

SCM 7380: Enterprise Operations & Business Intelligence
Section 25766 Tue 6 – 9 Fall 2013

**** PRELIMINARY SYLLABUS ****

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Student Hours: Tue/Thu 4:00 – 5:00 p.m. and by appointment
Email: Please use BlackBoard email for *all* course correspondence

I. Course Description

At its core Supply Chain Management is the study of how to run a successful organization. In the same way that becoming successful as an athlete or heart surgeon requires practice to learn important skills and techniques, so too the best way to develop skill in supply chain management is through practice. This is done through a combination of hands-on exercises, case discussions, and simulation activities that culminate in a final report to shareholders on the performance of a manufacturing company in a business competition.

II. Course Objectives

This course supports the MBA program learning goals in the following ways:

- **Cross disciplinary competence** – sharpen student understanding of how organizations integrate and manage their business processes across all the functional disciplines.
- **Critical thinking** – students identify the information needed to analyze competitive strategy and develop recommendations for improvement through case studies.
- **Awareness of environment of business** – through the competitive simulation, students develop a deeper understanding of how to properly execute a business strategy.
- **Communication** – students strengthen their ability to extract data from an ERP system (SAP ECC 6.0) and use it to build reports to support decision making.

III. Course textbook, cases and readings

Required: *Integrated Business Processes with ERP Systems*, Magal & Word, ISBN 978-0470-478448.

ERP Simulation Game Participant's Guide, Leger et al. (2013-14) Do NOT purchase now! I will provide detailed instructions on how to obtain this book/software access code in class (cost is \$C 40).

Microsoft Access 2010, Excel 2010 with PowerPivot add-in, and SAP GUI and SAP Crystal Dashboard Design 2011¹

Selected case studies from Harvard, Ivey and other business schools (see below)

Recommended: Microsoft Visio (60-day trial version available here: <http://office.microsoft.com/visio>)
Student membership in SAP Community Network (www.sdn.sap.com)

Cases: The easiest (and least expensive) way to access the cases is through the course page I have created on the Harvard Business Online website and at the Ivey Publishing website. If you have not registered with Harvard Business Online or Ivey, you will be required to do so. These links will be made available to you via Blackboard.

The cases and readings are a vital part of this course. However, to get the most from this course it is critical that all students come prepared to discuss the case or article assigned for each class. Part of your grade will be based on your participation in the class discussion, so do not come to class unprepared!

¹ SAP software will be provided free of charge to registered students

Required/recommended readings: In addition to the case studies all of the articles below should be available through the University of Houston M.D. Anderson library electronic journal database in PDF format:

Davenport, T.H. and J.D. Brooks (2004). Enterprise systems and the supply chain. *Journal of Enterprise Information Management*, 17 (1) pp. 8 – 19.

Owen, M., and J. Raj (2008). BPMN and Business Process Management. IBM (www.telelogic.com)²

Davenport, T.H. (2006). Competing on analytics. *Harvard Business Review* 84 (1), pp. 98 – 107.

McAfee, A. and E. Brynjolfsson (2012). Big data: The management revolution. *Harvard Business Review* 90 (10), pp. 60 – 68.

IV. ERP Simulation

During the semester we will use a competitive simulation to illustrate how enterprise systems enable the core supply chain processes, and to introduce you to business intelligence concepts including real-time dashboards. Instead of a final exam, all teams will present their results of the simulation during the period scheduled for the final exam.

NOTE: your grade for the Annual Report will be based on how well you analyze your performance and present the results to your shareholders, not on your overall profitability. However, as an incentive to the “winning”³ team, a bonus of 17 points (~ 3%, enough to raise a B to a B+, or an A- to an A) *may* be added to the individual students’ final grade.

V. Grading

This course is designed to introduce you to ERP systems using a combination of lectures, business articles and cases, classroom exercises and a business simulation. There are a number of deliverables due during the semester that will be used to help assess your learning and understanding of ERP systems. Each student's final numerical score for the course is based on the following items:

Item	Value (points)
Participation/exercises	100
Case study	100
Exam #1 (Enterprise Operations)	100
Exam #2 (Cash-to-cash cycle & BI)	100
Annual Report & Presentation	100
Total	500

The following scale will determine your final grade:

≥ 450	A	384 – 399	B-
434 – 449	A-	367 – 383	C+
417 – 433	B+	350 – 366	C
400 – 416	B	≤ 350	D

Please remember that grades are not negotiable. Grades are earned on the basis of performance in this course, not given on the basis of need or effort. I do not reply to email requesting a grade change or extra credit.

