

Inver Hills Community College

CS 1500: Database Management Systems

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Explores issues related to the design, development, and use of computer databases. Topics covered include: database models, database design methodologies, data normalization, SQL instruction, and implementation issues. Students develop databases using several database products, which may include Access and SQL Server. Prereq: ITC 1151, or consent of instructor

B. COURSE EFFECTIVE DATES: 08/22/2003 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Building a backend database to a web: 5%
2. Building a frontend to SQL Server: 5%
3. Database Administration: 10%
4. Database Design Normalization: 10%
5. Database Design, Design Methodology: 10%
6. Database Management Approaches: 10%
7. Functions of a Database Management System: 10%
8. Relational Model, QBE and Relational Algebra: 10%
9. SQL: 20%
10. The Relational Model: 10%

D. LEARNING OUTCOMES (General)

1. Create a variety of queries using Access QBE
2. Using data normalization rules, convert tables to the appropriate normal form
3. Create a database design from the informational level to the design level
4. Implement a database design in a database product such as Microsoft Access or SQL Server
5. Discuss the concepts of data storage, backup/recovery, security, integrity, etc; as they relate to database management
6. Discuss the need for database administration and the role of the DBA in the database design process
7. Write and present a report on a current topic in database management
8. Describe the relational database model
9. Define common database terms
10. Write SQL statements to query and manipulate databases
11. Create a database as a backend to a web page
12. Create/manipulate databases in the MS SQL Server environment

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted