Developing Online HCIP5160

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CCI Database Courses

• Applied Databases
  – ITIS5160  30+ students/semester
  – HCIP5160  2-10  students/semester
  – DSBA students

• Database Systems
  – ITCS 6160
  – ITCS 3160
Database Course at Stanford

- Introduction to databases by Jennifer Widom
  - 100 students per year
  - Half-empty classroom because of videotaped
- Online
  - First three courses offered online (Coursera) in Fall 01
    - 60,000 enrollment
    - 25,000 submitting assignments
    - 6,500 achieving a strong final score, 4 times more than the total number of students taught in 18-year career
  - Second offering was on Class2Go in Spring 13
  - Third offering is on OpenEdX in Spring 14.
Online CS Programs

• MIT OCW
  – Publish all course materials online
  – 2150 courses, 125 million visitors
  – EECS
    • 18 undergraduate + 10 graduate courses
    • AI, Algorithms, Data Structure, Programming

• Gatech OMS CS
  – Accredited MS via MOOC
  – $7,000 tuition
  – 8 specializations including
    • Databases & Software Engineering
    • High-Performance Computing
    • Interactive Intelligence
    • Machine Learning
Course Features

• Before online
  – Slides (annotated and unannotated)
  – Demo scripts
  – Readings and materials
  – A suite of written and programming exercises
  – Quick-guides for relevant software

• Online
  – Short, interactive video clips
  – Live quizzes with instant feedback and with automatically generated combinations of correct/incorrect answers
  – Self-guided exercises
  – Multiple-choice questions for midterm/final
Challenges for Asynchronous Course

• No tiny flaw or ambiguity
• Eager beavers vs. procrastinators
• Cheating
• Depth
• Group project with significant programming
• Office hour in Centra