A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*
Lab Hours/Week: *.*
OJT Hours/Week: *.*

Prerequisites:
This course requires all three of these prerequisite categories
1. ACCT 2102 - Principles of Accounting II
   And
2. BUAD 2280 - Computer Business Applications
   And
3. Any one of these eight
   MATH 1170 - College Algebra
   MATH 1180 - Trigonometry
   MATH 1470 - Precalculus
   MATH 2471 - Calculus I
   MATH 2472 - Calculus II
   MATH 2210 - Discrete Mathematics
   MATH 2480 - Multivariable Calculus
   MATH 2490 - Differential Equations

Corequisites: None

MnTC Goals: None

Design and development of decision support systems with emphasis on management science techniques using a linear programming tool implemented in Excel. Design, documentation, and auditing standards are defined and applied to models and spreadsheet database applications. Prerequisites: ACCT 2102, BUAD 2280 and MATH 1170 (or equivalent or higher).

B. COURSE EFFECTIVE DATES: 08/13/2008 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Binary Integer Programming to Deal with Yes-or-No Decisions
2. Forecasting (Supplement)
3. Linear Programming: Basic Concepts
4. Linear Programming: Formulation & Applications
5. Minimum Spanning
6. Network Optimization Problems
7. Nonlinear Programming
8. Queueing Models
9. The Art of Modeling with Spreadsheets
10. What-If Analysis for Linear Programming
D. LEARNING OUTCOMES (General)
   1. apply the integration of advanced spreadsheet development across the entire business and management enterprise.
   2. construct spreadsheet techniques to solve real world business case problems.
   3. analyze differing software added packages used with spreadsheets.
   4. identify the decision-making issues involved in business management.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted