

Advanced Workshop in Writing for Science & Engineering: ESL

M, W 12-1:30 in Room 14E-310
T, Th 12:00-1:30 in Room 14E-310
Office Hours: M 11-12; Th 5:00-6:00;
& by appointment.

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Key dates: Add Date/change to P/D/F (10/06); Drop Date/change to listener (11/22); Last class (12/13)--no assignments will be accepted (even for partial credit) after this date.

Who is this subject designed for? If you are a junior, senior or graduate student in the sciences or engineering at MIT **and** if your general English skills are advanced but your academic writing needs further development, 21G.225/6 is the right place for you. This workshop is grounded in current applied linguistics and genre research; and it provides the opportunity to analyze, practice and receive feedback on many of the types of professional and academic documents that you will write in your engineering or science studies and careers. *You will find the workshop most productive if you are already engaged in a research project; you can then use the literature and data related to your own research in the course assignments.*

What do we do in class? The workshop content builds cumulatively; each module, class session, and assignment builds on the one before. Class members are frequently the authors of the work under review and are occasionally responsible for leading group discussions and making short presentations. Regular attendance, timely completion of assignments, and constructive participation throughout the semester are crucial to the learning process and to the success of the workshop.

What outcome can you expect?

In 21G.225/6, you can expect to improve efficiency and fluency through drafting, revising, and sharing in the writing process. You will learn how to anticipate readers' needs and meet their expectations. You will become familiar with appropriate genre conventions in your discipline. You will sharpen your editing skills to increase accuracy in sentence structure and word choice, and you will develop confidence in yourself as a global professional.

Constructive preparation and participation throughout the semester in the group analyses, discussions and exercises that take place in class is crucial to the learning process and to the success of the workshop. As a result, I expect all participants to register for grades or for P/D/F. If you expect to have difficulty this semester being punctual, preparing for and attending almost every class, and completing assignments on time, you should plan to take 21G.225/6 another semester.

What are the required texts and materials? (Tech Coop, Hayden Library, Copy Tech, on-line)

1. Day, R. and Gastel, B. *How to Write & Publish a Scientific Paper*, 7th or 8th Ed. **(Day)**

2. Dunphy, J. *New Spring 2018 21G.225/6 Course Workbook* (Copy Center, 11-004) (CW).
3. A published **journal paper** written in English by top researchers in your field in a refereed disciplinary **academic** journal or in *Nature*. The article *must* include an abstract, subheadings, figures, tables and references. Bring one copy to me; have another copy with you in every 21G.225/6 class. (MP).
4. Caplan, N. *Grammar Choices for Graduate & Professional Writers* (Caplan).
5. Hacker, Diana. *Research and Documentation in the Electronic Age* (Hacker)
6. On-line English-English dictionary (e.g., *American Heritage* or *Oxford American*)
7. A binder with pockets to hold handouts and graded assignments.

What can students do on their own to build writing skills?

Students in this workshop are encouraged to be independent analysts and learners. In addition to the assigned tools we use for class, you are expected to do the following:

(1) Use your word processing spell-check tools. You can find errors easily and use the find/search/replace/dictionary functions to make dedicated spell-checking an easy task.

(2) Consult with tutors in the Writing and Communication Center (Building E39-115; <http://cmsw.mit.edu/writing-and-communication-center/>) for help with any writing tasks. The Center provides free one-on-one professional advice about all types of academic and professional writing, as well as aspects of oral presentations. The Center's core hours are Monday-Friday, 9:00 a.m.-6:00 p.m.; evening and Sunday hours vary by semester. Check the *online scheduler* for up-to-date hours: <https://mit.mywconline.com/>

(3) Take advantage of the many "recommended" extra materials provided in each Stellar folder. These materials will not be assigned as homework but do provide interesting and relevant content to support our class activities.

(4) Explore the resources recommended below (or their equivalents). For example, you can use concordance software to determine most frequent word choices in your discipline.

