

Syllabus

DSOM5542 – ERP—Enterprise Resource Planning

Updated: 8/21/2010

7:00-9:45pm Tuesday
Bloch 2

Frank Masterson, mastersonf@umkc.edu or fmaste1@hallmark.com

Office hours: After class or by appointment, 913-518-4110

Required Books and Cases:

1. **Concepts in Enterprise Resource Planning** Third Edition (paperback) by Ellen Monk and Bret Waner, Publisher: Course Technology (Feb 4, 2008), ISBN: 978-1423901792
2. **Why ERP? A primer on SAP Implementation**, by F. Robert Jacobs and D. Clay Whybark, McGraw-Hill Higher Education, 2000
3. **The Leadership Moment—Nine True Stories of Triumph and Disasters and Their Lessons for Us All**, by Michael Useem, Three Rivers Press, 1998
4. **Enterprise Architecture as Strategy**, by Jeanne W. Ross, Peter Weill, David Robertson, Publisher: Harvard Business School Press (Aug 8, 2006), ISBN: 1591398398

Cases:

1. Cisco Systems, Inc.: Implementing ERP, Austin, Nolan, Cotteleer, May 6, 2002, 9-699-022
2. Cisco Styems Architecture: ERP and web-enabled IT, Nolan, Nov 28, 2005, 9-301-099
3. Putting the Enterprise Into the Enterprise System, Thomas H. Davenport, July 1, 1998, 98401
4. Tektroniz: Global ERP Implementation, Ausin, Nolan, Westerman, Cotteleer, Feb 2 1999, 9-699-043
5. Vandelay Industries, Inc., Mcafee, Upton, April 16, 1997, 9-697-037
6. Trouble with Enterprise Software, Cynthia Rettig, Oct 2007, SMR259
7. Easterline Technologies: Lean Manufacturing, Nolan, Brown, Kumar, May 3, 2006, 9-906-417
8. The San Diego Schools: Enterprise Resource Planning ROI, Mark Jeffery, 2006, Kel 174 (Kellogg School of Management)
9. Why Osram Stuck with SAP, By Larry Barrett, 3-Ben Worthen, May 15, 2002 (CIO.com)
10. Nestle Pieces Together It's Global Supply Chain, by Tom Steinert-Threlkeld, 1-20-2006, Baselinemag.com
11. Kiss your Hershey treats goodbye, by Emily Nelson, October 29, 1999, www.zdnet.com
12. Case Study: Backcountry.com Bets the Shop on Open Source, by CIOInsight, May 8, 2006, CIOInsight.com
13. Nibco's "Big Bang", by Carol V. Brown and various, 2000, (instructor provides)
14. The Foxmeyer Drug's Bankruptcy: Was it a Failure of ERP?, Judy E. Scott, (instructor provides)
15. 7-Eleven Japan Co., Ltd.: Reinventing the Retail Business Model, Kei Nagayama and Peter Weill, January 2004, CISR WP NO. 338 and MIT Sloan WP No. 4485-04

Course Description:

This course examines the evolution of enterprise systems. This class studies the types of issues that managers will need to consider in implementing cross-functional integrated enterprise systems. We will examine the general nature of enterprise computing, re-engineering principles and the foundations of enterprise information architectures.

The objective of this course is to make students aware of the potential and limitations of enterprise systems. This objective will be reached through case studies, lectures, guest speakers and a project.

This course has dual functions: the first is on analyzing ERP (with a focus on the Supply Chain) systems through a managerial perspective, the second focus is on system implementation and the third is integrating issues of business strategy, study of organizations and people, leadership, operations management, information technology, etc. The creation of business value requires the successful integration of these issues. In the recent years, there have been spectacular failures of large investments in firms—major ERP systems that were never completed or systems that were never conceived or used effectively. The course provides an overview of the planning and control systems used by manufacturing companies to manage their supply chains within a context of an ERP system.

