Teaching a Course

CS398T: Supervised Teaching in Computer Science
September 2, 2019
Last Time: Discussion Sections

• Class Overview
  – Why are you here?
  – How does it work?

• Bingo!

• Name Tents
This Time: Thinking About a Course

- Developing a syllabus
- Creating a schedule
- Developing (or choosing!) assignments
- Choosing tools: books, discussion forums
- Classroom Management
- Assessment
Overall Process

• Determine knowledge-based learning objectives
• Determine skills-based learning objectives
• Determine content to support those goals
• Create a timeline
• Create assessment

Do this at each level until you have a course: course, class, discussion section...
Motivation Matters

• Helps to create and sustain the desire to learn over a period of time
  – Helps students pay attention
  – Helps them complete assignments
  – Helps them study
  – ...

Strategies for Motivating Students

• Challenge them
  – But provide help

• Provide feedback
  – Timely, constructive, emphasize the Growth Mindset

• Connect material to larger goals
  – Career, larger understanding

• Build rapport and community
  – Icebreakers, discussions, group work
Introduction to Programming
First part of a two-part sequence in Java programming. Fundamental concepts of structured programming; procedures and data structures with a focus on problem solving strategies and implementation; introduction to concepts of informal specification, informal reasoning about program behavior, debugging, and ad hoc testing. Three lecture hours and one discussion hour a week for one semester.
Syllabus

- What goes in a syllabus?
- On a schedule?
- How are you going to communicate with students? Website? Canvas?
- How do you select a book?
For Each Class
Determine Content

• Consider your learning goals for that section
• Determine what material will be covered
  – Be certain to motivate the importance of the topic!
• Create a timeline
• Write out speaking notes, questions to ask, problems to demonstrate
  – 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
  – Avoid examples and other references that they don’t know
  – Both technical and not
  – Know the pre-requisites and their content
    • Be aware that content may vary based on who teaches the course
Identify Difficulties

Consider the struggles you had learning the topic

– How easy was the topic when you first learned it?
– Which parts were difficult?
– What made those parts difficult?
– What would have made it better?
Engage the Students

• Once you have set your material, consider how students should learn it
  – Do you lecture? With slides? Without?
  – In-class activities?
  – YouTube videos?
• Look for real-world applications or tie ins
• Find analogies that they will find relevant and/or interesting
In the classroom

• Engage the students
  – How?

• If they aren’t paying attention, what might be happening?
Assessing Learning

• Assess how well a student has learned a topic or set of topics
• Also assess how well the topic(s) has been taught---by you and by the instructor!
How Can We Assess Learning?

• In-class questions
• Problem sets
• Body language
• Assignments, projects
• Exams
Communication

- Formal vs. Informal
- Frequency
- Method
  - Email, professional email address
  - In person
  - Phone – text or call
- ESL
Personal appearance and Behavior

- Dress for the occasion
- Hygiene
- Behavior
  - RSVP and show up or don’t RSVP
  - Shake hands in formal settings
  - Look the person who addressed you in the eye
  - Polite food consumption
  - Treat everyone with respect
    - Pay attention
    - Ask questions
Professional Attire

**What to wear?**

- **Business Professional**
  - Natural looking makeup
  - Get button-up shirt
  - Portfolio
  - Appropriate length skirt
  - Polished, closed-toe shoes

- **Business Casual**
  - Nice blouse
  - No bulky jewelry

- **Business Professional**
  - Pressed suit
  - Haircut
  - Appropriate tie
  - Polished shoes

- **Business Casual**
  - Clean shaven
  - Button-up shirt
  - Matching belt and shoes

This guide demonstrates acceptable Business Professional and Business Casual Attire for your upcoming career events.

**NOTE:** For interviews, always choose Business Professional attire.
Social Media

- Assume nothing is private
- LinkedIn account recommended
- Update all Professional accounts regularly
- Be polite – maybe if you’re having a bad day or someone else is don’t engage
Asking for what you need

- Negotiation
- Setting expectations (managing up)
- Taking responsibility for your success and progress
- Keep them aware of your progress
- Don’t suffer in silence
- Communicate