Course Description and objectives:

The aim of this course is to able the student to know how to define operation, and differentiate between goods & services, & what the operation management do, how to design the process, and how to improve productivity. To understand the different new technique of manufacturing/operation like JIT & lean production, and select best location, select the best layout, design the competitive goods & services and how to do work measurement, and maintain machine to keep it in working order how to schedule maintenance.

This course will expose the student to the following topics in production management:

First & 2ed. Week

1. Operations and Productivity
   What Is Operations Management?
   Organizing to Produce Goods and Services
   Why Study OM?
   What Operations Managers Do
   The Heritage of Operations Management
   Operations in the Service Sector
   Exciting New Trends in Operations Management
   The Productivity Challenge
   Ethics and Social Responsibility

3ed. & 4th. & 5th. Week

8. Location Strategies
   The Strategic Importance of Location
   Factors That Affect Location Decisions
   Methods of Evaluating Location Alternatives

19. Transportation Models
   Transportation Modeling
   Developing an Initial Solution
   The Stepping-Stone Method
   Special Issues in Modeling
   Retail Layout
   Warehousing and Storage Layouts
   Fixed-Position Layout
   Process-Oriented Layout
5th & 6th. Week

9. Layout Strategy
The Strategic Importance of Layout Decisions
Types of Layout
Office Layout
Retail Layout
Warehousing and Storage Layouts
Fixed-Position Layout
Process-Oriented Layout
Work Cells
Repetitive and Product-Oriented Layout

8th & 9th. Week

16. Maintenance and Reliability
The Strategic Importance of Maintenance and Reliability
Reliability
Maintenance
Total Productive Maintenance
Techniques for Establishing Maintenance Policies

10th. Week 2ed. Exam

10th & 11th. Week

11. Work Measurement
Labor Standards and Work Measurement
Historical Experience
Time Studies
Predetermined Time Standards
Work Sampling
Fixed-Period (P) Systems

12th & 13th. Week

4. Designing Operations
5. Design of Goods and Services
Goods and Services Selection
Generating New Products
Product Development
Issues for Product Design
Time-Based Competition
Defining the Product
Documents for Production
Service Design
Application of Decision Trees to Product Design
Transition to Production
Developing Missions and Strategies
Achieving Competitive Advantage Through Operations
Ten Strategic OM Decisions
Issues in Operations Strategy
Strategy Development and Implementation
Global Operations Strategy Options

14th & 15th Week

15. Just-in-Time and Lean Production Systems

Just-in-Time and Lean Production

Suppliers
JIT Layout
Inventory
Scheduling
Quality
Employee Empowerment
Lean Production
JIT in Services

Books Recommended
Operations Management, Eighth Edition3-
by Jay Heizer - Jesse H. Jones Professor of Business Administration Texas Lutheran
University; Barry Render - Charles Harwood Professor of Operations Management
Crummer Graduate School of Business Rollins College
Publisher: Prentice Hall

2-Production & Operation Management By-William J- Stephenson

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<tr>
<td>First. exam</td>
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