Thomas L. Brown **Office: Jour 230**
conference: Tue & Thu @ 9:00 + appointments **Phone: 903.886.5802**

CS 340: Introduction to Database

Course Description

This course offers lecture, laboratory, and online interaction to provide a foundation in data management concepts and database systems. It includes representing information with the relational database model, manipulating data with an interactive query language(SQL) and database programming(PHP), database development including internet applications, and database security, integrity and privacy issues.

Audience

Students planning to enroll for this course should have mastered the fundamentals of programming and basic data structures.

Student Learning Outcomes*

Install, configure, and interact with a relational database management system;
Describe and apply the components of the relational database model to database design;
Apply the Structured Query Language (SQL) for database definition and manipulation;
Utilize a database modeling technique for a single entity class, a one-to-one (1:1) relationship between entity classes, a one-to-many (1:M) relationship between entity classes, a many-to-many (M:M) relationship between entity classes, and recursive relationships;
Define, develop and process single entity, 1:1, 1:M, and M:M database tables;
Comprehend then implement web database programming fundamentals by developing an application program interface (API) to access and maintain a relational database;
Learn and implement the principles and concepts of information integrity, security and confidentiality;
Apply ethical computing concepts and practices to database design and development;
*** as measured by exam, homework, and lab assignment results**

References and Materials

Murach, Joel. Murach's MySQL 2ed. Mike Murach & Associates, 2015. ISBN: 978-1-890774-82-0.
MySQL database software and associated documentation is available: see the FAQ: https://www.apachefriends.org/download_success.html Also, download a "zip" file to have a portable implementation--so for usb/flash drive users link to http://bit.ly/14idYDv)

Measurement and Evaluation:

Grades will be based upon an evaluation of exam scores(300 pts) for those "face-to-face" participants or on lab assignments and homework (300 pts) for online participants. A point total in the range of 270-300 will earn the grade "A", 240-269 a "B", 210-239 a "C" and so on. College policy must be followed to obtain an "X" (incomplete). Unless circumstances are beyond control, the student is expected to withdraw instead of delaying completion of the course.

Tue/Thu 11:00am **BA 248 and Navarro College-BC322**

COURSE POLICY and PROCEDURES

Activities and Requirements

1. **Assigned Readings: The student is expected to retrieve and read references related to assignments and class discussions.**

2. **Attendance: The "face-to-face" student is expected to attend orientation sessions, lectures, and scheduled examinations. Regular interaction should ensure that expectations are understood, and feedback provided for monitoring and assessing progress. The student is responsible for obtaining assignments and related materials from the course website.**

3. **Participation: The student is expected to monitor the course website, attend scheduled meetings, interact with the instructor, download, implement and test software and example code, submit lab solutions as required, and provide peer assistance with technical issues.**

4. **Homework, exams and lab assignments: These graded activities are based upon course objectives related to assigned readings, study questions, and class exercises. The student is expected to complete each activity by the due date or scheduled exam times. Should a deadline be missed, the next grade will be recorded for both.**

5. **Intellectual Honesty and Ethics: By departmental policy, the discovery of plagiarism, collusion, or the use of unauthorized aids will result in a grade of "F" on that graded activity. A subsequent breach of this policy mandates a grade of "F" for the course. Also, the student is expected to follow university, departmental and class policies and procedures for information security and privacy.**

6. **Conduct: All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (see Student Handbook).**

7. **Special Accomodations: Students in need of accomodations for disabilities should contact the Director of Disability Resources and Services, Gee Library Room 132, Phone (903) 886-5150 or (903) 886-5835 or Fax (903) 468-8148 email StudentDisabilityServices@tamuc.edu .**

8. **A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.**

C.S. 340 **Spring 2016**
Tue & Thu 11:00-12:15 **BA 248 and Navarro College-BC322**

Semester Calendar

Week	Topic/Activity	Chapter
1	Orientation and introduction to database management Software installation and configuration(PHP and MySQL)	#
2	Overview of database development, Introduction to Relational databases and Structured Query Language(SQL)	1 2
3	SQL querys--a single table	3
4	SQL querys—multiple tables	4-5
5	Summary and subquerys Exam 1	6-7 1-5*
6	Data types Functions	8 9
7-8	Database design	10
9	Spring break--no class March 15 & 17	
10	Creating indexes and Views	11-12
11	Exam 2	6-10*
12	MySQL and PHP	#
13	HTML Forms	#
14	Database web applications	#
15	Database administration	17
16	Database security and backup	18-19
17	Final exam(Tue 10 May, 10:30am) over study questions, class exercises and programming examples	

 # supplementary materials