

## MSE 6754 | Georgia Institute of Technology | Fall 2024

Tue & Thu 12:30-13:45 | Eng. Sci & Mechanics # 201

Alena Alamgir, Ph.D. | aalamgir7@gatech.edu

Office: 255 Love | Office hours by appointment

### Course Description

This course focuses on advanced skills in writing and editing; designing visuals; and creating and delivering presentations. Students will learn the fundamentals of writing clear and concise engineering prose and will produce professional documents based on their current research.

Applying principles of effective editing, students will analyze documents and edit them for clarity and coherence. Another element of the course will be designing effective visuals to use in documents and electronic presentations. Finally, students will gain experience creating and delivering a three-minute thesis (3MT) presentation and a conference-style presentation, both in electronic media and other forms, and will evaluate the presentations of their peers. Each presentation will have a specific purpose defined and the presentations 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: in-class discussion, editing, writing, peer reviewing, workshops, and presenting will be required. There will be in-class writing and editing exercises, in-class peer review of writing, editing, and presentations; homework in the form of reading and short editing assignments; a draft of an Introduction or Literature Review (suitable as a portion of a dissertation (or other) proposal or a research article); two formal presentations with slides—one for a non-technical audience (3 min. + Q & A) and another one crafted for a conference audience (10 min. + 5 min. Q & A); other shorter presentations; and written self-evaluations of oral presentations.

Each presentation will be recorded so that students can critique their own performance for their self-evaluation write-up.

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 exam. Final grade will be based on the following assignment groups:

Attendance	15%
Preps for in-class exercises	20%
Writing assignments	25%
3MT	20%
Conference-style presentation	20%
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. Missing class means you miss assignments that it may or may not be possible to make up. Students who know that they will 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/>).

### Schedule:

#### Week 1

Tue, Aug. 20: Introducing the course, and ourselves

Thu, Aug. 22: Writing in science

Read before class: "Writing in Science" & "Science Writing as Storytelling" (Schimel), and this Nature Physics editorial "Elements of Style Download Elements of Style." While reading, take (informal) notes on things that you find most important, interesting, or surprising. These can be just a few bullet points. Submit a document with the notes here on Canvas, and come to class prepared to talk about them.

#### Week 2

[Tue, Aug. 27](#): Communicating with children and non-technical audiences. Or just clearly. Read before class: "How to Write a Frontiers for Young Minds Article " and Ch. 20 from Schimel, "Writing for the Public." Take (informal) notes on the points you find most important and/or surprising, and draw the message box that Schimel discusses in his chapter, adapting it to the story you are writing about. Submit your notes on Canvas, bring them with you to class, and be ready to discuss them as well as to share your message box.

Also: Select & submit articles assignment.

[Thu, Aug. 29](#): No class meeting, individual work at home. First, read through these two articles on science topics 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 300-600-word text similar to these articles. It can be either a detailed explanation of one particular concept relevant to your own research, or an overview of your larger research project. In both cases, include not just descriptions/explanations of the concepts or projects, but also what makes the concepts/work interesting and important. Submit on Canvas and bring a couple of printouts to class with you.

For an example of how one of your MSE peers approached the assignment see [here](#) .

### [Week 3](#)

[Tue, Sep. 3](#): Peer feedback workshop of the writing-for-kids passage. Bring two printed copies to class.

[Thu, Sep. 5](#): Sentence-level clarity: Actions

Read before class: "Zombie Nouns " (Helen Sward) and "Lesson 3: Actions " (Williams).

### [Week 4](#)

[Tue, Sep. 10](#): Sentence-level clarity: Characters

Read before class: "Lesson 4: Characters " (Williams). Prep for in-class exercises: assignment.

[Thu, Sep. 12](#): Sentence-level clarity: Emphasis

Read before class: "Lesson 6: Emphasis Download Lesson 6: Emphasis" (Williams)

In-class exercises assignment.

### [Week 5](#)

[Tue, Sep. 17](#): Beyond sentence-level clarity: Writing good paragraphs

Read before class: Schimel, chapter 11 Download chapter 11.

In-class exercise assignment.

[Thu, Sep. 19](#): Beyond sentence-level clarity: Cohesion and coherence

Read before class: "Lesson 5: Cohesion and Coherence Download Lesson 5: Cohesion and Coherence" (Williams).

### [Week 6](#)

**Tue, Sep. 24:** Peer feedback passage in-class workshop. Prepare and submit on Canvas your passages for workshopping, bring 2-3 hard copies with you to class.

Submit the passages revised based on your partner's feedback on Canvas by Sep. 30.

**Thu, Sep. 26:** The Opening

Read before class: Schimel, chapter 5

In-class exercises assignment.

### Week 7

**Tue, Oct. 1:** The Funnel

Read before class: Schimel, chapter 6 (don't worry about what he means by OCAR, focus on the idea of using the funnel). In-class exercises assignment.

**Thu, Oct. 3:** Individual work at home, no class meeting: Draft (rewrite) ~400-600-word Introduction (assignment).

### Week 8

**Tue, Oct. 8:** Peer-review & workshop your Introductions in class. Before class, submit to Canvas the introduction you bring to class workshop. After the in-class workshop, submit the revised version of the introduction (modified based on the feedback you receive) here.

**Thu, Oct. 10:** The Challenge

Read before class: Schimel, chapter 7. In-class exercises assignment.

### Week 9

**Tue, Oct. 15:** FALL BREAK, no class

**Thu, Oct. 17:** Resolution & Abstracts

Read before class: Schimel, chapter 9. Also, have a look at this medical article abstract [Download this medical article abstract](#). Use the structured abstract format seen there to write an abstract for your own text. Submit the abstract as part of your assignment.

In-class exercises assignment.

### Week 10

**Tue, Oct. 22:** Lecture on effective oral presentations

**Thu, Oct. 24:** Individual work at home, no class meeting: Draft your 3MT presentations.

### Week 11

**Tue, Oct. 29:** Peer feedback workshop: 3MT. Submit on Canvas your draft slide and list of points you'll be making.

**Thu, Oct. 31:** 3MT Presentations: Group 1

### Week 12

**Tue, Nov. 5:** GENERAL ELECTION

**Thu, Nov. 7:** 3MT Presentations: Group 2

Submit your final slide & list of changes (separate, not on the slide itself).

### Week 13

**Tue, Nov. 12:** Draft your conference-style presentations: individual work at home, no class meeting.

Submit self-reflection on your 3MT presentation.

**Thu, Nov. 14:** Conference-style presentations: in-class peer feedback workshop.  
Submit your draft slides & a list of points you plan to make in your presentation.

### Week 14

**Tue, Nov. 19:** Conference-style presentations: Group 1.

**Thu, Nov. 21:** Conference-style presentations: Group 2.

### Week 15

**Tue, Nov. 26:** Conference-style presentations: Group 3.

**Thu, Nov. 28:** THANKSGIVING BREAK

### Week 16

**Tue, Dec. 3:** Unfinished business.

Submit final slides & list of changes (not on the slides, separate list).

Submit self-reflections on your conference-style presentation.