

Fall Semester 2011

BusM 361: Introduction to Supply Chain Management

Section 4 (TTh 12:30-1:45pm in W310 TNRB)

Section 5 (TTh 2:00-3:15pm in W308 TNRB)

rev 8/29/11

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Course website: <http://361.byu.edu/>
Office Hours: Tuesdays 3:30-5:00pm, by appointment.

Description:

Supply chain management addresses many issues of importance to today's managers. These issues include strategic concerns such as competitiveness, the globalized economy, productivity, quality, technology, product and service design, and employee motivation. Supply chain management stresses problem solving to improve managerial decision-making. However, this course is much more than simply utilizing quantitative methods to solve business problems. Emphasis will also be given to applying concepts, discussing theory, and addressing behavioral issues in management.

Learning Outcomes:

- Identify what operations and supply chain management are, what makes them work, and their impact on world economies.
- Be able to think critically about challenging operations and supply chain management issues, including issues with ethical implications.
- Demonstrate basic analysis techniques that can be used to help make managerial decisions.
- Demonstrate the ability to coordinate and accomplish a team project.
- Communicate critical issues of supply chain management in a compelling way.

Course Materials:

- *Operations and Supply Management: The Core*, Second Edition, by Jacobs and Chase, published by McGraw-Hill.
- The following two course readings can be accessed via the course website:
 - Sampson, S. E. (2011). Visualizing Service Operations.
 - Normann, R., and Ramírez, R. (1993). From value chain to value constellation: Designing interactive strategy. *Harvard Business Review*, 71(4), 65-77.

Course Components

Individual Activities

- 100 Class participation
- 100 Quizzes (6 quizzes, drop lowest)
- 50 Online quantitative tutorials (on time and correct)

Individual Exams

- 150 Unit Midterm Exam #1 – September 29th
- 150 Unit Midterm Exam #2 – November 3rd
- 200 Cumulative Final Exam – see University schedule

Team Activities

- 200 Team Project (presentation and write-ups)
 - 40 Team Case write-ups
 - 10 Gem
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- 1000 Possible points for the course

Specifics:

Class participation is assessed by student attendance, demonstrated willingness to participate in class discussions, and quality of contributions to class discussions. For some class days there will be team exercises; you need to be there and participate to get credit for it.

Any student can miss class two times without grade penalty, but that does not count missing quizzes. Quality class participation and attentiveness is particularly important the day of guest speakers.

Quizzes will be on textbook reading, will generally be unannounced, and will occur at the very beginning of class. One quiz will be dropped, such as in case of missing class due to an excused absence. If multiple excused absences are anticipated, see me as soon as possible to discuss.

Online quantitative tutorials will introduce operations analysis tools. The online tutorials are the basis for exam questions, and the quantitative material in the textbook can supplement. The quantitative problems on the exams will be based on the online tutorials, not on the textbook.

Unit midterm exams can be taken in the testing center any time on the scheduled day, or the day following with a fee. They typically take about an hour (or less), but you are only limited by operating hours of the testing center. The midterm exams will not be cumulative, other than as one topic draws on a prior topic.

The **final exam** will be in class at the designated time (see the University Final Exam schedule). It will be cumulative, but with about half of the exam on material covered after the prior exam, including any student article presentations. Time limit will be 2 hours 55 minutes.

Prepare for the exams by doing the assigned reading and studying, and completing the assigned exercises, and being attentive in class. The online tutorials will help you prepare for the exams.

If you feel you need more problem practice, you can complete book problems similar to the tutorial problems. If you want even more practice problems, see me.

Team projects involve study, analysis, a write-up, and a presentation. Teams are organized by the undergraduate office. Project options are described below.

Gems are short presentations that relate a gospel principle to the class material. Each team will present one gem. These are limited to 5 minutes and need not involve the entire team. These will typically be at the beginning of class, and the team providing the Gem should ask someone to offer a class prayer. Gem schedule is included in the schedule below.

Doing the Online Quantitative Problem Tutorials

The educational purpose of tutorials is to develop analytical skills and experience solving operations and supply chain problems. Three problem tutorials will be due on certain class days on the schedule. The problem tutorials are on fundamental analysis problems you will need to know for the exams. The tutorials are completed online, by going to the course home page.

Your results must be submitted there **by 10:00pm** the day the tutorial is due, according to the clock on the tutorial list webpage. Tutorials become available to work on one week before they are due.

At the end of each tutorial, you must report how much of the problem you completed, and how many sub-answers you got correct. In other words, it is self-graded, and thus relies on the honor code.

Since the Problem Tutorials are out-of-class assignments, there will generally be no makeup allowed. You should anticipate the potential for technical problems, such as computer problems.

THREE tutorials are due for each set. Tutorial due dates are as follows...

