COMP 5120/6120
Database Systems I

Introduction

Jeff Ku

Welcome to COMP 5120/6120

- Canvas course website.
- Announcements, syllabus, policies, schedule, etc.
- Please read the class syllabus, policies, and lecture schedule; ask now if you have questions.

The Instructor

- Wei-Shinn "Jeff" Ku
  - Email: weishinn@auburn.edu
- Research Interests
  - Databases
  - Spatial Data Management
  - Location-based Services
  - Geographic Information Systems

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Teaching Assistant

- Ms. Princess C. Samuel
  - Email: pcs0044@auburn.edu
- CSSE PhD student
- Office hours: Monday and Wednesday, 12 pm – 1 pm, on Zoom (Zoom ID: 6908868066)

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Course Goals

- User Perspective
  - How to use a database system?
  - Conceptual data modeling, the relational data model, database schema design, relational algebra, and the SQL query language.
- System Perspective
  - How to design and implement a database system?
  - Data representation, indexing, query optimization and processing, (transaction processing, concurrency control, and crash recovery), etc.

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Textbooks

- Ramakrishnan and Johannes Gehrke, *Database Management Systems*, Third Edition, McGraw Hill (main textbook)
- Connolly & Begg, *Database Systems: A Practical Approach to Design, Implementation, and Management*, Sixth Edition, Pearson, 2014
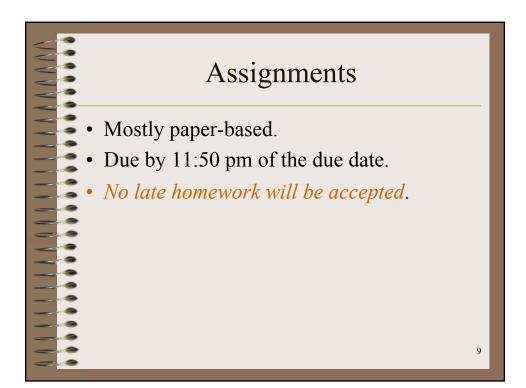
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Course Format

- Five 90 mins lectures/week
- Four assignments
- Two exams

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Lectures

- Lecture slides will be posted shortly before or after each lecture
- Lectures are important for guiding your reading of textbook (and will be covered in exams and assignments)
  - So please watch lectures regularly

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Assignments

- Mostly paper-based.
- Due by 11:50 pm of the due date.
- *No late homework will be accepted*.

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Exams

- Midterm and Final (closed book, closed notes)
- *Check dates and make sure no conflict!*
  - Generally no makeup exams unless exceptional cases.

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Tentative Grading Breakdown

- Assignments: 20%
- Midterm: 35%, July 21, 2025
- Final: 45%, August 6, 2025

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Office Hours

- The instructor
  - Friday 9 am - 10 am, others by appointment
- The TA
  - Monday and Wednesday 12 pm – 1 pm
- If you have a question
  1. talk to people in the class
  2. email the TA
  3. go to office hours to talk to the TA or the instructor

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How to Get the Most out of this class?

- Study and discuss with your peers
  - Discuss readings to enhance understanding.
  - Discuss assignments but write your own solution!
- Use lectures to guide your study
  - Use them as a roadmap for what's important.
  - Lectures are starting points– they do not cover everything you should read.

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Next Lecture …

- Read Chapter 1 – Overview of Database Systems

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