ENC 3246: Professional Communication for Engineers

**Instructor:**

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**On-line Syllabus:** <http://www.writing.ufl.edu/ENC3246Syllabus.doc>x

**Course Description**

Professional communication is the practice of conveying technical information to various audiences with different goals and levels of expertise. In this class students learn how to research, organize, and present technical information in effectively written documents, work in collaboration with other professionals, and use various technologies to support their communication efforts.

This course is designed to help students master a variety of communication strategies and genres of writing relevant to engineering, including everyday acts of communication, such as email, memos, letters, technical descriptions, and instructions. The course culminates with an academic research report and professional proposal.

Students analyze writing situations in the professional engineering workplace and develop strategies for addressing audiences, organizing information, using appropriate style, and presenting the work. The objective of this class is to learn to respond in writing to complex rhetorical situations, preparing students for the professional communities they will join.

**Outcomes**

In ENC 3246, students will learn to

* plan, draft, revise, and edit documents for use in professional settings
* adapt writing to different audiences, purposes, and contexts
* synthesize and report on the professional and technical literature in the field
* write in a clear, coherent, and direct style appropriate for applicable professions
* understand and employ the various forms of professional writing, including proposals, progress reports, research and lab reports, and professional correspondence
* avoid plagiarism

**Required Texts**

Mike Markel, *Technical Communication*, 10th ed. Boston: Bedford (2012).

**Assignments and Projects**

The assignments below include two group projects. For the group projects, planning and research will be collaborative, while the written work must be completed independently by each student. ***Introductory E-mail Message***Using a standard e-mail format and an effective professional style, students will send a message to the class listserv introducing themselves, their career goals, their areas of specialization, and their writing experiences.

***Job Application Packet*** *(Cover Letter, Résumé, Follow-Up Letter)*  
In this multi-part assignment, students will first identify an internship or job they hope to secure. Next, students will research the field and construct a profile for the ideal candidate for this position. Finally, students will write a letter of application and a résumé for this particular job, as well as a follow-up letter thanking the prospective employer for an interview.

***Annotated Bibliography***  
  
In preparation for the Technical Description and Recommendation assignment, students will write an annotated bibliography of scholarly and industry sources. In descriptions of the hypotheses, methodologies, and conclusions, as well as in explanations of how the sources will be used in the report, the annotations will evidence critical thinking and in-depth analysis of each source.   
   
***Technical Description and Recommendation***  
  
Focusing on a controversial technical problem, students will write a detailed description of a device or process for various audiences and argue for the use of the device or the implementation of the procedure. The report will include at least one visual aide and cite at least six sources, using an appropriate manuscript form.

***Instructions***

Students will write instructions for a device, process, or task. The instructions will contain descriptions and specifications, warnings, maintenance and troubleshooting advice, and any other information the user is likely to need to use the device, complete the process, or accomplish the task. The assignment will be assessed on the quality and clarity of the instructions, on the functionality of the instructional visuals, on the effectiveness of the design, and on the rhetorical style of the steps, sequencing, and transitions.  
  
***Formal Research or Lab Report***  
  
Derived from the scientific method, the research report is the most common type of report written in academia. It is the form taken by lab reports and other documents that are based on original data collected by the researcher or research team. Working in a small group, students will establish a research question, devise a method of gathering original data, and collect the data. Individually, students will write a research report that presents and analyzes the data collected as a group.

***Progress Report***During the process of writing the proposal, students will write an individual progress report. This will track activities, problems, and progress for both the individual’s tasks and the group’s overall task. The focus will be on schedules, setbacks, problems solved, and the dates and stages of the progress.  
 ***Proposal***

The capstone project will be a proposal for the UF campus or local community. The proposal will seek to persuade a target audience that a significant problem exists and offer a feasible solution. Drawing on all of the skills developed over the semester, students will analyze the rhetorical situation and employ communication strategies designed to persuade the audience to act on the plan.

**Grading**  
  
Grading for this course will be rigorous. Successful assignments will demonstrate understanding and practice of professional writing. Students are expected to follow the conventions of the discipline as specified in the appropriate manuscript form and illustrated in the major scholarly and professional publications in the field. To receive a passing grade, each paper must reach the minimum assigned word count.

For information on assigning grade points, see the UF [Grading Policies](https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx) in the Undergraduate Catalog.

