Intro to MySQL
2018SP-ITSE-1303-61400
December 11, 2017 – January 05, 2017

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Course Description:
Introduction to fundamentals of SQL and relational databases. Topics covered include database terminology and concepts; planning, defining, and designing a database; designing and generating tables; devising and processing queries; installing MySQL and troubleshooting syntax.

Course Prerequisite Recommended:
Introductory

WECM Statement: Workplace Competencies
Mountain View College is determined to prepare you with the knowledge and skills you need to succeed in today's dynamic work environment. Towards this goal, these workplace competencies and foundation skills have been designed into the curriculum for this course: Upon completion of this course, students will be able to:

- **Manage Resources**: Time/Staff
- **Exhibit Interpersonal Skills**: Work in teams/Teach others/Serve customers/Lead work teams/Negotiate with others
- **Work with Information**: Acquire and evaluate data/Organize and maintain information/Interpret and communicate data
- **Apply Systems Knowledge**: Work within social systems/Work within organizational systems/Monitor and correct system performance

Course Materials/Supplies Needed
Cengage / MindTap
Book: Database Systems Design, Implementation, and Management 12e

Core Objectives:
**Chapter 1: Database Systems**
- The difference between data and information
- What a database is, the various types of databases, and why they are valuable assets for decision making
- The importance of database design
- How modern databases evolved from file systems
- About flaws in file system data management
- The main components of the database system
- The main functions of a database management system (DBMS)
Chapter 2: Data Models
• About data modeling and why data models are important
• About the basic data-modeling building blocks
• What business rules are and how they influence database design
• How the major data models evolved
• About emerging alternative data models and the needs they fulfill
• How data models can be classified by their level of abstraction

Chapter 3: The Relational Database Model
• That the relational database model offers a logical view of data
• About the relational model’s basic component: relations
• That relations are logical constructs composed of rows (tuples) and columns (attributes)
• That relations are implemented as tables in a relational DBMS
• About relational database operators, the data dictionary, and the system catalog
• How data redundancy is handled in the relational database model
• Why indexing is important

Chapter 4: Entity Relationship (ER) Modeling
• The main characteristics of entity relationship components
• How relationships between entities are defined, refined, and incorporated into the database design process
• How ERD components affect database design and implementation
• That real-world database design often requires the reconciliation of conflicting goals

Chapter 5: Advanced Data Modeling
• About the extended entity relationship (EER) model
• How entity clusters are used to represent multiple entities and relationships
• The characteristics of good primary keys and how to select them
• How to use flexible solutions for special data-modeling cases

Chapter 6: Normalization of Database Tables
• What normalization is and what role it plays in the database design process
• About the normal forms 1NF, 2NF, 3NF, BCNF, and 4NF
• How normal forms can be transformed from lower normal forms to higher normal forms
• That normalization and ER modeling are used concurrently to produce a good database design
• That some situations require de-normalization to generate information efficiently

Chapter 7: Structured Query Language (SQL)
• The basic commands and functions of SQL
• How to use SQL for data administration (to create tables and indexes)
• How to use SQL for data manipulation (to add, modify, delete, and retrieve data)
• How to use SQL to query a database for useful information

Student Learning Outcomes:
Give students a solid foundation in database design and implementation with the practical and easy-to-understand approach in database systems. Filled with visuals, this market-leading resource provides in-depth coverage of database design, balancing theory and practice. Students learn the key to successful database implementation is the proper design of databases to fit within a larger strategic view of the data environment. New content covers the latest on cloud data services and Big Data Analytics and NoSQL, including related Hadoop technologies.

Course Outline:
Part I: DATABASE CONCEPTS.
1. Database Systems.
2. Data Models.
Part II: DESIGN CONCEPTS.
3. The Relational Database Model.
4. Entity Relationship (ER) Modeling.
5. Advanced Data Modeling.
Part III: ADVANCED DESIGN AND IMPLEMENTATION.
7. Introduction to Structured Query Language (SQL).

Instructor Attendance Policy:
Students are expected to attend all classes. Students have the responsibility to attend class and to consult with the instructor when an absence occurs. If for some reason you must leave class early, you should inform the instructor prior to the start of the class of your reason for leaving early.

Students must begin attendance in all classes of enrollment. No exceptions. Financial Aid will not be granted to students who have been certified as not attending, by the certification date. For this lecture course, your physical participation in class, on or before the certification date will allow you to receive credit for FA purposes. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses.

Evaluation Procedures:
The course grade is the average of all grades: scheduled tests, case analysis, discussion questions, and projects. The instructor reserves the right to modify the course requirements, assignments, grading procedures, and other policies as circumstances may dictate.

Grading Scale:
A = 243 – 293
B = 193 – 242
C = 143 – 192
D = 93 – 142
F = 0 - 92
NOTE: The professor can revised the grading scale as needed.

Late Work Policy:
LATE WORK IS NOT ACCEPTED

Makeup Exam Policy: TBD

Certification Procedures: (For Online Courses)
For State reporting purposes, this on-line course will capture participation data. The student must log onto eCampus and access the course content to meet certification requirements and complete the on-line syllabus quiz by cited due date. The census date is December 13, 2017.

Withdrawal Policy: The withdraw date for this class is (December 22, 2017).
If you find that you are unable to complete the course, it is your responsibility to withdraw. I am required to take attendance. The last day to drop with a grade of “W” is **December 22, 2017**. To drop a class or withdraw from the college, students must obtain a drop or withdrawal form from the Registrar's office and follow the prescribed procedure. It is the student's responsibility to drop a class; faculty members cannot initiate the process. Should circumstances prevent a student from appearing in person to withdraw, the student may withdraw through correspondence to the Registrar's Office. Drop, and withdrawal requests are not accepted by telephone. If a student simply quits coming to class and does not drop, a performance grade will be awarded (usually an “F”). Please talk to the instructor before you drop the class to see if there is any other option.

**Academic Dishonesty:**
Students that caught plagiarizing an assignment will be subject to an “F” in the course and possible expulsion from the college.

*Academic honesty is expected, and integrity is valued in the Dallas County Community Colleges. Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Catalog. More information is available at https://www1.dcccd.edu/catalog/ss/code.cfm.*

**Institution Policies:**
Institutional Policies relating to this course can be accessed from the following link: [www.mountainviewcollege.edu/syllabipolicies](http://www.mountainviewcollege.edu/syllabipolicies) for a complete list of institutional policies (Stop before You Drop; Withdrawal Policy; Repeating a Course; Financial Aid; Academic Dishonesty; Americans with Disabilities Act Statement; Religious Holidays; and Campus Emergency Operation Plan and Contingency Plan.).

**Disclaimer Reserving Right to Change Syllabus:**
The instructor reserves the right to amend this syllabus as necessary, which may include the right to modify the course requirements, assignments, grading procedures, and other policies as circumstances may dictate.

**Due Dates for all Assignments and Final Exam:**
- **MIDNIGHT January 05, 2018**