



CSCI 526 Database Systems

COURSE SYLLABUS: Fall 2016

INSTRUCTOR INFORMATION

Instructor : Mustafa S. Cetin, Ph.D.
Office Location : Online, must login eCollege
Office Hours : Please sent email and make sure to add “CSCI-526:xxxxx” to subject of the email
Office Phone : Not Available
Office Fax : Not Available
University Email : Mustafa.Cetin@tamuc.edu
Address
Preferred Form of : Not Available
Communication:
Communication : 24 hours
Response Time

COURSE INFORMATION

Course Information

Materials: Textbooks, Readings, Supplementary Readings:

Textbook:

- Fundamentals of Database Management Systems, 2nd, ISBN-10: 0470624701 by Mark L. Gillenson, John Wiley & Sons, Inc.

Optional Texts and/or Materials:

- SQL Essentials ISBN-10: 1590280296 by G. Randolph, J. Griffin, Franklin, Beedle & Associates
- Database Systems, The Complete Book (2nd Edition), Hector Garcia-Molina, Jeffrey D. Ullman, and Jennifer Widom, Prentice Hall 2009.

Course Description

Data models; data definition language; data manipulation language; entity-relation(ER) diagram; design of ER database scheme; relational model; relational databases; relational commercial languages; functional dependencies; normalization.

Student Learning Outcomes

This course is for graduate students to understand the basics of data and databases

1. Students will be able to write SQL programs for effective data definition and manipulation.
2. Students will be able to develop ER diagrams for logical design of database systems.
3. Students will be able to perform data normalization process for effective data management.
4. Students will be able to implement and present a small scale database development project using commercially available DBMS tools

Student Learning Outcomes

1. To obtain current status of the state-of-the-art database design methodology in industry and academics.

2. To master the technique for team play and teamwork for small scale database projects through brain storming and joint requirement planning.
3. To learn and use effective tools for logical and physical database design and development.
4. To perform data normalization process for effective data management.
5. To write SQL programs for effective data definition and manipulation.
6. To develop ER diagrams for logical design of database systems.
7. To implement a small scale database development project using commercially available DBMS tools.
8. To learn to apply various data verification techniques for easy and effective data maintenance.
9. To learn how to evaluate database management systems with widely-accepted industry standards.
10. 10. To be able to demo and present the initial, intermediate, and final delivery of the database design project

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Knowledge about data structures and algorithms, corresponding to the basic course on Data Structures and Algorithms.

Instructional Methods

The text for the class will be covered in this class using the text author's slides modified, animated and highlighted by the course instructor.

Student Responsibilities or Tips for Success in the Course

By the end of the semester, students should have read the assigned chapter sections, studied the presentations, taken quizzes, participated in discussions and have spent some time to be certain they have a general understanding of the reference material in the appendices. The table of contents of the text is basically an outline for the course.

All quiz activity, required discussion inputs, and any other assignments are provided to the student as each class unit is opened and the week progresses.

Grading

Your grade for the course will be based on the following percentages (tentative):

Discussions	: 10%
Assignments & Quizzes	: 40%
Midterm Exam	: 20%
Final exam	: 30%

Letter grades will be assigned according to the following scale, rounded to nearest tenth of a point according to the Excel worksheet process:

- A = at least 90.0% of total
- B = at least 80.0% but less than 90.0%
- C = at least 70.0% but less than 80.0%
- D = at least 60.0% but less than 70.0%
- F = less than 60.0% of the total points

For Example: 89.49 rounds to 89 and would award you a B grade But: 89.50 rounds to 90 and would award you an A grade.

You should do your own work on exams/projects and for computer assignments. Copying another student's work is not acceptable. Any indication of cheating and/or plagiarism on an exam/assignment/project will be an automatic 0 (zero) for the exam/assignment/project for all students involved. Yet, based on cheating and plagiarism activity in any section of class, the instructor holds the right to give an F grade to the identified student(s). Regarding codes in assignments / projects, you may be required to explain the code you submitted. In case of discursive explanation, the instructor holds the right to lower your grade.

TECHNOLOGY REQUIREMENTS

- To fully participate in online courses, you will need to use a current, Flash enabled browser. For PC users, the suggested browser is Internet Explorer 9.0 or 10. For Mac users, the most current update of Firefox is suggested.
- 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.
- Depending on your course, you might also need a:
 - webcam
 - microphone

For courses where interactive tools are used, like VoiceThread or ClassLive Pro, headphones are suggested for use with recording and playback. We recommend a webcam with an integrated microphone, such as the Microsoft LifeCam Cinema. All devices should be installed and configured before class begins.

- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. Java can be downloaded at: <http://www.java.com/en/download/manual.jsp>
- Current anti-virus software must be installed and kept up to date.
- You will need some additional free software for enhanced web browsing. Ensure that you download the free versions of the following software:
 - Adobe Reader
 - Adobe Flash Player
- 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: <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: <http://www.tamuc.edu/myleo.aspx>.