**Assignment Values and Word Counts**

|  |  |  |
| --- | --- | --- |
| **Individual Assignments** | **Points** | **Words** |
| Introductory E-Mail | 25 | 200 |
| Job Application | 50 | 600 |
| Technical Definition | 100 | 800 |
| Instructions | 100 | 1200 |
| Annotated Bibliography | 50 | 400 |
| Progress Report | 25 | 600 |
| Reading Quizzes (10 x 10 points) | 100 |  |
| Peer Reviews (5 X 10) | 50 |  |
| Activities (10 x10) | 100 |  |
| Research Report | 200 | 1200 |
| Proposal | 200 | 1200 |
|  |  |  |
| **Total** | **1,000** | **6,200** |

**Grading Scale**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | 4.0 | 93-100 | 930-1000 |  | C | 2.0 | 73-76 | 730-769 |
| A- | 3.67 | 90-92 | 900-929 |  | C- | 1.67 | 70-72 | 700-729 |
| B+ | 3.33 | 87-89 | 870-899 |  | D+ | 1.33 | 67-69 | 670-699 |
| B | 3.0 | 83-86 | 830-869 |  | D | 1.0 | 63-66 | 630-669 |
| B- | 2.67 | 80-82 | 800-829 |  | D- | 0.67 | 60-62 | 600-629 |
| C+ | 2.33 | 77-79 | 770-799 |  | E | 0.00 | 0-59 | 0-599 |

***Revision of Assignments***  
  
During the course of the semester, students may rewrite any one assignment (the new grade replacing the original one). In addition to the revision, students must also write a one-page memo addressed to the instructor describing how and why the paper was revised. Revised work is due two weeks from the day the assignment is returned to the class and students are responsible for knowing the deadline.  
   
**General Education Objectives**

This course confers General Education credit for Composition (C). Composition courses provide instruction in the methods and conventions of standard written English (i.e., grammar, punctuation, usage) and the techniques that produce effective texts. Composition courses are writing intensive, require multiple drafts submitted to your instructor for feedback before final submission and fulfill 6,000 of the university’s 24,000-word writing requirement. Course content should include multiple forms of effective writing, different writing styles, approaches and formats, and methods to adapt writing to different audiences, purposes and contexts. Students should learn to organize complex arguments in writing using thesis statements, claims and evidence, and to analyze writing for errors in logic.

In Professional Communication for Engineers, these objectives will be met in a variety of ways. Each major writing assignment, such as email, instructions, and the proposal, constitutes a particular form of writing that requires a different writing style, approach, and format. Especially important in all of the assignments is adapting our rhetoric to different audiences, purposes, and contexts. In some assignments, such as the proposal, students will be asked to define the primary readers on their own by developing an audience analysis. In other assignments, such as the definition, the audience and context will be defined by the assignment, and students will be assessed on how effectively they tailor the work to those readers. Several of the assignments, such as the proposal, require that students develop complex arguments, establishing a claim and providing effective evidence. The claim in the proposal assignment is that a proposed solution will be effective and feasible, and the evidence, drawn from industry and scholarly sources, proves that the solution will work; errors in logic will be ferreted out in peer review sessions. Other assignments, such as the research report, will emphasize clarity and conciseness, stylistic elements that are important in all professional communication.

**General Education Student Learning Outcomes**

**Content:** Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline.

**Communication:** Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline.

**Critical Thinking:** Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.

Student Learning Outcomes will be assessed in several ways. Content knowledge will be assessed primarily through quizzes on the reading materials, which include an exhaustive textbook on technical communication. The communication outcome will be assessed primarily through the major writing assignments, in which students are required to reason well and convey their knowledge and ideas clearly, as well as through collaborative activities both in-class and out-of-class. Critical thinking, a fundamental component of this course, will be assessed by measuring the degree to which papers effectively analyze information and develop reasonable solutions to problems in a manner appropriate to the discipline of engineering.

**Writing Requirement**

This course also confers 6000 words towards the Writing Requirement (WR), which ensures students both maintain their fluency in writing and use writing as a tool to facilitate learning. While helping students meet the broad learning outcomes of content, communication, and critical thinking, the instructor will evaluate and provide feedback on students’ written assignments with respect to grammar, punctuation, clarity, coherence, and organization

Course grades have two components. To receive Writing Requirement credit, a student must receive a grade of C or higher and a satisfactory completion of the writing component of the course.

