

THE UNIVERSITY OF TEXAS AT DALLAS
School of Management
Box 830688, Richardson, Texas 75083-0688

BA3352 PRODUCTION MANAGEMENT
Spring 2002, Section 501
Dr. Chelliah Sriskandarajah

- **Objective:** Production/operations is a dynamic discipline. It involves with the integration of numerous activities and processes to produce products and services in a highly competitive global environment. Many companies have experienced a decline in market share as a result of their inability to compete on the basis of product design, cost or quality. Most now agree that world class performance in operations, i.e., in product design, manufacturing, engineering and distribution, is essential for competitive success and long term survival.

This course considers the operations functions from a managerial perspective. We will consider three key performance measures of an operations process (productivity, quality and response time) as well as important concepts for improving the performance of a process along these dimensions. At the end of the course students should have a fair understanding of the role Production/Operations Management plays in the decision-making process. Emphasis is given both to familiarization of various production processes and service systems, and to quantitative analysis of problems arising in the management of operations.

- **Course Outline**

1. Introduction

- Operations Management
- Type of Production systems
- Productivity, competitiveness.

2. Process design and Facility Layout,

- Process Design Analysis
- Basic Layout Types
- Designing Product Layouts : Line Balancing
- Designing Process Layouts
- Computerized Layout Planning.

3. Project Management

- Project life cycle
- Time Estimates
- PERT and CPM
- A Computer Algorithm

4. Forecasting
 - Weighted average techniques
 - Exponential smoothing
 - Regression analysis
5. Quality
 - Inspection
 - Control Charts
 - Statistical Process Control
 - Process Capability Analysis
 - Total Quality Management
6. Product and Service Design
 - Product life cycle
 - Robust design, Modular design
 - Concurrent Engineering
7. Material Requirement Planning (MRP)
 - Master production schedule
 - Manufacturing Resource Planning (MRP II)
8. Inventory Control
 - Concept, ABC analysis
 - EOQ under varying parameters
 - Periodic review, Continuous review policies
9. Just-in-Time Manufacturing
 - Kanban system, Fine-tuning of production
 - Setup time reduction
 - Production smoothing

- Grading :

- 25 % final examination
- 25 % mid-term examination I
- 25 % mid-term examination II
- 25 % course work (6 assignments)

Mark Range	Grade
90-100	<i>A</i>
80-89	<i>B⁺, B</i>
70-79	<i>C⁺, C</i>
60-69	<i>D⁺, D</i>
Below 60	<i>F</i>

- **MID-TERM EXAMINATION I** : 12 February 2002, 7:00PM to 9:45PM.
- **MID-TERM EXAMINATION II** : 26 March 2002, 7:00PM to 9:45PM.
- **FINAL EXAMINATION** : 7 May 2002, 7:00PM to 9:45PM.
- **Text:** Production/Operations Management by William J. Stevenson, Seventh Edition, Irwin/McGraw-Hill, 2002.
- **Class Notes** can be obtained from the web site : www.utdallas.edu/~chelliah
- **Class Participation** : While no grade is assigned to class participation, we encourage the students to participate in class discussion.
- **Attendance** : It is expected that students will attend all class. It is customary to inform the instructor in advance if a student has to miss a class. It is student's responsibility to make-up for missed classes.
- **Assignments:** Assignments must be returned on the specified due dates. You may discuss the assignments with others but make sure that you complete the work independently.
- **Examinations:** There will be two mid-term exams and a final exam. All exams are closed book. No make up exams will be given.
- **Teaching Assistants:** Ms. Yin Hong (office: HH 2.114A)
- **Office hours by Dr. C. Sriskandarajah, office JO 4.916:** Every Wednesday starting 16 January 2002 : 5:00PM - 7:00PM.
- **Office hours by Ms. Yin Hong, office HH 2.114A:** Every Thursday starting 17 January 2002 : 7:00PM - 9:00PM.
- **E-mails:**
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