Recommended Texts & Materials (available on-line, at Tech Coop or in the library)

- Alley, M. *The Craft of Scientific Presentations* and *The Craft of Scientific Writing*
- Anglo Link <https://www.youtube.com/user/MinooAngloLink>
- Azar, B. *Chartbook: A Reference Grammar*
- Braun, S. *Links and references for corpora and corpus analysis*: <http://www.corpora4learning.net/>
- Colwords. Vocabulary building site with quizzes: <http://www.colwords.com/>
- Corpus and concordancing software: <http://corpus.byu.edu/coca/> and http://www.lexutor.ca/concordancers/concord_e.html
- Duke University. Graduate School Academic Writing Resource: <https://cgi.duke.edu/web/sciwriting/index.php>
- Feamster, N. and Gray, A. *How to Do Great Research: Grad School Survival Advice*. <http://greatresearch.org/>
- Fogarty, Mignon. Grammar Girl: Quick & Dirty Tips: <http://www.quickanddirtytips.com/grammar-girl>

- Grammar-Quizzes.com
- Irish, R. *Writing in Engineering: A Brief Guide*
- mathcomm.org. Collection of resources for communicating about mathematics.
- Michaelson, H. *How to Write & Publish Engineering Papers & Reports* (out of print, but available in Hayden Library and from me)
- MIT, *Academic Integrity*. <http://integrity.mit.edu>
- Morley, John. Academic Phrasebank: <http://www.phrasebank.manchester.ac.uk/>
- Mulford, N. Instructions to authors in the Health Sciences: mulford.meduohio.edu/instr
- Perfect English Grammar: <http://www.perfect-english-grammar.com/>
- Roland & Pardue. *Writing in Biology: A Brief Guide*
- Swales, J. & C. Feak. *Academic Writing for Graduate Students* (3rd edition)
- U. Hong Kong, Writing Machine: <http://vlc.polyu.edu.hk/academicwriter/Frames/framesLanguage.htm>
- U. Toronto, Advice on Academic Writing: <http://www.writing.utoronto.ca/advice>
- Gillett, Andy. *Using English for Academic Purposes*: <http://www.uefap.com/>
- William, J. *Style: Ten Lessons in Clarity & Grace*
- On being a scientist: Guide to responsible conduct of research, 3rd edition www.nap.edu/catalog.php?record_id=12192)

What is the grading policy in 21G.225/6? Ten percent (10%) of your grade is based on punctuality, attendance, preparation (e.g., familiarity with the required readings), informed and constructive contributions to discussions, and **on time** completion of assignments. Please be familiar with the course schedule, read the assigned passages in the materials, consider the tasks for in-class discussion that are provided in the Course Workbook and come to each class prepared to contribute. Those who do not prepare, contribute constructively to discussions, complete (and hand in) assignments on time and attend class regularly **will not** receive an A for the course.

If you anticipate having trouble meeting all of the expectations for an A grade, please register P/D/F for the subject.

94 & above=A	90-93=A-	86-89=B+	83-85=B	80-82=B-
76-79=C+	73-75=C	70-72=C-	60-69=D	Below 60 = F

Your grade will be calculated according to the following point system:

(1) Punctuality, attendance, preparation and participation **(10%)**

You are expected to

- Come on time to every class;
- Prepare for every class by doing the assigned readings and exercises for informed in-class discussion;
- Contribute constructively to class dynamics;
- Hand in each assignment on its due date, unless you have made other arrangements with me in advance.

- Take responsibility for any *unavoidable tardiness or absences* by notifying me in advance whenever possible, and by consulting with a classmate to learn what was covered in the class you missed.

2) Short exercises (5)

(10%)

You are expected to prepare and hand in short assignments that provide practice in strategy (designing the best approach for your readers and purposes), retrieving and summarizing key information, and building fluency and accuracy. These exercises build on each other and are integrated into classroom practices. They do not serve their purpose if they are submitted late.

3) In-class, open-book quizzes (5)

(10%)

These short assessments will occur at the start of class and will take no more than 15 minutes.

4) Memos (3)

(15%)

Memos should be typed in 12 point Times New Roman font, on standard 8.5 X 11" paper using single spacing. Memo formatting conventions require the audience, purpose and author information in the headings. Include page numbers on all documents longer than one page. Always use the spell-check tool before you share your document with others. Please do not staple pages together.

5) Short formal papers (3)

(30%)

All shorter papers will require revisions. If you receive a grade of "C" (7/10) or lower on any of the three shorter formal papers, you are encouraged to submit a third draft. Rewrites are due the next class. Your new grade will be a combination of the original grade and the grade received for the third submitted draft.

6) Final long paper

(25%)

The final paper will provide an opportunity to showcase how your academic writing has developed over the semester—to compare the accuracy and conformity to convention of your writing at the start of 21G.225/6 and at the end. There will be no opportunity to rewrite the final project, worth 25%. However, each of you will have at least one scheduled appointment with me for feedback on your final project in progress.