**Course Policies and Procedures**  
   
***Attendance and Participation***  
  
Unlike some classes, Professional Communication is skills-based. Because we develop skills by practicing, attendance and participation is vital--the more we write, the better writers we become. Consequently, frequent absences will affect students’ success in the course. Because writing skills are gained by experience, instruction is often based on in-class activities, which are difficult or impossible to replicate outside of class.

Attendance is required. **The policy of the University Writing Program is that if students miss more than six periods during the term, they will fail the entire course.** Double periods count as two absences. The UWP exempts from this policy only those absences involving university-sponsored events, such as athletics and band, and religious holidays. For absences due to illness or injury, your instructor may require a signed doctor’s note.  
  
Since this class is based on active learning, any lesser number of absences, excused or unexcused, will affect your grade because of missed workshops or activities that are graded. Repeated tardiness will also hurt your grade. Arriving more than 15 minutes after class starts will count as an absence.  
  
Since so much of professional writing is collaborative, participation is a crucial part of the class. Students are expected to work with their peers in a professional manner designed to support the success of the groups.

***Academic Honesty***  
  
As a University of Florida student, your performance is governed by the UF Student Honor Code, (https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx). The Honor Code requires Florida students to neither give nor receive unauthorized aid in completing all assignments. Violations include cheating, plagiarism, bribery, and misrepresentation, all defined in detail at the above site.  
   
***Plagiarism***   
   
Plagiarism is a serious violation of the Student Honor Code. The Honor Code prohibits and defines plagiarism as follows:

Plagiarism. A student shall not represent as the student’s own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.

2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student.  
(University of Florida, Student Honor Code, 8, October, 2013)

University of Florida students are responsible for reading, understanding, and abiding by the entire Student Honor Code. The University Writing Program takes plagiarism very seriously, and treats instances of plagiarism as dishonesty and as a failure to comply with the scholarly requirements of this course. You commit plagiarism when you present the ideas or words of someone else as your own.   
  
***Important tip***: You should never copy and paste something from the Internet without providing the exact location and citation information for the source.  
   
If a student plagiarizes all or any part of any assignment, he or she will be awarded a failing grade on the assignment. Additionally, instructors may impose a course grade penalty and report any incident of academic dishonesty to the Office of the Dean of Students. Each student’s work may be tested for its originality against a wide variety of databases by anti-plagiarism sites to which the University subscribes, and negative reports from such sites may constitute proof of plagiarism. Other forms of academic dishonesty will also result in a failing grade on the assignment as a minimum penalty. Examples include cheating on a quiz or citing phony sources or quotations.   
 

**Assessment Rubric**

|  |  |  |
| --- | --- | --- |
|  | SATISFACTORY (Y) | UNSATISFACTORY (N) |
| CONTENT | Papers exhibit evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing sources, and provide an adequate discussion with basic understanding of sources. | Papers either include a central idea(s) that is unclear or off- topic or provide only minimal or inadequate discussion of ideas. Papers may also lack sufficient or appropriate sources. |
| ORGANIZATION AND COHERENCE | Documents and paragraphs exhibit identifiable structure for topics, including a clear thesis statement and topic sentences. | Documents and paragraphs lack clearly identifiable organization, may lack any coherent sense of logic in associating and organizing ideas, and may also lack transitions and coherence to guide the reader. |
| ARGUMENT AND SUPPORT | Documents use persuasive and confident presentation of ideas, strongly supported with evidence. At the weak end of the satisfactory range, documents may provide only generalized discussion of ideas or may provide adequate discussion but rely on weak support for arguments. | Documents make only weak generalizations, providing little or no support, as in summaries or narratives that fail to provide critical analysis. |
| STYLE | Documents use a writing style with word choice appropriate to the context, genre, and discipline. Sentences should display complexity and logical structure. | Documents rely on word usage that is inappropriate for the context, genre, or discipline. Sentences may be overly long or short with awkward construction. Documents may also use words incorrectly. |
| MECHANICS | Papers will feature correct or error-free presentation of ideas. At the weak end of the satisfactory range, papers may contain a few spelling, punctuation, or grammatical errors that remain unobtrusive and do not obscure the paper’s argument or points. | Papers contain so many mechanical or grammatical errors that they impede the reader’s understanding or severely undermine the writer’s credibility. |

***Classroom Conduct***  
  
Much of this class is discussion-based, so it is vital that we show respect for each other's views. Students are required to turn cell phones and pagers off. Ringing phones and text messaging is an unprofessional disruption, which may result in your being asked to leave the classroom and being counted absent. If you have a personal emergency and must keep your phone on one day, please discuss it with the instructor before class.    
  
