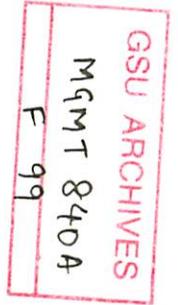


GOVERNORS STATE UNIVERSITY  
College of Business and Public Administration



Course: MGMT 840-A

Course Title: Operations Management Strategies

Session: Fall 1999 (Block 1)

Instructor: Mary Kay Shutt

Contacts: Phone: 773-282-3627  
Fax Number: 773-481-2776  
E-mail: mkshutt@stuart.iit.edu

Office Hours: Tuesday 7:00 PM to 7:30 PM in the classroom,  
Monday 6:00 PM to 8:00 PM and Tuesday 2:00 PM to  
4:00 PM by phone.

Credit Hours: 3

Catalog  
Description: Includes the study of analytical methods in  
production and the design of production systems.  
Emphasizes the major economic problems of  
production management, mathematical programming,  
statistical analysis, inventory analysis, and  
certainty models.

Prerequisites: MGMT 301 and STAT 362

Textbook: Production and Operations Management by Chase,  
Aquilano, and Jacobs (8th edition)

Instructional  
Mode: Lecture and some discussion.

Expected Student Outcomes:

1. Understanding the design of operations systems and the relationships between system design, operating procedures, and productivity.
2. Developing a feel for the problems involved in the daily management of operations systems.
3. Gaining an appreciation for the relationships between operations/manufacturing, the other functional areas within a firm, and corporate strategy.
4. Having a working knowledge of tools and techniques used to analyze operations system problems, and to use those tools and techniques to develop recommendations for process improvements.

Course Content:

• Outline

<u>DATE</u>	<u>TOPICS</u>	<u>READING DUE</u> Chapter:	<u>CASE STUDY DUE</u>	<u>PRACTICE PROBLEMS</u>
8-31	Introduction and History	1		
9-7	Operations Strategy and Competitiveness	2	L. A. Toy Company	
9-14	•Product Design and Process Selection -- Manufacturing •Product Design and Process Selection -- Service	4 and 5		
9-21	Waiting Line Management	Supplement 5		S5: 1,11,13,18
9-28	Forecasting	13		13:16,17,20
10-5	Strategic Capacity Planning	7	Shouldice Hospital	
10-12	Aggregate Planning	14		14:4,5
10-19	Examination 1			
10-26	Project Planning	3	The Campus Wedding, A & B	
11-2	Inventory Systems for Independent Demand	15		15: 3,7,11,15
11-9	Inventory Systems for Dependent Demand	16		16:4,9
11-16	•Facility Layout •Operations Scheduling	10 and 17		10:7,9 17:3,7 (use SOT and Due Date, not Critical Ratio)
11-23	Quality Management	6	Hank Kolb	
11-30	Just-in-Time Production Systems	8		
12-7	Examination 2			

• Evaluation

Requirement

Examinations	60%
Case Studies	30%
Class Participation	10%

•• Examinations:

Each examination will be made up of quantitative problems and short essay questions. The quantitative problems will be drawn from the material in the textbook, and will be similar to the "practice problems" listed in the schedule. Although none of those problems are being assigned as homework, they do afford an excellent opportunity to assure yourself that you understand the material and are prepared for the examinations. The short essay questions will be drawn from textbook, lecture, and case study material. The first examination will cover material from the first half of the term, the second examination from the second half of the term.

Examinations will be closed book and closed notebook. You may use calculators and one one-sided page (8½" x 11") of prepared notes.

•• Case Studies:

Four case studies are assigned in the schedule. Guidance on the write-up due for each of the case studies is provided in a separate hand-out. The purpose of the assignments is to help you organize your thoughts about the case and about the material in the chapter related to the case, and to prepare you to contribute to the case study discussion we will have in class. I hope that case study will serve as a starting point for a wider class discussion of the issues raised in the case. I encourage you to share "real life" (or, more technically, "real work") experiences that relate to the case study, so that we can all learn, not only from the textbook but from each other.

•• Class Participation:

Points assigned to you for class participation will reflect attendance, participation in the discussion of the case studies and in other in-class exercises, and value-added contributions to the general class discussions.

