

**SEMESTER:**

**BUS3020 : PRODUCTION AND OPERATIONS MANAGEMENT**

**DAY/TIME :**

**INSTRUCTORS:**

Email:Tel

**CREDIT: 3 UNITS**

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**Purpose:**

This course seeks to prepare men and women for effective participation in the business world. The production and operations course in particular, expose students to the concept and relevance of operations and production management including their historical evolution and significance in human society.

**Course Objectives:**

As a result of this unit the students should:

1. Demonstrate an understanding of the concepts and production management, and their significance in human society.
2. Acquire skills , analyze , plan and carry out production and operations, and measure productivity.
3. Understand the issue involved in plant design and capacity, selection of plant and equipment as well as the maintenance management.

**Course content**

<b>Week 1</b>	production and operations management, it's meaning, Objective and importance. Production function, it's understanding and relationship with other Functions of the organization.
<b>Week 2</b>	The cost structure: Different types of cost Breakeven analysis in cost Breakeven analysis in capacity strategies
<b>Week 3</b>	Forecasting Different methods of forecasting, which includes formal and informal, qualitative and quantitative. Causal methods and auto projection methods of forecasting.
<b>Week 4</b>	Capacity planning Terminologies and measures Bottlenecks and sequential process Short-term and long-term consideration Breakeven approach to capacity analysis

- Week 5** Inventory concepts  
 Functions of inventory  
 Forms of inventory  
 Cost involved about inventories  
 Types of inventory management system  
 The EOQ and ABC inventory system  
**Mid Semester Exams**
- Week 6** Production process design concepts  
 Flow shop layout  
 Cellular layout  
 Job shop layout
- Week 7** Aggregate planning  
 Aggregate planning strategies  
 Aggregate planning for product firms
- Week 8&9** Optimization of resources  
 Linear programming  
 Formulation of LP  
 Solution of LP using graphical and simplex method.
- Week 10&11** Project scheduling  
 PERT and CPM  
 Gantt chart
- Week 12** managing for quality and service  
 Role of quality control functions  
 TQM  
 Statistical quality control
- Week 13** Job design and Analysis  
 Behavior consideration in job design  
 Method, measurement and payment

**Week 14: Final exam**

**Teaching methodology**

Lectures, case studies and library research and assignments

**Course text**

- Shafer S.M and Meredith J.R Operation Management (New York, Prentice Hall, 1990)

### Other Supporting course text

1. Aquilano Nicholas J and Chase Richard B Fundamentals and Operations Management.( Boston Irwin Homewood ,1991)
2. Adam Everett E Jr and Ronald J Ebert Production and Operations Management 2<sup>nd</sup> edition (London ,Prentice- Hall Englewood Cliffs\_ 1982)
3. Any other book in operation management.

### Course Evaluation

The student will be evaluated on the basis of the following:-

Participation	10%
Quizzes and Assignments	30%
Mid-Semester Examination	30%
Final Comprehensive Examination	<u>30%</u>
<b>Total</b>	<b>100%</b>
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### GRADING

90	-	100	A
87	-	89	A-
84	-	86	B+
80	-	83	B
77	-	79	B-
74	-	76	C+
70	-	73	C
67	-	69	C-
64	-	66	D+
62	-	63	D
60	-	61	D-
Below	-	59	F