Lecture 01: Welcome to CS298: Teaching Introductory Computer Science

CS298 / EDUC298

Spring 2021

Stanford University

Computer Science Department

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PDF of this presentation

Lecture 01: Welcome to CS298: Teaching Introductory Computer Science

- **I'm Chris Gregg** (cgregg@stanford.edu**)**
  - Electrical Engineering undergrad Johns Hopkins, Master's of Education, Harvard, Ph.D. in Computer Engineering, University of Virginia
  - Lecturer in CS, teaching CS 106B/X, CS 107/107E, CS208E, CS 110
  - At Stanford since 2016, at Tufts prior, and high school teaching prior to that.
    - I taught high school physics (and a bit of CS) for about seven years
      - This gave me a *lot* of time in the classroom
    - I have taught college CS courses since graduate school
    - I have taught students aged 8 through 68
    - I love teaching, and can't think of a better job

Lecture 01: Welcome to CS298: Teaching Introductory Computer Science

- **What is this class all about?**
  - We will learn the nuts and bolts of teaching an introductory computer science course
    - Topics:
      - Introduction and Motivation to teach computer science
      - Know Your Students, Know Your Subject, Know Your Tools
      - Planning Your Course and Creating Awesome Assignments
      - Lectures
      - Grading
      - Online Resources
      - Observing Others Teach, and Reflecting on Your Own Teaching, and Handling Feedback
      - Staying Current on and Contributing to CS Education Research
      - Interaction with Students: Office Hours, Meetings, Advising, and Writing Recommendation Letters
      - Choose Your Battles, and Have Fun!

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- **Logistics**
    - The primary resource will be the class reader, *Your First Year Teaching Computer Science*.
    - There will be weekly readings, and then class will be a mix of discussions and student presentations
    - The workload will be commensurate with a 1-unit seminar. I would like you to get some experience with developing course material, but you won't be designing an entire course.
    - At the end of the seminar, you should have the tools you need to develop your own CS course

Lecture 01: The First Day of Class

- **Planning for the First Day of Class**
  - You are all sitting in class right now, ready to learn.
  - But...what did I have to do to prepare for today?
  - Have you ever considered what a teacher has to do for the first day, the second day, or for the entire term?

Lecture 01: Motivation for Teaching Computer Science

- **Who motivated you?**
  - We all have favorite teachers in our past -- who was a favorite of yours, and what did they do that motivated you?
  - We also have teachers we didn't particularly enjoy -- why is that?
- **Why do you want to teach computer science?**
  - What is it about teaching that excites you?
  - What are you worried about?
  - What CS course(s) do you want to teach, and why?

Assignment 1 – Due Tuesday, April 8th, in class

- Write down a few paragraphs about your favorite teacher you've ever had.
  - Focus on what they did that made their class great
    - e.g., was it their organization? Was it their style? Were they funny? Were they thoughtful?
  - Write down some thoughts on what kind of teacher *you* want to be (or are already). How would you define your own style?
- If you can, reach out to that teacher to tell them how much you appreciate what they did for you!