

CPSC 5021-01: Database Systems

Fall 2017

The policies and schedule contained in this document are subject to change.

Course Description:

This course presents the fundamental concepts of database design and applications. Topics include database design, entity-relationship (ER) model, standard query language (SQL), transactions, triggers, design and development of applications using databases.

Instructor Information:

Lin Li

Office: Engineering 529

Office Phone: 206-296-2112 (voice mail not checked regularly)

Email: linl@seattleu.edu (please place 'CPSC 5021-01' somewhere in the subject for quicker replies.)

Office Hours: 10:00 – 12:00 PM, 2:00 – 3:00 PM, Tuesday

1:00 – 4:00 PM, Thursday

Other times available by appointment

Course Information:

Credits: 3

Location: BANN 401

Class Times: 6:00 pm - 8:40 pm, Th

Class Website: <https://seattleu.instructure.com/>

Important Dates:

Thursday, Sep 21

First day of class

Tuesday, Sep 26

Last day to add/drop

Thursday, Sep 28

Mass of Holy Spirit (classes between 10 am – 1:30 pm cancelled)

Monday, Nov 6

Last day to withdraw

Friday – Saturday, Nov 10 – 11

Veteran's day: No Classes

Wednesday - Saturday, Nov 22 – 25

Thanksgiving Break: No Classes

Thursday, Dec 7

Final Exam (6:00-7:50pm)

Learning outcomes:

On successful completion of this course (i.e. by passing this course), you will be able to

- Apply conceptual modeling concepts and be able to use ER model to design database applications.

- Apply normalization.
- Create physical databases from ER model.
- Use SQL to manipulate data.
- Create database triggers.
- Create database transactions.
- Design and implement database systems in a project.

Tentative Course Topics:

- Overview of database systems
- Entity relationship modeling
- Normalization of database tables
- SQL
- Transactions
- Database triggers

If time permits, additional topics may include database connectivity options, database security options, big data issues and trends.

Instructional activities:

Class time will be spent on lectures, discussions, and in-class exercises.

Textbook:

Database Systems: Design, Implementation, & management, 12th Edition, by Carlos Coronel & Steven Morris, Course Technology, 2016.

Grading:

Homework Assignments 25%

All homework assignments are weighted equally.

Quarter-long project 25%

There will be a quarter-long project involving designing and implementing a database. This will be a team project and will include a presentation at the end of the quarter.

Midterm Exam 20%

The exam date will be announced in class at least one week ahead of time. The exam is closed-book, closed-notes except for one 8.5" x 11" sheet of notes. Use of any electronic equipment is prohibited.

Final Exam 30%

The final exam is cumulative with a slight emphasis on material covered after the midterm exam. Like the midterm exam, the final exam is also closed-book, closed-notes except for one 8.5" x 11" sheet of notes. Use of any electronic equipment is prohibited.

Class attendance and participation are required. Attendance will be taken regularly. The attendance and attentiveness may impact the grade if you are near a boundary.

The following grade scale will be used:

100	93	90	87	83	80	77	73	70	67	63	60	0
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F	

At the discretion of the instructor, the course grading scale may be curved but only to reduce the requirement to receive a particular grade. For example, the requirement to receive an A may be lowered from 93% but cannot be raised to some number higher than 93%.

STUDENT EXPECTATIONS

Workload Expectations:

Students are expected to keep up with the course material. As this is a three credit class, students should plan to spend at least six hours per week outside of class. Students are also responsible for turning in homework in a timely fashion (refer to the Late Homework Policy later in this document) and, unless noted otherwise, to complete assignments individually (refer to the Academic Integrity Policy later in this document).

Class Conduct Expectations:

You are responsible for treating other students with respect and to minimize disruptions to the classroom. Examples of classroom disruptions include, but are not limited to: ringing cell phones, using cell phones and laptops in a distracting manner, arriving to class late, leaving class early, and leaving/reentering the classroom.

In the interest of class safety, please register to receive emergency text messages at <http://www.seattleu.edu/safety/text-messaging>. If you receive an emergency text message during class, please interrupt me as I may not carry my phone to the class.

Class Announcement and Email Expectations:

Students are expected to keep up-to-date on class announcements made outside of class on a *daily* basis. All class announcements will be made in class and/or via Canvas. By default, Canvas will instantly send these announcements to your SU email address. If desired, you may change the settings on Canvas to send these announcements to an alternative email address and/or to social media accounts.

It is also important to check your SU email account on a daily basis as private emails initiated by the instructor could be sent to the student's SU email address. Also, important university announcements (such as the school closing due to inclement weather) are made in this fashion.

Attendance Expectations:

Attendance is strongly encouraged. You are responsible for learning the materials you missed from not attending a class on your own.

