



**OM 726: Adding Value through Operations and Technology
Summer 2016 Class Schedule**

Session	Date	Day	Discussion/ Case	Reading
1	7/11	M	Paper Puppets	Note on Operations Strategy
2	7/13	W	<i>University Bookstore</i>	Process Analysis Note
3	7/18	M	<i>Sportswear</i>	
4	7/20	W	<i>Sof-Optics</i> (Exhibit 8 posted on QuestromTools)	Observation Project Outline Due (see form at end of syllabus)
5	7/25	M	Manzana (Exhibits posted on QuestromTools)	Note on Services and Service Quality
6	7/27	W	Managing quality, quality costs	Contribution of Quality Theorists Note on Quality Tools NUMMI http://www.thisamericanlife.org/radio-archives/episode/403/nummi ; listen to the This American Life episode and be ready to discuss.
7	8/1	M	<i>Southeastern Mills: The Eighth Element</i>	Note on Six Sigma
8	8/3	W	MIDTERM EXAM: Process analysis/quality	
9	8/8	M	Managing projects, project crashing, earned value	Note on Project Management <i>RosenRen Technology Product</i>
10	8/10	W	<i>Toyota Motor Manufacturing, USA, Inc.</i>	Note on Inventory and Supply Chain Management Note on Lean Operations
11	8/15	M	<i>Managing Orthopaedics at Rittenhouse Medical Center</i> <i>TAL Apparel, Ltd.</i>	"The Innovation Catalysts"
12	8/17	W	<i>Managing Innovation at Nypro (A)</i> PRESENTATIONS	Note on Operations Strategy (review) Observation Project Papers Due; Peer Evaluations Due (see form at end of syllabus)
13	8/22	M	<i>Apple Inc.: Managing a Global Supply Chain</i> <i>The Tesla Roadster (A)</i>	
14	8/24	W	FINAL EXAM	

* Please bring a laptop or notebook computer for classes designated .



**OM 726: Adding Value through Operations and Technology
Summer 2016**

Instructor: Janelle Heineke
Office: SMG 669a
Office Phone: (617) 353-2919
Home Phone: (508) 429-8582
e-mail: jheineke@bu.edu
Office Hours: M/W 5:00-6:00 or by appointment

OM 726 is about adding value in an organization using technology to enhance a number of activities. These activities are typically referred to as *production, operations, processes* or just plain *work*. In more technical terms, Operations Management is concerned with the efficient and effective transformation of inputs into outputs. Some examples of inputs are materials, labor, land, capital, time, information and management. Outputs include products, services or information that customers need. Value is added only when the output meets the needs of customers, both internal and external.

OM 726 is built around **three major content modules**: process analysis and improvement, inventory and supply chain management, and operations strategy. Process analysis comprises skills and techniques that enable managers to design and manage work processes within the organization to achieve both efficient use of resources and effective performance outcomes. Inventory and supply chain management elevates process analysis to an inter-firm level, enabling managers to deliver better services more quickly and at lower cost. Operations strategy links the value-adding activities of the organization to its overall strategy.

COURSE OBJECTIVES

Our objective in this course is to build your ability to:

- Identify the value-adding steps of a process at the intra- and inter-organization levels.
- Understand the complex nature of transformation and improvement processes.
- Recognize and evaluate the problems that exist in a given process.
- Organize and support your understanding through quantitative analysis.
- Develop an organized plan for improving the value-adding and improvement processes.

REQUIRED MATERIALS

- Materials posted on QuestromTools.
- Course packet available in Questrom Copy Center
- A laptop, to be used for classes indicated on schedule (📁).

PERFORMANCE EVALUATION

The following evidence will be used to determine your grade:

- Contribution to class (class participation) 10-25%
- Process analysis field observation write-up (team) 15-25%
- Process analysis midterm exam 15-30%
- Comprehensive final exam 20-35%

- **Class Participation**

Because participation is a prerequisite to learning and attendance is a prerequisite to participation, class attendance is required. Please inform me if you know in advance that you will need to miss a class. **More than two absences** will influence your participation grade.

