MSE 8200 | Georgia Institute of Technology | Spring 2024

Tue & Thu 9:30 - 10:45 | Clough 323
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Office: 255 Love | Office hours by appointment

Course Description

This course focuses on advanced presentation skills that the students will develop by speaking on topics related to their own research work. Students will gain experience with both delivering and evaluating presentations. Equal emphasis will be placed on achieving excellence in content, delivery, and slide design. Each presentation will have a stated objective, such as informing others of one's research (for example, at a professional conference), or explaining highly technical information to a general audience (both in a standard-length presentation and short form). Each presentation will be recorded so that students can evaluate their own presentations and assess their progress.

Course Requirements

Overall, students will need to be active participants in the classroom. They will be responsible for delivering several individual presentations as well as evaluating their peers' presentations for content, delivery, and slide design. A standard evaluation sheet will be provided, and it must be filled out during each set of presentations. Additionally, each student will be required to submit a self-assessment write-up. Students have the option of scheduling individual conferences with me to discuss their presentations. Other more spontaneous professional speaking skills and practice will be included in the course. The course will also include a writing/revision of a two-page resume or CV. There is no final exam.

Conference-style presentation with slides will be 15 minutes max: 10 minutes for the presentation itself and approx. 5 minutes of Q & A. In addition, each student will give two 60-90 second elevator pitches, one for technical audience and one for general audience. These will be done without slides or any supporting material, and a 3-minute thesis (3MT) talk on their work, accompanied by one static slide, for general audience. Finally, students will also design a scientific poster in the format suitable for a presentation at a professional conference.

Each presentation will be recorded so that students can critique their own performance for their self-evaluation write-up. On presentation days, students will be required to come to class with cell phones that are sufficiently charged and have a sufficient storage capacity.

Students will be required to keep before and after versions of their presentations and send them to me when they submit their self-evaluation.

All reading assignments are posted on Canvas as PDF files.

Grading

Though peer evaluations will be done on many assignments, the peer review score will not be considered when assigning the grade. I will be the final determiner of the grades for any in-class work, quizzes, tests, presentations, and papers. Active participation is part of your grade, which

includes all in-class activities or out of class assignments, including peer reviews, self- evaluations, and all formal assignments.

There will be no final.

Final grade will be based on the following assignment groups:

Attendance	15%
Warm up exercises & preparatory writing	10%
Elevator Pitch	10%
Single-slide presentation	5%
3MT	10%
Presentation for non-technical audience	20%
Conference-style presentation	20%
Poster + Technical Elevator Pitch	10%
Total	100%

Electronic Devices in Class
This is a small interactive class during which you will be expected to be fully engaged in discussion. Only use your devices to take notes (and this will rarely be necessary), to take pictures of the white board, or to do some other class activity that is requested. Please do not email, text, or otherwise do non-class activity on your devices. I expect that the majority of the time your devices will be stowed during class.

Attendance
Attendance is required for all classes. Students who know that they need to miss a class to attend a conference or out-of-town professional interview must inform me well before the date. *Each unexcused absence will lower a student's final grade by ½ a letter grade.* Excused absences require documentation, and a student **may only have 2 excused absences** during a semester.

Accommodations for Students with Disabilities
If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404)894-2563 or http://disabilityservices.gatech.edu/, as soon as possible, to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs. If needed, I will make classroom accommodations for students with documented disabilities. These accommodations must be arranged in advance and in accordance with the Office of Disability Services (http://disabilityservices.gatech.edu).

Help Create Resistance to Sexual Harassment
MSE is committed to a community that actively resists sexual and gender harassment. If you see or experience any of the following: sexual harassment, domestic and dating violence, sexual assault and stalking, resources are available:
- **Confidential VOICE Advocates** (www.voice.gatech.edu) can provide support 24/7 and explore resources and options. If after hours, call GTPD dispatcher at 404-894-2500 and ask

to speak to the On-Call VOICE Advocate. You do not need to make a report nor provide any information other than your phone number for a VOICE advocate to contact you.

- Sexual violence or harassment can be reported directly to Georgia Tech's **Title IX Coordinator**, James Newsome, (404) 385-5583 burnsnewsome@gatech.edu.

Faculty, Staff and TAs are mandatory reporters and are required to inform the Title IX Coordinator should they become aware that you or any student has experienced sexual violence or sexual harassment.

Website: For more information about MSE CRSH, click the link:
https://www.mse.gatech.edu/values/crsh

Schedule

Week 1
Tue, Jan 9: Introductions.
Thu, Jan. 11: Communicating with children and non-technical audiences. Or just clearly. No class meeting, individual work at home. See below for details.

Skim these two articles on science topics written for young readers, one on quasi crystals and another one on acoustic levitation. Pay attention to how the authors explain scientific concepts and their research work to a young audience.

Then: Draft a similar text, between 250-500 words long, on a concept relevant to your own research. Make sure that you not only explain the concept, but also say what makes it interesting or important. Before you start drafting, please read carefully a note on AI use in the assignment proper. Submit on Canvas.

Week 2
Tue, Jan. 16: Group work and peer feedback: bring 2 printed out copies of your text to class to share and discuss with your peers and me.
Thu, Jan. 18: Communicating with non-technical audiences. Read (skim) the original version of a scientific article, and its write-up in daily press. Homework assignment: (a) highlight or underline the sentences in the NYT write-up in which the author is using some strategy to "translate" a scientific concept for non-technical audience, or some other means to make the science relatable to non-scientists. (b) make a bullet-point lists of the "translations" and other strategies that you will use when telling the story of your work to non-technical audience. Submit on Canvas and come to class ready to share.

Week 3
Tue, Jan. 23: Homework assignment: draft your elevator pitches, submit on Canvas. In class: elevator pitches peer feedback workshop.
Thu, Jan. 25: Presentations of elevator pitches: everyone. Also submit revised drafts + list of revisions.

Week 4
Tue, Jan. 30: What makes for a good presentation? Before class: watch these three TED talks, take notes, come to class prepared to discuss each.
Thu, Feb. 1: Lecture: Principles of effective oral presentations.

Week 5
Tue, Feb. 6: Examples of good presentations by your peers from previous semesters.
Thu, Feb. 8: Lecture: Slide & poster design & data visualizations basics. Before class, watch this video Links to an external site. on poster design (~20 minutes).

Week 6
Tue, Feb. 13: Homework assignment: Single slide presentation. Everyone presents in class.
Thu, Feb. 15: Draft your 3MT presentations: no class meeting, individual work at home.

Week 7
Tue, Feb. 20: 3MT presentations: in-class peer feedback workshop.
Thu, Feb. 22: 3MT presentations: Group 1.

Week 8
Tue, Feb. 27: 3MT presentations: Group 2.
Thu, Feb. 29: No class meeting, individual work at home: draft your presentations for non-technical audiences. See the details of the assignment here.

Week 9
Tue, Mar. 5: Presentations for non-technical audiences: in-class peer feedback workshop.
Thu, Mar. 7: Presentations for non-technical audiences: Group 1.

Week 10
Tue, Mar. 12: No class meeting: election day
Thu, Mar. 14: Presentations for non-technical audiences: Group 2.

Week 11
Tue, Mar. 19: SPRING BREAK
Thu, Mar. 21: SPRING BREAK

Week 12
Tue, Mar. 26: Presentations for non-technical audiences: Group 3.
Thu, Mar. 28: Presentations for non-technical audiences: Group 4.
Submit file with your poster on Canvas.

Week 13
Tue, Apr. 2: No class meeting, individual work at home: draft your conference-style (for technical audience) presentations. See the details of the assignment here.
Thu, Apr. 4: Conference-style presentations: in-class peer feedback workshop.

Week 14
Thu, Apr. 9: Conference-style presentations: Group 1.
Thu, Apr. 11: Conference-style presentations: Group 2.

Week 15
Tue, Apr. 16: Conference-style presentations: Group 3.
Thu, Apr. 18: Conference-style presentations: Group 4.

Week 16
Tue, Apr. 23: Poster session + Revised Elevator pitches/3MT-style presentations. Everyone presents.