decide what comes next in using communication tools on the Internet. It is also aimed at managers and organizations with specific business objectives requiring intense levels of communication and collaboration.