Department of Computer Science & Information Systems

CSCI 340 7RB – Introduction to Database – TR 11:00 AM – 12:15 PM. BC322

Instructor Information:

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A&M-Commerce MyLeoonline (myleoonline.tamuc.edu)

Office Hours: Wednesday 3:30 PM – 5:30 PM, Tuesday 1:00 PM – 5:00 PM
Other times: By appointment

Graduate Teaching and Research Assistants:

TBA: Graduate Research Assistant,
TBA: Graduate Teaching Assistant,

Course Information:
Introduction to Database: 3 hrs. Mode of delivery will consist of in-class lectures/Labs exercises. Prerequisites: CSCI233 or CSCI270. 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...

Course Objectives/Learning Outcomes:
Topics covered in this course include the following:

- Data Modeling
- Relational Data Retrieval: SQL
- Logical Database Design
- Physical Database Design
- Data Administration, Database Administration, and Data Dictionaries
- Database Security, Backup and Recovery
- Database and the Internet

Upon completion of the course, the student will be able to:

- Install, configure, and interact with a relational database management system.

- Describe, define and apply the major components of the relational database model to database design.
- Learn and 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 implementation.
  * These outcomes will be measured by Final project, exam, homework, and lab assignment results

Textbook: Required Text: Fundamentals of Database Management Systems by Mark L. Gillenson (John Wiley & Sons, Inc.) ISBN-10: 1590280296. ISBN-13: 9780470624708

Optional Reference: Murach, Joel. Murach's MySQL 2ed. Mike Murach & Associates, 2015. ISBN: 978-1-890774-82-0.

Course Requirements:

Assignments and Grading: Grades will be calculated based one midterm, in-class quizzes and participation, programming assignments/projects and a final project. Your final grade will be the sum of the percentages you earned in each category as shown below:

Quizzes/participation ----------10%
Midterm ----------30%
Projects/Programming assignments------35%
Final Project ----------25%

Grading scales:

A	90-100
B	80-89
C	70-79
D	60-69
F	Below 60

Projects/Programming Assignments:

All projects/programming assignments will be available on the class webpage or MyLeo LMS.

- Point value will vary depending on the level of difficulty.

- All assignments/projects must be "submitted" *no later than the cutoff time* (cutoff time online or beginning of the class on the due date)**.** Late assignments and **programs (when given) that don't compile or work as expected** receive **NO** (zero) credit. Please be aware of the due date/time and submit ALL assignments in a timely manner.

- All submitted assignments should be "backed up" in both soft copy (electronic version) on your PC's hard drive or other media such as a USB flash drive (*labeled with your name and class period*) and hard copy (printout). This backup will be requested in the event errors occur during the "submit" process.

Homework: relevant homework will be given periodically to help you prepare for programming assignments/projects. This is in addition to all the programming assignments/projects, which are also considered as homework. An out-of-class preparation and successful completion of these will determine how well you do in the course.

Quizzes:

Quizzes can be given on any day and at my discretion (usually when the attendance is very low – this is to encourage attendance) or be made available online during a given window and cannot be accessed once that window closes. No makeup on quizzes regardless of the circumstances.

Midterm and Final Project:
The Midterm will cover lecture notes, assignments and other material up to the week before Midterm is given. No cheating on Midterm and quizzes (see cheating below) will be tolerated. Final Project will be assigned early. It is meant to test your mastery of the course's key concepts learned during the semester, and the specifications (specs) will reflect that. It is my expectation that you will comply with the A&M-Commerce's Academic Honesty policy, as listed in the University's Undergraduate/Graduate Bulletin.

Technology Requirements:

Projects and programming assignments require the use of relational database Management Systems or similar software development environment (specific DBMS will be communicated later). Our computer lab may have the proper software installed for this course if you choose to use the lab. Always have an external storage (flash drive, for example) to save and backup your work.

To be fully functional, some or all of the following may be required (courtesy of Dr. Bakr).

- For PC and Mac users the suggested browser is Mozilla Firefox. You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:

- Sound card, which is usually integrated into your desktop or laptop computer
- Speakers or headphones.
- *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.

- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: JAVA web site http://www.java.com/en/download/manual.jsp

- Current anti-virus software must be installed and kept up to date.
- Run a browser check through the Pearson LearningStudio Technical Requirements website. Browser Check http://help.ecollege.com/LS_Tech_Req_WebHelp/enus/#LS_Technical_Requirements.htm#Browset

  - Running the browser check will ensure your internet browser is supported.
  - Pop-ups are allowed.
  - JavaScript is enabled.
  - Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:

  - Adobe Reader https://get.adobe.com/reader/
  - Adobe Flash Player (version 17 or later) https://get.adobe.com/flashplayer/
  - Adobe Shockwave Player https://get.adobe.com/shockwave/
  - Apple Quick Time http://www.apple.com/quicktime/download/

- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

- For additional information about system requirements, please see: System Requirements for LearningStudio https://secure.ecollege.com/tamuc/index.learn?action=technical

ACCESS AND NAVIGATION (Pearson LearningStudio (eCollege) Access and Log in Information):

This course will be facilitated using Pearson LearningStudio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to MyLeo and from the top menu ribbon select eCollege. Then on the upper left side of the screen click on the My Courses tab. http://www.tamuc.edu/myleo.aspx

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: It is strongly recommended you perform a "Browser Test" prior to the start of your course. To launch a browser test, login to Pearson LearningStudio, click on the My Courses tab, and then select the Browser Test link under Support Services.

Pearson LearningStudio Student Technical Support

Texas A&M University-Commerce provides students technical support for the use of Pearson LearningStudio.

