

# Communications in the Professional World

(Course #13230, J. Foresta, Tuesday / Thursday, Room: ET-201, 7:00 – 8:50 P.M.)

## Introduction

As a communicator of technical and professional information, you must be able to meet numerous requirements, both in the academic world and in the workplace. You should be fact-minded and also be able to present information clearly, accurately, and precisely to audiences who have varying degrees of understanding about your subject matter. You should know how to use different techniques and formats for presenting information, such as reports, letters, instructions, proposals, and memoranda.

Persons who specialize in technical areas have a responsibility to themselves, their co-workers, and their professions to be prepared to handle communications tasks effectively. Competent, successful communications quickly stand out in a group. This talent is highly valued, as it is frequently revealed in searches for employee candidates, "...must have outstanding communication skills."

After you have developed an awareness of how to fulfill your future communication responsibilities, classwork will focus on several specific, but easy-to-grasp skills that will help you become an effective presenter of technical information.

## Course Description

E190W is an upper-division technical writing course designed to provide you with the tools to plan, research, organize, edit, and evaluate various forms of technical communication. The coursework will include short writing and editing exercises, discussions on writing styles and techniques, readability analysis, evaluation of information resources, a short extemporaneous oral presentation, a technical research paper, a group research paper, and an oral presentation based on the group research paper.

**NOTE: A writing evaluation will be given on the first day of class to verify that your current writing skills meet the course prerequisites. You must pass this test to enter the class.**

## Course Outcomes

**By the end of the school quarter, class members will be able to perform the following skills:**

- Produce quality technical papers totaling 4,000 words or more of finished work.
- Function effectively on multidisciplinary teams to accomplish a common goal.
- Demonstrate professional, ethical, legal, security, and social issues and responsibilities.
- Plan, organize, prepare, and deliver effective technical reports in written, oral, and other formats appropriate to the discipline and goals of the program.
- Describe the basic process model and identify the key elements that form the basis for effective technical writing and sound scientific research.
- Demonstrate the ability to make appropriate decisions regarding the form, format, and style of a proposed technical document based on the target audience.
- Use effective methodologies for reviewing, editing, and revising a technical document.
- Create presentations of technical data using appropriate use of media.
- Communicate effectively with a range of audiences.

## Activity Summary

- Write an ethics essay based on a real-world engineering scenario.
- Participate in a collaborative research project (3-5 students per group), which includes a written technical report (16-20 pages).
- Present your section of the technical report in conjunction with the other members of your research group using a multimedia presentation.
- Write a research paper (8-10 pages) on an approved topic relating to your chosen discipline.
- Present your individual research paper orally to the class.
- Participate in various in-class writing exercises.
- Participate in various class discussions regarding ethical, legal, security and social issues relevant to the engineering discipline.
- Perform miscellaneous editing exercises on selected writing samples.
- Write a 1-page review of a selected article taken from an engineering-related journal.
- Present your journal article review orally to the class.
- Perform a peer review of another class member's technical research paper.
- Write a 2-page technical description to a generalist audience.
- Speak extemporaneously on a chosen topic to an audience of your peers (to be determined).

## Grading Scale and Percentages

Homework assignments	10%
Periodic quizzes	10%
Collaborative research paper 1	20%
Individual research paper	20%
Collaborative research paper 2	30%
Final exam (comprehensive)	10%

Grading Scale	Grade
90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
below 60%	F

## Attendance Policy

Because this course is learning-intensive and covers a broad range of information, skills, and techniques, students are expected to attend all classes. Attendance will be taken at each class session. Students with more than four unexcused absences during the quarter may receive a lower final grade. Special circumstances will always be considered on an individual basis.

Each class will begin promptly at the designated hour. Latecomers disrupt the class proceedings and seriously affect the group dynamics that are desirable for an effective learning environment. Chronic tardiness may also affect a student's final grade for this course.