- **Queuing theory:** que-1 que-2 and que-3 due by 10:00 pm on Fri 9-Sept-2011.
- **Forecasting methods:** fcst-1 fcst-2 and fcst-3 due by 10:00 pm on Fri 23-Sep-2011.
- **Cycle time calculation (product layouts):** ct-1 ct-2 and ct-3 due by 10:00 pm on Fri 7-Oct-2011.
- **Statistical Process Control:** spc-1 spc-2 and spc-3 due by 10:00 pm on Fri 14-Sep-2011.
- **Project management (CPM/PERT):** proj-1 proj-2 and proj-3 due by 10:00 pm on Fri 21-Oct-2011.
- **Location planning models:** loc-1 loc-2 and loc-3 due by 10:00 pm on Fri 28-Oct-2011.
- **Inventory theory:** inv-1 inv-2 and inv-3 due by 10:00 pm on Fri 18-Nov-2011.

Team Project

The educational purposes of the team projects are to explore operations issues faced by actual businesses and enhance the coverage of specific class topics. Each team has the option of doing either a Service Operation Analysis Report or an Advanced Topic Article Review.

Option 1: Service Operation Analysis

The first option involves studying an operating process at a local business, and reporting on the process design, the value proposition, the quality assurance strategy, and process innovation opportunities. Your team needs to visit the business, interview a manager, collect information, conduct process analysis, and prepare/deliver a presentation. Guidelines and an example of process analysis are provided in the PowerPoint file (from course website):

PCN-Analysis-Exercise-with-airline-example.pptx

Parts 1, 2, 3, 4, and 6 are required for your process analysis, which should be turned in before your presentation (part 6 is not optional).

The presentation should introduce the business, describe the process, describe operational problems that could occur in the process, and describe a strategy for effectively handling the problems using one or more concepts covered in the course. You must also provide a 2 to 4 page project summary that describes (1) what your project was about, (2) how each team member contributed to the project, (3) how you collected information for your analysis, and (4) what significant observations came from your analysis that pertain to course topics.

Option 2: Advanced Topic Article Review

The second option involves studying an article on an advanced topic and teaching the class about that topic, using at least one major example/case study involving a real business operation. The articles are selected from the list in Appendix A, with at most one team per article. Selection must be made by September 15th, and teams will chose in a random order as directed.

The presentation does not need to cover every aspect of the article, but one or a few major points. In particular, the presentation needs to be value added, meaning that it provides clarity and example(s) above and beyond what is provided in the article. The team needs to provide each class member with a one-page executive summary of the article that helps students grasp the major points of the presentation. You must also provide a 2 to 4 page project summary that describes (1) what your project was about, (2) how each team member contributed to the project, (3) how you gathered information pertaining to your case study(s), and (4) what significant observations came from your case study that pertain to the article topic.

Project presentation

Presentations will be at the end of the semester on an assigned day. The presentation must be 12-15 minutes in length, with grade penalties for being outside that time. Be prepared to answer questions from the instructors and the students after the presentation time.

You are free to use video or PowerPoint as desired. Your presentation should be interesting and informative. A key to success is **rehearsing** your presentation sufficiently before the assigned day. It is inevitably a painful experience for both the team and the class to have the first run-through of a presentation be in front of the class. The safest bet is to schedule a time before

Thanksgiving to run through your presentation in front of Dr. Sampson and get feedback. (This opportunity requires not procrastinating the preparation of your presentation.)

One or more of the team members may actually give the presentation, but every team member **MUST** participate in preparing the presentation. The entire team must be available at the end of the presentation to answer any questions from the class. Any questions should primarily be answered by team members who did not deliver the presentation.

At the start of the presentation, the team should provide the *instructor* with a printout of mini-slides if PowerPoint is used. Presentations will be evaluated as described in Appendix B.

Project summary

Each team must provide a 2-4 page project summary as described above. These are due at the beginning of the last day of class. The purpose of the project summaries is to help assess how students contributed to and learned from the projects.

Citizenship

Please don't eat in class, unless you bring some for everyone. Please do not talk on your cell phone in class, unless you let everyone talk. Marriott School policy prohibits the use of computers and phones in class unless specifically authorized by the instructor. Besides being a deplorably unprofessional habit, random use of electronic devices in class (or other professional settings) can lead to and indicate inattention, which in turn can result in a participation grade penalty. Talk to the instructor or TA about this if you have concerns about this.

The Honor Code is one thing that helps make BYU distinctly great. While we by no means have a monopoly on values and honor, we do have a particular charge to uphold the high standards adopted by the university. This includes many things. Don't cheat—cheating damages the integrity of the perpetrator and the institution. Be aware of unlawful sexual harassment or discrimination. If you encounter such behavior, please talk to me or contact the campus EEO Office (422-5895) or the Honor Code Office (422-2847).

Finally, we owe it to ourselves to do our best. Many people have made great sacrifices so that BYU can be here and so that we can be at this great institution. I have put a great deal of time into this course, and will do my best to provide a good learning environment. I ask that you also do your best to take advantage of the learning opportunities.

Appendix A: Advanced Topic Readings

Dasu, S., and Chase, R. B. (2010). Designing the Soft Side of Customer Service. *Sloan Management Review*, 52(1), 33-39.

