

# EECS 484: Database Management Systems

## Lecture 00 – Course Policies and Overview

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# Course Goals

- GOAL: Basic introduction to database management systems.
- Two perspectives:
  - **External** (*Database user*)
    - Data models, ER model, relational model, SQL, database design ...
    - Java/JDBC Project: Common platform for building database applications
  - **Internal** (*Database implementer*)
    - File organizations, access methods, concurrency control, recovery, ...
    - Minirel Project (C++): Build components of a Database System
- Textbook “Database Management Systems”, by Raghu Ramakrishnan & Johannes Gehrke. 3<sup>rd</sup> ed.

# Overrides

- Course is full. Overrides limited.
- EECS 281 and relevant programming experience required to have a shot at an override.
- Non-CS graduate students: Fill out an application form at the CSE undergrad office to apply for an override.
  - [https://www.eecs.umich.edu/eecs/undergraduate/permission\\_request\\_form.docx](https://www.eecs.umich.edu/eecs/undergraduate/permission_request_form.docx)
  - Include your transcript, highlighting relevant courses.
  - Provide the form to the undergrad office (or to me)

# Teaching Staff

- Atul Prakash, Professor in CSE
- Kevin Eykholt, Ph.D. student in CSE
- Ahmad Shahab Tajik, Ph.D. student in CSE
- Yang Liu, Ph.D. student in CSE
- Xieyang (Michael) Liu, CS BSE.

# Course Communication Tools

- Canvas: <https://canvas.umich.edu> (not yet active)
- Piazza: Use this for technical or clarification questions. Look for EECS 484 Fall 2016 group. Join if you aren't automatically enrolled.
  - We may not answer between 10 PM and 9 AM.
  - But students are encouraged to answer when they can. We will endorse good answers, and correct and clarify if your answer has a mistake.
- Teaching staff email: [eeecs484f16@umich.edu](mailto:eeecs484f16@umich.edu). Generally for non-technical or administrative questions.

# Office hours

- No office hours this week for TAs.
- Office hours for next week and subsequent weeks will be posted in a Canvas calendar.
- I will be available from 2-3 PM today.
  - 4741 BBB

# Course Calendar

- To be made available

# Course Grading

|                                 |     |
|---------------------------------|-----|
| Exams + graded homework quizzes | 60% |
| Four projects [each worth 10%]  | 40% |



# Exams + quizzes (60%)

- Two exams, one for each half of the course
  - Midterm: 25-30%
  - Final: 25-30%
  - Equal weights, not cumulative
- Quizzes
  - Some homework will in the form of online quizzes (possibly modest coding) and will be graded. Each quiz *typically* 1-2% of the grade – reduces exam weightage correspondingly.

# Homework Assignments

- Some non-quiz homework assignments
- Not graded.
- Submit for "brownie points" by any due date specified. Could factor in as evidence of effort and learning if grade is borderline.
- Provide important intellectual experience.
  - Solutions sometime look "obvious" in hindsight
  - Doing the problems and making mistakes increases retention of how to do problem right

# Projects

- Total of 4 projects. Equal weights.
  - P1: ER Modeling and Database schema design (some coding + SQL)
  - P2: Oracle application. (Java coding, lots of SQL)
  - P3: Transactions and recovery (C++, data structures)
  - P4: Still being decided. (B+-trees or MongoDB)
- Transaction and Recovery project will be an individual submission.
  - Hey, you should at least be able to do one serious project by yourself :-)

# Piazza – forming groups

The screenshot shows the Piazza web interface for the course EECS 484 001 W13. The top navigation bar includes the Piazza logo, the course name, and links for Q & A, Course Page, and Manage Class. The user profile 'Atul Prakash' is visible in the top right corner. The sidebar on the left contains navigation links for homework (hw1, hw2, hw3, hw4), project, and logistics. Below these are filters for Unread, Updated, Unresolved, and Following. The main content area displays a note titled 'EECS 484: project groups' by Atul Prakash. The note includes a welcome message and a link to a Google Form for submitting group information. The note has 2 replies and was posted 2 hours ago. Below the note is a section for followup discussions, with a button to start a new discussion.

**EECS 484: project groups**

Welcome to EECS 484.

EECS 484 encourages working in 2-person groups on projects using a pair programming model (though working alone is permitted). Below is an online form where you can submit information on your group (you can change it at any time). This information should be submitted by Jan. 18th (even if you are working alone).

<https://docs.google.com/a/umich.edu/spreadsheet/viewform?fromEmail=true&formkey=dDIISGZYeUw2MUVtOWxhbHNhWGt3R1E6MQ>

logistics project

edit save to favorites 0 good note 0 more 2 hours ago by Atul Prakash 1 edit

**followup discussions,** for lingering questions and comments

Click to start a new followup discussion

# Project repository

- No grace period for loosing your work to disk crashes, etc.
- Thus BACK UP all files!
- Ideas:
  - Use Google or Box drive
  - Use a git or subversion repository to keep older versions, especially for coding projects

# Engineering Honor Code

- No reuse of old solutions or parts of solutions from anywhere (including the Internet) is permitted
- Work on projects must be entirely your own (or your partner, if working in a group). Ask TA/IA or instructor if you need help that requires looking at your project solution.
- Only conceptual discussions allowed with others – similar to what you would be comfortable doing on Piazza publicly.
- No sharing of code or solutions, even after the semester is over.
- If in doubt about the policy, ask Professor Prakash.
- Violations will be reported to the Engineering Honor Council

# Discussion Sections

- Not optional!
- All discussions have identical content
- If you have to miss your regular section one week, attend another. But stick to one as a rule

# Discussion: This Week

- **No discussions this week.** But, for those of you who haven't programmed in C++ or Java, use the week to self-learn.
- Our grading platform is Linux. Try logging into to a CAEN Linux machine, creating a small program in both languages, compiling it, and running it.
- Learn about Makefiles.
- Once we post information about Oracle accounts, try logging in and play with SQL.



# Course Policies

- Homeworks and Quizzes:
  - Due before Wednesday discussion.
- Project:
  - typically due by 11:55 PM on Thursdays
- Late policy on projects: 4 day grace period (15% late penalty fixed).
- No grace period on quizzes + homeworks

# More on grading

- Reasonable performance on both projects and exams is expected to get a grade of C or higher, irrespective of your overall percentage
- Grad students graded on the same curve as undergrads.

# Work hard and be helpful

- Working with a databases is an employable skill. Get the most out of this course.
- Be helpful on piazza! Mistakes in answering questions are OK – Part of learning.
- Strong grades give you a shot at grader, IA, and GSI positions in future semesters.
- Can lead to a stronger resume for jobs and graduate school