

## **ENGR 502x: Writing Skills for Engineering Ph.D. Students**

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### **Course Objectives**

This course is designed to help Ph.D. students in engineering and science with their academic and professional writing. Specifically, students will master the language, style, structures, and forms that are used in academic and professional communication.

Writing activities we do in class are relevant to writing journal papers, proposals, your dissertation as well as tasks related to a career in academia or industry, e.g. proposals, review articles, career communications. Personalized attention is emphasized in this course--you are encouraged to bring in your own work for feedback. Class work is focused on building your individual strengths and giving you tools for continued improvement.

### **Course Outcomes**

Through short writing assignments you will learn to:

- effectively transmit and articulate ideas and findings to your research community
- communicate research to multidisciplinary, policy-making and general audiences
- continue developing your writing skills independently to further improve beyond this course
- control and translate your science communications
- develop your academic voice

Seminar-style classes will introduce topics and support readings and assignments; in-class workshops will give you the opportunity to initiate your writing efforts and get feedback. Class time will also be used to discuss your current work, and to evaluate a variety of scientific and engineering writing.

Individual writing assessment will provide you with specific guidance on setting goals, planning, organizing ideas, as well as grammar, language and syntax issues. Peer review in the class will allow you to discuss and reflect on your own work, hear other perspectives and share the communication challenges of transmitting ideas to different audiences.

In sum, this course provides a supportive environment that emphasizes the process of writing and the importance of continued practice throughout the semester and beyond. You will learn to apply methods that will enable you to further advance in the future to become a more effective writer and collaborator.

### **Assignments**

Small writing assignments ranging in length from a paragraph to one page in length are assigned at regular intervals throughout the 7-week session.

Also, you have the opportunity to show your current research to the class, for example, an abstract, introduction, figures, etc. Adjusting content to meet audience needs is emphasized in this assignment.

In addition, you always are welcome to share conference papers, journal articles, lab reports, grant proposals, dissertation proposals, abstracts, written correspondence (email, letters), PPT presentations, and other written materials in the class for discussion and feedback. It is often very useful to get feedback from colleagues who are not in your specific field.

You may consult with the professor in and outside of class for assistance with your individual writing tasks, e.g. dissertations, journal papers, conference papers.

In class we cover the basic elements and strategies for writing journal articles, review articles, conference papers, academic and professional funding proposals, and finally professional documents, including reports, process descriptions, technical descriptions, and curriculum vitae.

The activities in 502x are intended to support your ongoing writing tasks and to prepare you for the demands of professional communication.

### **Evaluation Policies**

This course is Credit/No Credit. Credit for this course is based on the following criteria:

- attending class meetings
- participating in discussions and writing activities
- completing an in-class informal writing presentation and the short writing assignments listed in the course schedule
- *optional* - identify a writing project of your own to work on in parallel with the course (journal article, dissertation chapter, research proposal, etc.)

\*This course is supportive of your Ph.D. research and writing, and as such, there is flexibility with assignments in terms of deadlines and substitution of any standard assignment with your current work in progress. You can always turn in assignments late and you can make up classes that you miss. Let me know if this is needed so we can make a plan that will work out for you.

## Supplementary Texts

Swales, J. & Feak, C. (2015). *Academic Writing for Graduate Students, Essential Tasks and Skills*. 3<sup>rd</sup> Ed. University of Michigan. Ann Arbor

Glasman-Deal, H. (2010). *Science Research Writing for Non-Native Speakers of English*. Imperial College Press. London.

Schimel, J. (2012). *Writing Science: how to write papers that get cited and proposals that get funded*. Oxford University Press. New York.

Tebeaux, E. & Dragga, S. (2018). *The Essentials of Technical Communication*. Oxford University Press. New York.

Penrose, A. & Katz, S. (2010). *Writing in the Sciences*. Longman. United States. (open access version is in the Google docs supplementary materials folder)

Exercises and readings are adapted from these texts and used in the class. *The Essentials of Technical Communication* is listed above for students interested in industry-oriented writing. It covers all aspects of professional communication.

## Academic Conduct and Support Systems

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. You can familiarize yourself with processes to handle violations: Viterbi’s Office of Academic Integrity, <https://viterbischool.usc.edu/academic-integrity/> In addition, see information on university policies for research misconduct <https://policy.usc.edu/research-and-scholarship-misconduct/>

### Disability Accommodations:

USC welcomes students with disabilities into all of the University’s educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at [osas.usc.edu](https://osas.usc.edu). You may contact OSAS at (213) 740-0776 or via email at [osasfrontdesk@usc.edu](mailto:osasfrontdesk@usc.edu).

### Support Systems:

*Counseling and Mental Health* - (213) 740-9355 – 24/7 on call, [studenthealth.usc.edu/counseling](https://studenthealth.usc.edu/counseling)

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

*National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call, [suicidepreventionlifeline.org](https://suicidepreventionlifeline.org)*  
Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

*Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call, [studenthealth.usc.edu/sexual-assault](https://studenthealth.usc.edu/sexual-assault)*  
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

*Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086, [eeotix.usc.edu](https://eeotix.usc.edu)*  
Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

*Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298, [usc-advocate.symplicity.com/care\\_report](https://usc-advocate.symplicity.com/care_report)*  
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

*The Office of Student Accessibility Services (OSAS) - (213) 740-0776, [osas.usc.edu](https://osas.usc.edu)*  
OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

*USC Campus Support and Intervention - (213) 821-4710, [campussupport.usc.edu](https://campussupport.usc.edu)*  
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

*Diversity, Equity and Inclusion - (213) 740-2101, [diversity.usc.edu](https://diversity.usc.edu)*  
Information on events, programs and training, the Provost’s Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

*USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call, [dps.usc.edu](https://dps.usc.edu), [emergency.usc.edu](https://emergency.usc.edu)*  
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

*USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call, [dps.usc.edu](https://dps.usc.edu)*

### **Other non-emergency assistance:**

*Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC), [ombuds.usc.edu](https://ombuds.usc.edu)*  
A safe and confidential place to share USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

*Occupational Therapy Faculty Practice - (323) 442-3340 or [otfp@med.usc.edu](mailto:otfp@med.usc.edu), [chan.usc.edu/otfp](https://chan.usc.edu/otfp)*  
Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.