Frei, F. X. (2006). Breaking the trade-off between efficiency and service. *Harvard Business Review*, 84(11), 93-101.

Hart, C. W. L. (1988). The Power of Unconditional Service Guarantees. *Harvard Business Review*, 66(4), 54-63.

Hart, C. W. L., Heskett, J. L., and Sasser Jr, W. E. (1990). The Profitable Art of Service Recovery. *Harvard Business Review*, 68(4), 148-156.

Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E. J., and Schlesinger, L. A. (1994). Putting the Service-Profit Chain to Work. *Harvard Business Review*, 72(2), 164-174.

Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41.

Appendix B: Presentation Evaluation Criteria

In evaluating the team presentations and write-ups, I will look at three things:

- (1) Insightfulness: Did the presentation provide value-adding insights about important concepts from the course or the article? (i.e., provide more than just regurgitation of facts)
- (2) Presentation quality: Was the presentation interesting, clearly organized, and well rehearsed?
- (3) Information quality: Were the information and answers clear and accurate?

Here is a rubric (including two hypothetical response dimensions)...

Dimension	A	A-	B+	B or lower
Insightfulness	Illustration of important concepts is compelling, insightful, and impactful.	Illustration of concepts is solid and somewhat insightful.	Illustration of article concepts is okay, but not particularly insightful.	Illustration of article concepts is confusing.
Presentation quality	Presentation is very interesting, clearly organized, and obviously well rehearsed.	Presentation is sufficiently interesting, moderately organized, and/or possibly rehearsed.	Presentation is marginally interesting, less than organized, and/or probably not rehearsed.	Presentation is uninteresting, unorganized and/or unrehearsed.
Information quality	Information presented is clear as glass, accurate, and to the point.	Information presented is quite understandable and mostly accurate	Information presented is marginally understandable and somewhat accurate.	Information presented is clear as mud and/or inaccurate.
Instructor's emotional response	"Wow, that presentation rocks!"	"Well, that was quite interesting!"	"That was okay, but could have been better."	"Hmmm. Bring in the oxygen."
Typical student response	"That presentation was brilliant. I am enlightened!"	"Okay, that makes sense and clarifies things. Thanks!"	"That pretty much just confirmed what I got from reading."	"I think I know less as a result of the presentation."

I do not post presentation grades, but interested team members can see me after the presentation.

Schedule

Date	Reading Prep.	Gem team	Primary Class Topic	Fri tuts
T Aug 30	Chapter 1		Operations and SCM	
Th Sep 1	Chapter 2		Operations strategy	
T Sep 6	Chapter 5	1	Service process design	
Th Sep 8	*Sampson article		Service process strategy (PCN) *Sampson 2011 “Visualizing Service Operations” article.	que
T Sep 13	*Normann & Ramirez article		Service Value Network strategy *Normann and Ramirez 1993 “From value chain to value constellation” article. Read pages 65-69.	
Th Sep 15	Chapter 3 *Shouldice	2	Capacity (Honeywell guest) *Each team needs to prepare PCN Analysis of the Shouldice case on pages 60-61.	
T Sep 20			Rootbeer game (meet in 710 TNRB)	
Th Sep 22	Chapter 11		Forecasting	fcst
T Sep 27		3	catch-up and review	
Th Sep 29			Midterm exam #1	
T Oct 4	Chapter 4		Bottlenecks	
Th Oct 6		4	Quality	ct
T Oct 11	Chapter 6		Tabletop Experiments (meet in W408)	
Th Oct 13		5	Service Quality	spc
T Oct 18	Chapter 7	6	Project management	
Th Oct 20	*wedding	7	SPC and PERT *Each team needs to prepare wedding case analysis to turn in – case posted on course website.	proj
T Oct 25	Chapter 8	8	Strategic Sourcing (purchasing power activity)	
Th Oct 27	Chapter 9	9	Logistics	loc
T Nov 1		10	catch-up and review	
Th Nov 3			Midterm exam #2	
T Nov 8	Chapter 10	11	Lean	
Th Nov 10			Gazogle activity. Sections 4&5 will meet together from 12:30-3:15 in W408 TNRB. See me beforehand if that is a problem.	
T Nov 15	Chapter 13	12	Lean Services	
Th Nov 17		13	Inventory management	inv

Date	Reading Prep.	Gem team	Primary Class Topic	Fri tuts
T Nov 22	<i>Friday instruction</i>			
Th Nov 24	<i>Thanksgiving</i>			
T Nov 29			Team Presentations	
Th Dec 1			Team Presentations	
T Dec 6			Team Presentations	
Th Dec 8			Celebration and review. Project summaries due.	
	Final exam in class at designated time – see University Schedule.			

Note that this schedule is subject to change if some other great opportunity comes up. If you ever need to miss class be sure and check with your teammates about any class announcements. Changes and supporting information will also be posted on the course webpage, as necessary.