Being a Good TA (Recap) and Being Prepared

CS398T: Supervised Teaching in Computer Science
September 30, 2015
Last Time

• Research Talks!
• Guide to Being a Good TA (last time I was here)
  – Expectations
  – Responsibilities
  – Tools
Today’s Agenda

• Roadmap
• Being a Good TA (recap)
  – Expectations and Responsibilities
  – How is it going?
• Being Prepared
  – Preparing for a class
  – Preparing for a course
Roadmap

• This week:
  – Being a Good TA (Recap)
  – Being Prepared

• 10/7: In the classroom
  – Class observation discussion
  – Facilitating effective discussions discussion
  – Interactive Lecture Techniques (CTL)

• 10/14: No class

• 10/21:
  – Human Messiness
  – Assessment
  – Experienced TA/AI panel

• 10/28 and 11/4:
  – Micro-teaching presentations
  – Teaching Miscellany
TA == Teacher

• A TA is a *teacher*
• You are part of a team
• Your job is to help *all* the students learn the material
Be Professional

• When you say you are going to do something, do it!
  – Not doing so hurts your reputation, the reputation of the instructor, and the department
  – If you will miss a deadline or scheduled activity due to bad time management, illness, or another reason, inform your supervising instructor immediately.

• Maintain all student data in the strictest confidence in accordance with the Family Educational Rights and Privacy Act (FERPA)
Leading Discussion Sections

• Be on time
• Be prepared
  – Know lecture topics, work homework and assignments
  – You don’t have to know everything! Follow up later if you don’t have the answer then
• Speak slowly
• Speak to the students, not the board!
• Lead a discussion---don’t lecture
  – Ask leading questions
  – Pause until a student tries to answer
Office Hours

• Attend your office hours!
• Teach without providing answers
  – Explain concepts
  – Ask leading questions designed to take them to the answer
  – Teach debugging techniques
    • What would your first steps be?
    • They should type!
• Do not let them leave feeling just as frustrated/confused as they were when they came
Grading

• Be prompt
  – When grading is delayed, the feedback becomes meaningless to the student

• Be fair
  – Often easiest to grade one question at a time
  – Consistency is key
  – Supervising instructor often provides rubric or will provide feedback
  – If the rubric seems wrong after a few papers, stop and adjust (and regrade those papers!)

• Be firm
  – Accept written complaints from students, and then promise to review it and respond
  – Only change grades if there was a mistake in the grading!
  – Don’t be trapped into arguing whether the rubric was fair
Online Discussions

- Check for posted questions at least twice a day
- Answer to the best of your ability
- No question is a dumb question
  - Questions stem from confusion
  - Identify the confusion, then address both the confusion and the question as stated
- Do not belittle the students
Building Rapport

• Your goal is to provide a safe space for students to learn
• Learn their names
  – Photo roster!
• Be accessible
  – Chat with them (Bad/Good TV, books, games...)
• Make them feel as if you are paying attention
  – If they come to office hours after sending you email, you can say, “I saw your email” or “Did you send me an email on that?”
  – If you notice someone misses something on the homework or exam and they see you, mention it and ask about it.
• Take their concerns seriously
• Laugh at yourself. Laugh *with* them.
Your Students are GOOD Students

• UTCS students are typically bright and willing to learn
• If they don’t understand something, it may have been communicated ineffectively
  – Their assumptions are not the same as yours
  – They are more critical of the “givens” in the field (this is a good thing)
• Give them the benefit of the doubt
• Do not treat them as though they are miscreants/a waste of your time
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?

• Next time!
Announcements

• Continue your class observations---they are due next Wednesday

• A Canvas Module on leading effective discussions will be posted this week and due by class time
  – Bring your rules for discussion section to class next week