Assessment, Human Messiness, and Experienced TA/AI Panel

CS398T: Supervised Teaching in Computer Science
October 21, 2015
Last Time

• In the classroom
  – Discussion concerning observations in lectures and discussion sections
  – Effective techniques for delivering content
  – Effective techniques for soliciting student participation

• Interactive Lecture Techniques
Today’s Agenda

• Assessment
  – Measuring student understanding
  – In the classroom
  – In assignments
  – In exams
  – Grading

• Human Messiness
  – Life affects our perspective
    • Race/ethnicity, gender, disability...
    • Interests
  – Life affects our ability to learn/meet deadlines
    • BCAL, SES, SDS
  – Cheating
    • And life
    • How to find it
    • What to do about it

• Experienced TA/AI Panel
Assessment
In the Classroom

• Goal: Determine whether the students understand a topic before you build on that topic
• Cold calling
• Pop quizzes
  – Written
  – iClicker questions
• Body language
Assignments

• Possible Goals:
  – Reinforce and deepen **understanding** of course topics
  – Get students to **apply** course topics
  – Get students to **analyze** and **evaluate** course topics
  – Require students to **create** new ideas/algorithms/software/etc related to course topics

• Bloom’s Taxonomy

• Successful assignments have clear instructions

• References to background materials are also often useful
Exams

• Step 1: Prepare Questions
  – What material do you want to test?
  – Was some of the material more important than the other?
    • Question content and difficulty should reflect any differences
  – Think through Bloom’s Taxonomy
  – Variety of question types:
    • Short answer, multiple choice (with multiple answers), fill in the blank, numeric, explain in plain English
Exams

• Step 2: Think through answers
  – Answer the questions yourself!
  – Is the question asked in such a way that you will get the answer you expect?

• Step 3: Create rubric
  – Determine how many points each question should be worth
  – Put that information on the exam
  – Create sample criteria
  – Helps clarify the question
  – Be open to changing the rubric when you see student answers
Exams

• Step 4: Administering
  – Ideas to lessen cheating:
    • Assign random seats
      – Number exams
      – “Randomly” assign students to an exam
      – Post EID/test number chart outside class room
    • Request a room with double seating
    • If you have more than one class taking the exam, request a uniform time
    • Provide scratch paper (staple to exams)
    • No hats, phone, earphones
  – Make the exam more fair: no questions(!?!)
Exams

• Step 5: Grading
  – Prompt and Consistent
  – Use initial rubric, adjust as necessary
  – Be prepared for students to interpret a question differently from what you intended

• Step 6: Regrades
  – I require a written request and the exam to be resubmitted
  – Again, no arguing the rubric!
Human Messiness
Perspectives

• Be aware of student differences
  – Cultural differences due to race/ethnicity, gender, socioeconomic differences
  – Context differences due to hobbies (gamers? athletes? maintain own Linux system?), prior education (CS in HS?)

• Be inclusive
  – Motivate all students
  – Questions from all students

• Watch for micro-inequities
  – Food vs. bomb
  – Interruptions
  – Inappropriate jokes
Privilege

• Be aware of privilege
  – Gender
  – Socioeconomic
  – Racial/ethnic
  – Unpack the knapsack!

• Provide encouragement
  – Imposter syndrome
  – Dunning-Kruger effect
Roadbumps

• Students’ outside lives continue
  – Things are not always as they seem
  – Low performance does not always imply a lack of caring or stupidity

• May have non-academic problems
  – Student Emergency Services (SES)
    • 512-471-5017
  – Student Disability Services (SDS)
    • Physical disabilities, ADHD, Depression, ...
    • 512-471-6259
  – Behavior Concern Advice Line (BCAL)
    • 512-232-5050
Cheating

• Squash cheating
  – Cheapens degree
  – Unfair to other students

• Find it using MOSS
  – Measure of Software Similarity from Stanford

• Report cheating to Student Judicial Services
  – Suggest punishment

• If you are a TA, talk to the instructor before you do anything.
Cheating

• Cheating does not mean the student is “bad”
  – is often an act of desperation
  – Cultural differences

• Talk to the student
  – Let the student know the action has consequences
  – Assure the student he/she can recover
Difficult Conversations
Announcements

Microteaching will begin next week

– Instructions posted on schedule
– Your topic will need to be approved by 6p tomorrow
– Presentation schedule posted on Friday evening