Course Objectives:

1. Introduce the student to the rationale for acquiring and implementing ERP systems, selection of ERP software, and integration of processes and transactions in the ERP system.
2. Enable the student to understand the challenges associated with the successful implementation of Supply Chain ERP software with an emphasis on leadership and managerial implications/actions and generating business value for the firm.
3. Develop the student's organizational and analytical skills through the use of business cases studies, articles and working in teams.
4. Learn principles of leading very large change initiatives by focusing on the rational and emotional aspects of organizational transformation. Enable the student to practice critical leadership thinking, tolerance of ambiguity, communication and interpersonal skills, creativity and general business instincts.

In summary, the course aims to provide:

- A practical understanding of the strategic opportunities to create business value from enterprise resource planning
- A practical understanding of the way business value is created and the potential barriers
- A set of case studies or discussions with guest speakers regarding how business value was or was not generated
- A forum to discuss issues and learn from each other
- The opportunity to apply the concepts in a project

Grading:

Final grades in the course will be assigned according to the weights in the following table:

25%	Exam 1
25%	Exam 2
25%	ERP project (presentation dates per schedule. Slide packs and paper due for grading after presentation. By Sept 14 email your top two choices for group projects (assume we'll be in 4 teams). Team project topics are listed below. I'll try and accommodate your choices if at all possible)
25%	<u>The Leadership Moment</u> papers, discussion Questions and Problems as assigned, Class Participation, other Team reports, etc.

Letter grades are not assigned to work during the semester. The letter grade will be assigned only to the final grade based on grading requirements. Exams do not necessarily have 100 points. Final grades will be assigned as follows:

95-100%	A
91-94	A-
88-90	B+
80-87	B
77-79	B-
74-76	C+
69-73	C
65-68	C-
55-64	D

General Course Requirements:

Successful completion of the course will require the following:

1. Taking responsibility for your own learning by:
 - asking questions and probing your understanding
 - taking leadership and initiative in our class learning community
 - attempting to relate concepts to your own work situation
 - providing feedback to the instructor and other class members where this is needed. This will help the instructor fine tune the course design, readings, etc.
 - supporting an intellectual standard that is intolerant of lazy thinking. If others (including the instructor) say something that seems untrue to you in light of your experience, let this be known in the spirit of friendly intellectual discussion.
 - celebrating a diversity of opinions as long as these opinions are intellectually supportable.
2. Participating in required activities
3. Completing all required course readings
4. Attending class. Irregular class attendance should expect a negative effect on his/her course performance. Contact the instructor if he/she must miss a class.
5. All assignments are due on the date shown. It is the student's responsibility to obtain assignments, secure notes, and know the dates of all exams. Assignments will not be turned in late unless approved by the instructor.

6. All course withdrawals must be initiated in the Bloch school Student Services Office, room 115, and completed through the Registration Center in the UMKC Administrative Office. The academic calendar lists official withdrawal dates.

Exams:

No make-up exams will be given unless the specific situation warrants a make-up exam. Any make-ups are at the discretion of the instructor. The student must contact the instructor in advance of the exam if the student must be absent

Group Presentations:

The team project is an opportunity to explore one area in more detail. The paper should not be more than (10) pages. The due date will be determined, but is sometime in November and includes a 35 minute presentation (20-minute presentation and 15 minutes for questions) of your key learning with the class. The paper should be written in a style suitable for submission to boards and senior managers of firms. The topics chosen should be related to ERP topics.

Team topics to research are as follows (each team chooses one):

