## **UMKC Bloch School of Management**

# MIS 5558 "Management and Economics of Computing" or "Management of Information Technology"

### Course Policies and Syllabus for Fall, 2011

Thursdays at 7:00 - 9:45 P. M. in **Bloch** 3

Click on this text to move directly to the UMKC Blackboard site

**Professor**: Roger Alan Pick

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**Hours**: by drop-in and by appointment.

#### **Textbooks**:

- Erik Brynjolfsson and Adam Saunders, *Wired for Innovation: How Information Technology is Reshaping the Economy, MIT Press*, 2010.
- Plus the following cases from Harvard Business Publishing:
  - o Robert D. Austin, Selecting a Hosting Provider, #601171
  - o Robert D. Austin, Deborah Sole, Mark Cotteleer, Harley-Davidson Motor Co.: Enterprise Software Selection, #600006,
  - Robert D. Austin, Richard L. Nolan, Mark Cotteleer, Cisco Systems, inc.: Implementing ERP, #699022
  - Robert D. Austin, Richard L. Nolan, George Westerman, Mark Cotteleer, Tektronix, Inc.: Global ERP Implementation, #699043
  - o F. Warren McFarlan, Robert D. Austin, Caregroup, #303097
  - Robert D. Austin, Larry Leibrock, Alan Murray, IPremier Co. (A): Denial of Service Attack, #601114
  - Robert D. Austin, Warren Ritchie, Greggory Garrett, Volkswagen of America: Managing IT Priorities, #606003
  - Richard G. Hamermesh, F. Warren McFarlan, Mark Keil, Michael Morgan, Andrew Katz, David LaBorde, Computerized Provider Order Entry at Emory Healthcare, #311061
  - F. Warren McFarlan, Fred Young, Cathay Pacific: Doing More with Less, #303106
  - F. Warren McFarlan, Enabling Business Strategy with IT at the World Bank, #304055
  - o F. Warren McFarlan, Valerie Massoni, Royal Caribbean Cruises Ltd, #304019
  - o William E. Fulmer, Buckman Laboratories (A), #800160
  - Lynda M. Applegate, Kevin Davis, Xerox: Outsourcing Global Information Technology Resources, #195158

**Overview**: This course seeks to train future leaders of the Information Systems / Information Technology functional area. We will survey a variety of topics concerning information technology management in the twenty-first century. There is a bias towards addressing issues that concern senior executives at large firms. Nearly all of our case studies come from actual administrative situations. Instructional techniques will include lectures, case discussions, and a limited amount of small group work.

#### **General Objectives:**

- Understand the technological, economic, ethical, political, social, legal, and environmental issues faced by MIS leadership
- See case studies of a number of MIS processes in a variety of organizational settings
- Be able to evaluate the riskiness of an information technology project
- Be able to evaluate the economics of an information technology project
- Understand how IS can enable new organizational processes and business models
- Observe the many roles information technology can have in the global enterprise

### **Specific Objectives:**

- Read a case study and evaluate the general economic health of an organization
- Be able to explain the importance of knowledge in the American economy
- Be able to explain the typical architecture for enterprise software
- Be able to explain typical practices for implementation of enterprise software
- Explain the impact of information technology on productivity
- List factors that make an information technology project risky.
- Explain the drivers of project risk.
- Explain how to reduce the riskiness of a project.
- Classify the riskiness of a project from low to high
- Recognize risks in an IT operation
- Explain how to reduce IT operational riskiness
- List factors to be used in evaluating a vendor's proposal
- Explain each factor used in evaluating a vendor's proposal
- Evaluate a vendor's proposal
- Compare a vendor's proposal against an alternative proposal
- Recommend how to reduce resistance to change
- List ways in which an IT organization can be organized with respect to centralization and decentralization
- List and explain different strategies for governing IT
- List and explain different strategies for funding IT
- Determine whether or not an IT organization is a candidate for off-shoring or domestic outsourcing
- List and discuss benchmarks that can be used in IT development
- List and discuss benchmarks that can be used in IT operations
- Define Service Level Agreements (SLAs)
- Interpret SLAs
- Recommend SLA negotiation strategy for a given business situation

- Explain what is knowledge management
- List and describe the obstacles to sharing knowledge
- Explain how to encourage and support sharing of knowledge
- Compare and contrast situations when pushing knowledge is appropriate versus situations when pulling knowledge is appropriate
- Be able to explain in managerial terms how the Internet works
- Define in your own words the concept of legacy systems
- Explain how legacy systems arise
- Discuss strategies for dealing with legacy systems

**Prerequisite**: This should not be your first computer course. We recommend either work experience involving information technology in a business context or at least one prior course in computer science or in information systems.

**ADA:** If you have any questions about a disability or desire accommodation under the Americans With Disabilities Act, please contact the Office of Disabled Student Services at 235-1083.

**Attendance:** You are responsible for everything covered or handed out in class. The easiest way to meet this responsibility is to come to class every time.

