A. Course Description

Credits: 4

Prerequisites: MATH 210 Calculus I AND STAT 201 Statistics I or equivalent with instructor's consent.

Lab Hours/Weeks: Corequisites: None

Lecture Hours/Week:

MnTC Goals: None

This independent study introduces applications of scientific approaches to management problems to help managers make better decisions. Students learn, with a minimum of mathematics, how to formulate decision problems, how to solve them using management science concepts, and how to apply the solutions obtained. Topics include multiple criteria decision making, decision analysis, game theory, linear programming and optimization techniques, forecasting methods, and simulation.

B. Course Effective Dates: 08/24/2002 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Learn and apply the techniques of Forecasting; Linear Programming; Integer Programming; Transportation, Transshipment and Assignment Problems; Network Optimization Models; Multi-criteria Decision Making Models; Decision Theory; Waiting Line Models; and Simulation.
2. Learn to structure problems in the context of business issues and do the problem solving.
3. Learn to interpret solutions and their applicability and limitations
4. Learn presentation skills.
5. Learn report writing skills.

E. Learning Outcomes (MN Transfer Curriculum)

This contains no goal areas.

G. Special Information

None