CSCI 526 Database Systems
COURSE SYLLABUS: Spring 2016

Quarter   Spring 2016
Meeting Days/Time Online, must login eCollege
Instructor   Kwang Lee, Ph.D.
Instructor Phone   571-275-0959
          Mon, Wed, 09:00am ~ 12:00pm
Instructor E-mail   kwang.lee@tamuc.edu (Best Contact Point)
          For all Email contacts please make sure
          THE Email Subject Is: CSCI526-blahblah

COURSE INFORMATION

MANDATORY TEXTBOOKS:
- Fundamentals of Database Management Systems, 2nd, ISBN-10: 0470624701 by Mark L. Gillenson, John Wiley & Sons, Inc.
- SQL Essentials ISBN-10: 1590280296 by G. Randolph, J. Griffin, Franklin, Beedle & Associates

Supplementary Texts:
- Harrington, J. L., "Relational Database Design Clearly Explained", Morgan Kaufmann Publishers, ISBN 0123264251, August, 1998
- Fleming, C. C. et al, "Handbook of Relational Database Design", Addison-Wesley, ISBN 0201114348, August 1988

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.

Course Objectives
- Students will be able to write SQL programs for effective data definition and manipulation
- Students will be able to develop ER diagrams for logical design of database systems

- Students will be able to perform data normalization process for effective data management
- Students will be able to implement and present a small scale database development project using commercially available DBMS tools
- Students will be able to master the technique for team play and teamwork for small scale database projects through brain storming and joint requirement planning

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. To be able to demo and present the initial, intermediate, and final delivery of the database design project

COURSE REQUIREMENTS

Midterm Examination:

- The midterm examination will cover chapters 1-6. **Midterm exam will worth 150 points and will be 15 percent of your course grade**. Midterm exam consists of two parts. Both parts are multiple choice Questions. Part I has 5 or 10 multiple choice questions worth 50 or 100 points, and Part II has 5 or 10 essay questions prepared by your instructor. You will have 7 days, unlimited access to complete both parts of your midterm exam.

Final Examination:

- The final examination will cover chapters 7-14. **Final exam will be worth 250 points and will be 25 percent of your course grade**. Similar to the midterm exam. Final exam consists of two parts. Both parts are multiple choice questions. Part I has 5 or 10 multiple choice questions worth 100 or 150 points, and Part II has 5 or 10 essay questions prepared by your instructor. You will have 7 days, unlimited access to complete both parts of your final exam.

Two Written Assignments and Term Project:
- The objective of graduate level writing assignments and project is to promote attitudes and skills that will improve a student's ability to communicate in writing, develop research skills and documentation techniques, and encourage critical analysis of data and conclusions. So the written essay assignments and the term project will be assigned to you. Students must complete the assignment totaling a minimum of ten pages of writing.
- **Each written paper and a project will be worth 100 points (for total of 300 points), and will be 30 percent of your course grade.** You justify ideas and response by using appropriate examples and references from texts, Web sites, other references, or personal experience and cited the sources in the correct APA format.

- **APA Style**
  TAMUC uses the APA (American Psychological Association) Writing Style in all its courses which require a Paper or Essay. Instructors provide information on some useful resources in the course.
  http://www.apastyle.org/

Assignments and project will be posted in university's eCollege communication system. Detailed information will be provided by the instructor. Students also should turn in their assignments through eCollege portal. Each student is responsible for the content/instructions of email communications.

All assignments and project must be completed and submitted into **"Dropbox"** on due date. Work must be **complete**. I will not accept a partially completed assignment. Your work **must** be your **own.** Cheating will result in a grade of 0 for the applicable assignment; further disciplinary action, including assigning a failing grade (F) for the entire course may also be taken. Missed work will result in a grade of 0 for the assignment. Exceptional circumstances should be discussed with the instructor in advance.

Assignments must be printed out (when appropriate) and **properly identified**. Each must include:
- Your **Name**
- The **Assignment** and/or **File Name**

Four Quizzes:
- **Each quiz will be worth 50 points (for total of 200 points), and will be 20 percent of your course grade.** Three electronic quizzes pertaining to lecture material will be during class week and each will be worth 5% of your grade. Each has 5~10 multiple choice questions worth 100 points.

Ten Threaded Discussions:
- **Threaded discussions worth 100 points and will be 10 percent of your course grade**. Must post your responses to our discussion questions by the due date. Discussion questions are posted under each week's Assignment tab as well as discussion board tab. You need to post your responses under discussion board. Your participation in our weekly discussion is valuable for the duration of the thread. Please post your responses by the due date/s for each week. Responses posted after the due date **WILL NOT** be graded and zero points will be issued for that week's discussion. I will not extend the due date for participation in our weekly discussion/s.

GRADING

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

- Midterm Test   150 (15%)
- Final Test   250 (25%)
- Two Assignments   200 (20%)
- Term Project   100 (10%)
- Four Quizzes   200 (20% each-50%)
- 10 Discussions   100 (10% each-10%)

  Total   1,000 (100%)

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, instructor holds the right to give 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.

Letter grades will be assigned according to the following scale:
- A - at least 900 (90%) of the total points
- B - at least 800 (80%) of the total points
- C - at least 700 (70%) of the total points
- F - less than 700 (70%) of the total points

ASSIGNMENT AND LATE POLICY

The objective of written assignments is to promote attitudes and skills that will improve a student's ability to communicate in writing, develop research skills and documentation techniques, and encourage critical analysis of data and conclusions.

All assignments and project must be written in MS-word.doc format and uploaded into each assignment content holder on due date. Click each assignment tile on eCollege, then go to the assignment materials screen and then attach the local assignment from your computer using "œBrows My Computer."

You justify ideas and response by using appropriate examples and references from texts, Web sites, other references, or personal experience and cited the sources in the correct APA format.

American Psychological Association (APA) Style

All written work submitted by students in this course must confirm to the most recent APA guidelines for referencing, in text citations, appendices, and/or any means of crediting an outside source.

Work must be **complete**. I will not accept a partially completed assignment. Your work **must** be your **own.** Cheating will result in a grade of 0 for the applicable assignment; further disciplinary action, including assigning a failing grade (F) for the entire course may also be taken. Missed work will result in a grade of 0 for the assignment. Exceptional circumstances should be discussed with the instructor in advance.

Assignments and project must be printed out (when appropriate) and **properly identified**. Each must include:
- Your **Name**
- Your **Student ID**
- The **Assignment** and/or **File Name**

Late Assignment and Project Policy:

Credit will be given for ONLY those exams, programs, and/or projects turned in no later than the deadline as announced by the instructor of this class, unless prior arrangement has been made with the instructor.

Late programs / projects / assignments can gain partial credit upon the following policy. As per University requirements, assignments submitted within 7 days after the deadline can receive up to 20% deduction, assignments submitted between 8-14 days after the deadline can receive up to 50% deduction.

- **No assignments and project will be accepted two weeks after the assigned due date**
- **Final assignment will not be accepted after the term end day**
- Exceptions to this policy will only be made in extraordinary circumstances. Please let me know your circumstances.

Late Discussion Policy:
I decided not to accept any late discussion. The discussion has a different purpose from the written assignment. As you know, the main purpose of discussion is to exchange idea and opinions with other colleagues. If you are late to participate in the discussion, you cannot archive this purpose via the discussion. I would not keep track of when the late discussions were turned in.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

ATTENDANCE POLICY:
Attendance is mandatory. Late students will not be welcomed by others. Students are expected to be present at all class lectures and are responsible for all material covered in class and assigned in readings.

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/

ACADEMIC ETHICS

"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 Procedures, Conduct). Absolutely no usage of laptops and cellular devices (texting and talking) in class. Talking and other activities that distract/disturb others in the class would not be tolerated. Instructor holds the right to ask you leave the classroom anytime based on any of disturbing attitude. Each student should sign the sign-sheet if asked by instructor. Late student may not be allowed to participate the lecture. No food and drink in the class.

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. *(See current Student Guidebook).* 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

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.

SMOKE, VAPOR & TOBACCO FREE ENVIRONMENT

University Procedure 34.05.99.R1 now prohibits the use of vapor/electronic cigarettes, smokeless tobacco, snuff and chewing tobacco inside and adjacent to any building owned, leased, or operated by A&M – Commerce.

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.
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 are strongly encouraged to check for compatibility of your browser **BEFORE** the course begins and to take the Pearson LearningStudio tutorial offered for students who may require some extra assistance in navigating the Pearson LearningStudio platform. **ONLY** Pearson LearningStudio based problems are legitimate.

Internet Access
An Internet connection is necessary to participate in discussions and assignments, access readings, transfer course work, and receive feedback from your professor. View the requirements as outlined in Technology Requirements above for more information.

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.

COURSE OUTLINE / CALENDAR

DATE	CHAPTER	INFORMATION
Week 01	Chapter 1	Data: The New Corporate Resource **Discussion: Introduction and Greeting**
Week 02	Chapter 2	Data Modeling **Discussion 1: Listed under week 2 tab** **Due: No later than 11:59 pm Sun**
Week 03	Chapter 3	The Database Management System Concept **Discussion 2: Listed under week 3 tab** **Quiz 1 (Ch1 ~ Ch2): Listed under week 3 tab** **Due: No later than 11:59 pm Sun**
Week 04	Chapter 4	Relational Data retrieval: SQL **Discussion 3: Listed under week 4 tab** **Due: No later than 11:59 pm Sun**
Week 05	Chapter 5	The Relational Database Model: Introduction **Discussion 4: Listed under week 5 tab** **Quiz 2 (Ch3 ~ Ch4): Listed under week 5 tab** **Due: No later than 11:59 pm Sun**
Week 06	Chapter 6	The Relational Database Model: Additional Concepts **Written Assignment 1: Listed under week 6 tab** **Discussion 5: Listed under week 6 tab** **Due: No later than 11:59 pm Sun**
Week 07	Chapter 7	Logical Database Designs **Midterm Examination (Ch01 ~ Ch06)** The exam will be due No later than 11:59 pm Sun
Week 08	Chapter 8	Physical Database Design **Discussion 6: Listed under week 8 tab** **Due: No later than 11:59 pm Sun**
Week 09	Chapter 9	Object-Oriented Database Management **Discussion 7: Listed under week 9 tab** **Quiz 3 (Ch7-Ch8): Listed under week 9 tab** **Due: No later than 11:59 pm Sun**
Week 10	Chapter 10	Database Administration and Data Dictionaries

		Discussion 8: Listed under week 10 tab **Due: No later than 11:59 pm Sun**
Week 11	Chapter 11	Database Control Issues: Security, Backup and Recovery, Concurrency **Discussion 9: Listed under week 11 tab** **Due: No later than 11:59 pm Sun**
Week 12	Chapter 12	Client/Server Database and Distributed Database **Discussion 10: Listed under week 12 tab** **Quiz 4 (Ch9-Ch11): Listed under week 12 tab** **Due: No later than 11:59 pm Sun**
Week 13	Chapter 13	The Data Warehouse **Term Project** **Due: No later than 11:59 pm Sun**
Week 14	Chapter 14	Database and Internet **Written Assignment 2: Listed under week 14 tab** **Due: No later than 11:59 pm Sun**
Week 15	Wrap-up	**Final Examination** The exam will be due No later than 11:59 pm Sun

ACADEMIC INTEGRITY POLICY

The Department is committed to maintaining the integrity and respectability of degrees conferred and course credit earned through our department.
Academic dishonesty restricts the understanding of subject material by the perpetrator, distracts and discourages other class members, and reduces the value of the economic signal of degrees conferred through Texas A&M University - Commerce. Whether courses are online, face-to-face, or hybrid combinations; the faculty, staff, and student members of the Department are committed to protecting the integrity of our courses, regardless of the delivery method.

Sufficient Notice
This policy, along with other University guidelines, represents sufficient notice to any student enrolled in a department course or program that his/her conduct in that course or program is governed by these academic integrity standards. Ignorance of this policy is neither an excuse nor a mitigating circumstance for violations.

Conduct Covered
No bulleted list of approved or disallowed behavior can substitute for our student body's commitment to act in ways that are consistent with moral principles, values, and a guiding sense of personal integrity. As faculty, we are committed to providing quality education both online and in the classroom. Likewise, academic ethics apply regardless of the delivery method of the course. However, in the interest of being specific, the

following behaviors are generally not allowed and constitute academic dishonesty:

- Plagiarism - Defined by the Oxford English Dictionary as, "1. The action or practice of plagiarizing; the wrongful publication or purloining, and publication as one's own of the ideas, or expression of the ideas (literary, artistic, musical, mechanical, etc.) of another."

- Cheating on course assignments and assessments - Any attempt to circumvent the integrity of the grading system constitutes cheating. This includes use of resources that are not allowed (e.g. notes, calculators, books), assistance from other people (e.g. friends, parents, classmates, spouses). Your grade should reflect what you know – if it does not, you may have cheated. If you have questions about whether or not an action or resource is allowable, contact your instructor BEFORE you engage in the behavior.

- Collusion – any agreement or understanding to work as a group, unless specifically allowed by the instructor, is a form of cheating. Providing assistance to others by allowing them to copy work, or answering questions collaboratively when not allowed to do so is cheating. All individuals involved are guilty of collusion.

- Abuse – Any improper use, misuse or perversion of University facilities, resource material, or intellectual property. This could include theft of electronic documents (e.g. through copying, photographing or hacking), sale of material, or intimidation of fellow students, faculty or staff – either physical or electronically.

This list is not comprehensive, but provides examples of unethical behavior. If you have questions about what is allowable, contact your instructor with enough time to allow them to respond.

Disciplinary Action
Disciplinary action for academic misconduct is under the purview of the instructor. However, discipline can include any combination of the following:

1. Point deduction on an assignment.
2. Failure for an assignment.
3. A grade of zero for an assignment.
4. Failure for the course.
5. Referral to the Academic Integrity Committee or department head for further action.
6. Referral to the Dean of the College of Business.

7. Referral to the University Discipline Committee – this may lead to expulsion from the University.