Today

- Staff introductions
- Composition of students
- Courses before/after CS145
- What CS145 is not
- “Flipped classroom” (and online-ed in general)
- Components of the course (and where to find them)
- I’m strict and nice
- Other logistics
Courses

103 (theory) + 107 (systems)

Fall
CS145

Winter
CS245
CS345
CS246

Spring
CS346
CS347
CS341

Database systems
Data mining & analysis
Independent project
CS145 is not ...

- ... a first CS course for someone who needs to build a database
- ... an industry-prep course
  But high density of new resume items
  SQL, PHP, JSON, XML, UML, XPath, XQuery, XSLT, MySQL, Saxon, ...
- ... an especially easy or hard course
  About equivalent to: CS154, CS161, CS221
  Easier than: CS140, CS143, CS228, CS229
The Online-Education Wave

“Flipped Classroom”
vs. Online Self-Study
vs. MOOC

Or: What Happened in 2011
Flipped Classroom

Self-paced videos with embedded quizzes

Support materials: slides, notes, readings

Online Self-Study

MOOC
Flipped Classroom

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Battery of written exercises w/solutions

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MOOC
Flipped Classroom

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- “Gradiance” quizzes since 2002 (Ullman)

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Need for perfection
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**Perfection**

**Need for Perfection**
CS145 Flipped Classroom

**Self-paced videos with embedded quizzes**

**Support materials: slides, notes, readings**

**Battery of automated quizzes**

**Automatically-checked programming exercises**

**Extra exercises w/solutions**

**Hand-graded “challenge problems”**

**Multi-part programming project**

**Full-length hand-graded exams**

**Instructor-led Interactive activities**

**Guest lectures from industry**

**Advanced topics, research presentations**

**Routine help sessions**

**Most CS145 students prefer the flipped classroom**
CS145 Flipped Classroom

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Most CS145 students prefer the flipped classroom

Perfection
Numbers: Fall 2011

**CS145**
140  (enrolled students)

**MOOC**
60,000  (enrolled students)
26,000  (of them submitted 1+ assignments)
6,500  (completed the entire course)
Numbers: Fall 2012

**CS145**
220  (enrolled students)

**MOOC**
48,000  (enrolled students)
21,000  (of them submitted 1+ assignments)
4,900  (completed the entire course)
1,900  (completed the course “with distinction”)

Platforms

Fall 2011, CS145 + MOOC — Pre-Coursera
Fall 2012, CS145 — Coursera
Winter 2013, MOOC — Class2Go
Fall 2013, CS145 — Class2Go
Winter 2014, MOOC — Open EdX
Self-Study — Coursera & Class2Go

no “Gradiance”-style quizzes 😞
Components of the Course

- Video lectures
- Automated quizzes
- Automated DB exercises
- Materials, readings, extra problems
- Challenge problems
- Project (individual, contest)
- Exams
- Discussion forum
- Class meetings

Class2Go: cs145.stanford.edu

Piazza
Where to Find Everything

- **Main Website:** cs145.stanford.edu
  - *We will assume you’ve read all the information on all pages of this website!*

- **Class2Go:** linked from Main Website
  - Primarily videos, automated quizzes and exercises
  - Also slides, scripts, readings, software guides, extra problems w/solutions

- **Piazza:** linked from Main Website (and Class2Go)
  - Your first stop for questions and discussion

- **CourseWork:** linked from Main Website
  - Written assignment submission, grades, solutions
I’m Strict and Nice

- **Strict**
  - No incompletes
  - No alternate exams
  - No special treatment for SCPD students
  - Rigidly-enforced late policy
  - Rigidly-enforced Honor Code
    - Including plagiarism-detection software

- **Nice**
  - A+ or contest winner: free lunch
  - Recommendation letters
Other Logistics

- Textbook
- Programming/systems expertise
- Communications
- Anything I missed?

You can get started right away