1. Measuring the impacts of ERP implementations...perform a study of existing ERP implementation in a firm and determine the financial impact. Was the system a good investment? Did the system impact income, sales, productivity or labor costs? How was the system cost justified? Lessons learned? Use local firm if at all possible.
2. Develop a Case study of a particular ERP implementation...write a case study of an ERP implementation in any organization or industry. Possible areas to explore: the decision process to invest, the link between ERP and business strategy, the difficulties and successes of actually implementing an ERP in the work place, the way work changed with the new system—choose one or two areas to focus on.
3. Develop an ERP Project Proposal. Identify an emerging trend in ERP systems relevant to your (an) organization and write a convincing project proposal for your (the) CEO. Include the business case for the emerging trend, description of the technology or what is new, shortcomings of existing method, cost, time and feasibility estimates, justification for the investment, challenges of implementation.
4. Develop a Case Study Write-up...This project is a detailed analysis and write-up of any one or two cases we have studied. Choose the case(s) that interest(s) the team most and creatively design the format of your paper and presentation. Include the following: Additional information on the firm or the issues from public sources, answers to the questions for the case, the business model schematic for the firm, your prediction for the success of the business model of the firm selected, a discussion of the critical success factors and core competencies for the business model in general, your analysis of the lessons for management from the cases.
5. Study the role of Consultants in ERP planning and implementation...to better understand the planning for an ERP system, conduct interviews with consulting firms that consult in this type of work. Important issues include: Define “planning” for ERP and information systems, who is typically the client in an organization, why does a consultant get called in typically, what is the general approach the consulting firm uses, what tools, techniques, methods are used, brief descriptions (no names required) of one or two successful engagements, how does the firm decide that an engagement is successful, how does a firm choose a consultant to help plan or execute an ERP or major IS system, identify the strengths and weaknesses of the approach the consulting firm uses.
6. Any other project...related to the course and of interest to the team can be chosen. Students choosing this option are advised to submit a proposal.

Indicate the source of your material. References (preferably including a URL or library database source) are essential in the paper. Use footnotes in the paper to indicate the source of your information. Grading will be based on:

- Conceptual understanding and insight
- Clarity of argument and expression
- Quality of investigation and basis for conclusions
- Conclusion and recommendations
- Persuasiveness and clarity of oral and written presentation
- Effectiveness when answering questions
- Contribution to class learning

The Leadership Moment Case Analysis:

As scheduled by the instructor, each team/individual will present a case analysis using a chapter from The Leadership Moment. In addition to a team being assigned many times to lead our discussion of the case, a short (2 page paper) will also be assigned for homework. The following are guidelines for the case analysis:

1. Plan for 30 minutes
2. Begin with a brief summary of the Leadership Moment
3. Address each “implication” discussed by Useem or story author. Discuss each implication in detail, relate to situations from your work, our coursework, or life.
4. Involve your classmates and be creative, innovative, and fresh. Use audiovisual aids, exercises, handouts, etc.

Class Participation:

The quality of the classroom discussion in large part depends on you and your preparation for the class. We all benefit when as many students as possible put their minds to the material. I will judge you on your participation. What are the things I keep in mind? Have you read the material? Are your questions designed to clarify and give better insight to the problem at hand? Have you thought about the issues? “Air time” is not as important as meaningful insight and questions.

Discussion Questions and Problems from the text:

There are discussion questions and problems assigned from the ERP text. The purpose of the discussion questions and problems is to encourage you to prepare for the class discussion. The grading will largely be based on pass/fail (ie: you attempted to do the problem or you did not). You will be asked to share your methodology and answers with the class on a random basis.

Academic Honesty, Integrity, Student Conduct:

Students are expected to familiarize themselves with the university’s rules and regulations with regard to cheating, plagiarism, facilitating academic dishonesty, abuse of academic materials, stealing, and lying. No action or conduct of any student who hinders the educational process of the class will be tolerated. Please see UMKC’s general catalog for more details (or visit: <http://www.umkc.edu/umkc/catalog/html/append/policy/0020.html>). If there is ever any question what constitutes “unauthorized assistance” on any class deliverable, please call or email me before you turn the assignment in.

Available UMKC support services:

1. Block School Computer Lab: <http://www.umkc.edu/is/oa/IS-LAB-Brochure.pdf>
2. UMKC Writing Lab: phone 816-235-1146.
3. Office of Disabled Student Services: call 816-235-5696 or <http://www.umkc.edu/disability/>

Detailed Class Schedule

Week	Due Date	Topic	Cases/Articles/Reading Materials
1	8/23	Overview of Enterprise Systems	<ul style="list-style-type: none">• Chpt 1 ERP – Business Functions and Process (be prepared to discuss end of chapter exercises/questions)• <u>Why ERP?</u> Discussion Questions.• Chpt 1 ERP Architecture
2	8/31	Evolution of Enterprise Systems	<ul style="list-style-type: none">• Chpt 2 ERP— Development of ERP Planning Systems• Continue <u>Why ERP?</u>• Foxmeyer, Nestle• Leadership Moment—#1: River Blindness/Merck