Note: The instructor reserves the right to assign a grade of “F” in cases of cheating on exams or other violations of academic honesty.

² Will be provided on Blackboard.

³ “Winning” does not necessarily mean the team with the highest profit. Several factors will be considered including, but not limited to: class participation, strategy development and execution, quality of analysis and teamwork.

VI. How to prepare a case study

The purpose of the case studies is to help improve your critical analysis skills at identifying and resolving business problems. They also provide a way for you to learn and apply some modeling skills that will prove useful in your career. All students are required to participate in the case analysis; you should be prepared to discuss the case whether your team is presenting or not.

A successful analysis is more than just presenting your model. While there is no single “best” approach, most students find the following outline helpful in organizing their case analysis:

- A. Identify the decision required in the case: Begin by trying to understand the objective of the case; what is the firm trying to accomplish and what information is needed to achieve that objective? This may require you to look beyond the information in the case and think more broadly about the issues.
- B. Explore alternative models to address those issues: Keep in mind that any model is only as good as the assumptions that went into building it. Document your assumptions, and consider how the model results might be different if different assumptions were used.
- C. Make specific recommendations and develop a plan of execution: Among the model alternatives you develop, one will usually stand out as being clearly better. However, it is not enough to simply recommend a course of action; you need to develop a plan of execution. What, exactly, are the next steps the company should take, and how long/costly will it be? While you may not be able to provide exact time/cost estimates, it is important to ensure that your recommendation is feasible.
- D. Define performance metrics and other measures that can determine whether or not the recommendations were successful: Having laid out a strategy for the firm to follow, you need to provide management with some guidance how to evaluate whether or not it is successful. Think in terms of specific performance measures that will indicate that your recommendations are having an impact. Don't use imprecise measures such as “increase profit” or “decreased cost”; try to identify specific targets that can be monitored.

Case Submission Guidelines

Each team should submit a single case analysis via the BlackBoard assignment icon no later than 6 pm on the day prior to the date of the in-class discussion. The submission should following the format below:

Double-spaced, 10-point font, 1” margins. Tables, charts and graphs can be integrated with the text or attached in an appendix at the end of the analysis. There is no minimum page length; however, to present your analysis in a reasonable amount of detail should generally take between 7 – 10 pages, not including the title page, tables, charts and graphs.

Title Page

Case Titles, Team members, Team name, Due Date

Executive Summary

A one or two paragraph summary of your recommended course of action for the company. Include important supporting analyses and/or justifications, and any performance measures that you plan to track to determine if your recommendations are successful.

Brief Introduction

Emphasis is on the word *brief*. Discussion of: Company (case) Background; include information about industry, key competitors, financial performance as appropriate. Don't simply recite the information in the case study. Try to think as a manager – what are the most important characteristics of the company/industry? What are the challenges they face?

Problem Definition

Identify the key issues that need to be addressed. Think critically and delve into the root causes of the problems. Keep in mind that there is a difference between the symptoms of the problem, and the root cause.

Analysis (the bulk of the write up)

Develop several alternatives that can address the key issues you identified, and perform a detailed analysis to determine the best one. In addition to exploring the various alternatives, try to integrate what you have learned in this and other classes/cases. Don't simply say "This is similar to the experiences of Proctor & Gamble." Tell us how this is similar to the experiences of Proctor & Gamble.

Recommendation and Implementation

Summarize the case situation and make a recommendation. Include key performance measures that can be used to judge the success of your recommendation, as well as a plan of execution. Support your recommendation with data from the case, additional research, and any analyses you have conducted.

Summary

List the key insights you gleaned from the case. These are the key points that you would want your reader/classmates to remember from the case. Be as specific as possible. Help the reader understand where the insights came from.

