CSCI 340.61E Introduction to Database

COURSE SYLLABUS: Spring 2022

INSTRUCTOR INFORMATION

Instructor	Mr. Michael J. Henry
Office Location	RELLIS ACB1-356 1
Office Hours	Email, or by appointment
Email	mhenry@rellis.tamus.edu (1-2 business days)

COURSE INFORMATION

Lectures (Time/Location):

- Monday 3:00pm – 5:50pm.
- Delivery Format: synchronously in-person at ACB1-356.

Textbook(s) Required:

- None

Textbook(s) Recommended:

- "Fundamentals of Database Systems", 7th edition, by Elmasri and Navathe. ISBN: 0133970779, ISBN-13: 9780133970777.
- Fundamentals of Database Management Systems 2nd Edition, by Mark L. Gillenson (John Wiley & Sons, Inc.). ISBN-10: 1590280296. ISBN-13: 9780470624708.

Course Description

Data Modeling; relational data retrieval using SQL; logical database design; physical database design; data administration, database administration, and data dictionaries; database security, backup and recovery; database and the internet.

Student Learning Outcomes:

Upon completing this course students should 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.

The *syllabus/schedule are subject to change.*

- 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.

NOTE: These outcomes will be measured by Final project, exam, homework, and lab assignment results

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students are expected to setup database client and web servers as instructed.

Instructional Methods

During this course, we will be using traditional and active learning methods, and work together using:
- Lectures: using slides, supplementary materials, and hands-on exercises.
- Assignments that will be released via the Learning Management Systems (D2L).
- Individual projects: details of the project will be released later during the course.

Student Responsibilities and Tips for Success in the Course

It is expected that you are the owner of your success in this course, including ensuring you understand the expectations, timelines, policies and learning objectives.

Baseline expectations:

a. Check LMS frequently.
b. Start your homework assignments early.
c. Check the feedback on homework assignments.
d. Do your work independently: collaboration and participation in study groups is encouraged to improve your understanding and to develop problem-solving strategies. However, cheating and plagiarism will not be tolerated, i.e. do not copy other people's work.
e. Communicate with the instructor when you are confused, or having difficulties with the course material / assignment / project.

GRADING

Final grades in this course will be based on the following scale: A = 90%-100%, B = 80%-89%, C = 70%-79%, D = 60%-69%, F = 59% or below.

Assessments

The following assessment tools will evaluate the course learning objectives and will constitute your final grade in the course.

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Assessment Type	Weight of Final Grade	Learning Objectives
Quizzes, prep & participation	10 %	Critical understanding and problem solving using course concepts
Assignments	30 %	
Midterm Exam 1	20%	
Final Exam	20%	
Final Project	20%	

COURSE OUTLINE / CALENDAR

The course calendar is aligned with the RELLIS academic calendar.

Week	Course Subject
Week 1	Course Overview: Introduction & Logistics
Week 2, 3	Data Modeling
Week 4, 5	Relational Data Retrieval: SQL
Week 6, 7	Logical Database Design
Week 8	**Midterm exam #1**
Week 9, 10	Physical Database Design
Week 11, 12	Data and Database Administration
Week 13	Database security, backup and recovery
Week 14	Project Presentations, Thanksgiving Holiday
Week 15	Project Presentations, Advanced Topics (time permitting)
Finals Week	**Final Exam**

*The schedule is **tentative** and may be adjusted to fit the actual class progress.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

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ACCESS AND NAVIGATION

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: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student is expected to have a backup method to deal with these inevitable problems. In case of extreme technology related circumstances, please communicate directly with the instructor to best manage your success in this course.

COMMUNICATION AND SUPPORT

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:
https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

To communicate with me about this course, kindly use the email address included in this syllabus. During the week, you can generally expect a response to your emails within 1-2 business days or sooner.
To ensure I get your email and respond within indicated timelines above, please make sure that:

- Your email message is sent from your Texas A&M student account.
- Your email message includes a descriptive subject with the indicated prefix (I teach multiple courses) : CSCI 310 – Fall 2021 --<CWID>: <descriptive subject>.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Attendance is required but not graded. Students are expected to do the readings, attend class, and participate in class discussions. Each student is responsible for managing their own time and work-load. Emergency / extreme circumstances causing a student to miss deadlines/exams will need to be supported by official and university approved documentation.

Positive Learning Environment

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Your commitment as a student to learning is evidenced by your enrollment at Texas A &M University-Commerce. "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedure, Conduct). To this purpose and to ensure a positive learning environment for all, the use of any electronic device (not pre-approved) is strictly prohibited, and those who are engaged in such activities during class time will be asked to leave the classroom.

Sharing Your Work

All work produced by students may be shared by the instructor with the class for purposes of example and training. Such work will be as anonymous as possible. Finally, the instructor may share your work anonymously with future classes or in her own writing and research.

Submitting Assignments:

Unless special instructions are provided, **assignments are NOT to be posted on any discussion board**. Your completed work must be placed in the appropriate Dropbox in D2L Online. <u>DO NOT EMAIL ME ANY ASSIGNMENTS AS THEY WILL BE DELETED</u>. Please follow the rules for naming and posting assignments. Some of the course labs will be conducted in the TxCR environment and relevant instructions will be provided separately.

Late Work Policy

All assignments are due at the date and time specified.
Please keep in mind that NO late work will be accepted without penalty. If an assignment is turned in after the due date, **20% of the grade will be forfeited**. An assignment must be submitted within 24 hours of the due date if you want it graded.
- You have <u>one 24-hour "late day" token</u> that can be used on any of the assignments
- After you've used your token, assignments will still be accepted up to 24 hours late, but with a 20% penalty (automatically deducted).
- Assignments turned in more than 24 hours late will NOT be reviewed and will not be graded.

Additional extensions on assignments will be granted with appropriate documentation. If you have a problem submitting an assignment on time you should contact me **BEFORE** the due date.

Makeup Policy

There will be NO makeup exams or quizzes. If you shall miss a quiz/exam because of <u>acceptable extreme circumstances</u> (hospitalization, serious injury, death in the family etc.), you may be offered to choose to receive a grade based on your in-class ranking in the next quiz/exam.

Collaboration Policy

The *syllabus/schedule are subject to change.*

Students are encouraged to consult with each other, with the instructor, or anyone else about any assignments / project. However, this must be limited to the discussion of the problem and sketching general approaches to a solution. Each student is responsible for submitting their own independent solutions to the assignment / project. **Consulting another student's or group's solution is prohibited**, and <u>submitted solutions may not be copied from any source</u>. These and any other form of unacceptable collaboration on assignments constitute **cheating**. If you have any question or doubts about whether some activity would constitute cheating, please feel free to ask.

Academic Integrity

I will NOT tolerate any instances of academic dishonesty. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a <u>failing grade at a minimum, and potential further sanctions by the University.</u>

For this class, all assignments / quizzes / exams / project are to be completed by the individual student unless otherwise specified. Any student cheating/plagiarizing will receive a zero on the work they are doing, and subsequent cheating will result in a failing grade and potential academic sanctions.

Basic Tenets of Common Decency

"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (Student's Guide Handbook, Policies and Procedures, Conduct.). This means that rude and/or disruptive behavior will not be tolerated.

Disclaimer

This syllabus is meant to provide general guidance of what to expect from this course. The instructor reserves the right to make changes as appropriate based on the progress of the class. All changes made to this syllabus during the semester will be announced. This document has been posted electronically. If you print a copy of it, please be sure to consult the last modified date of the online version to verify that your printed copy is current.

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/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx).
http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx
Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

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TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx) webpage and [Procedure 13.99.99.R0.01](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf).

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)

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)

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

Students with Disabilities-- ADA Statement

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 162, Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

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.

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