

COURSE NUMBER, TITLE

CIS/COSC 4301– Database Theory and Practices

Spring 2021 Texas A&M University-Central Texas

COURSE DATES, and MODALITY

January 19 to May 14, 2021

This is a face-to-face course that meets at **11:00 am – 12:15 pm in Founder's Hall 407**. Also, it uses the A&M-Central Texas Canvas Learning Management System [<https://tamuct.instructure.com/>].

Meetings type and days:

Section CIS/COSC 110: Meets **Mondays Only**

Section CIS/COSC 120: Meets **Wednesdays Only**

Section CIS/COSC 130/140: **100% Online**

INSTRUCTOR and CONTACT INFORMATION

Instructor: Dr. Samer Takieddine, Ph.D.

Email: contact me using your course [Canvas Inbox](#)

Office Hours

Due to Covid-19 pandemic and for your safety and mine we will use virtual office hours on Mondays and Wednesdays from 3:00 pm to 5:00 pm, Tuesdays from 1:00 to 3:00 pm, or other hours by appointment. You can choose one of the following methods:

Canvas Inbox: write me your question or concern

Phone Call: send me your phone number through Canvas Inbox so I call you

Video Conference: request that I set up a video conference using Webex

Student-instructor interaction

Use your course Canvas Inbox. You can use TAMUCT email stakieddine@tamuct.edu **only** when Canvas is not available. I check Canvas Inbox several times a day during the week and at least once during the weekends. I will respond within **24 hours** of receipt (excludes holidays and university breaks) and within **48 hours** on Saturday through Sunday. Questions that are related to an assignment, quiz, exam, and project must be no later than **48 hours** before the due date.

Communicate with me about any problem or challenge to provide you with solutions if possible. Do not wait till last minute because the sooner the better are the chances to come up with a solution.

COURSE INFORMATION

Course Overview and description

Examine database concepts and structures and understand file and data management principles underlying database construction. Learn fundamental types of database models, with emphasis on relational databases and major non-relational forms. Develop skills in analysis, design, development, and optimization of working database applications on a variety of problems. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

Course Objective

This course covers the essential database concepts required for developing databases for business users. Particular emphasis is given "normalization" and to the increasing use of Internet, commonly available analysis tools, and big data.

Student Learning Outcomes

A student successfully completing this course will be able to:

- Explain the role of databases and database applications in business.
- Use data modeling to create relational databases.
- Describe and distinguish among normalized forms
- Design entity-relationship diagrams using standard notation
- Transform data models into database concept designs using referential integrity constraints
- Create SQL statements for constructing database components and for retrieving information from databases.
- Describe the special needs of multi-user databases and techniques to control data concurrency issues.
- Explain the difference between two and three-tier client/server architecture

Required Reading and Textbook(s)

Database Processing: Fundamentals, Design & Implementation, 15th Edition

Authors: Kroenke, Auer, Yoder, Vandenberg

Edition: 15th

Publisher: Pearson, 2018

ISBN: 978-0-13-480274-9

Note: A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer

COURSE REQUIREMENTS

- We will cover 12 chapters
- We will have one quiz per chapter
- We will apply the content of each chapter through one or more assignment and/or discussion per chapter.
- We will have one midterm exam, and one final exam

- We will have a final project
- Details and descriptions will be provided in Canvas
- All Assignments/Quizzes/ Exams/Discussions/Project must be submitted on Canvas before or on the due date. **Email submissions will not be accepted.**
- Students are expected to post discussions on a timely basis to a minimum of four classmates' postings. Failure to do so will result in point loss. **Post your initial response to the discussion topic by Wednesday and respond to other student's postings before the due date.**
- Weekly folders will be available to students every **Saturday of the prior week at 8:00 am**
- All due dates falls on **Sunday at 11:59 pm** (midnight) of the assigned week
- Proofread all your work carefully before submission.
- Do not wait till last minute to submit your work to guarantee a good quality and a good grade.

STUDENTS RESPONSIBILITIES

- Read and understand course syllabus.
- Check your Canvas Inbox and Announcements on a daily basis.
- Read chapters in full. Power Point slides **do not** cover all required materials
- This class covers technical aspects that you may not be familiar with; therefore, it is imperative that you read the text before each class period to have some background on what will be covered in each class.
- Cheating of any kind is not acceptable and will not be tolerated (**Do your own work**).

Attendance:

Attendance is mandatory to face-to-face students on the day their section meets only.

Student in **section 110 must attend in person on Mondays**

Student in **section 120 must attend in person on Wednesdays**

Virtual Online Attendance is optional.

Students are not allowed to substitute face-to-face attendance with online.