			<ul style="list-style-type: none"> • (Consider the behavior of Merck in the Vioxx case (research the Vioxx case). Tell what happened and compare and contrast the behaviors of Merck in both cases. Suggest several reasons that could explain the behavior of Merck in the Vioxx case. 2 page paper—turn in)—<u>Team 1 leads discussion.</u>
3	9/7	Software Adoption, Selection and Benefits	<ul style="list-style-type: none"> • Vandelay Case • Leadership Moment #2—Wagner Dodge (At the very end, Wagner Dodge knew what to do. He was smart, he analyzed the situation well, he developed a plan and he saved himself. But as a leader he failed. For this 2 pg paper explain why. What did Dodge do wrong and what could have been better? How could he have saved his me. <u>Team 2 leads the discussion.</u> • <u>Why ERP?</u> • <u>Guest Speaker 1</u>
4	9/14	Implementation	<ul style="list-style-type: none"> • Chpt 7—ERP Process Modeling, Process Improvement and ERP Implementation • Leadership Moment--#3 • Cisco Case
5	9/21	Risks and Critical Success Factors	<ul style="list-style-type: none"> • Nibco • Guest Speaker 2
6	9/28	Business Process Change	<ul style="list-style-type: none"> • Techtronix • Leadership Moment--#4
7	10/5	Business Process Change	<ul style="list-style-type: none"> • Guest Speaker 3 • Leadership Moment--#5
8	10/12	Mid-Term Business Processes: Mfg and Logistics	<ul style="list-style-type: none"> • Guest Speaker 4 • Exam
9	10/19	Extended Enterprise Systems	<ul style="list-style-type: none"> • Case TBD

10	10/26	Business Processes: Supply Chain, Sales Order Mgt, CRM, etc.	<ul style="list-style-type: none"> • Chpt 3 ERP—Marketing and Sales • Chpt 4 ERP—Supply Chain • Case TBD
11	11/2	Open Source Enterprise Systems	
12	11/9	Enterprise Architecture	
13	11/16	Future of Enterprise Systems	<ul style="list-style-type: none"> • Chpt 8 ERP—ERP and Electronic Commerce • Leadership Moment--#5 • Guest Speaker 5
14	11/30	Team Project Presentations	Team 1 and 2
15	12/7	Team Project Presentations/Review for Final	Team 3 and 4
16	12/14	Final	

(Syllabus is subject to change)

CASE ANALYSIS & DISCUSSION QUESTIONS

The Use of Cases in Management Education³

Perhaps the most important benefit derived from using cases is that they help us learn how to ask the right questions. An able business leader once commented: “Ninety percent of the task of a top manager is to ask useful questions. Answers are relatively easy to find, but asking good questions – that is the more critical skill.”

“Discussion questions” suggested in connection with the preparation of a case do not exempt you from the task of identifying the key problems. You must still ask yourself, “What really are the problems that this manager has to resolve?” So often we manipulate facts and figures without defining the *problems* for which we seek solutions.

Cases help us sharpen our analytical skills. We work with facts and figures to produce quantitative and qualitative evidence supporting recommendations and decisions. Challenged by both the instructor and colleagues to defend arguments, students develop an increasing ability to think and reason rigorously. In addition, cases and case discussions provide a focal point for an exchange among students of the lessons of experience. As we approach case problems, we often unconsciously bring to bear the observations, experiences, and rules-of-thumb that has accumulated during years of operating in a managerial environment. Case discussions provide a vehicle for reassessing these lessons and for gaining an increased measure of learning from them.

Cases are useful for developing sets of principles and concepts that can be applied in practice. We consider each case for itself. Out of each case, however, will come important concepts and approaches. Taken together, a series of cases should help us develop some key ideas that can be applied in specific managerial situations.

There is one final benefit that we seek to achieve by using business case studies: to renew the sense of fun and excitement that comes with being a manager. You may see a number of cases in businesses that you are relieved not to be in! But you should come to sense once again that being a manager is a great challenge – intellectually, politically, and socially.

