Bemidji State University

BUAD 4385: Data Modeling and Visualization

A. COURSE DESCRIPTION

   Credits: 3
   Lecture Hours/Week: 0
   Lab Hours/Week: 0
   OJT Hours/Week: *.*
   Prerequisites: None
   Corequisites: None
   MnTC Goals: None

   To prepare students to gather, store, describe, analyze, visualize, and communicate data in a meaningful manner to convert data into actionable insight and support organizations in decision-making. This course focuses on conceptual, logical, and physical data modeling including the study of Structured Query Language (SQL). Skills to be developed include visualization tools and techniques to transform data into interactively visualized data, such as dashboards, charts, graphs, and maps. Prerequisite(s): BUAD 3384; or consent of instructor.

B. COURSE EFFECTIVE DATES: 07/31/2023 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

   1. Create Project Teams, Database Management Systems
   2. The Relational Model - Project 1
   3. Access Workbench
   4. SQL
   5. Database Modeling & Entity Relationship Diagrams, Team E-R Diagram
   6. Database Design
   7. Improving Data Access
   8. Database Administration
   9. Transactions and Locking

D. LEARNING OUTCOMES (General)

   1. understand the database fundamentals including relational models, and Structured Query Language.
   2. apply Database Design techniques such as Entity-Relationship Modeling into hands on projects.
   3. understand the issues involved in database management including administration, database processing applications, and database processing for business intelligence systems.

E. MINNESOTA TRANSFER CURRICULUM GOAL AREA(S) AND COMPETENCIES

   None

F. LEARNER OUTCOMES ASSESSMENT

   As noted on course syllabus

G. SPECIAL INFORMATION

   None noted