## Required Textbooks

1. *A Guide to Writing as an Engineer* by David Beer, David McMurrey, Wiley & Sons, April 2004 (Second Edition)
2. *Writing from A to Z* by Ebest, et al., Mayfield Publishing, 2002 (Fourth Edition)

## Tentative Class Schedule

Session	Lecture Topics
Sept. 25 Thurs.	<ul style="list-style-type: none"> <li>• Class introduction, orientation, and overview of class and program outcomes (hand out class syllabus)</li> <li>• Review syllabus, discuss learning objectives, writing assignments, and grading criteria</li> <li>• Importance of effective communication skills (verbal and written)</li> <li>• Short writing exercise and course outcome survey (for assessment purposes)</li> </ul>
Sept. 30 Tues.	<ul style="list-style-type: none"> <li>• Introduction – technical writing in the workplace (examples of technical documentation)</li> <li>• Communication modalities – benefits and drawbacks of visual and verbal modalities</li> <li>• Discussion on sender/receiver relationships and the technical writing process model</li> <li>• Using style guides to format citations and references in scientific communication</li> <li>• Writing exercise – assembly instructions (working in groups of two or three)</li> <li>• Reference reading – Beer, Chapter 1 – Engineers and Writing</li> </ul>
Oct. 2 Thurs.	<ul style="list-style-type: none"> <li>• Review assembly instructions (use of drawings versus text)</li> <li>• Introduce the steps used for creating a technical document</li> <li>• Recognizing professional, ethical, legal, security and social responsibilities in engineering (NSPE exam)</li> <li>• Adopting a Code of Ethics as a foundation for sound engineering practices</li> <li>• Discuss requirements for Collaborative Research Project 1 (hand out sample copy of a student paper)</li> <li>• Assign research groups – groups meet for selecting a topic and planning a research strategy for the collaborative research project (topic and preliminary outline due at the end of today's class session)</li> <li>• Reference reading – Beer, Chapter 11 – Documentation and Ethics in Engineering Writing</li> </ul>
Oct. 7 Tues.	<ul style="list-style-type: none"> <li>• Visit to the Science Library for orientation and demonstrations on research techniques using online electronic resources and databases (class held in the Interactive Learning Center)</li> </ul>
Oct. 9 Thurs.	<ul style="list-style-type: none"> <li>• Understanding the conventions used in scientific writing for laboratory research and reporting</li> <li>• Discussion on ethical reporting of your research findings using the scientific method</li> <li>• Using principled reasoning to evaluate/solve ethical, unethical, and non-ethical situations in the workplace</li> <li>• Review the NSPE Code of Ethics practice exam</li> <li>• Conducting responsible research – documenting your sources (hand out MLA summary sheet)</li> <li>• Research groups meet to discuss research strategies and formalize their preliminary outlines</li> <li>• Ethics essay assignment due today</li> <li>• Reference reading – Beer, Chapter 6 – Writing an Engineering Report</li> </ul>
Oct. 14 Tues.	<ul style="list-style-type: none"> <li>• Discussion on the types of readers and determining the purpose of a technical document</li> <li>• Discussion on limiting the scope and planning the proper tone for a technical document</li> <li>• Brief introduction to Microsoft PowerPoint for designing a technical presentation</li> <li>• Research groups meet to discuss individual progress and coordinate ongoing research tasks</li> <li>• Quiz 1 (taken from class lectures, exercises, and reading assignments)</li> <li>• Reference reading – Beer, Chapter 2 – Some Guidelines for Good Engineering Writing</li> </ul>