Technical assistance is available 24/7 (24 hours, 7 days a week).

If you experience LearningStudio (eCollege) technical problems, contact the LearningStudio helpdesk at 1-866-656-5511 (toll free) or visit Pearson 24/7 Customer Support Site http://247support.custhelp.com/

The student help desk may be reached in the following ways:

- Chat Support: Click on 'Live Support' on the tool bar within your course to chat with a Pearson LearningStudio Representative.
- Phone: 1-866-656-5511 (Toll Free) to speak with Pearson LearningStudio Technical Support Representative.

Accessing Help from within Your Course: Click on the 'Tech Support' icon on the upper left side of the screen inside the course. Then you will be able to get assistance via online chat or by phone.

Note: Personal computer and Internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

Policy for Reporting Problems with Pearson LearningStudio:

Should students encounter Pearson LearningStudio based problems while submitting assignments/discussions/comments/exams, the following procedure must be followed:

- Students must report the problem to the help desk. You may reach the helpdesk at 1-866-656-5511.
- Students must file their problem with the helpdesk and obtain a helpdesk ticket number
- Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and provide me with the helpdesk ticket number.
- I will call the helpdesk to confirm your problem and follow up with you

PLEASE NOTE: Your personal computer and Internet access problems are not a legitimate excuses for filing a ticket with the Pearson LearningStudio Help Desk. Only Pearson LearningStudio based problems are legitimate reasons to contact the Help Desk.

You strongly are encouraged to check for your Internet browser compatibility BEFORE the course begins and take the Pearson LearningStudio tutorial offered for students who may require some extra assistance in navigating the Pearson LearningStudio platform.

MyLeo Support:

Your MyLeo email address is required to send and receive all student correspondence. Please email helpdesk@tamuc.edu or call us at 903-468-6000 with any questions about setting up your MyLeo email account. You may also access information at MyLeo. https://leo.tamuc.edu

Learner Support:

The One Stop Shop was created to serve you by providing as many resources as possible in one location. http://www.tamuc.edu/admissions/onestopshop/
The Academic Success Center provides academic resources to help you achieve academic success. http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/

FREE MobilE APPS:

The Courses apps for phones have been adapted to support the tasks students can easily complete on a smaller device. Due to the smaller screen size course content is not presented.

Course and University Procedures/Rules:

Cheating: Don't do it! I will not tolerate neither cheating nor plagiarism. I am a very nice guy, but I have a very short temper when it comes to these. Copying assignments, submitting your friends or classmates' assignments as your own, wandering eyes on tests or quizzes are just a few examples. The consequences for these kinds of activities could be severe with lower limit being an "F" for the course and the upper limit being a referral to the Dean of students for a possible dismissal from A&M-Commerce (See specific policies below).

Midterm and Quiz Makeup: I will give **NO** makeup midterm/quizzes. However, if you have a valid reason for missing a midterm (validity is determine by me) given before the midterm, I will replace the missed midterm with your final project grade (i.e. your final project will count both as a midterm and final project).

MyLeo for communication: We will extensively utilize this Learning Management System (LMS) known as MyLeo (leoportal.tamuc.edu) for a lot of class related activities, and especially for communication. So check your e-mail and LMS often (preferably twice a day).

Use of electronic device during class: Use of any electronic device (not sanctioned by me) is prohibited. Those who are caught doing this will be asked to leave the class. No discussion.

Academic Integrity:
The University's policy on academic integrity, found here, applies in this course:
All violations of this policy are considered serious offenses and may result in failure of the assignment or the course.

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette http://www.albion.com/netiquette/corerules.html

TAMUC Attendance:

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13studentacademic/13.99. 99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99. 99.R0.10GraduateStudentAcademicDishonesty.pdf

ADA Statement
Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce Gee Library- Room 132 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148 Email: Rebecca.Tuerk@tamuc.edu Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice
Texas A&M University-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.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.
Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Course Calendar

Drop Deadline: TBA

MLK Day: Monday January 21, 2019 – classes do not meet

Spring Break Holidays: Monday March 18 – Friday March 22, 2019 – classes do not meet

Last class Day: Friday May 3, 2019

Final Exam Week: Saturday May 4 - Friday May 10, 2019

Final Exam: TBA

Fall Commencements: Friday May 10 (Graduates) and Saturday May 11, 2019 (Undergraduates)

Week of	Topics	Chapter Readings	**Activity**
1/14	Review Class Policy and Syllabus	TBA	**TBA**
1/21	Database Design & Theory	TBA	**Lecture/Proj1**
1/28	Database Design & Theory	TBA	**Lecture/proj2**
2/4	SQL	TBA	**Lecture/Proj3**
2/11	SQL	TBA	**Lecture/Proj4**
2/18	ER Diagram	TBA	**Lecture/Proj5**
2/25	ER Diagram	TBA	**Lecture/Pro6/Q1**
3/4	Logging and Locking	TBA	**Lecture/Proj7**
3/11	Spring Break Holiday	TBA	**N/A**
3/18	I/O Cost models and external sorts	TBA	**Lecture/Proj8**
3/25	Midterm	TBA	**Midterm Exam**
4/1	Web Applications	TBA	**Lecture/Proj9**
4/8	Indexing	TBA	**Lecture/Proj10**
4/15	Indexing	TBA	**Lecture/Proj11**
4/22	Joins and Relational Algebra	TBA	**Lecture/Proj12**
4/29	Joins and Relational Algebra	TBA	**Lecture/Proj13**
5/6	Final Exam	N/A	**Final Exam**

*This syllabus is subject to change…