References

Supporting materials. You may have found supporting materials from outside sources such as OM journals. When you include these, be sure to include their source (or citation). References may be in either APA or MLA format, and must be noted in the text of the analysis. In other words, do not simply provide a list of references; make sure you indicate where they were used in your analysis. If found on the Internet, provide the URL; however, you should limit your Internet sources to no more than 5.

Note: Plagiarism is defined as "representing as one's own work the work of another without appropriately acknowledging the source."⁴ Please make certain that your work clearly acknowledges that of others. Plagiarism is a serious violation of academic honesty and may result in a failing grade and possibly more severe action. The university does not institutionalize plagiarism by acknowledging, excusing or condoning ignorance under the rubric of "unintentional plagiarism." If you are unsure how to recognize and avoid plagiarism, please take the time to review the plagiarism tutorial on BlackBoard.

⁴ Source: MLA Style Manual

The following rubric is intended to provide a *qualitative guideline* regarding your case analysis:

		Weight	C	B	A
Paper	Introduction	5%	Presents only information that is in the case write-up.	Performed independent research on company to provide additional information.	Thoroughly reviewed company/competitor situation at time of case.
	Problem definition	15%	Simply restates or lists issues raised in case. Identifies symptoms instead of problems.	Goes beyond issues raised in case to identify root causes.	Identifies root causes of problems and the data needed to analyze them.
	Analysis	25%	Analysis is general in nature and does not incorporate any quantitative methods.	Analysis includes quantitative methods, but ignores economic considerations.	Analysis uses analytical tools well and reflects appropriate economic considerations.
	Recommendations	25%	Recommendations are vague, general in nature, lack analytical support, and do not include a plan of execution.	Recommendations are clear and have some analytical support. Plan of execution is vague.	Recommendations flow logically from analysis, have strong supporting data and a clear plan of execution.
	Proper spelling, grammar & citations*	5%	Multiple misspellings, improper word selection (e.g., to/too, there/their), poor grammar, etc.	Occasional misspellings or other grammar/punctuation issues.	No spelling, punctuation or grammar errors.
Presentation	Integration	10%	Limited application of course topics in analysis or recommendations.	Some inclusion of course topics or methods in analysis/recommendations.	Analysis/recommendations based on course topics or methods as appropriate.
	In-class discussion**	15%	Excessive use of slides/too much text on slides. Speaker transitions at times awkward; not clear who should answer questions.	Reasonable number of slides; uses text and graphics appropriately. Smooth transition between speakers and answering questions.	Integrates multiple media and makes an impact. Limited number of speakers, but team is cohesive when answering questions.

* Any plagiarism will result in a grade of zero on the assignment and may subject the author(s) to additional academic penalties.

** In addition to your case grade, part of your individual class participation grade will be based on your discussion of cases other than the one you present in class.

VII. Academic Integrity

Let me speak to you frankly about your “value proposition”; in other words, what is the market value of your MBA? Your degree is a reflection not just of your effort at UH, but also the efforts of your classmates. If any student can obtain an MBA by simply coming to class, putting in minimal effort and/or freeloading on homework assignments, then a UH degree will not be very valuable. Employers recognize this because they have to deal with employees who are poorly equipped to do the critical thinking and analysis they need because they only did the minimum to get by. As the perceived value of a UH degree goes down, so too do your long-term career prospects.

All students are expected to be familiar with the University of Houston Academic Honesty policy that is published in the undergraduate catalog. In particular, the following four principles apply to this class:

- All homework assignments and exams should reflect *your own effort only* (except as noted above for homework assignments where work with other students is documented). Discussion with others from another section about graded submissions is a violation of the Academic Honesty Policy.
- ***Passing case notes and class handouts to students who have yet to take the course, who attend a different section, or receiving material from those who took the class in the past, is strictly prohibited.***
- Plagiarizing (the misrepresentation of work done by others as being one’s own work) is a violation of the Academic Honesty Policy. Remember to cite all sources of information and ideas to prevent problems.
- You may *not* submit the same work (or substantially similar work) to meet the requirements of more than one course without the written consent of all instructors concerned.

