MIS 325: Database Management

Fall 2019 – Unique Numbers: 03945

Instructor	Huoy M. Khoo, Ph.D – huoy.khoo@mccombs.utexas.edu Information, Risk and Operations Management (IROM) Department
Class Times	M/W: 12:30 to 1:45 pm.
Class Location	UTC 4.104
Office	CBA 3.408 (near the south side of wide escalators on 3rd floor by the Hall of Honors)
Mailbox	IROM Department, CBA 5.202
Office Hours	M/W: 2 to 3 pm and by appointment (email me 2-3 days ahead to make an appointment if you work or have class during office hours)
Teaching Assistants	**Laura Nguyen, Daisy Vo, Yoann Dequin, Rakshit Shroff**
TA Office hours	**To be announced on Canvas.**

Course Objectives

This course helps you understand the basic concepts and structure of a database. We will discuss how to properly model the database so that the data can be easily accessed and manipulated through a database management system (DBMS). Among the major database technologies, this course focuses on introducing the relational database management system, which is based on the relational data model and dominates the market since 1980s.

We will use Oracle DBMS as the platform to implement assignments and projects. You will gain hands-on training by performing basic and advanced structured query language (SQL) operations. But you also have the responsibility to learn on your own some of the details of Oracle implementation. Learning to learn is the greatest skill for MIS professional. The key course objectives are:

1. Understand general principles of relational database design and implementation.
2. Understand and be able to use PL/SQL language to retrieve information from relational database.
3. Understand and be able to create, update, and remove tables in database using PL/SQL language.
4. Be able to perform other functions using data manipulation language (DML) and data definition language (DDL).

Text and Notes

1. Required **Textbook**: Murach's Oracle SQL and PL/SQL for Developers (2nd Edition) ISBN-13: 978-1890774806
2. Required Textbook: Modern Database Management by Hoffer, Ramesh, and Topi (11th or 12th Edition).
3. **Class Slides/Documents**: Available through Canvas (http://canvas.utexas.edu)
4. **Oracle SQL Developer and Server**: See separate documents on Canvas for instructions on downloading/installing Oracle SQL Developer and how to access Oracle server.
5. Oracle's online documents: http://docs.oracle.com
   http://docs.oracle.com/database/121/nav/portal_booklist.htm

Required Materials

1. Access to email – make sure that the email listed in Canvas is one you actually check. I will periodically use Canvas to send you announcements. It's your responsibilities to check your Canvas and UT emails, and read announcements posted on Canvas.

Classroom Participation

You are expected to participate in the classroom discussion by answering questions, asking questions, raising issues, and making observations. You will learn more if you attend class regularly, take notes, ask questions and contribute to discussions. Coming to class is important, since many exam questions come from lectures and class discussion. Although attendance does not DIRECTLY factor into your course grade, there is a clear correlation between consistent attendance and strong performance on homework and exams.

Piazza Discussion Board

This semester, we will be using Piazza for class discussion. You can find our class page by following the link under Piazza in Canvas. This is faster and more efficient than sending individual emails to a classmate, the TAs or me. The quicker you begin asking questions on Piazza, the quicker you'll benefit from the collective knowledge of your classmates and instructors. We encourage you to ask questions when you're struggling to understand a concept.

Grades

Assignment	Weight
Exam 1	19%
Exam 2	21%
Exam 3	25%
Seven Homework Assignments*	21%
Midterm Project	5%
Two to three in-class Quizzes	3%
Final Project	6%
Total	**100%**

* Your single lowest homework grade will be dropped automatically. Quiz dates will be announced in class.

Final Average	Final Letter Grade
93.34 – 100.00	A
89.50 – 93.33	A-
86.67 – 89.49	B+
83.34 – 86.66	B
79.50 – 83.33	B-
76.67 – 79.49	C+
73.34 – 76.66	C
69.50 – 73.33	C-
66.67 – 69.49	D+
63.34 – 66.66	D
59.50 – 63.33	D-
0.00 – 59.49	F
** Your final average is final	** Strictly no individual curve

Re-Learning on Assignments

Assignment feedback will be provided in class. If you feel that there was a mistake when grading your homework, you must contact the TAs within **one week** of the day the homework is returned in class. **After the one-week window, your grade for that assignment is permanent.**

Asking questions after your deliverables are returned reinforces learning and helps you to understand your strengths and weaknesses with course material. Therefore, I encourage you meet with me or TAs OUTSIDE OF CLASS to discuss your assignments. Because each homework builds on the material from previous homework, it is very important that you make an effort to understand all concepts. Please meet with me or TAs during office hours to discuss current and past homework so that you have a better understanding of course material.

Exams

All exams are scheduled well in advance. No exam grades will be dropped. If you miss an exam, you will be given a zero, period! There are no makeup exams. If you have a legitimate, non-academic reasons for missing an exam, you must contact me by email or phone BEFORE the time the exam starts. **If you contact me AFTER the exam, it is considered missing the exam**.

Homework

You must follow the class assignment standards on every homework assignment (see separate standards document for details.) It is possible to have a homework that works, but does not make an A. You will lose points if you fail to follow instructions carefully. **Small details matter, and therefore matter in your homework.** Your lowest homework score will automatically be dropped.

Turning in Homework

Turn in your Database homework through Canvas by 6 pm on the due date. After 6:01 pm, a 15% late penalty will be applied on the day the homework is due and additional 15% for every calendar day thereafter up to three days. The homework will receive a zero on the fourth day. Please note that in the past, many students thought they turned in their homework, but didn't actually submit the file, or they turned in the wrong version, or they failed to submit all files. Please be CAREFUL when submitting your homework on Canvas. **Any errors in submission will cause you to get a ZERO!** Please do not ask me to make an exception for you. If I make one for you, I have to make it for everyone. This makes it impossible for students to get their grades back in a timely manner. In the "real world," consequences for not submitting work correctly are much more severe than a "ding" to your grade. I've heard from many professionals that if they failed to turn in a bid and lost business for the company, they would be fired. I realize that mistakes happen, but you need to act professionally and accept the consequences. This policy is not flexible. ALWAYS double-check your submissions.

MidTerm and Final Projects

The midterm and final project in MIS 325 will require a group of three to four students to create a database to solve a basic business problem. Completion of this system will require the application of course concepts from the beginning of the semester to a class before the due date of the projects. More specific instructions about this assignment will be posted on Canvas as we get closer to the end of the semester. Also, you will be required to submit feedback about yourself and your partner. I reserve the right to adjust your grade if you receive poor reviews from your partner, so be a good teammate!

Canvas Use & Class Learning

Your use of Canvas's email should be for course-related messages only; please see UT Austin's Acceptable Use Policy. Messages for selling football tickets and posting party invites are not considered course-related unless your instructor has specifically allowed this usage for his/her class. See UT's Acceptable Use Policy at http://security.utexas.edu/policies/aup.html.

Information Privacy

Password-protected class sites, such as Canvas, are available for all accredited courses taught at The University. Syllabi, handouts, assignments and other resources may be available within these sites. Site activities could include exchanging email, engaging in class discussions and chats, and exchanging files. In addition, class email rosters are a component of the sites. Students who do not want their names included in these electronic class rosters must restrict their directory information in the Office of the Registrar, Main Building, Room 1. For more information, see http://registrar.utexas.edu/students/records/ferpa/. **If you choose anonymity, please email your JDOE number to me so I can post feedback on Canvas.**

Privacy in Canvas:

Information in Canvas is protected by your UTEID login. Please be aware that I will use a merged Canvas site for all sections of the course that I am teaching this semester. This will allow students in other sections to see that you are enrolled in the course and send you email from within Canvas. However, they will not actually learn your email address and no other personal data will be revealed through Canvas. If you have any concerns, please contact the ITS Help Desk at 475-9400 for help removing your name from view of other students

Using Email for Official Correspondence to Students

Email is recognized as an official mode of university correspondence; therefore, you are responsible for reading your email for university and course-related information and announcements. You are responsible for keeping the university informed about changes to your email address. Please make sure that the email listed in Canvas is one you actually check. You should check your email regularly and frequently. You can find UT Austin's policies and instructions for updating your email address at http://www.utexas.edu/cio/policies/university-electronic-mail-student-notification-policy.

Religious Holy Days

By UT Austin Policy, you must notify me of your pending absence at least 14 days before the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, I will give you an opportunity to complete the missed work within a reasonable time after the absence.

Diversity and Inclusion It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed and that the diversity that students bring to this class can be comfortably expressed and be viewed as a resource, strength and benefit to all students. Please come to me at any time with any concerns.

Documented Disability Statement

The University of Texas at Austin provides, upon request, appropriate academic accommodations for qualified students with disabilities. Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 512-471-6259, http://diversity.utexas.edu/disability/. Discuss your required accommodations with me at the beginning of the semester. No later than five business days before an exam, you should remind me of any testing accommodations you will need so that I can make arrangements.

University of Texas Honor Code

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Scholastic Dishonesty Policy

I take this issue seriously. **Any dishonesty—such as cheating, false representation, plagiarism, etc.—that comes to my attention will result in an F in the course.** The University defines academic dishonesty as cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Scholastic dishonesty also includes, but is not limited to, providing false or misleading information to receive a postponement or an extension on an exam or other assignment, and submission of essentially the same written assignment for two different courses without faculty permission. In addition, all assignments in this course may be processed by TurnItIn, a tool that compares submitted material to an archived database of published work to check for potential plagiarism. Other methods may also be used to determine if a paper is the student's original work. Regardless of the results of any TurnItIn submission, the faculty member will make the final determination as to whether or not a paper has been plagiarized.

McCombs Scholastic Dishonesty Policy

"The McCombs School of Business has no tolerance for acts of scholastic dishonesty. The responsibilities of both students and faculty with regard to scholastic dishonesty are described in detail in the BBA Program's Statement on Scholastic Dishonesty at http://my.mccombs.utexas.edu/BBA/Code-of-Ethics. By teaching this course, I have agreed to observe all faculty responsibilities described in that document. By enrolling in this class, you have agreed to observe all student responsibilities described in that document. If the application of the Statement on Scholastic Dishonesty to this class or its assignments is unclear in any way, it is your responsibility to ask me for clarification. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since dishonesty harms the individual, all students, the integrity of the University, and the value of our academic brand, policies on scholastic dishonesty will be strictly enforced. You should refer to the Student Judicial Services website at http://deanofstudents.utexas.edu/sjs/ to access the official University policies and procedures on scholastic dishonesty as well as further elaboration on what constitutes scholastic dishonesty."

Behavior Concerns Advice Line (BCAL)

BCAL is a service for students, faculty, and staff of the university to discuss their concerns about another individual's behavior. Trained staff members will assist the caller in exploring available options and strategies. They will also provide appropriate guidance and resource referrals to address the particular situation. Dialing (512) 232-5050 (or https://operations.utexas.edu/units/csas/bcal.php) will connect you to trained staff members 24/7/365. Calls to BCAL can be anonymous, and there is also an on-line reporting form (not anonymous).

Campus Safety

Please note the following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, http://www.utexas.edu/safety/

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation should inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors.
- Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- Behavior Concerns Advice Line (BCAL): 512-232-5050 (or https://operations.utexas.edu/units/csas/bcal.php)
- Further information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency.

(Please see next page for class schedule. Please keep in mind that this is a tentative schedule and is subject to change. Always follow the assignment document deadlines. Announcement will be made in class or on Canvas.

Wk	Cl	Date	Class Topic	Readings *	Deliverables *
1	1	W: Aug 28	Introduction to Relational Database	Ch. 1: Introduction to SQL	Purchase Textbook Install SQL Develop
2	2	M: Sept 2	Labor Day	No class	
	3	W: Sept 4	Single table data retrieval	Ch. 3: How to retrieve data from a single table	
3	4	M: Sept 9	Single table data retrieval	Ch. 3: How to retrieve data from a single table	Homework 1
	5	W: Sept 11	Multiple tables data retrieval	Ch. 4: How to retrieve data from two or more tables	
4	6	M: Sept 16	Multiple tables data retrieval	Ch. 4: How to retrieve data from two or more tables	Homework 2
	7	W: Sept 18	Database Design and Normalization	Ch. 2 to 4 (Modern DB Mgt)	
5	8	M: Sept 23	Database Design and Normalization	Ch. 2 to 4 (Modern DB Mgt)	
	9	W: Sept 25	Database Design and Normalization	Ch. 2 to 4 (Modern DB Mgt)	
6	10	M: Sept 30	Catch-up/Exam Review	In-class project	**In class (Homework**
	11	W: Oct 2	Exam 1	Study Guide	**Exam 1 (In Class)**
7	12	M: Oct 7	Tables, indexes, and sequences creations	Ch. 10: How to create tables, indexes, and sequences	In-class Quiz 1
	13	W: Oct 9	Tables, indexes, and sequences creations	Ch. 10: How to create tables, indexes, and sequences	
8	14	M: Oct 14	Data insertion, update, and deletion	Ch. 7: How to insert, update, and delete data	Homework 4 (Group
	15	W: Oct 16	Data insertion, update, and deletion	Ch. 7: How to insert, update, and delete data	
9	16	M: Oct 21	Views	Ch. 11 How to create views	Midterm Project
	17	W: Oct 23	Summary queries	Ch. 5: How to code summary queries	
10	18	M: Oct 28	Summary queries	Ch. 5: How to code summary queries	Homework 5
	19	W: Oct 30	Catch-up/Exam Review		Quiz 2
11	20	M: Nov 4	**Exam 2**	Study Guide	**Exam 2 (In Class)**
	21	W: Nov 6	Subqueries	Ch. 6: How to code subqueries	
12	22	M: Nov 11	PL/SQL	Ch. 13: How to write PL/SQL code	
	23	W: Nov 13	PL/SQL	Ch. 13: How to write PL/SQL code	
13	24	M: Nov 18	PL/SQL	Ch. 13: How to write PL/SQL code	Homework 6
	25	W: Nov 20	Transactions and locking management	Ch. 14: How to manage transactions and locking	
14	26	M: Nov 25	Transactions and locking management	Ch. 14: How to manage transactions and locking	Homework 7
	27	W: Nov 27	Stored Procedures and functions	Ch. 15: How to create stored procedures and function	
15	28	M: Dec 2	Triggers	Ch. 16: How to create triggers	**Group Project**
	29	W: Dec 4	Catch-up/Exam Review		

16	30	M: Dec 9	**Exam 3**	Study Guide	**Exam 3 (In Class)**
	31	W: Dec 11	Study Day (No class)		
17	32	M: Dec 16	Quiz 3		

* Unless stated, all chapters are from Oracle SQL and PL/SQL

* All dates are tentative.