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 structured query language syntax. (2 Lec., 4 Lab.)

Prerequisites: There is no prerequisite for this course

Course Objective: This course will focus on the knowledge and skills necessary for creating, updating and managing databases using MySQL. The objective is to provide a comprehensive introduction to the SQL language using MySQL. This course not only covers the syntax of SQL, but also shows how it can be used in MySQL to create and maintain a database and retrieve information from it.

Learning Outcomes: Successful completion of this course will enable the student to:

- Identify and define terms, concepts, and functions associated with databases
- Explain entities, attributes and relationships
- Define functional dependence
- Design a database
- Normalize a database
- Create a database
- Create tables
- Perform queries
- Write, edit and run SQL commands
- Edit tables
- Update data
- Drop tables
- Backup a database
- Restore a database

Course Materials - Required Textbook:

Murach’s MySQL by Joel Murach 2nd Edition
We will also be using MySQL client and server software in this course, which may be downloaded for free. Instructions for downloading and installing MySQL will be covered in the course.

Instructor Information: Professor

Thomas (Toby) Lackey
Phone: 972-860-4567 (Office)
E-Mail: tlackey@dcccd.edu
Office: K103b on the Brookhaven campus
Office hours: Tuesday and Thursday 3:30 PM – 5:30 PM
Other hours by appointment as well as electronic office hours.

Professor’s Supervisor: Professor Patti Burks

E-Mail: pburks@dcccd.edu

Additional hours will be available for electronic help via Blackboard Collaboration tools and Email. You may also come to the Brookhaven Campus for help, just arrange a time with me in advance.

Course Outline:

Week 1: Orientation, Lesson 1
   Introduction to MySQL, software installation,
   Chapters 1-2, Software installation, MySQL Workbench
   Lab 1

Week 2: Lesson 2:
   Single Table Queries
   Chapter 3 – How to retrieve data from a single table
   Lab 2

Week 3: Lesson 3:
   Joins – combining data from different tables
   Chapter 4 – How to retrieve data from two or more tables
   Lab 3

Week 4: Lesson 3 continued:
   Joins – combining data from different tables
Chapter 4 – How to retrieve data from two or more tables  Lab 3

Week 5: Lesson 4:
   Changing Data
   Chapter 5 – How to insert, update, and delete data
   Lab 4

Week 6: Lesson 5:
   Summarizing Data
   Chapter 6 – How to code summary queries
   Lab 5

Week 7: Lesson 6:
   Subqueries
   Chapter 7 – How to code subqueries
   Lab 6
   Exam 1 (Chapters 1-7)

Week 8: Lesson 7:
   Data types and Functions
   Chapter 8 – How to work with data types
   Chapter 9 – How to use functions
   Lab 7 and Lab 8

Week 9: Lesson 7 continued:
   Chapter 8 – How to work with data types
   Chapter 9 – How to use functions
   Lab 7 and Lab 8

Week 10: Lesson 8:
   Chapter 10 – How to design a database
   Lab 9

Week 11: Lesson 9:
   Chapter 11 – How to create databases, tables, and indexes Lab 10

Week 12: Lesson 9 continued:
   Chapter 11 – How to create databases, tables, and indexes Lab 10

Week 13: Lesson 10:
   Chapter 12 – How to create views
   Chapter 18 – How to secure a database
   Lab 11

Week 14: Lesson 11:
   Chapter 17 – An introduction to database administration
   Chapter 19 – How to backup and restore a database.
   Lab 12.

Week 15: Exam 2 (Chapters 8-12 and 17-19).
Student Participation:

Students are expected to work consistently on labs and projects, participate in class chat sessions as needed, read and follow the examples in the textbook, review the lecture notes and complete all assignments and exams as outlined in the course schedule. **GRADING PROCEDURES**

You will accumulate course points for work done as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Maximum Points</th>
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</thead>
<tbody>
<tr>
<td>2 Exams @ 80 points each</td>
<td>160</td>
</tr>
<tr>
<td>12 Lab Assignments @ 70 points each</td>
<td>840</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
</tr>
</tbody>
</table>

Your final course grade will be determined as shown:

<table>
<thead>
<tr>
<th>Points Earned</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>900-1000</td>
<td>A</td>
</tr>
<tr>
<td>800-899</td>
<td>B</td>
</tr>
<tr>
<td>700-799</td>
<td>C</td>
</tr>
<tr>
<td>600-699</td>
<td>D</td>
</tr>
<tr>
<td>000-599</td>
<td>F</td>
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</tbody>
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**Late Points:**

You will be afforded the opportunity to correct graded labs and resubmit for grading for partial credit, the corrections will accepted until the Final date for the course which is May 12th. The initial deadlines for each lab are posted in the course schedule, if the initial Lab assignment is submitted after the posted deadline in the course schedule, a late penalty of 5 points will be assigned to the Lab. There will be no late penalties for the lab corrections, nor for the exams.

Please note no work will be accepted after Midnight, on May 12th.
Last date to withdraw with a W:

April 14th

DCCCD Rules:

Your instructor reserves the right to modify the course requirements, assignments, grading procedures and other related policies as circumstances dictate. Additional exam or course information may be posted in the Announcements section of the course throughout the semester.

All students in this course are expected to abide by the rules and regulations as set forth in both the DCCCD Student Code of Conduct and the DCCCD Rules for Responsible Computing. Failure to comply may result in legal and/or disciplinary action.

Incomplete ("I") Grading:

Incompletes are only considered in those circumstances where a student has had a documentable crisis or emergency occurring sometime in the last several days of the course, preventing the student from completing the final few items of required work (a last Exam or Lesson Project, for example). The "I" is designed only to provide a little extra time to finish up, and is not granted to students who are substantially behind in their work as the end of the course approaches. It is not to be considered as a grade to request should you simply not have the time to get your work done during the semester.

If you feel you meet the qualifications for an "I" and would like to request one, contact your Instructor as soon as possible. Students who do not qualify for an "I" may not complete any coursework for credit after the Absolute Deadline as shown in the Course Schedule.

Institutional polices:

Drop/Withdrawal, Stop before you drop, Financial Aid, International students, Religious Holidays, ADA, Academic Integrity, Repeating a course, Grade reports, Instructor’s right to Modify the course, and F.E.R.P.A can be found at the following link:

Syllabus-Addendum