Regularly engaging in discussion of cases and readings, asking questions that lead to better understanding of a concept by the class as a whole, clarifying concepts, and sharing professional experience about course topics constitute superior class participation and contribute to our collective learning.

- **Process Analysis Field Observation Write-up**

Your performance on the assignment will be assessed as a team, although individual member contribution to team performance will also be reflected in the assignment grade. Your paper should include:

1. A description of the organization.
2. Information about the customers. Who are they? What are their expectations?
3. The objectives of the process. How does management use this process to achieve or maintain competitive advantage?
4. When you observed and why you chose those times.
5. A thorough analysis of the existing workflow. How does the process transform inputs into outputs? Prepare a detailed process flow diagram and perform appropriate process analysis (task times, cycle time, throughput time, waits, capacity, capacity utilization, etc.). **A thorough analysis will include charts and graphs!**
6. Your evaluation of the effectiveness of the process. How well does the current process satisfy customers?
7. Your observations of the behavior of customers/workers.
8. Your recommendations for improvement in product/service delivery. How can the organization better design and manage the process you observed? Use a quality model for framing your recommendations (you will learn several quality models that might be appropriate).

Paper Specifications

The text of the Observation Paper should be no longer than five pages, single-spaced with double spacing between paragraphs (no smaller than 11-point font with one-inch margins all around) and pages numbered. You may append as many exhibits as you wish as long as you refer to them in the text of the paper. Sources for all outside materials should be cited appropriately. Every exhibit should have a title and a caption. See the “Note on Business Writing” posted on SMGtools.

Presentations

Each team will prepare a brief “executive summary” presentation, which should include the following four slides:

- Title slide, with organization name and team members.
- Organization description.
 - Name.
 - Strategy.
 - Competitors.
- Description of process observed.
 - Process flow diagram.
 - Task times, capacities, capacity utilizations.
- Key learnings.
 - What was challenging about the project.
 - One key learning take-away.

Please submit ***one hard copy*** (stapled in upper left corner; no covers, please) and ***an electronic copy*** of the paper and the presentation slides.

OM726 Summer 2016 Detailed Assignments

Session	Case/Reading	Assignment
1	Note on Operations Strategy	Read Note.
	Paper Puppets	No preparation required.
2	Process Analysis Note	Prepare questions at end of Note.
	<i>University Bookstore (A & B)</i>	Prepare questions at end of cases.
3	<i>Sportswear</i>	<ol style="list-style-type: none"> 1. Draw a process flow diagram of the production process at Sportswear. What is the current capacity in units/day? 2. At 300 units per day, what is the capacity utilization at each step in the process? 3. If demand doubles, how much more equipment will be needed? How many more people? What factors should be considered before adding the equipment? 4. Should Leslie purchase Sportswear? Why or why not?
4	<i>Sof-Optics</i>	<ol style="list-style-type: none"> 1. What is the capacity of the Customer Service Department? Compare it to anticipated demand. 2. How much capacity does Langstaff need now? In six months? One year? Think about both equipment and people. How do they interact? 3. What actions can Langstaff take to meet demand? Assume 1980s technologies. 4. It is now 2016. How would you plan Sof-Optics' customer service now? How are the challenges the same as those faced in the 1980s? How are they different?
5	Note on Services and Service Quality	Read Note
	<i>Manzana</i>	<ol style="list-style-type: none"> 1. Who are the customers at the Manzana Insurance-Fruitvale Branch? What do they want? 2. Does Manzana-FB meet customers' expectations? How about Golden Gate? 3. Does Manzana-FB have enough capacity to meet the requirements? Is it adequately allocated? 4. If you were Bill Pippen, what specific prioritizing rule would you have your staff follow?
6	Contribution of Quality Theorists Note on Quality Tools	<p>Read notes. We will work on the questions at the end of the Quality Theorists Note together in class.</p> <p>NUMMI http://www.thisamericanlife.org/radio-archives/episode/403/nummi); listen to the <i>This American Life</i> episode and be ready to discuss.</p>
7	Note on Six Sigma	Read Note.
	<i>Southeastern Mills: The Eighth Element</i>	<ol style="list-style-type: none"> 1. How do the elements of the HPWP system reinforce each other and contribute to the company's success? 2. Which of the two basic options for building a more centralized process improvement management system would you recommend? Why? 3. Should SEM add the eighth element? Why or why not?
8	MIDTERM EXAM	

