Before and During Class

CS398T: Supervised Teaching in Computer Science
October 19, 2017
Last Time

• Recap of How to Be a Good TA
  – Be professional
  – Be prompt
  – Be fair
  – Be kind

• How to Present and Represent
Today’s Agenda

• Being Prepared
  – Preparing for a class
  – Preparing for a course

• In the Classroom: Lectures and Discussion Sections
  – What works? What doesn’t?
  – What are your options?
Being Prepared
Class or Discussion Section Preparation
Determine Content

• Consider your learning goals for that class
• Determine what material will be covered
  – Be certain to motivate the importance of the topic!
• Write out speaking notes or create a PowerPoint presentation
  – Or do both
  – NOTE: Do not be afraid to vary from your pre-set presentation
Find the Student Mindset

• Who is your audience?
• Ensure that you know student context
  – Complete (or review) reading assignments
  – Complete (or review) homeworks, programming assignments, and their solutions (if available)
  – Review recent course material
    • Assuming you didn’t teach it!
• Allows you to better identify sources of confusion and other pitfalls
  – True even and especially for introductory courses
  – Be careful about assuming intro courses are so easy you don’t need to prepare (more in a minute)
Identify Difficulties

• Consider the struggles you had learning the topic
  – How easy was recursion when you first learned it?
  – When you learned about fork() and creating new processes, how easily did you internalize the memory model?
  – What made that part of the topic difficult?
  – What would have made it better?
Eliminate Pitfalls

• Watch for knowledge leaps and built-in assumptions
  – *You* know the definition of idempotent---but do they?
  – *You’ve* heard of the knapsack problem---have they?
  – *You* know the difference between disk and memory---but do they?
  – Students should only be required to know material covered in the pre-requisites for the course.
Decrease Monotony

• Once you have set your material, consider if there might be a better way to learn it
  – In-class activities
  – YouTube videos
• Look for real-world applications or tie ins
• Find analogies that they will find relevant and/or interesting
Preparing for a Course
Set the Tone

• As an AI or Instructor
• Same thing, but at a higher level
• Syllabus:
  – Sets expectations for the course
  – Don’t be afraid to find one you like and use it as a template (Ask!)
  – Consider: laptops or not? Require attendance or not? Assignments and grade weights?
• Choose books
Determine Content

• Consider the learning goals for the course
• Consider how you will get the students from their current knowledge to your goals
• Develop a schedule
  – Topics for class
  – Readings
    • You may need to find a book!
  – Assignments and due dates
  – Exams
  – Drop Day
Are you prepared?
What happens *in* class?
Lectures
Discussion Sections
Rules
Announcements

• Next week:
  – Human Messiness
  – Experienced TA/AI Panel

• Micro-teaching will begin on Thursday, 11/2
  – Instructions will be posted on Piazza and the schedule late next week
  – Your topic will need to be approved ahead of time---you’ll have about a week to select a topic and get approval
  – I’ll schedule the presentations