Total: 100%

All papers and reports are expected conform to the following conventions:

- Type-written in 12 point Times New Roman font;
- Printed on standard 8.5 X 11" paper with 1.5 spacing; 1.5" top/bottom paper margins; 1" side margins.
- Paginated if longer than one page.
- Spell-checked;
- Submitted without staples or coverings;

Details of Major Assignments

Specifications: All papers and reports are expected conform to the following conventions:

- Type-written in 12 point Times New Roman font;
- Printed on standard 8.5 X 11” paper with 1.5 spacing; 1.5” top/bottom paper margins; 1” side margins.
 - Paginated if longer than one page.
- Spell-checked;
- Submitted without staples or coverings;

Formal Paper #1: Writing for a General Audience (*10 % of final grade*)

Increasingly, scientists and engineers need to educate the public about the relevance of their research and justify the funding they receive. Consider the examples of writing for this purpose (e.g., from Tech Review, Ashdown Newsletter, New York Times) that you have read on Stellar and that we have discussed in class. How can you “deconstruct” your highly specialized research focus to demonstrate and explain its broader importance in your field and in life?

Write a short article (~500 words) that motivates non-specialist readers to care enough about the topic to keep reading from the title through the end. Ensure that the context, content, style and tone are appropriate for the intended audience.

Bring the original and 1 copy to class. Distribute a copy to each member of your editing group and to me *at least 18 hours* before class. Bring hard copies to class for the workshop.

Formal Paper #2: Writing Correspondence (*10% of final grade*)

Writing about our research is a central task in academic and professional life. Even when we are not writing extensive reports and papers for publication, we must frequently share research information in different forms, e.g., summaries, graphic representations of data, memos (e-mail or hard copy) or presentations. For this assignment, write one of the following:

1. Letter applying for a post-doctorate fellowship or
2. Cover letter suitable for a faculty or research position in a professional environment.
3. Cover letter suitable for an internship position.

Note: Letters and memos are single-spaced. Please attach the ad/job description.

Bring the original and 1 copy to class. Distribute a copy to each member of your editing group and to me *at least 18 hours* before class.

Formal Paper #3: Introducing Material (10% of final grade)

As we have discussed in class, abstracts and introductions are common features of professional documents in science and engineering. However, the building blocks for these sections vary depending on the discipline and the genre (the document's key purpose and form).

Write an abstract (~100-250 words) and an introduction (two-three pages) suitable for a technical report, proposal, research paper or short thesis to be read by an expert in your, or in a closely related, discipline. Include a document title and a reference section.

Bring the original and 1 copy to class. Distribute a copy to each member of your editing group and to me *at least 18 hours* before class.

Final Paper (25% of final grade)

This final assignment provides the chance to combine what you have learned, practiced and written this semester to produce a final formal document (1) that is designed for an expert in your, or in a closely related, discipline and (2) that can be used in a context outside of 21G.225/6. Your final project can be one of the following:

- Master's or Ph.D. thesis proposal
- Review or research paper you are writing for another course this semester
- Literature review on an anticipated research topic
- Review or research paper for publication
- New UROP report or other substantial lab report on current/recent research
- Part of an undergraduate thesis or a Master's or PhD thesis to be submitted in the future

Other projects may be approved with sufficient advance notice. See me if you are having trouble anticipating a topic for the final project. Do not wait until the end of the semester!

Specifications for the final paper

The paper must be 10- to 20-pages long (1.5 spacing, single column), not counting the references and appendices. A part of the paper may consist of writing you have done for class during the semester, but *the paper must include at least 50% new material*, excluding References and Appendices. The paper must incorporate headings, figures, tables, equations and citations appropriately into the text according to the conventions in your discipline (e.g., those shown in your MP).

Keeping Track of Your Progress

Record your scores as you receive your graded assignments back so you can track difficulties, seek extra help if needed, and anticipate your final grade.

Short exercises (5 X 2 points)

- 1.
- 2.
- 3.
- 4.
- 5.

Quizzes (5 X 2 points)

- 1.
- 2.
- 3.
- 4.
- 5.

Memos (3 X 5 points)

- 1.
- 2.
- 3.

Short formal papers (3 X 10 points)

- 1.
- 2.
- 3.

Final paper (25 points)

Attendance, preparedness and participation (10%)

1. Absences:
2. Late assignments:
3. Lack of preparation: