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