

Texas Wesleyan University Course Syllabus

Spring 2018

Course: CSC4341-01
(Principles of Database Systems)

Instructor: Yukong Zhang

Phone: (817) 531-4885

Email: yzhang@txwes.edu

Meet: TTH 3:00pm, MCF-107

Office: McFadden 103

Office Hours: M-F 1:00-3:00

Web: <http://cs.txwes.edu/>

Course Description

Prerequisite: CSC2320 (Data Structures) and MAT3381 (Discrete Mathematics)

A study of database design and management focusing on the relational model. Topics include data modeling, data definition, data manipulation, normalization, query optimization, and data integrity.

Learning Objectives

This course is intended for the senior computer science majors. Students completing the course will: (1) gain theoretical and practical understanding of database management systems, (2) obtain hands-on experience in database systems design and implementation and (3) be familiar with relational database design principles, SQL, normalization, and integrity of databases.

Required Materials

- **Introduction to Database Systems** by C. J. Date, Addison Wesley, 8th edition, 2004. (ISBN-13: 978-0321197849)
- **Instructor's handouts**

Instructional Methods

The instructions will be conducted through classroom lectures and discussion along with web assistance. Students will be assigned homework problems. Exams will be given during the semester.

Class Schedule ¹

Week	Topic
Week 1-2:	Overview of Database Management.
Week 3 :	Database System Architecture.
Week 4:	An Introduction to Relational Databases.
Week 5-6:	Introduction to SQL.
Exam 1	
Week 7:	Types, relations, relational Algebra.
Week 8:	Integrity.
Week 9:	Views
Week 10	Functional Dependencies.
Week 11-12:	Further Normalization I: 1NF, 2NF, 3NF, BCNF.
Exam 2	
Week 13:	Semantic Modeling.
Week 14-15:	Advanced Topics.
Final Exam	

Evaluation and Grading

Category	Weight
Homework	30%
Project	20%
Two Exams	30%
Final	20%

Absence Policy

The absence policy specified in the current Texas Wesleyan University Catalog and Student Handbook will be used. Regular and punctual attendance at all scheduled classes is expected of all students. University regulations authorize absences of students when representing the University (e.g. at athletic, student government, student development, or fine arts events). Other authorized absences are those that may be necessary to fulfill course requirements. Unless otherwise specified by the instructor in the course syllabus, **the maximum number of authorized absences during one semester is five for a Monday-Wednesday-Friday class, three for a Tuesday-Thursday class, and two for a class or laboratory meeting once a week.** Unauthorized absences may be excused when caused by illness or other emergencies and should be reported promptly to the instructor. A student is held responsible for all class assignments. When a student has a number of unauthorized absences equal to the number of hours the class meets per week, the student may be dropped from the class roll by the instructor of the class. (page 101 in 2012-13 Undergraduate Catalog)

¹This is a tentative schedule. It is subject to change as the class progresses

Academic Integrity

You are allowed and encouraged to study in groups, provided that it is done in a way that benefit all students involved. However, if one person simply tells another how to do a problem or gives another a copy of his/her program, it totally defeats the purpose of the assignment. You will get maximum benefit from an assignment if you work hard on it alone before discussing with others. In any case, the assignment you turn in with your name on it should be written in your own words and represent your own effort. Sharing homework solutions and program code is not allowed. It will be treated as a violation of the University's Academic Integrity Code. All students involved will be reported and recorded. In addition, copying solutions from the Internet or other source is illegal. Please see the University Catalog and Student Handbook regarding appropriate standards of conduct in courses at Texas Wesleyan University.

Texas Wesleyan University Policies

- Students should read the current Texas Wesleyan University Catalog and Student Handbook to become familiar with University policies. These policies include but are not limited to grade appeal, sexual harassment, student access to records, and others; policies specified in the current catalog are applicable unless otherwise stated in this syllabus.
- Texas Wesleyan University adheres to a disability policy which is in keeping with relevant federal law. The University will provide appropriate accommodation as determined by the Director of the Counseling Center, Dr. Michael Ellison. Students must notify instructors of any permanent or temporary disabilities and must provide documentation regarding those disabilities prior to the granting of an accommodation. For assistance, students should consult with Dr. Ellison at mellison@txwes.edu or (817) 531-7565.
- Course syllabi are intended to provide students with basic information concerning the course. The syllabus can be viewed as a 'blueprint' for the course; changes in the syllabus can be made and students will be informed of any substantive changes concerning examinations, the grading or attendance policies and changes in project assignments.
- Any course taken at Texas Wesleyan University and repeated for a grade must be repeated at Texas Wesleyan University. Any course taken at another university may be repeated at Texas Wesleyan, and the most recent grade on the course will be counted. When a course is repeated, the grade point average will be computed using the most recent grade achieved.
- As noted in the catalog under the Unified Discrimination and Harassment Policy, Texas Wesleyan University is committed to providing an environment free of all forms of prohibited discrimination and sexual harassment. If you have experienced any such discrimination or harassment, including gender- or sex-based forms, know that help and support are available from the following resources:

- Complete online incident report at <https://txwes.edu/student-life/report-a-concern/>
 - Contact Campus Conduct Hotline (24 hours a day): (866) 943-5787
 - Campus security (24 hours a day): (817) 531-4911
 - Dean of Students: deanofstudents@txwes.edu OR (817) 531-4872
 - Please be aware that all Texas Wesleyan University employees, other than designated confidential resources (i.e., Community Counseling Center) are required to report credible evidence of prohibited discrimination or harassment to the University's Title IX Coordinator, or to one of the Title IX Assistant Coordinators. If you wish to speak to someone confidentially, please contact the Community Counseling Center at (817) 531-4859 to schedule an appointment.
- Due to the limitless variety of potentially hazardous chemicals that may be found in a scientific or other laboratory environment, students having known, or potential, health-related concerns, such as allergies, asthma, contact dermatitis, pregnancy, or other physiological sensitivities should check with their physician on the advisability of laboratory work. The instructor and/or chair of the teaching department will provide, upon request, a list of chemicals that will be used in experiments during the semester. More detailed information (that is, Materials Safety Data Sheets) will be furnished by the deans upon written request.

Syllabus is subject to change