Oct. 16 Thurs.	<ul style="list-style-type: none"> <li>• Review Quiz 1</li> <li>• Exercises to practice self-editing and rewriting skills</li> <li>• Planning your document – choosing an appropriate form, format, and style</li> <li>• Discussion of common errors that can degrade the effectiveness of written documentation</li> <li>• Discuss requirements for journal article review and presentation</li> <li>• Reference reading – Beer, Chapter 4 – Writing Letters, Memoranda, and Email</li> </ul>
Oct. 21 Tues.	<ul style="list-style-type: none"> <li>• Group oral presentations begin today. Presentations should not exceed 12 to 15 minutes per group (3 to 4 minutes per student), with two minutes added for class questions and responses at the conclusion of your group's presentation</li> <li>• Group research papers due today</li> </ul>
Oct. 23 Thurs.	<ul style="list-style-type: none"> <li>• Review form and format considerations, and some common punctuation rules</li> <li>• Exercises for using parallel construction in your writing</li> <li>• Constructing logical hierarchies of information for technical documentation</li> <li>• Short video on seismology in preparation for writing your midterm research paper.</li> <li>• Midterm research paper assigned using information from the video and additional outside sources on any topic relating to seismology (alternate topics subject to instructor approval)</li> </ul>
Oct. 28 Tues.	<ul style="list-style-type: none"> <li>• Discussion on commonly accepted scientific research methods and practices</li> <li>• Evaluating printed and online sources for relevance and credibility as part of a research strategy</li> <li>• Using Boolean logic to enhance your Web searching capabilities</li> <li>• Discussion on the ethical use of source material in your research papers</li> <li>• Using brainstorming techniques effectively in an engineering environment</li> <li>• Reference Reading – Beer, Chapter 8 – Accessing Engineering Information</li> </ul>
Oct. 30 Thurs.	<ul style="list-style-type: none"> <li>• Three-minute extemporaneous oral presentation by each student</li> <li>• One-page draft or an outline of your midterm research paper due today</li> <li>• Research groups meet to select a topic and write a brief outline for final research paper</li> <li>• Quiz 2 (taken from class lectures, exercises, and reading assignments)</li> <li>• Reference reading – Beer, Chapter 9 – Engineering Your Presentation</li> </ul>
Nov. 4 Tues.	<ul style="list-style-type: none"> <li>• Review Quiz 2</li> <li>• Discussion of parallel construction and sentence logic to enhance clarity</li> <li>• Discussion and exercise on writing concise abstracts for scientific papers</li> <li>• Research groups meet to discuss individual progress and coordinate ongoing research tasks</li> <li>• Reference reading – Beer, Chapter 3 – Eliminating Intermittent Noise in Writing</li> </ul>
Nov. 6 Thurs.	<ul style="list-style-type: none"> <li>• Exercises to eliminate wordiness and improve concision in your writing</li> <li>• Stylistic considerations in designing/writing technical documentation</li> <li>• Using acronyms, initialisms, and abbreviations correctly in technical documentation</li> <li>• Journal article review and presentation due today</li> <li>• Midterm research papers due today</li> </ul>

Nov. 11 Tues.	<ul style="list-style-type: none"> <li>• Short prepared oral presentation of your midterm paper (3 to 5 minutes per student)</li> <li>• Discussion on methodologies for comprehensive review and revision of a technical document</li> <li>• Research groups meet to discuss possible topics and research strategies for the final research paper</li> </ul>
Nov. 13 Thurs.	<ul style="list-style-type: none"> <li>• Finish oral presentations of midterm papers (3 to 5 minutes per student)</li> <li>• Discussion and exercises using readability analysis to ensure comprehension of the target audience</li> <li>• Writing effective manufacturing instructions for complex electro-mechanical assemblies</li> <li>• Groups meet to discuss individual progress and coordinate ongoing research tasks</li> </ul>
Nov. 18 Tues.	<ul style="list-style-type: none"> <li>• Manufacturing instructions due today</li> <li>• Planning, preparing and presenting effective technical presentations</li> <li>• Using figures and graphics effectively in technical documentation</li> <li>• Research groups meet to discuss individual progress and coordinate ongoing research tasks</li> <li>• Reference reading – Beer, Chapter 10 – Writing to Get an Engineering Job</li> </ul>
Nov. 20 Thurs.	<ul style="list-style-type: none"> <li>• Review of manufacturing instructions</li> <li>• Overview of copyright, trademark, and patent laws</li> <li>• Exercises to further eliminate wordiness and improve concision in your writing</li> <li>• Research groups meet to discuss individual progress and coordinate ongoing research tasks</li> <li>• Reference reading – Beer, Chapter 7 – Constructing Tables and Graphs</li> </ul>
Nov. 25 Tues.	<ul style="list-style-type: none"> <li>• Discussion on effective sentence construction to enhance clarity</li> <li>• Exercises to reduce wordy sentence constructions</li> <li>• Peer review exercise (bring a printed draft of your section of the final research paper to class today)</li> <li>• Discussion on the types of documents prevalent in the engineering workplace</li> </ul>
Nov. 27 Thurs.	<ul style="list-style-type: none"> <li>• Thanksgiving Holiday</li> </ul>
Dec. 2 Tues.	<ul style="list-style-type: none"> <li>• Return peer review evaluations to respective authors</li> <li>• Brief discussion on engineering documentation revision control and review procedures</li> <li>• Brief discussion on engineering's role in a typical product development cycle</li> <li>• Brief discussion on creating effective internal and external business proposals</li> <li>• Groups meet to discuss individual progress and coordinate ongoing research tasks</li> <li>• Reference reading – Beer, Chapter 5 – Writing Common Engineering Documents</li> </ul>
Dec. 4 Thurs.	<ul style="list-style-type: none"> <li>• Final group presentations begin today (attendance is mandatory). Presentations should not exceed 12 to 15 minutes per group (3 to 4 minutes per student), with two minutes added for class questions and responses at the conclusion of your group's presentation</li> <li>• Final research papers and completed research paper checklists due today</li> <li>• Review for the final exam</li> </ul>
Dec. 9 Tues.	<ul style="list-style-type: none"> <li>• Final Exam (comprehensive) (7:00 P.M. in ET-201)</li> </ul>

