

**PRE-REQUISITE(S)**

No pre-requisite is required

**CREDIT HOURS**

3

**SYNOPSIS**

Operations Management (OM) is the core discipline area that underpins the day-to-day running of an enterprise. It is the way organizations produce goods and services. Most of the things we see or activities we do involve a product or service that have been organized by an operational function. Operations are the heart of an organization's existence, the backbone of business. OM covers an ever-increasing span of activities and techniques that affect the input to the process, the transformation that changes the format of the input to result in output, as either goods or services. This unit has been designed to provide students with tools needed to make effective and efficient key decisions, in order to meet global competition.

**LEARNING OUTCOMES**

- Examine concepts and issues in key areas of Operation Management.
- Perform an Operations Review using relevant tools and concepts available in operations management.
- Develop recommendations to improve specific areas of operations analysed critically.

**TOPICS**

Topic 1      What is Operations Management (OM)?

- Introduction to OM
- Operations Strategy
- Theory of constraint

Topic 2      Design in Operations Management

- Design of goods/service
- Location and Operations Network
- Process, Technology and Capacity
- Operations Layout
- Job design and work organization
- Supply Chain and Outsourcing

- Topic 3      Management and Control in Operations Management
- Scheduling & Planning
  - Inventory and supply chain planning/control
  - Maintenance
- Topic 4      Improvement in Operations Management
- Quality Management and Systems
  - Continuous Improvements and Projects
  - Lean Operations, Just-in-time, time-based competition
- Topic 5      Data Analytics in Operations Control
- Decision Analysis
  - Forecasting
  - Optimization/Transportation Model
  - Statistical Process Control

#### **ASSESSMENT DETAILS**

| <b>Continuous Assessment</b>           | <b>%</b> |
|--|----------|
| Presentation/Participation/Discussions | 30       |
| Oral Presentation                      | 20       |
| <b>Final Assessment</b>                | <b>%</b> |
| Written Report                         | 30       |
| Written Examination                    | 20       |

#### **PRESCRIBED TEXT**

Main:

Russell, R.S. and Taylor, B.W. (2019). Operations and Supply Chain Management (10th ed.). Wiley.

Heizer, J., Render, B. & Munson, C. (2017). Operations Management (12th ed.). Pearson.

Krajewski, L. J., Malhotra, M.K. & Ritzman, L.P. (2019). Operations Management: Processes and Supply Chains (12th ed.). Pearson.

Additional References:

Stevenson, W. (2018). Operations Management (13th ed.). McGraw-Hill.

Meridith, J.R. & Shafer, S.M. (2019). Operations Management (7th. ed.). Wiley.

Collier, D. A. & Evans, J. R. (2017). OM6 Operations Management (6th ed.). Cengage.

Reid, R. D. & Sanders, N. R. (2020). Operations Management (7th ed.). Wiley.

Slack, N. & Brandon-Jones, A. (2019). Operations Management (9th. ed.). Pearson.

Jacobs, F. R. & Chase, R. (2021). Operations and Supply Chain Management (16th ed.). McGraw-Hill.