

OPERATIONS MANAGEMENT

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COURSE DESCRIPTION

When companies produce and deliver goods or services to meet customer demand, they do so by executing *Operations Management*. In this course, students discover how business operations can be designed, analyzed and improved to lift the performance of any organization, whether it is a bank, a hospital, a resort, or a fashion retailer. The course reveals how process management skills can be used to reduce costs, lower inventories, cut waiting times, improve quality, enhance service levels, and increase revenues and company profits. Specifically, students will gain practical knowledge of process design, demand forecasting, capacity planning, workflow planning and control, production scheduling, and lean operations. With a focus on the basic concepts that govern operations management, the course also provides the necessary foundation to pursue further development in business and supply chain management.

LEARNING OBJECTIVES

After taking this course students will be able to analyze a business management and then recommend operation improvements that significantly improve the value of this management.

More specifically, students will be able to:

- Design processes and plan resource capacities in order to serve customers in a timely fashion while maintaining high productivity
- Understand the role of demand forecasting and generate forecasts using simple techniques
- Determine production plans and inventory policies that increase business value by fulfilling demand while managing cost and limiting investment in working capital
- Describe the impact of production scheduling on business performance and understand how it can be measured and improved
- Describe and understand “lean operations”, a tightly integrated system of best practices for high-performance business management

ASSESSMENT METHODS

Homework Assignments: 20%

Class Presentation & Participation: 20%

Final Exam: 60%

ACADEMIC INTEGRITY

All acts of academic dishonesty (including, but not limited to, plagiarism, cheating, fabrication, facilitation of acts of academic dishonesty by others, unauthorized possession of exam questions, or tampering with the academic work of other students) are serious offences.

All work presented in class must be the student’s own work. Any student caught violating this policy may result in the student receiving zero marks for the component assessment or a fail grade for the course. This policy applies to all works (whether oral or written) submitted for purposes of assessment.

INSTRUCTIONAL METHODS AND EXPECTATIONS

Lectures, Discussions and Presentations

Groupings and Group Size

Please form groups consisting of four or five members. You are encouraged to find your own group members. The group-member list should be submitted to the TA no later than the second week from the starting of this course.

Class Participation & Presentation

Participation is a central part of the learning process for you and your classmates. You are expected to attend the class and complete the pre-class reading. Each group presents a couple of times for exercise problems during the term.

Homework Assignments

Weekly grades homework sets to be assigned each week, to be due the following week, and to be completed by each student individually

Examinations

There will be a final exam. The exam will be closed-book and closed-note. No make-up exams will be allowed without prior permission.

RECOMMENDED TEXT AND READINGS

Text 1: Heizer and Render

Operations Management, Global Edition 11/E
Pearson 2014 ISBN-13: 9780273787075

Text 2: Render, Stair and Hanna

Quantitative Analysis for Management, 11 Edition
Pearson 2012

CLASS SCHEDULE

Week No.	Topic	Readings (refer to text)
8	Introduction to Operations and Productivity Job Sales Talk & Class Introduction	Text 1, Chapter 1
9	Global Environment & Operations Strategy Case Discussion: Supply Chain Network Design	Text 1, Chapter 2 Distributed Notes
10	Project Management	Text 1, Chapter 3 Text 2, Chapter 12
11	Forecasting Demand Regression Models	Text 1, Chapter 4 Text 2, Chapter 4
12	Product Design Case Discussion: Meditech Surgical	Text 1, Chapter 5 Distributed Notes
13	Process Design Linear Programming Modelling Application	Text 1, Chapter 7 Text 2, Chapter 8

14	Location Strategies Network Models	Text 1, Chapter 8 Text 2, Chapter 11
15	Layout Decisions Case Discussion: Barilla SpA	Text 1, Chapter 9 Distributed Notes
16	Aggregate Schedule Material Requirements Planning (MRP)	Text 1, Chapter 13 Text 1, Chapter 14
17	Short-Term Scheduling Waiting Lines & Queuing Theory Models	Text 1, Chapter 15 Text 2, Chapter 13
18	Just-in-Time, TPS, and Lean Operations Managing Inventory	Text 1, Chapter 16 Text 2, Chapter 6
19	Final Exam Review	Distributed Notes