Disruption by a student in a classroom is a violation of the Code of Student Rights and Responsibilities. Therefore, students are expected to attend all lectures. Arriving late to class and leaving early from class are extremely disruptive and discourteous. If you must leave during class, please notify me before class. **Students having missed three (3) or more classes (physically) will lose the attendance grade of 5%** (review grading criteria). Exceptions may apply when following Covid-19 safety measures as described in a later section. If you do miss a class, you are responsible for any missed instruction and assignments.

I will check for in-class attendance at the beginning of every class. Students who arrive late and miss the attendance count will be considered absent. Manage your time to be in class or online on time.

Using cell phones, sleeping, or studying for other classes are not permitted. Turn off your cellphones or put them on silent (not vibrate) while inside the classroom. Students who are expecting an urgent phone call may request permission before class and step outside class to make the call.

GRADING

Grading Criteria

Your final grade will be determined by computing a weighted sum of your scores (in different course components) as follows:

Activity	%
Assignments	45%
Quizzes	10%
Exams	25%
Project	15%
Attendance	5%
Total	100%

Grade Distribution:

Grades Scored Between	Will Equal
90% and 100%	A
80% and < 90%	B
70% and < 80%	C
60% and < 70%	D
0% and < 60%	F

I do not round-up grades including the final course grade (e.g., 79.99999 = C)

Posting of Grades

All grades will be posted in Canvas.

All assignments will be **graded within 2 weeks** of the due date

Grading Policies

Late submissions will be penalized 10% of grade per day late (No more than 3 days late).

There are **no makeup** assignments, quizzes, projects or exams. Manage time appropriately.

Understand that technical problems related to computer connections or equipment cannot be used as an excuse for failure to complete assignments or to participate online. You should locate the computer hardware, software and Internet connections necessary to stay connected and current with your course work online. Be aware of alternate Internet connections available through the college's computer labs, the college's library, the public library, and any friends, relatives, or neighbors and will access them if your personal computer equipment are not working.

COURSE OUTLINE and CALENDAR

Course Tentative Calendar

Week (Monday to Sunday)	Topics Due on Sundays by 11:59 pm
1: 1/19 – 1/24	Read Syllabus and submit acknowledgement Purchase and receive the course book Introduce yourself – Meet and Greet Forum Discussion Read Chapter 1
2: 1/25 – 1/31	Chapter 1 Submit Ch. 1 Quiz
3: 2/1 – 2/7	Chapter 2 Submit Ch. 2 Assignments and Quiz
4: 2/8 – 2/14	Chapter 3 Submit Ch. 3 Assignments and Quiz
5: 2/15 – 2/21	Chapter 4 Submit Ch. 4 Assignments and Quiz
6: 2/22 – 2/28	Chapter 5 Submit Ch. 5 Assignments and Quiz
7: 3/1 – 3/7	Chapter 6 Submit Ch. 6 Assignments and Quiz
8: 3/8 – 3/14	Midterm (Chapters 1 to 6)
9: 3/15 – 3/21	Spring Break – No Classes
10: 3/22 – 3/28	Chapter 7 Submit Ch. 7 Assignments and Quiz
11: 3/29 – 4/4	Chapter 8 Submit Ch. 8 Assignments and Quiz
12: 4/5 – 4/11	Chapter 9 Submit Ch. 9 Assignments and Quiz
13: 4/12 – 4/18	Chapter 10 Submit Ch. 10 Assignments and Quiz
14: 4/19 – 4/25	Chapter 11 Submit Ch. 11 Assignments and Quiz
15: 4/26 – 5/2	Chapter 12 Submit Ch. 12 Assignments and Quiz
16: 5/3 – 5/9	Final Project
17: 5/10 – 5/14	Final Exam (Chapters 7 to 12)

Important University Dates

<https://www.tamuct.edu/registrar/academic-calendar.html>

PROFESSOR'S NOTE

The professor reserves the right to modify the course syllabus content (i.e., calendar, assignment modifications, grading scale adjustments, policy changes, etc.). The professor will notify students in advance of any changes.

WARRIOR SHIELD

Emergency Warning System for Texas A&M University-Central Texas

Warrior Shield is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in Warrior Shield through their myCT email account.

Connect to Warrior Shield by [911Cellular](https://portal.publicsafetycloud.net/Account/Login) [https://portal.publicsafetycloud.net/Account/Login] to change where you receive your alerts or to opt out. By staying enrolled in Warrior Shield, university officials can quickly pass on safety-related information, regardless of your location.

