

# Minnesota State University Moorhead

## MGMT 480: Prescriptive Analytics

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

This course requires either of these prerequisites

MGMT 260 - Principles of Management

MATH 234 - Introduction to Probability and Statistics

Corequisites: None

MnTC Goals: None

A study of deterministic techniques of management science such as linear programming, transportation models, assignment models. Other models may be covered as time permits.

**B. COURSE EFFECTIVE DATES:** 02/02/2018 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Introduction to Management Science
2. Introduction to Linear Programming
3. Linear Programming - Sensitivity Analysis and Interpretation of Solution
4. Linear Programming - Applications in Marketing, Finance and Operations management
5. Linear Programming - Advanced Applications (DEA and Yield Management)
6. Distribution and Network Models
7. Binary, Integer and Mixed Integer Linear Programming Models
8. Multi Criteria Decision Making Models

### D. LEARNING OUTCOMES (General)

1. Develop skills in formulating mathematical models for business problems.
2. Develop analytical skills and show how management science techniques can be used for business decision making.
3. Evaluate the use of management science software to solve business problems.

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

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted