

Bemidji State University

BUAD 3281: Decision Support Systems

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 word 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