Class Cancellation: Although I do not anticipate the necessity of this, it is possible that it may be necessary to cancel class due to inclement weather. This class will meet if UMKC is open; conversely, if UMKC is closed, this class is canceled. Students who are unable to attend class during bad weather when the class has not been canceled should send email or call and leave a message on the professor's voice mail system indicating this. If class is canceled due to any reason, all activities scheduled for the canceled session will take place during the next class meeting including exams. Changes in activities for subsequent classes will be announced.

**Grading**: Each exam will be worth 100 points. Each case discussion will be worth 10 points, with the lowest three dropped.

**Exams:** There will be two open-book and open-note essay exams. Essay examinations will be graded based upon both the answer and the amount of reasoning and facts given to support the answer. You are expected to do each exam on your own without assistance from anyone. Use of e-mail, chat, or similar facilities during an exam will result in a zero grade for the exam. Each exam will be comprehensive.

Cases: There will be thirteen graded case discussions. Most are based upon actual business situations; Preparing for these case discussion is <u>crucial</u> to your success in this class. The individual class participation grade is based upon the case studies. After each case discussion, I will note who was present, who spoke at all, and will subjectively judge whose participation was excellent. Students who never participate in class should not be surprised to learn that their class participation grade will seriously lower their overall grade in this course. If you are unsure how to begin participating, you can get started by looking at the financial situation of the firm (when the case provides the data), at the competitive situation of the firm (when the case provides the

data), at the firm's website (when the case is not fictional or disguised), the rhetorical questions that appear at the end of many cases, or the questions in the course schedule below. The lowest three class participation grades will be dropped. I plan on posting the discussion grades on the Blackboard site.

**Makeups**: The fact that three class participation grade will be dropped takes into account the likelihood that over the course of a semester illness or a business trip will force you to miss class a time or two. If you miss one or two case discussions, figure that will be one or two grades that will be dropped. If you miss four or more, I will allow you to turn in written thoughtful responses to the preliminary case questions as well as your overall analysis of the case; this will substitute for your being absent only.

**On Effort**: Just as is the case with salary determination in most workplaces, grades in this class will be determined by your performance rather than by your effort or needs.

Cooperation: No form of cooperation during exams is allowed. You may not claim others' work as your own. If academic dishonesty is detected, you will receive a zero on the exam, and your case will be referred to the Vice Provost for investigation and possible disciplinary action. Please note that the term paper in this class must be submitted via Blackboard, and it will be automatically scanned for similarities to others' work, both published and unpublished. If you use someone else's words, be sure to place them in quotes and cite the source.

**Incomplete**: I am permitted to give incomplete grades to students who have been unable to complete the work of the course because of illness or serious reasons beyond their control. This work must be completed within one calendar year to avoid the incomplete grade lapsing to an F. You should bring up problems in advance when you can do so.

**Administrative Note**: Keep every graded paper returned to you until you receive your final grade report from the university.

ON-CAMPUS COMPUTER ACCOUNT: If you do not already have a <u>UMKC lab</u> / <u>e-mail account</u>, you are required to obtain a userid. You will need this in order to use <u>UMKC</u> <u>Library databases</u> from off-campus. Please do this during the first two weeks of classes.

**M of IS Emphasis**: For information & announcements about the Management of Information Systems emphasis area within the UMKC MBA degree, visit the file located at <a href="http://p.faculty.umkc.edu/pickr/mismba.htm">http://p.faculty.umkc.edu/pickr/mismba.htm</a>.

**MBA**: For information and announcements about the new Master of Business Administration at UMKC, visit the website at <a href="http://umkc.edu/newblochmba">http://umkc.edu/newblochmba</a>.

**Finally,** all aspects of this class will be handled logically, sensibly, and with understanding of your situation. This syllabus will not be followed blindly in defiance of common sense; exceptions can and will be made according to good judgment. If there is a change in course policy, it will be announced and explained in class and the online version of this syllabus will be amended.

Lecture outlines will be posted on the <u>Blackboard site</u>. This will typically happen a few minutes before class.

## **SCHEDULE AND ASSIGNMENTS:**

<b>Date</b> Thursday	Lecture Topics Lecture outlines will be posted on the Blackboard site. This will typically happen a few minutes before class.	Reading Assignment Unless noted otherwise, scientific papers will be loaded in .pdf format on the Blackboard site or are available for download from a UMKC Library database.	Case Assignment All cases are based upon actual managerial situations unless noted otherwise. Except for first class, YOU MUST READ CASES BEFORE CLASS!
8/25	Options. How to evaluate a proposal using an additive utility function. Course policies.	Syllabus (to be handed out and reviewed during class).	Practice Case (a fictional case to be handed out and read during class)
9/1	ERP software: architecture and implementation	Mabert, V.A.; Soni, A.; and Venkataramanan, M.A. Enterprise resource planning: Common myths versus evolving reality. <i>Business Horizons</i> , 41, 3 (May-June 2001), 69-76; available from UMKC library in the ScienceDirect database.	"Selecting a Hosting Provider" - fictional case. You will be assigned to take the viewpoint of either WBC or IEC. What is the business situation of your assigned client company? How does that affect hosting requirements? What selection criteria do you recommend? Choose the best hosting provider. Justify your recommendation.
9/8	The Knowledge Economy	Wired for Innovation, Chapters 1, 2	"Harley-Davidson" Describe Harley's processes for defining and selecting an enterprise-wide procurement package and the institutional changes introduced as part of this process. Evaluate the evaluation of the package and the implementation partner.
9/15	Productivity and Information Technology	Wired for Innovation, Chapter 3	"Cisco" Evaluate Cisco's process for implementing ERP software. Can Cisco's practices be transferred? How much did the project cost?

