

# Minnesota State University Moorhead

## MGMT 380: Operations Management

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

This course requires both of these prerequisites

MATH 234 - Introduction to Probability and Statistics

MGMT 260 - Principles of Management

Corequisites: None

MnTC Goals: None

Description and analysis of the operations function in an organization.

**B. COURSE EFFECTIVE DATES:** 06/01/1995 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Operations Function and Operations Management
2. Decision Making
3. Linear Programming
4. Forecasting
5. Product and Service Design/Reliability
6. Strategic Capacity Planning
7. Process Selection and Facility Layout
8. Location Planning and Analysis
9. Transportation Problem
10. Quality Management and Control
11. Inventory Management
12. Analysis of Waiting Lines
13. Overview of Project Management Scheduling Techniques (CPM and PERT)

#### **D. LEARNING OUTCOMES (General)**

1. Describe operations function and operations management.
2. Analyze operation related business decisions using decision theory, decision strategies and decision tree.
3. Formulate linear programming (LP) models and solve LP models using graphic method and solver functionality in Excel.
4. Describe forecasting techniques and perform simple time-series forecasting and simple linear regression.
5. Describe product and service design/reliability
6. Describe strategic capacity planning
7. Develop and evaluate capacity alternatives
8. Describe process selection and facility layout
9. Develop and analyze facility layouts
10. Describe location planning and evaluate location alternatives
11. Formulate and solve transportation mode
12. Describe quality management and control
13. Evaluate a production process using control charts and process capability analysis
14. Determine the optimal inventory decisions
15. Analyze waiting lines
16. Describe project management scheduling techniques (CPM and PERT).

#### **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

#### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

#### **G. SPECIAL INFORMATION**

None noted