

MANAGEMENT 333 COURSE GUIDE

Operations Management

Text: *Operations Management* (9th edition) – Stevenson

Learning Objectives: To introduce the student to the operations management function and its role in both manufacturing and services. Analytical thinking and problem solving in an operations management environment is emphasized.

Specific Learning Standards emphasized in this course include:

Critical Thinking – analyze operations problems and be able to properly formulate using deterministic and probabilistic methods.

Creative Problem-Solving – be able to convert verbal models into schematic and mathematical models for problem solving and optimization.

Technological Proficiency – demonstrate knowledge of current technology prevalent in the operations area.

Ethics – recognizes ethical dilemmas and is aware of diverse answers to ethical problems

Global Awareness – understand the implications of international competition and cooperation, especially in manufacturing.

Course Specifics – Course prerequisites are QA 233 (or other basic statistics course) and MGMT 310.

The following indicates the learning objectives for each section that should be given the most emphasis in lecture, problem assignments, and testing. Other learning objectives may be covered at the instructor's discretion.

Topic	Learning Objectives to be Emphasized
Introduction to Operations Management	<ul style="list-style-type: none">• Understand the nature of the operations management function within organizations.• Understand the differences/similarities of operations in manufacturing and non-manufacturing settings.• Recognize different types of models and their role in decision-making.
Operations Strategy	<ul style="list-style-type: none">• Be aware of the current state of manufacturing and services in both the U.S. and globally.• Understand the role of operations management within the overall business strategy.• Grasp the formulation of strategy based upon distinctive competencies and processes.
Quality	Comprehend the strategic impact of quality.
Quality Control	Awareness of and use of methods to insure that processes are performing in an acceptable manner.
Product/Service Design	Understand the process of assuring that products satisfy customers
Process Selection	<ul style="list-style-type: none">• Be able to classify firms according to process and understand the strategic implications of each.• Know which alternative is appropriate for given situations.
Capacity	<ul style="list-style-type: none">• Understand the definition of capacity and its role in operations.• Capacity planning• Making capacity decisions.

Layout	<ul style="list-style-type: none"> • Know the types of facility layouts. • Know the factors that affect each type of facility layout. • Understand and be able to perform line balancing.
Work Systems	<p>Understand the implications of:</p> <ul style="list-style-type: none"> • Job design. • Work Measurement • Time Standards.
Location	<p>Factors affecting location decisions for:</p> <ul style="list-style-type: none"> • Manufacturing Plants. • Service Industries. • Supporting Facilities.
Aggregate Planning	<ul style="list-style-type: none"> • Understand intermediate planning involving decisions concerning capacity, employment levels and inventory levels. • Grasp how strategy affects intermediate planning.
Inventory	<ul style="list-style-type: none"> • Understand the purpose and use of inventory. • Recognize the appropriate use of various lot-sizing techniques. • Be able to apply Pareto analysis to inventory management. • Understand the relationships among inventory costs.
Forecasting	<ul style="list-style-type: none"> • Grasp the purpose and implications of long- and short-range forecasting and the pitfalls for each. • Know how to use forecasting techniques and the appropriate use of each.
Just-In-time	<ul style="list-style-type: none"> • Be aware of the current interest in JIT and its benefits. • Understand JIT's impact on the strategy of an organization.
Supply Chain	<p>Understand the implications from movement of materials to and from:</p> <ul style="list-style-type: none"> • Suppliers. • Warehouses. • Production facilities. • Retail Outlets.
Theory of Constraints	<p>Be able to grasp the concept of Theory of Constraints and how it changes the way we use many of the things commonly taught in Operations Management and the College of Administration and Business.</p>
Project Management	<p>Understand the concept of projects, the use of PERT, CPM, and crashing.</p>