

## Technical Communication in Computer Science: Teaching, Speaking, Writing

Jim Anderson ([anderson@cs.unc.edu](mailto:anderson@cs.unc.edu)) and Don Porter ([porter@cs.unc.edu](mailto:porter@cs.unc.edu))

### Goals

1. To give Ph.D. students an admittedly modest exposure to the literature on teaching techniques and on life as an academic.
2. To lead students in thinking about teaching as a *design* challenge, not a challenge of presentation of material: ***The job of the teacher is to design learning experiences.***
3. To have students practice techniques of planning, preparation, assignment design, and presentation.

Upon completing the course, the student will be able to:

1. Find help for common teaching problems in familiar literature.
2. Design a course syllabus and schedule.
3. Select a textbook.
4. Design lessons for varied learning styles.
5. Design exercises and quizzes.
6. Prepare and deliver classes using a variety of different teaching methods.
7. Assign grades fairly.

### Policies, logistics, etc.

- An anticipated schedule is given on the next page. This schedule should be taken as a working document. It may change, e.g., due to snow days, people dropping or adding the class, unanticipated travel by the instructors, etc. We will keep an up-to-date version on the class webpage.
- Each student will design and lead a 20-minute lesson on a topic of their choice. The 20 minutes is for your lesson as prepared. Questions and discussion are not counted against your time. Lessons often are, but don't have to be, computer science topics. For example, in the past, we've had lessons on ballroom dancing, juggling, frisbee throwing, etc.
- Each student will help and critique a partner in their lesson preparation and rehearsal.
- Most assignments will consist of a reading and a two-page essay. Last paper will be the exam.
- **Name, date, and honor code pledge** on everything you give us.
- **Note:** *Much of the material you will receive has been taken verbatim from material prepared previously by Dr. Fred Brooks (with his permission).*

**This class has a closed-laptop, iPad, etc. policy.**

**Grading:** Based on class teaching, assignments, and **participation**. Broad curve. Two free late assignments if turned in next class; other late assignments are half-credit. Final grade: 40% lesson, 40% assignments, 20% class participation. Since a key purpose of the writing assignments is to improve your writing skills, **usage of ChatGPT or similar AI tools is not allowed.**

**Time and Place:** Fridays, 10:30am-Noon, FB 007.

**Web:** <https://cs.unc.edu/~anderson/teach/comp915/>

**Text:** Svinicki & McKeachie, *McKeachie's Teaching Tips*, 14th Edition, 2011, Wadsworth.

We have five copies you can share. You can also find pretty cheap eversions online .

COMP 915 Syllabus for Spring 2024

**Anticipated Schedule**

Jan 12	1. Intro to the Course (Objectives, How it will Work)	Jim
	A Brief History of Teaching	Jim
	Determine Student Presentation Order, Discuss Role of Coaches	Jim
Jan 19	2. Elementary Public Speaking	Jim
	Course Planning: Objectives, Learning Styles, Bloom's Taxonomy	Don
Jan 26	3. Finishing up "Course Planning: Objectives, ..."	Don
	Why Should You get a Ph.D.?	Jim
Feb 2	4. Course Planning: Syllabus, Topological Sort, Schedule, Textbook Selection	Don
	Student Lesson: Archiki Prasad	
Feb 9	5. Active Learning	Jim
	Student Lesson: Prateek Yadav	
Feb 16	6. Course Planning: Large Classes (Attend a Large Class Before this Class)	Kris Jordan
	How to do Reviews	Don
	Student Lesson: Christine Mendoza	
Feb 23	7. How to do Reviews (Continued)	Don
	Writing	Jim
	Student Lesson: Sizhe Liu	
Mar 1	8. Writing (Continued)	Jim
	Student Lesson: Cheng Tsai	
Mar 8	9. How to Teach Research; Finding Thesis Topics (Attend Two Defenses Before the End of the Semester)	Jim
	Dealing with Students Who Cause Problems or are Having Problems, When and Where to Get Help, FERPA	Jim
	Student Lesson: Matthew Gregoire	
Mar 15	<b>Spring Break</b>	
Mar 22	10. Course Planning: Project Courses	Don
	Student Lesson: Mason Laney	
March 29	<b>Good Friday</b>	
April 5	11. Teaching Controversial Issues	Jim
	Student Lesson: Rohan Wagle	
Apr 12	12. Motivating Students, Providing Students Useful Feedback, Grading	Don
	Student Lesson: Jesse Wei	
Apr 19	13. Quizzes and Examinations; How to Prepare for Oral Exams	Don
	Student Lesson: Juan Garcia	
Apr 26	14. Teacher as a Professional: Economics, Compensation, the Academic Marketplace, Job Talks, Publish or Perish, Time Budgeting, Professional Ethics	Jim

*The teacher's job is to **design learning experiences**, not to **dispense information**.*

## University Resources:

*Accessibility Resources:* The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email [ars@unc.edu](mailto:ars@unc.edu).

*Counseling and Psychological Services (CAPS):* CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

*Title IX Resources:* Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Please contact the Director of Title IX Compliance (Adrienne Allison [Adrienne.allison@unc.edu](mailto:Adrienne.allison@unc.edu)), Report and Response Coordinators in the Equal Opportunity and Compliance Office ([reportandresponse@unc.edu](mailto:reportandresponse@unc.edu)), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators ([gvsc@unc.edu](mailto:gvsc@unc.edu); confidential) to discuss your specific needs. Additional resources are available at [safe.unc.edu](https://safe.unc.edu).