You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or helpdesk@tamuc.edu.

Note: It is strongly recommended that you perform a “Browser Test” prior to the start of your course. To launch a browser test, login to Pearson LearningStudio, click on the ‘myCourses’ 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 in the use of Pearson LearningStudio.

Technical assistance is available 24 hours a day/ 7 days a week.

If at any time you experience technical problems (e.g., you can't log in to the course, you can't see certain material, etc.) please contact the Pearson LearningStudio Help Desk, available 24 hours a day, seven days a week.

The student help desk may be reached by the following means 24 hours a day, seven days a week.

- 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.
- Email: helpdesk@online.tamuc.org to initiate a support request 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. You will then be able to get assistance via online chat, email or by phone by calling the Help Desk number noted below.

Note: Personal computer 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, an Internet cafe, or a bookstore, such as Barnes & Noble, 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?

1. Students must report the problem to the help desk. You may reach the helpdesk at helpdesk@online.tamuc.org or 1-866-656-5511
2. Students **MUST** file their problem with the helpdesk and obtain a helpdesk ticket number
3. Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and to provide me with the helpdesk ticket number
4. At that time, I will call the helpdesk to confirm your problem and follow up with you

PLEASE NOTE: Your personal computer/access problems are not a legitimate excuse for filing a ticket with the Pearson LearningStudio 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 <https://leo.tamuc.edu>.


Learner Support

Go to the following link One Stop Shop- created to serve you by attempting to provide as many resources as possible in one location. Go to the following link Academic Success Center- focused on providing academic resources to help you achieve academic success.

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.

The Courses app is free of charge. The mobile Courses Apps are designed and adapted for different devices.

	App Title:	iPhone – Pearson LearningStudio Courses for iPhone Android – LearningStudio Courses - Phone
	Operating System:	iPhone - OS 6 and above Android – Jelly Bean, Kitkat, and Lollipop OS
	iPhone App URL:	https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8
	Android App URL:	https://play.google.com/store/apps/details?id=com.pearson.lsphone

Once downloaded, search for Texas A&M University-Commerce, and it should appear on the list. Then you will need to sign into the myLeo Mobile portal.

The Courses App for Android and iPhone contain the following feature set:

- View titles/code/Instructor of all Courses enrolled in online
- View and respond to all discussions in individual Courses
- View Instructor Announcements in individual Courses
- View Graded items, Grades and comments in individual Courses
- Grade to Date
- View Events (assignments) and Calendar in individual Courses
- View Activity Feed for all courses
- View course filters on activities
- View link to Privacy Policy
- Ability to Sign out
- Send Feedback

LearningStudio Notifications

Students can be alerted to course activities via text on their mobile phones or up to two email addresses.

Based on their preferences, students can automatically receive a push notification with every new: course announcement, threaded discussion post, grade, and/or assignment without having to login to the course. Enrolled students will automatically receive email notifications for announcements and can opt out of this feature. To receive text notifications, students must opt in.

To begin setting up notifications, go into your course in LearningStudio and click on the bell-shaped Notifications icon on the main menu ribbon.

By default the student's university email address will appear. This cannot be changed in LearningStudio. Additional email addresses may be added by clicking the Add button. After all of the other selections are completed be sure to click the Save and Finish button.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

The instructor's will response in 24 hours and feedback on assessments are stated clearly.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Attendance: Since this is an online learning course, each student is expected to regularly login to the course website at TAMUC eCollege. You will be required to login regularly each week to view a unit presentation, to take a quiz or to submit a discussion. It is expect that you will need to spend approximately 3-6 hours a week watching the presentations, completing quizzes and submitting discussion requirements. This will bring your class time roughly equivalent to the weekly class attendance required for an on-campus class.

You must watch for changed announcements at eCollege or in emails to know when something has been updated, Your activity on e-College web site is monitored and you will get instructor emails if you become deficient in your attendance or assignments.

Late Policy: Quizzes, Homework Assignments and Discussions must be accomplished in the Unit specified by the date given and submitted according to the e-college online process. There will be a 20% reduction each day after the due date. Assignment will not be accepted 3 days past the due date.

Make-up Policy: Make-up will be permitted only in the case of having and providing me a formal Institution excuse.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

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/13students/academic/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 OUTLINE / CALENDAR

Course Outline

1. Data: The New Corporate Resource
2. Data Modeling
3. The Database Management System Concept
4. Relational Data retrieval: SQL
5. The Relational Database Model: Introduction
6. The Relational Database Model: Additional Concepts
7. Logical Database Designs
8. Physical Database Design
9. Object-Oriented Database Management
10. Database Administration and Data Dictionaries

11. Database Control Issues: Security, Backup and Recovery, Concurrency
12. Client/Server Database and Distributed Database
13. The Data Warehouse
14. Database and Internet