The classroom is a place for you to express, support and defend your conclusions and recommendations. We learn through controversy and discussion. The effective use of cases as a learning vehicle depends heavily on class participation. Through interchange and constructive controversy we build analytical skills, develop judgment, and gain conceptual understanding. There is, therefore, a burden of responsibility on each student, not only for his or her education but for the learning of all other students as well.

Perhaps the greatest pedagogical benefit of the case method is that it generates a high degree of involvement in the learning process. People learn the most from those things in which they are most deeply involved. But it follows, too, that little can be learned from even the best cases without solid preparation.

Class discussion also promotes rigorous thinking and develops communication skills. It encourages “thinking on your feet” and responding to questions under pressure. Talking in class, expressing and defending your views – a rigorous and tension-building experience when you are in it – becomes one of the most valued parts of the educational experience.

As important as participating is, however, listening is more important. It’s easy to become so preoccupied with what we think that we become closed to the thoughts of others in the discussion. It is just as important to be open-minded and willing to shift positions in class as it is in business. The measure of your individual progress in any one case discussion should not be based on your assessment of whether your ideas were right, but on how much you took from the class that you didn’t know when you entered it.

(Extracts from “The Use of Cases in Management Education”, Professor E. Raymond Corey, Harvard Business School, 1976)

CASE STUDY DISCUSSION QUESTIONS

Why ERP?

1. What is the objective Dan Bragg has in mind for the implementation of SAP R/3 at McDougle's Furniture in North Carolina?
2. What is Mr. McDougle's objective for the implementation of SAP R/3 in his furniture factory in North Carolina?
3. Does Billy want to implement SAP R/3 at the North Carolina furniture plant?
4. What would his objectives be if he did want to do so?
5. Why was the implementation of SAP R/3 successful in Ohio?
6. What are examples of companies where SAP R/3 might not be successful?
7. What would you have done differently if you had been Billy in this situation?
8. What three things were best about the implementation of SAP at the North Carolina Plant?
9. What three things were worst about the implementation of SAP at the North Carolina Plant?
10. What should Billy do next?

Foxmeyer Questions:

FoxMeyer drug was a \$5 billion company and the nation’s 4th largest distributor of pharmaceuticals before their downfall. The goal of the ERP technology was to increase efficiency. In 1996 the company went into bankruptcy and the trustee sued almost everybody (SAP, Andersen, etc.). Please answer the following questions and be prepared to discuss in class on.

1. So, who is to blame?
2. Was FoxMeyer too aggressive or was it simply misled?
3. Was the ERP system a defective product?
4. Was Andersen’s (now Accenture) consulting practice negligent?
5. Did management expect technology to be a “magic bullet”?
6. Why did FoxMeyer initiate the project?
7. How would you re-do if you had a chance?

Questions for Vandelay Industries HBR Case:

This case will support our discussion regarding ERP training, IT lead projects vs. improvement led projects and competitive industry level issues related to ERP implementations. Please review and answer the following questions:

1. Many re-engineering efforts have been failures. Will technology enabled change management help improve the success rate?
2. It seems rather obvious, but why are consultants so often a part of ERP implementations?
3. Is the total project budget of \$20M reasonable for this engagement? What assumptions do you need to make to answer this question?
4. How do you improve upon 'best practices'?
5. What are the major drawbacks that you see from undertaking an ERP implementation and once the system is up and running?
6. If you were Elaine Kramer, what would your greatest worries be as you started this implementation? What about if you were the Vandelay CEO?
7. What competitive requirement does R/3 fulfill for Vandelay?

Cisco Questions:

At the end of the case, Pete Solvik has a number of questions. Please think about these questions, and be prepared to give your answers:

1. At the start of the case, Cisco's information systems are failing, yet no one steps forward to lead the effort to replace them. Why is this? Why were no managers eager to take on this project?
2. Cisco was highly successful with its enterprise resource planning effort. What accounts for this success? What important things did Cisco do correctly?
3. Did Cisco do anything wrong on the project? If so, what?
4. We often hear that senior management commitment is important for projects like Cisco's ERP implementation, but senior management commitment to do what? What can top managers do to maximize chances for success?
5. How did Cisco mitigate the risk when they took the "big bang" approach?
6. Was Cisco lucky or smart with its ERP implementation?