CMPS180
Database Systems I

Instructor: Wang-Chiew Tan

Course web page:
https://courses.soe.ucsc.edu/courses/cmps180/Winter16/01

Piazza page:
https://piazza.com/ucsc/winter2016/cmps180/home

Course Information

- **Instructor**:

  Wang-Chiew Tan
  (tan@cs.ucsc.edu)
- **Office Hours**:

  E2-343B, Tuesday 2:30pm-4:00pm or by appointment.
- **Lectures**:

  Physical Sciences 110, 4pm to 5.45pm

About this course (cont'd)

- Teaching assistant

  Sanjana Maiya (smaiya@ucsc.edu)
- Sanjana will be conducting the lab sections.
- **Lab sections**:

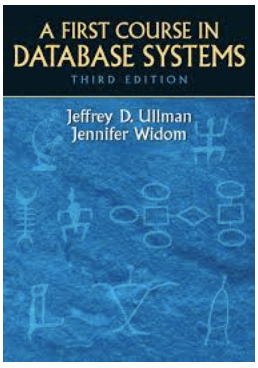
  Tuesday 6:00pm to 7.45pm (Social Science 1 Mac)

  Wednesday 3:00pm to 4:45pm (Social Science 1 Mac)

  Thursday 10:00am to 11:45am (College 8 Lab)
- She will go through the lab assignments with you during the lab sections.
- Office hours will be held together with the lab sections.

Textbook

- A first course in database systems
  - Jeffery Ullman and Jennifer Widom
  - ISBN:9780136006374. Publisher: Pearson Prentice Hall



Online course information

- Piazza (https://piazza.com/ucsc/winter2016/cmps180/)

- Announcements, online homeworks, lab assignments, lecture notes, etc. will be posted on Piazza.
- Please sign up for this course page.
- Available forum for you to post question. You can also help answer questions!

Topics that will be covered

- History (1 lecture, Chapter 1)
- Relational Data Model (1 lecture, Chapters 2.1, 2.2)
- SQL (DDL, DML) (4-5 lectures, Chapters 2.3, 2.5, 6.1-6.5,7.1,7.2)
  - Defining relations and constraints
  - Specifying queries
- Relational Algebra (4-5 lectures, Chapters 2.4, 2.5)
- Constraints and triggers
- Database Application Development (1 lecture, Chapters 9.1,9.2, 9.6)
- Schema Refinement and Normal Forms (4-5 lectures, Chapters 3.1-3.5)
- Web Data Model, XQuery language. (1-2 lectures, Chapters 11.1-11.3, 12.1, 12.2)
- Extra topics (time permitting): NoSQL, Mapreduce, relational calculus

Academic Integrity

- *No form of academic dishonesty will be tolerated*. You are encouraged to read the campus policies regarding academic integrity (http://undergraduate.ucsc.edu/acd_integrity/index.html).
- You are allowed to ask for help when working on assignments, provided that you acknowledge, on the work that you turn in, the help that you received. Points will be deducted if it appears that labor has been divided among multiple students; otherwise, there will be no penalty for small amounts of acknowledged assistance. If you have any questions about these rules, please discuss them with the instructor immediately.

Online homeworks with Gradiance

- You will be using the Gradiance online homework system for most of your homework assignments. To get started, please make sure you register an account at

  http://www.newgradiance.com/services/servlet/COTC

  for CMPS180 with the class token 423B5E4C.
- **Use your UCSC account id as your gradiance account id.**
- **Assignment 1 (register for Gradiance) is already out. Due on Jan 13, 11:59pm, 2016.**

Practice homeworks

- There will be practice homeworks as the lecture progresses.
- These homeworks are not graded but they will be very useful for checkpointing your understanding of the material taught in class.
- I will be going through select solutions of the practice homeworks in class.

Evaluation & Exams

- Gradiance homeworks 20%
- Midterm 30% (**Feb 12, 2016, Thursday in class**)
- Final Exam 30% (**Mar 16, 2016, Wednesday 4:00pm to 7:00pm in-class**)
- Project (aka lab assignments) 15%
- Class participation 5% (Your job is to be inquisitive, proactive at helping to answer questions in the forum.)

You are required to pass every component of this class to pass the course.

The dates for the midterm and final are fixed. Requests for changes in the schedule will not be accommodated.

Away the week of Feb 14, 2016

- Invited talk in Singapore.
  - Sanjana will be lecturing on either Tuesday or Thursday (no class on the other day).

About CMPS180

- **Goals**: Learn about the principles and fundamentals of a relational database management system.

- How to study for this class?
  - Understand the material of each lecture. Don't leave everything to the last week or two.
  - Do your online homeworks, practice homeworks, lab assignments.
  - Active learning : take additional notes (even though there will be lecture notes), ask questions when you do not understand …

"*Guided notes are teacher-provided outlines of either lectures or chapters that contain the main ideas and spaces for students to fill in additional details (Lazarus, 1993). Heward and Orlansky (1993) explain, "guided notes take advantage of one of the most consistent and important findings in recent educational research: students who make frequent, relevant responses during a lesson learn more than students who are passive observers" (p. 168)."*

- Evidence based practices in classroom Management: Considerations for Research to Practice. Brandi Simonsen, Sarah Fairbanks, Amy Briesch, Diane Myers, George Sugai

END