VIII. Teaching Philosophy

My teaching philosophy is based on the goal of leading you to develop skills that will help you achieve success in your professional careers and personal lives. I spent most of my career working in industry and I know first-hand how important it is to have intellectual curiosity matched with an ability to critically analyze the issues faced by organizations large and small. I believe that your education should be focused on more than just learning the contents of the textbooks we use. You must understand and be able to articulate the knowledge you gain before you can apply it successfully.

I will challenge you to think critically about the problems we discuss, and I will help you develop both an intuitive understanding of problems and a systematic approach to solving them. Realizing that all of you have diverse learning styles I will try to engage you in a number of ways to help you gain a better understanding of the subject at hand. For me teaching is an opportunity to provide you with some of the advantages I have received in my education and career, and I consider it a privilege to pass on what I have learned.

IX. Accommodations for Students with Disabilities

My objective is to help all students achieve their highest potential in the Bauer College of Business. If you need to receive accommodation in the classroom, on exams or with assignments, please make arrangements with me prior to the exam or assignment. You can also contact the Justin Dart Center for Students with Disabilities (713-743-5400) in order to obtain assistance. Services provided by the Center for Students with Disabilities include assistance with course accommodations, adaptive equipment, individualized exam administration, taped textbooks, wheelchair repair, library needs, handicapped parking, as well as many other needs.

X. Detailed Class schedule

An outline of the semester topics, readings and case studies, and in-class exercises is presented below. Please refer to the detailed summary on BlackBoard for more information regarding the articles and case studies.

SCM 7380 Enterprise Operations & Business Intelligence Tentative Class Schedule Fall 2013

	Date	Topic	Reference	Reading/Case	Assignment
August	27-Aug	Syllabus and course overview; Business processes and ES	M & W, Ch. 1, 2	<i>Enterprise systems and the supply chain</i> , Journal of Enterprise Information Management, 17 (1) 2004, 8 - 19.	
September	3-Sep	Relational databases Accounting in SAP, SAP nav	M & W, Ch. 3		
	10-Sep	Procurement process	M & W, Ch. 4	F: KL Worldwide Enterprises (9B05E023)	
	17-Sep	Fulfillment process Intro simulation Q1	M & W, Ch. 5	A: Digital China: ERP as a Platform for New Capabilities (9-302-080)	
	24-Sep	Production process Intro simulation Q2	M & W, Ch. 6 Leger et al., Ch. 1 - 2	B: Indian Oil: Project Manthan (9B04E002)	
October	1-Oct	MRP process Intro simulation Q3	M & W, Ch. 8 Leger et al., Ch. 1 - 2	G: Ongoing maintenance cost benefit analysis (Big Valley) (906E12)	
	8-Oct	Exam #1: Fundamentals of Enterprise Operations			GBI quizzes due
	15-Oct	Business Intelligence Extended simulation Q1	Leger et al., Ch. 3 - 6	<i>Competing on Analytics</i> , HBR 84 (1), 98 - 107 Powerpivot tutorial	
	22-Oct	Descriptive analytics Extended simulation Q2	Leger et al., Ch. 3 - 6	C: BI Strategy at Canadian Tire (903E19)	
	29-Oct	Extended simulation Q3	Leger et al., Ch. 3 - 6	D: Moore Medical Corporation (9-601-142)	
November	5-Nov	Extended simulation Q4	Leger et al., Ch. 3 - 6	E: Esterline Technologies: Lean Manufacturing (9-906-417)	
	12-Nov	Predictive analytics	Tyson Foods regression Sam's Club Market Basket	H: Constructing an e-Supply Chain at Eastman Chemical (HKU222)	
	19-Nov	Prescriptive analytics SAP HANA		<i>Big Data: The Management Revolution</i> , HBR 90 (10), 60 - 68 Financial statements; Preparing Annual Reports	BI quizzes due
	26-Nov	To be determined			
December	3-Dec	Exam #2: Cash to cash cycle and Business Intelligence			
	17-Dec	Annual Reports Presentations			

Note: The University of Houston academic calendars are published a year in advance, and show the date of finals week and the end of the semester. Travel plans prior to the end of the semester can not be used as a reason to request a makeup exam or excused absence.

Revised: 8/12/2013