9/22	Information Technology Operations Risks	Arduini & Morabito, "Business Continuity and the Banking Industry," Communications of the ACM 53,3 (March 2010), pp 121- 125; available from UMKC library in the ACM Digital Library database.	"Tektronix" Compare and contrast ERP implementation at Cisco versus Tektronix.
9/29	Software Development and Implementation Risks	Keil <i>et al</i> , "A Framework for Identifying Software Project Risks," <i>Communications of the ACM 41, 11</i> , November, 1998, pp 76-83; available from UMKC library in the ACM Digital Library database.	"CareGroup" How could the operational outage at CareGroup been prevented? Was the situation handled appropriately? Moving forward, what changes should they make?
10/6	Change Management	Wired for Innovation, Chapter 4	"IPremier" - fictional case but everything that happened to iPremier has happened to somebody. How well did the iPremier Company perform during the attack? If you were Bob Turley, what might you have done differently during the attack? Were the company's procedures deficient in responding to this attack? How might they have been better prepared? What should they do to prepare for another such attack? In the aftermath of the attack, what would you be worried about? Was the preoccupation with stock price appropriate? What actions would you recommend?
10/13	IT Leadership and Governance	Koch, "IT Governance Strategies from State Street, 3M and Others" available at cio.com (September 15, 2002); Schwartz, "IT Governance Definition and Solutions" available at cio.com (May 22, 2007).	"Emory Healthcare" What are the pros and cons associated with standardization of care? What challenges and possible perils lay ahead for Dr. Bornstein? How to deal with changes to work processes?
10/20	First exam	Open book and open notes.	Bring textbook, readings, and

			all cases to class today.
10/27	IT Funding  Knowledge	Goldstein, P. J., "Chargebacks and Information Technology Funding," <i>ECAR Research Bulletin 2005</i> , 23 (November 8, 2005); will be posted to Blackboard.  Wired for Innovation,	"Volkswagen" Who should set IT priorities at Volkswagen of America? What do you think of the new priority-setting process?  "Cathay Pacific" As of the end
11/3	Management	Chapters 5, 6	of 2002, what should be outsourced? What should be retained inhouse? Why?
11/10	Purchasing IT	Taylor, P. et al, "The Connected Business," Financial Times (June 29, 2011) Special Report available at <a href="http://www.ft.com/intl/reports/">http://www.ft.com/intl/reports/</a> connected-business-june2011	"Royal Caribbean Cruises" How comfortable are you with the IT organization at RCCL? Do you agree with the post 9- 11-2001 downsizing? Does the applications development portfolio look reasonable? Are there additional questions you want to ask concerning the application portfolio?
11/17	Legacy Systems	Bisbal, J., Lawless, D., Wu, B. & Grimson, J. (1999). Legacy Information Systems: Issues and Directions. <i>IEEE Software</i> , 16, 103-111; available from UMKC library in the IEEE Xplore database.  John Brandon, "Replacing Legacy Applications: Four Problems Solved," <i>Computerworld</i> (July 28, 2011) available at http://computerworld.com.	"Buckman Laboratories" What are the key elements of K'Netix? What are the milestones in K'Netix development? What do you think of Buckman's implementation? How do we reward people who use K'Netix? Are there any general lessons for an organization aspiring to implement a knowledge management system? Should the forums all be in English?
11/24	Holiday – no class		
12/1	Communications Infrastructure	No additional reading required for this course. If you'd like to know more about this topic, I recommend Doug Comer, <i>The Internet Book</i> , 4 <sup>th</sup> edition, Prentice-Hall, 2006 if your background is nontechnical and Doug Comer, <i>Computer</i>	"Xerox" Evaluate Xerox's handling of legacy systems. Evaluate Xerox's handling of outsourcing.

		Networks and Internets, 5 <sup>th</sup> edition, Prentice Hall, 2008 if your background is technical.	
12/8	Second exam	Open book and open notes.	Bring textbook and all cases to class today.
12/15 8:00 - 10:00 pm	Does IT Matter?	Carr, N. G., "IT Doesn't Matter," <i>Harvard Business Review</i> (May 2003) 41-48; available from UMKC library in the Business Source Premier database.	Graded discussion

The latest version of this syllabus will be located online at http://p.faculty.umkc.edu/pickr/mis5558/.

Besides this syllabus, this course is conducted under the regulations of UMKC as described in the <u>current catalog</u>. In case of conflict among these two documents, the UMKC catalog dominates.

#### Return to Roger Alan Pick's Homepage.

Contact me at

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