## Summary of Written Assignments, Oral Presentations, and Exams

Due Date	Assignments and Quizzes
Oct. 9 Thurs.	<b>Ethics Essay</b> – read Ethics Scenario #1, and then write a 2-page response in essay format based on the three questions at the end of the scenario. The essay should include an introduction and conclusion.
Oct. 14 Tues.	<b>Quiz 1</b> – covers topics taken from class lectures, exercises and reading assignments up to this point of the school quarter.
Oct. 21 Tues.	<b>Group Research Paper 1</b> – plan, research, and write a 16 to 20-page research paper based on an approved topic. A minimum of 3 to 5 sources (for the Works Cited section) is required for each author.
Oct. 21 Tues.	<b>Oral Presentation of Research Paper 1</b> – plan, prepare, and present an oral discourse based on your section of the research paper using your notes and PowerPoint slides. The group slide presentation must be a contiguous set of slides using a common and appropriately designed template. The presentation should not exceed 12 to 15 minutes total for each group (3 to 4 minutes per student).
Oct. 30 Thurs.	<b>Extemporaneous Speaking Exercise</b> – give a 3-minute extemporaneous oral presentation based on a topic of your choice (videotaped).
Oct. 30 Thurs.	<b>Quiz 2</b> – covers topics taken from class lectures, exercises and reading assignments up to this point of the school quarter.
Nov. 6 Thurs.	<b>Journal Article Review Oral Presentation</b> – plan, prepare, and present an oral discourse based on your selected journal article using your notes (PowerPoint slides are optional) (3 to 4 minutes per student).
Nov. 6 Thurs.	<b>Midterm Research Paper</b> – plan, research, and write an 8 to 10-page research paper on an assigned or approved topic. A minimum of 5 to 7 sources (for the Works Cited section) is required.
Nov. 11 Tues.	<b>Midterm Research Paper Oral Presentation</b> – plan, prepare, and present a 3 to 5-minute oral discourse based on your midterm paper (use of multimedia elements not required – notes may be used).
Dec. 2 Tues.	<b>Midterm Research Paper Peer Evaluations</b> – perform a peer review of a classmate’s midterm research paper using the structured peer review checklist.
Dec. 4 Thurs.	<b>Group Research Paper 2</b> – plan, research, and write a 16 to 20-page research paper based on an approved topic. A minimum of 3 to 5 sources (for the Works Cited section) is required for each author.
Dec. 4 Thurs.	<b>Oral Presentation of Research Paper 2</b> - plan, prepare, and present an oral discourse based on your section of the research paper using your notes and PowerPoint slides. The group slide presentation must be a contiguous set of slides using an appropriately designed template. The presentation should not exceed 12 to 15 minutes total for each group (3 to 4 minutes per student).
(TBD)	<b>Technical Paper</b> – write a 2-page technical paper (topic to be determined) to be used for self-editing purposes and open class critique.
Dec. 9 Tues.	<b>Final Exam</b> (comprehensive) – covers lecture topics and reading assignments from the entire quarter.

## Contact Information

**Instructor:** Jeff Foresta  
**Email Address:** [jforesta@uci.edu](mailto:jforesta@uci.edu)  
**Telephone:** (949) 824-5211  
**Office Hours:** 8:50 to 9:50 PM (or by appointment)