In the event of an extended absence such as a prolonged illness, it is your responsibility to make up the missing material and catch-up with the remainder of the class as soon as possible. In this situation, to the best of your abilities, keep in contact with me during the absence and schedule a meeting with me once you are back. If an absence causes you to miss several class periods and assignments that make it very difficult for you to catch-up, you will unfortunately have to withdraw from the course.

In accordance with university policy, incomplete grades (I) are only given if an unexpected extended absence occurs at the end of the quarter.

On exam days, attendance is required. Failure to appear for an exam will result in a score of zero for that exam. Makeup exams will be given only in extraordinary circumstances and the students must provide written documentation to the instructor and reserve a make-up time at least 24 hours in advance.

Academic Resources:

If you need additional help with the course material, the following resources are available to assist:

- Communicating with the instructor via email or during office hours.
- The computer science department provides drop-in tutoring. Some tutors (but not necessarily all) will be able to help with this particular course. A schedule will be posted when it is available (typically during the first two weeks of class).
- Learning Commons (<http://www.seattleu.edu/learningcommons/>) on the 2nd Floor of Lemieux Library provides research services and learning assistance programs.
- Internet (make sure the sources are reputable and that you are not violating the Academic Integrity Policy).

If you have difficulty finding help on a particular topic, please contact the instructor.

COURSE POLICIES

Canceled Class Policy:

If a class is canceled (likely due to inclement weather or instructor illness), the instructor has the right to make up lost class content in an online format.

Lecture Recording Policy:

Lectures are copyright of the instructor. As a student enrolled in the course, you have permission to record audio of the lectures for your personal use only, provided it is not obtrusive to the instructor and/or other students in the class. Recordings may not be publicly disseminated (such as posting on the Internet). For lectures not taught by the instructor, permission to record audio must be explicitly obtained by the guest lecturer.

Videotaping of lectures in any form is prohibited.

Late Homework Policy:

Late homework is not accepted. It is imperative that you start your assignments early. Each assignment will indicate a due date and due time. Assignments turned in after the due time on the due date will receive a zero. Extensions to the due date will only be given in extraordinary situations and are not given for technical problems such as computer failures. If you are having difficulties completing the assignment, it is imperative that you see me *before* the due date.

Electronic Submission Policy:

Some homework assignments will be required to be submitted electronically via Canvas. Submission details will be provided in the assignments. While a solution can be submitted multiple times, only the last submission will be graded. Be sure to double-check your solutions as assignments will only be graded once after the due date. For assignments that are required to be submitted electronically via Canvas, they must be submitted electronically via Canvas. Assignments submitted using other means, including email submissions, will not be accepted.

Written Homework Submission Policy:

Unless specified otherwise, the only way that you may submit written homework is to hand it directly to the instructor in person either in class or during office hours.

Grading Dispute Policy:

If you feel something was graded incorrectly or a math error occurred when tabulating the total score of an exam or assignment, please contact me. Grading disputes will only be accepted for *one week* that starts when the exam or assignment grade was first available to the student.

Disabilities Policy:

If you have, or think you may have, a disability (including an 'invisible disability' such as a learning disability, a chronic health problem, or a mental health condition) that interferes with your performance as a student in this class, you are encouraged to arrange support services and/or accommodations through Disabilities Services staff in the Learning Center, Loyola 100, (206) 296-5740. Disability-based adjustments to course expectations can be arranged only through this process.

Academic Integrity Policy:

Students, unless specifically stated otherwise, are required to do all work in this course individually. Submitted work must be original work done by the student. However, you may use class material without citation. Class material includes information that was presented in class, discussed during office hours, that appears in the textbook or lecture notes, or was provided by me (or any guest instructor). The use of external sources such as other books, open source, or the Internet must be approved by the instructor and must be cited before submitting the assignment.

If you are in doubt whether a particular activity may be considered cheating, ask the instructor. In addition, you are encouraged to consult the Academic Integrity Tutorial available on SU Online (<https://www.seattleu.edu/academicintegrity/>).

Any evidence of plagiarism, collaboration, or other cheating will result in a zero for all parties concerned for the assignment or exam in question. In addition, all academic integrity violations will be reported according to the Seattle University Academic Integrity Policy. That process may enforce additional penalties and/or disciplinary action. Please consult the Academic Integrity Policy (2011-3) for further information.

Academic Policies on the registrar website:

Be sure that you understand the following university academic policies, posted on the Registrar's website (<https://www.seattleu.edu/registrar/academics/performance/>):

- Academic Integrity Policy
- Academic Grading Grievance Policy
- Professional Conduct Policy (only for those professional programs to which it applies)