COVID-19 SAFETY MEASURES

To promote public safety and protect students, faculty, and staff during the coronavirus pandemic, Texas A&M University-Central Texas has adopted policies and practices to minimize virus transmission. All members of the university community are expected to adhere to these measures to ensure their own safety and the safety of others. Students must observe the following practices while participating in face-to-face courses, course-related activities (office hours, help sessions, transitioning to and between classes, study spaces, academic services, etc.) and co-curricular programs:

- **Self-monitoring**—Students should follow CDC recommendations for self-monitoring. Students who have a fever or exhibit symptoms of COVID-19 should participate in class remotely and should not participate in face-to-face instruction. Students required to quarantine must participate in courses and course-related activities remotely and must not attend face-to-face course activities. Students should notify their instructors of the quarantine requirement. Students under quarantine are expected to participate in courses and complete graded work unless they have symptoms that are too severe to participate in course activities.
- **Face Coverings**—Face coverings must be worn inside of buildings and within 50 feet of building entrances on the A&M-Central Texas Campus. This includes lobbies, restrooms, hallways, elevators, classrooms, laboratories, conference rooms, break rooms, non-private office spaces, and other shared spaces. Face coverings are also required in outdoor spaces where physical distancing is not maintained. The university will evaluate exceptions to this requirement on a case by case basis. Students can request an exception through the Office of Access and Inclusion in Student Affairs.

If a student refuses to wear a face covering, the instructor should ask the student to leave and join the class remotely. If the student does not leave the class, the faculty member should report that student to the Office of Student Conduct. Additionally, the faculty member may choose to teach that day's class remotely for all students.

- **Physical Distancing**—Physical distancing must be maintained between students, instructors, and others in the course and course-related activities.
- **Classroom Ingress/Egress**—Students must follow marked pathways for entering and exiting classrooms and other teaching spaces. Leave classrooms promptly after course activities have concluded. Do not congregate in hallways and maintain 6-foot physical distancing when waiting to enter classrooms and other instructional spaces.
- The university will notify students in the event that the COVID-19 situation necessitates changes to the course schedule or modality.

TECHNOLOGY REQUIREMENTS AND SUPPORT

Technology Requirements

This course will use the A&M-Central Texas Instructure Canvas learning management system. **We strongly recommend the latest versions of Chrome or Firefox browsers. Canvas no longer supports any version of Internet Explorer.**

Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>]. You will log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

Canvas Support

Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select “Chat with Canvas Support,” submit a support request through “Report a Problem,” or call the Canvas support line: 1-844-757-0953.

For issues related to course content and requirements, contact your instructor.

Tutoring

<https://www.tamuct.edu/student-affairs/academic-support.html#tutoring>

On Campus

Now temporarily video-conferencing

Non-writing subject assistance only. Our remote campus tutors can provide assistance in various subject areas including accounting, advanced and basic math, behavioral and business statistics, biology, **computer information systems**, economics, GRE math, and study skills. Our tutors are ready to assist you and help you develop the skills needed for course success.

Look out for the current and updated schedule postings above and contact the tutor you want by the tutor's email address. The tutor will respond to you by Meeting Place email invitation appointment. Follow the tutor's directions for connecting to the help you need!

Online

For online assistance 24/7, you can access Tutor.com through your Canvas courses. Tutor.com is an online tutoring platform that enables TAMUCT students to log-in and receive online tutoring support made available through your institution. Let their tutors help you in 40+ subject areas!

Simply login in to Canvas and you will see a link to [Tutor.com](#) in your each of your available courses.

Online Proctored Testing

A&M-Central Texas uses Proctorio for online identity verification and proctored testing. This service is provided at no direct cost to students. If the course requires identity verification or proctored testing, the technology requirements are: Any computer meeting the minimum computing requirements, plus web camera, speaker, and microphone (or headset). Proctorio also requires the Chrome web browser with their custom plug in.

Other Technology Support

For log-in problems, students should contact Help Desk Central

24 hours a day, 7 days a week

Email: helpdesk@tamu.edu

Phone: (254) 519-5466

[Web Chat](http://hdc.tamu.edu): [http://hdc.tamu.edu]

Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Academic Integrity

Texas A&M University -Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student's academic performance and includes, but is not limited to, working with others in an unauthorized manner, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student's work, collusion, and the abuse of resource materials. All academic misconduct concerns will be referred to the university's Office of Student Conduct. Ignorance of the university's standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

Academic Accommodations

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Office of Access and Inclusion is responsible for ensuring that students with a disability receive equal access to the university's programs, services and activities. If you believe you have a disability requiring reasonable accommodations please contact the Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information please visit our [Access & Inclusion](https://tamuct.instructure.com/courses/717) Canvas page (log-in required) [https://tamuct.instructure.com/courses/717]

Copyright Notice

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