Session	Case/Reading	Assignment
9	Note on Project Management	Read Note.
	<i>RosenRen Technology Product</i>	Read case. We will work on the questions at the end of the together in class.
10	Note on Inventory and Supply Chain Management Note on Lean Operations	Read Notes.
	<i>Toyota Motor Manufacturing</i>	<ol style="list-style-type: none"> 1. As Doug Friesen, what would you do to address the seat problem? Where would you focus your attention and solution efforts? 2. What options exist? What would you recommend? Why? 3. Where, if at all, does the current routine for handling defective seats deviate from the principles of the Toyota Production System?
11	Note on Operations Strategy	Review Note.
	<i>TAL Apparel, Ltd.</i>	<ol style="list-style-type: none"> 1. What are the dynamics of the apparel value chain? 2. What are the roles and relationships in the apparel industry value chain? 3. Does has IT enabled TAL to integrate and synchronize its operations with those of its customers? How does that contribute to its competitive advantage? 4. What are the benefits and impacts of VMI and Made-to-Measure?
	<i>Managing Orthopaedics at Rittenhouse Medical Center</i>	<ol style="list-style-type: none"> 1. What is your assessment of the 3B Orthopaedics model compared to the typical procedures performed by faculty practice surgeons? What are the criteria for your assessment? 2. What are the two sources of conflict between the two models of care? How might they be reduced? 3. How should Neela Wilson respond to Dr. Booth?
12	<i>Managing Innovation at Nypro (A)</i>	<ol style="list-style-type: none"> 1. What is the process employed at Nypro to identify and standardize upon important innovations? 2. Can you make any generalizations about what sorts of innovations are likely to thrive within Nypro's "internal marketplace" for technologies? What sorts of innovations are likely to languish? 3. How should Lankton roll out the Novaplast technology?
	"The Innovation Catalysts"	Read article.
		Submit paper and slides electronically before start of class. Each team member should submit the Peer Evaluation form (last page of syllabus).
13	<i>Apple Inc.: Managing a Global Supply Chain</i>	<ol style="list-style-type: none"> 1. How important is supply chain management for a company like Apple? Why? 2. "Apple is in the design business, not in the manufacturing business." Is that the only competitive advantage Apple has? What about SCM? 3. Can Apple get away with great product design but mediocre SCM? Why or why not?
	<i>The Tesla Roadster (A)</i>	Answer questions at the end of the case.
14	FINAL EXAM	



**OM 726: Adding Value through Operations and Technology
OBSERVATION PROJECT OUTLINE**

Team members	
Company name	
Location	
Customers	
Competitors	
Competitive priority (cost, quality, flexibility, delivery, service?)	
Process to observe	
Data anticipated (What data do you plan to collect?)	



Midterm Self-Assessment of Class Participation

Please assess your class participation so far. Include a sentence or two on the quality and the quantity of your participation and give yourself a grade for each and an overall grade (so far).

Name:

Assessment:

Quality Grade:	A	A-	B+	B	B-	C+	C
Quantity:	A	A-	B+	B	B-	C+	C
Overall: Grade:	A	A-	B+	B	B-	C+	C

PEER EVALUATION

Evaluate each member of your team, INCLUDING YOURSELF, on participation in the team project tasks and team learning.

You have **ten points for each member** of your team **for each category**, to be distributed among team members according to your assessment of their contribution to the project.

For example, if there are five people on your team (including yourself) you have $5 \times 10 = 50$ points to distribute among team members in each column below. If all team members contributed equally, you would distribute the points equally, and each individual would receive 10 points. If, however, individual contributions were not equal, the total points should be distributed to indicate which team members contributed either more or less than average to the team's efforts. More points indicate higher contribution.

This evaluation will be used to make *gross* adjustments when contributions are not equal.

Name (please print)	Contribution to Project Task	Contribution to Team Learning
Yourself		

Explanation or comments: