

SLIS 5707 Data Modeling for Information Professionals

Instructor

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Office Hours and Online Live Classroom Interaction

Students are welcomed to make an appointment with Dr. Chen at any time to discuss course related questions.

Dr. Chen holds office hours on Thursday 9am-Noon. Please send her an email even you plan to visit her during the office hours so that she can schedule individual meetings for all visiting students.

Date & Time	: Thursday 9:00 am- Noon
Location	: Discovery Park, Room E297J
Phone	: 940-369-8393

This course will also use Live Classroom in Blackboard to facilitate communication. A one-hour online chat in the Live Classroom with the instructor is scheduled on following **Thursday nights 7:30pm - 8:30pm** for students to ask course-related questions. Also, four nights are scheduled for a virtual lab. **Your attendance in the online chat and the virtual lab is OPTIONAL.**

Dates for Online Live Chat and Virtual Lab:

September 17, 26 (Lab)
October 3 (Lab), 8, 22, 29 (Lab)
November 5 (Lab), 19

Course Description

This course is designed to meet the needs of the information industry for data modeling and database design for text and multimedia applications. It focuses on the application of data modeling technologies to library and information science practice and research. The class project will provide hands-on experience in designing and implementing

database systems for information service oriented organizations such as libraries, museums, publishers, and bookstores.

Course Objectives

Upon completion of this course, students should be able to:

- Understand the basic concepts of database and data modeling,
- Master database conceptual design using the Entity-Relationship modeling approach,
- Create conceptual design diagrams using graphic software packages,
- Master a Database Management System (Microsoft Access™ in this class. Students can also choose to use MySQL for term project) for developing a real-world database system,
- Understand the syntax of Structured Query Language (SQL),
- Write SQL statements to perform tasks such as database table definition, new data input, and information retrieval,
- Understand trends in database-related technologies and the application of database technologies to various management activities in information organizations.

To achieve the above learning objectives, students are expected to study 9 - 12 hours per week on this course.

Required Textbook

Rob, Peter and Coronel, Carlos. (2007). *Database Systems: Design, Implementation, and Management*, Seventh edition. ISBN 1-4188-3593-5. Thomson Course Technology; available at amazon.com, <http://www.barnesandnoble.com/> and www.course.com

Note: A new edition of this textbook is out, but we choose to use this edition because the content related to this course stays the same. Students can buy the new edition if they prefer, they have to align the new book with the class note by themselves.

Book for Microsoft Access

You are suggested to borrow or purchase **ONE** book about Microsoft Access™ to help you use Microsoft Access for class assignments and the class project. This class also provides a tutorial to Microsoft Access, which should satisfy most of the needs for this course. The tutorial describes the procedures/steps for creating database tables, queries, and forms using Access.

Online Reference Materials for Structured Query Language (SQL)

Some students found that SQL was not very easy to understand when studying only the chapters from the required textbook and the class lessons. The links below will help you to understand SQL better.

- SQL Online Tutorial: <http://www.w3schools.com/sql/default.asp>
- MySQL Reference Manual: <http://dev.mysql.com/doc/>

Software/Hardware Requirements

In this class, we will use Microsoft Access™ as the database management system for all assignments and class projects. Students can choose to use MySQL if they prefer. We will also use Microsoft PowerPoint™ or Microsoft Visio™ for tasks such as drawing Entity-Relationship Diagrams for the database design and project presentation.

Virtual Labs using Live Classroom

The attendance of the Virtual Labs is OPTIONAL, but students who have never used any database management systems are strongly recommended to attend. The Virtual Labs will demonstrate the use of related software such as Access and MySQL. They also provide opportunities for students to discuss their questions with the instructor, or the TA. Dates for the virtual labs are listed in the Table: **Virtual Lab Schedule** below.

Assessment

A student's grade is composed of following:

<i>Class Participation:</i>	5%
<i>Assignments:</i>	50%
<i>Quiz:</i>	10%
<i>Term Project:</i>	35%

The UNT scale for **grading** is as follows:

A = 90-100
B = 80-89
C = 70-79
D = 60-69
F = 59 and below

Class Participation (5%)

This is an online course in Blackboard. You are expected to participate in online discussions. Minimum amount of participation will be **Five** significant postings in which you can ask questions, answer questions posted by the instructor in class lessons, or respond to other students' questions or comments. The grade for class participation will consider both quantity and quality of online discussion involvement.

