Prescription: 632 OPERATIONS MANAGEMENT

Elective prescription

Level 6

Credit 20

Version 3

Aim Students will understand functions of operations management and apply techniques to ensure efficient and effective provision of goods and services.

Prerequisites nil

Recommended Prior Knowledge 530 Organisations and Management or equivalent knowledge and skills

Assessment weightings

Learning outcomes	Assessment weighting %
1. Students will analyse the nature of contemporary operations management and the role of the operations manager.	10
2. Students will explain quality management, and apply quality management techniques to improve operations in a given situation.	15
3. Students will select appropriate facilities and processes to ensure efficient provision of goods and/or services.	20
4. Students will discuss performance management and determine appropriate operational performance measures and controls.	15
5. Students will understand capacity management, apply techniques relating to resource planning, and recommend appropriate actions in a given situation.	20
6. Students will apply an understanding of supply chain management, inventory management and materials management to given situations.	20
Total	**100**

All learning outcomes must be evidenced; a 10% aggregate variance is allowed.

Assessment notes

1. Assessment materials should reflect relevant and current legislation, standards, regulations and acknowledged good industry/business practices.

Learning outcome one

Students will analyse the nature of contemporary operations management and the role of the operations manager.

Key elements:

a) Contribution of operations management to the achievement of organisational objectives:
   - strategic objectives, at least two of:
     - cost
     - quality
     - differentiation
     - responsiveness.
   - relationship of operations management to other main organisational functions.

b) Role and responsibilities of the operations manager.

Learning outcome two

Students will explain quality management, and apply quality management techniques to improve operations in a given situation.

Key elements:

a) Quality management:
- definitions of quality:
  - fitness for purpose
  - compliance
  - value.

- importance and effect on:
  - costs
  - customer benefits
  - productivity.

b) Approaches to quality:
- ISO Certification

- Total Quality Management (TQM)

c) Three of the seven basic tools for quality management.

Learning outcome three

Students will select appropriate facilities and processes to ensure efficient provision of goods and/or services.

Key elements:

a) Location, at least one technique.

b) Multi-disciplinary approach to goods and/or service development.

c) Process selection, at least one of:
- job
- batch
- mass
- continuous.

d) Facility layout.

e) Project management techniques:
- work breakdown structure
- Gantt charts
- network analysis.

Learning outcome four

Students will discuss performance management and determine appropriate operational performance measures and controls.

Key elements:

a) Performance management:
- link to operational objectives
- financial, human and physical resources.

b) Feedback control.

c) Performance measure(s), at least one of:
- standard times
- costs
- quality
- productivity.

d) Corrective action.

Learning outcome five

Students will understand capacity management, apply techniques relating to resource planning, and recommend appropriate actions in a given situation.

Key elements:

a) Capacity management:
- capacity calculation:
  - design
  - effectiveness
  - utilisation
  - efficiency.
- strategies, at least one of:
  - influencing the demand
  - level
  - chase
  - sub-contract
  - casual labour.

b) Forecasting techniques:
- models, at least one of:
  - weighted moving average
  - regression
  - exponential smoothing
- errors, at least one of:
  - MAD
  - MSE
  - MFE
  - MAPE.

c) Production planning:
- Master Production Schedule (MPS) at least one of:
  - MRP
  - EDD
  - Johnson's rule
  - services scheduling.

Learning outcome six

Students will apply an understanding of supply chain management, inventory management and materials management to given situations.

Key elements:

a) Supply chain management, at least three of:
- make or buy decision
- one or many vendors
- vendor evaluation
- sustainability
- distribution.

b) Inventory management:
- economic order quantity
- stock turnover ratio.

c) Materials management:
- Kanban
- JIT.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Introduced	1	2006	31 December 2015
Review	2	December 2013	30 June 2018
Revision	3	December 2016	31 December 2020