- General Policies

- Assignments will be collected in class on the dates indicated in the class outline. Late assignments will be scored with a *maximum* of 80% of the points originally associated with the assignment.
- No make-up examinations will be given except in a proven medical emergency.
- To satisfactorily complete this class, you must perform satisfactorily in all of the requirements. Therefore, no extra credit work will be assigned.

General Education Issues:

This course incorporates mathematical skills and analytical thinking through the examinations, written and oral communication skills and critical thinking through the case studies, and teamwork through in-class exercises.

Syllabus Statement for Persons with Disabilities:

It is the intention of the institution to support full participation of all students, regardless of physical ability level. Therefore, if any student needs consideration of his/her physical abilities in order to complete the course, please notify the instructor as soon as possible.

## CASE STUDY ASSIGNMENTS

**General Instructions**

1. Case write-ups should not exceed 3 double-spaced typewritten pages. The page count does not include any exhibits (tables, charts, graphs) you use to support your analysis -- but any exhibit should be referenced in the write-up.
2. The case studies are short, and therefore sometimes painfully lacking detailed information. Feel free to make any assumptions or estimates you need to further your analysis, but i) the assumptions/estimates should be stated in your write-up and ii) the assumptions/estimates can not contradict information given in the case study.

**Los Angeles Toy Company -- Pages 44-45**

1. Identify the key issues/questions facing the Los Angeles Toy Company (LATC).
2. Perform a SWOT analysis for LATC (see NOTE ON SWOT ANALYSIS).
3. Using your analysis, answer the two questions at the end of the case. Justify your answer to Question 2. Feel free to propose alternatives to the options listed in Question 2, if you can support them by your analysis.

**Shouldice Hospital -- Pages 288-290**

1. Identify the key issues/questions facing Shouldice Hospital.
2. Perform a SWOT analysis for Shouldice.
3. Determine the capacity utilization rate for beds for each of the three options (Option 1: Maintain current operations, Option 2: Perform 30 operations on Saturday, Option 3: Add another floor of rooms). Note that while the text defines capacity utilization rate as capacity used divided by best operating level, for this case substitute "design capacity" for "best operating level."
4. Determine the annual requirement and availability for the surgeons and the annual requirement and availability for the operating rooms under each of the options.
5. Based on your analysis so far and an analysis of the financial data supplied in Question 4 and below, make a recommendation for Shouldice and explain the rationale behind your recommendation.

Additional financial data:

- Staff costs associated with operations are estimate to be 20% of the cost of the surgeon.
- Cost of adding operating rooms would be \$500,000 per room.

### **The Campus Wedding, A&B -- Pages 77-78**

This case poses a different type of problem than the other three and therefore the General Instructions do not apply.

Instead, prepare a table showing all the activities that will need to be performed prior to the rehearsal dinner. For each activity, show the immediate predecessors, the normal time it would take, the early start time, the early finish time, the late finish time, the late start time, and the slack. Assume that March 31 is Day 0.

### **Hank Kolb, Director of Quality Assurance**

**Pages 229-231**

1. Prepare a cause-and-effect diagram to analysis the problems with the Greasex line. Note that cause-and-effect diagram and fishbone diagram are different names for the same tool, and examples are shown on pages 214 and 232. Use four main categories on your diagram: People, Machine, Material, Method.
2. Identify the key issues/questions facing Hank.
3. Perform a SWOT analysis for Hank.
4. Propose actions for Hank to take immediately, and actions to take over the longer term.

### **NOTE ON SWOT ANALYSIS<sup>1</sup>**

SWOT stands for Strength, Weakness, Opportunity, Threat. Strengths and weakness are generally factors found within the firm. A strength is a resource, skill, or other advantage relative to competitors. A weakness is a limitation or deficiency in resources, skills, and capabilities that impedes performance. Opportunities and threats are generally related to factors found in the firm's external environment -- technological change, government regulations, financial markets, changes in customer needs or supplier capabilities, new competitors. Opportunities are favorable, threats are not.

A SWOT analysis is a simple but powerful tool for strategy development, based on the logic that an effective strategy takes advantage of strengths and opportunities, while simultaneously minimizing or eliminating weaknesses and threats.

---

<sup>1</sup> Pearce and Robinson, Strategic Management, 1988.