Assignments (50%)

You will complete **FIVE** assignments designed to help you to understand the topics of Microsoft Access™, Conceptual Modeling, and SQL. You should prepare professional-quality assignments and use graphic software packages (such as Microsoft PowerPoint™, Microsoft Visio™, or other) to produce diagrams. Hand-written submission is not acceptable.

Turn in your assignments by submitting them to the drop boxes setup in the Blackboard class website by the date specified in the **Recommended Study Schedule and Due Dates**. If an emergency arises which prevents you from submitting your assignments,

you should contact the instructor or the TA as soon as possible before the due date. Late work without the permission of the instructor will receive a grade with a 10% penalty per day after the due date.

Quiz (10%)

You will take **ONE** quiz near the end of the semester. The quiz will cover all of the course content up to the date when the quiz is given. The questions in the quiz will be 30 multiple-choice questions that are randomly selected from the self-test questions and/or exercises (if applicable) distributed to you after each lesson. The quiz will be available in Blackboard class website. The instructions on how to take the quiz will be announced one week prior to the quiz.

If an emergency arises which prevents you from taking the quiz at the specified date & time, you should contact the instructor or the TA as soon as possible before the due date.

Term Project (35%)

The purpose of the term project is to allow you to demonstrate your understanding of data modeling and database design issues covered in the class by designing and implementing a real-world database that can handle data and information management issues at libraries, museums, publishers, bookstores, or other organizations. You are free to choose the topics you are interested in, but your term project can only be carried out after the instructor approves your project proposal.

You are strongly encouraged to form teams for the term project. A project team should include no more than three people. You can also choose to conduct the project by yourself. The more contributors to a project, the more ambitious it should be. Students in a team should be responsible for coordinating the work themselves. Each team member will receive an identical grade for the project.

You need to submit **a proposal, an intermediate report, and a final report** regarding the term project. **But only the final report will be graded.** Drop boxes will be created in Blackboard class website in the beginning of the semester. The requirements and deadlines for the three submissions will be specified in a separate document attached in the drop boxes. That document will also contain a list of possible topics suggested by the instructor. You can choose one from the list for your term project in case you do not have a topic.

You are required to submit the proposal, the intermediate report, and the final project to the respective drop boxes. However, if your final report is large and difficult to be uploaded to Blackboard, you should deliver a CD containing all the related files to the instructor. The CD should be sent a few days before the due date of the final report so that it reaches the instructor by the due date to avoid any delay in grading.

Academic Misconduct

The Department of Library and Information Sciences (DLIS), formerly the School of Library and Information Sciences (SLIS), University of North Texas has passed an "Academic Misconduct Policy" on April 15, 2005. All students should have signed the

form "Student Acknowledgement of Academic Misconduct Policy" prior to enrollment in their SLIS course or as part of their application to the Department. Below are extracts from the policy for your convenience.

The Department expects all students to demonstrate both academic rigor and academic integrity. The purpose of this policy is to inform DLIS students of their responsibilities regarding the University of North Texas (UNT) Code of Student Conduct and Discipline and the procedures enforced by DLIS for cases of misconduct. The DLIS Academic Misconduct Policy is derived from the UNT Code, and some text in the DLIS policy is based on text in the Code.

The two categories of most relevance to DLIS are cheating and plagiarism. The UNT Code of Student Conduct and Discipline defines these in its categories of misconduct:

A. Acts of Dishonesty, including but not limited to:

1. **Academic dishonesty - cheating.** The term "cheating" includes, but is not limited to:
 - (a) use of any unauthorized assistance in taking quizzes, tests, or examinations;
 - (b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
 - (c) the acquisition, without permission, of tests, notes or other academic material belonging to a faculty or staff member of the university;
 - (d) dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s).
 - (e) any other act designed to give a student an unfair advantage.

2. **Academic dishonesty – plagiarism.** The term "plagiarism" includes, but is not limited to:
 - (a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgement and
 - (b) the knowing or negligent unacknowledged use of materials prepared by another person or by an agency engaged in the selling of term papers or other academic materials.

To address problems of academic integrity, DLIS has zero tolerance for violations of the DLIS Academic Misconduct Policy. The following apply:

- The DLIS Academic Misconduct Policy applies to any work submitted for DLIS courses or degree requirements, including the Capstone Experience.
- DLIS will retain students' signed statements acknowledging their understanding of the DLIS Academic Misconduct Policy. DLIS instructors will not accept students' claims that they were unaware of DLIS and UNT policies, including definitions of forms of academic misconduct.
- DLIS instructors will follow UNT regulations for reporting suspected violations to UNT, imposing academic sanctions, and recording sanctions for confirmed violations.

