

MSE 498 – Special Topics: Engineering Communication
Summer 2021 (online)
3 Credit Hours (UG) / 4 Credit Hours (G)

Instructor: Dr. Jessica TerBush
Contact: jterbush@illinois.edu
Office: Remote, but normally 207 Ceramics
Time zone: Central (US)

Class meeting times: 12-1pm on Tues/Thurs via Zoom
You are required to participate in synchronous class discussions when held.
Office hours: 2-3pm Wed via Zoom, or by appointment

Class description:

Technical communication skills are essential for engineering success. Throughout their careers, engineers must express ideas to diverse audiences, ranging from professionals in their field, to the CEO of their company, to the average layperson. To do so, they must be prepared to tailor their writing to fit the situation and meet the needs of their audience.

Although lab reports are common for university lab classes, many other types of writing are necessary for academic and industrial career success, such as white papers, technical memos, executive summaries, and press releases. In this class, we will consider and evaluate the various writing formats students will likely encounter in their career and practice writing and analyzing select examples of these formats.

Learning Outcomes: By the end of this course, students will be able to:

- Tailor written communications to the appropriate audience
- Draft out an outline to focus a writing assignment
- Critique a published piece of writing
- Revise a document based on peer feedback
- Work as part of a team to create cohesive documents
- Craft a range of written deliverables often encountered in industry or academia

Textbook: None required

Website: Compass and CampusWire (Q&A forum)

Recommended Resources:

- Civil Engineering Writing Project (<http://www.cewriting.org/courses-and-independent-study>)
- Purdue University Online Writing Lab (OWL) (https://owl.purdue.edu/owl/purdue_owl.html)
- Writers Workshop (<https://writersworkshop.illinois.edu/resources-2/writer-resources/>)

- *Writing Science: How to Write Papers That Get Cited and Proposals That Get Funded*, Joshua Schimel, Oxford University Press, 1st Edition, 2011.
- *Handbook of Technical Writing*, Gerald J. Alred, Charles T. Brusaw, and Walter E. Oliu, St. Martin's Press, 10th Edition, 2011.
- *Pocket Book of Technical Writing for Engineers & Scientists*, Leo Finkelstein Jr., McGraw-Hill, 3rd Edition, 2007.
- *A Guide to Writing as an Engineer*, David F. Beer and David A. McMurrey, Wiley, 5th Edition, 2019.
- *Scientific English: A Guide for Scientists and Other Professionals*, Robert A. Day and Nancy Sakaduski, Greenwood, 3rd Edition, 2011.
- *Writing Science in Plain English*, Anne E. Greene, University of Chicago Press, 2013.
- *The Scientist's Guide to Writing: How to Write More Easily and Effectively throughout Your Scientific Career*, Stephen B. Heard, Princeton University Press, 2016.
- *The Chicago Guide to Communicating Science*, Scott L. Montgomery, University of Chicago Press, 2nd Edition, 2017.

Course Schedule:

Week of	Class 1	Class 2	Homework Due (Friday of corresponding week)
June 14	Intro/Audience <i>Assignment Posted: Class Expectations Memo</i>	Memos	None
June 21	The Writing Process	Group Writing	Class Expectations Memo
June 28	White Papers <i>Assignment Posted: Writing Outline/Plan</i>	Executive Summary <i>Assignment Posted: Executive Summary</i>	Writing Plan/Outline
July 5	Abstracts	Time Management (recorded)	Executive Summary
July 12	Peer Critique <i>Assignment Posted: Peer Critique of ES</i>	Proposals <i>Assignment Posted: Group Pre-Proposal</i>	Peer Critique of Executive Summary
July 19	Journal Articles <i>Assignment Posted: Executive Summary Rewrite</i>	Design Elements	Executive Summary Rewrite
July 26	Press Releases and Social Media	Presentations <i>Assignment Posted: Lessons Learned Memo</i>	Group Pre-Proposal
August 2	Class Choice*	None	Lessons Learned

Assignments and Grade Breakdown:

We will have a mixture of in-class (short) writing or discussion topics, plus weekly assignments due on Friday. Class participation will factor into your grade, so please be prepared to contribute to class discussions and critiques.

In-class assignments/participation – 30% total, including:

- Audience awareness
- Memo example discussion
- Analysis of three abstracts
- Discussion of journal articles
- Social media post on your research

Weekly writing assignments (listed above) – 10% each for a total of 70%

- Rubrics will be provided for each of the weekly assignments

There will be no final exam for this class.

Exact grade breakdown will depend on the class average, but default will be a straight-scale. If the class average is lower than expected, grades may be curved at the instructor's discretion.

“Straight-scale” breakdown is as follows:

97-100	A+	77-79	C+	Below 60	F
93-96	A	73-76	C		
90-92	A-	70-72	C-		
87-89	B+	67-69	D+		
83-86	B	63-66	D		
80-82	B-	60-62	D-		

Please note that this is a mixed graduate and undergraduate class. *The graduate student requirements for certain assignments will be more in-depth than the undergraduate*; this will be clearly communicated when the assignment(s) are given.

Grading Policies and Penalties:

1. A late penalty of 10% per day will be assessed for any assignments submitted after the deadline.
2. Students are expected to participate in the in-class discussions, writing assignments, and critiques. Failure to participate may result in a reduced grade for the class.
3. Plagiarism is a serious offense, and is punishable according to the University Code of Policies and Regulations. Depending on the severity of the offense, penalties range from a reduced grade for an assignment, to no credit for the assignment, to a reduced or failing grade in the class. In particularly severe circumstances, the student can be recommended for suspension or dismissal. Please make sure all non-original ideas are referenced and cited, and long passages are properly quoted. If you have questions, please ask!

Accommodations:

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES, you may call 217-333-4603, e-mail disability@illinois.edu or go to the DRES website.

Please note: This is an online class, and will require in-class participation. If you foresee any issues due to technology (slow/spotty internet, no microphone or webcam, etc), please reach out to me at the beginning of the class to see what can be done.