- An academic sanction is a penalty imposed on a student for academic misconduct. Sanctions may range from reduction of a test or assignment grade to revocation of an academic degree.
- DLIS instructors retain the right to determine specific sanctions for their courses and to set additional policies and procedures that do not conflict with DLIS or UNT policies.
- Students who have received academic sanctions are not eligible for DLIS awards, honors, or other benefits.

Americans with Disabilities Act Compliance Statement

The Department of Library and Information Sciences, University of North Texas is committed to full academic access for all qualified students, including those with disabilities. In keeping with this commitment and in order to facilitate equality of educational access, faculty members in the Department will make reasonable accommodations for qualified students with a disability, such as appropriate adjustments to the classroom environment and the teaching, testing, or learning methodologies when doing so does not fundamentally alter the course.

If you have a disability, it is your responsibility to obtain verifying information from the Office of Disability Accommodation (ODA) and to inform me of your need for an accommodation. Requests for accommodation must be given to me no later than the first week of classes for students registered with the ODA as of the beginning of the current semester. If you register with the ODA after the first week of classes, your accommodation requests will be considered after this deadline.

Grades assigned before an accommodation is provided will not be changed. Information about how to obtain academic accommodations can be found in UNT Policy 18.1.14, at www.unt.edu/oda, and by visiting the ODA in Room 321 of the University Union. You also may call the ODA at 940.565.4323.

See Next Pages for:

[Readings and Lessons Release Schedule](#)

[Virtual Lab Schedule](#)

[Recommended Study Schedule and Due Dates](#)

Readings and Lessons Release Schedule

Lessons	Topics	Readings	Release Date
1	Introduction to Database Concepts	Chapter 1	August 27
2	Database Models	Chapter 2	August 27
3	The Relational Database Model	Chapter 3	September 1
4	MS Access for Database Construction		September 1
5	Conceptual (Entity Relationship) Design Basics	Chapter 4.1.1– 4.1.4	September 18
6	More Issues in Entity Relationship (ER) Modeling	Chapter 4.1.5 – 4.1.11, Chapters 4.2 and 4.3	September 18
7	Normalization of Entities	Chapter 5	October 1
8	Database Design and Application Examples	Chapter 9	October 1
9	Structured Query Language (SQL) Basics	Chapter 7	October 21
10	Advanced Structured Query Language Applications	Chapter 8	October 21
11	Advanced Database Concepts	Chapters 10, 14	November 5
12	Database Applications in Library and Information Science	Readings	November 5

Virtual Lab Schedule

(Will be held in the Live Classroom of Blackboard Class Website)

Meeting	Date & Time	Content
Sept. 26	7:30pm-8:30pm	Access Tutorial (1) – creating tables and queries
Oct. 3	7:30pm-8:30pm	Access Tutorial (2) – creating forms and reports
Oct. 29	7:30pm-8:30pm	Lesson Nine: SQL
Nov. 5	7:30pm-8:30pm	Lesson Ten SQL Advanced and Using PhpMyAdmin to write SQL statements

Recommended Study Schedule and Due Dates

Academic Week	Date	Study Focus	Assignment/Project /Survey Due
1	Aug. 31 – Sep.6	Familiar with Blackboard Start Here Syllabus	
2	Sept. 7 – 13	Lesson One Lesson Two	Class Survey (not graded)
3	Sept. 14 – 20	Lesson Three Lesson Four	
4	Sept. 21 – 27	Lesson Four (Continue)	Assignment One (by Sept. 22)
5	Sept. 28 – Oct.4	Lesson Five	Assignment Two (by Sept. 29)
6	Oct. 5 – 11	Lesson Six	Class Project Proposal (by Oct. 6)
7	Oct. 12 – 18	Lesson Seven	Assignment Three (by Oct. 13)
8	Oct. 19 – 25	Lesson Eight	
9	Oct. 26 – Nov.1	Lesson Nine	Assignment Four (by Oct. 27)
10	Nov. 2 – 8	Lesson Ten	
11	Nov. 9 – 15	Lesson Eleven	Assignment Five (by Nov. 10)
12	Nov. 16 – 22	Lesson Twelve	Class Project Intermediate Report (by Nov. 17)
13	Nov. 23 – 29	Thanksgiving Week	
14	Nov. 30 – Dec.6	Review, Prepare for Quiz	Quiz (Nov.30 – Dec.6)
15	Dec. 7 – 13	Working on Class Project	Class Project Final Report (by Dec. 13)
16	Dec. 14 - 17	Grades will be Submitted to the University	