***Due Dates, Make-up Policy, and In-Class Work***

Papers and drafts are due at the beginning of class or online at the assigned deadline. Late papers will not be accepted. Failure of technology is not an excuse. If illness or injury prevents a student from turning in a paper on time, the student should consult with the instructor to turn in the work as soon as is feasible given the situation.

***Readings***  
  
Reading assignments typically appear in the syllabus on the date on which they are due. Students should have completed these readings before coming to class that day.  
   
***Lecture and Reading Quizzes***  
  
Quizzes on the readings will be given randomly during the semester. Quizzes cannot be made up, and students are only excused from a quiz with a doctor’s note on letterhead or written verification of participation in a university-sponsored event for the day missed.  
   
***Conferences and Writing Studio***  
  
Students are encouraged to use the instructor’s office hours if there are questions about progress in the course, work underway, or any other course-related concerns. If there is a conflict with the posted office hours, please contact the instructor to schedule a better time. Having conferences on assignments is often the best way to improve the quality of final drafts. The [*Writing Studio*](http://writing.ufl.edu/) also offers one-on-one assistance on writing projects and is available to students of all levels.  
 ***Evaluations***

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu.

***Students with Disabilities***

The University of Florida complies with the Americans with Disabilities Act. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

**Schedule of Modules and Major Assignments**

Readings, activities, and assignments are listed in the learning modules portion of the website, and due dates are indicated in the website calendar. The online version of the schedule and due dates supersedes any paper copies.

**Module 1: The Rhetoric of Professional Communication**

***Week 1: August 21-23***

* Introduction: Syllabus: Goals, Assignments, Texts, and Course Organization.
* Discuss Chapters 1-3 (Technical Communication): Why Audience is So Important.  Using Persuasive Evidence.

**Module 2: Correspondence--E-mail, Memoranda, Letters**

***Week 2: August 26-30***

* Chapters 15-17 (Technical Communication): Correspondence.
* Why E-mail Matters and How to Make it Work.
* **Due: Introductory E-mail Message.** Discuss Job Application Assignment.

**Module 3: Job Applications**

***Week 3: September 2-6***

* No Class--Labor Day
* Chapter 18 (review Chapter 17). The Résumé. Bring résumé and copy of job advertisement to class.
* Letters of Application and Follow up Letters.

***Week 4: September 9-13***

* Peer Review of Application Materials: Bring résumé, letter, and job ad.

**Module 4: Research for Professional Reports**

* **Due: Application Packet.** Introduce Technical Definition Assignment and Annotated Bibliography. What is Scholarly Research?
* Chapters 7, 8, and 9. Library Scavenger Hunt.

***Week 5: September 16-20***

* Avoiding Plagiarism.

**Module 5: Technical Definitions, Descriptions, and Informative Reports**

* **Due: Annotated Bibliography.** Technical Definitions and Descriptions. Chapters 19-2. Group Activity: Write Sentence Definitions/Descriptions.
* Chapters 10-11. Professional Style: Writing Clearly and Concisely. Activity: Using a Professional Style.
* Incorporating Research into a Report.

***Week 6: September 23-27***

* Professional Style: Topic Sentences and Paragraph Coherence.
* Professional Style: Active and Passive Voice.
* Peer Review of Expanded Technical Definition or Description.

**Module 6: Document Design and the Use of Graphics**

***Week 7: September 30-October 4***

* **Due: Technical Definition or Description**. Document Design: What is it, Why is it important?
* Chapters 12, 13, and 14.
* Workshop/Activity. Introduce Instructions Assignment.

**Module 7: Instructions**

***Week 8: October 7-11***

* Chapter 21. Activity. Instructions Guidelines and Rules. Presentation of Topics for Approval.
* Bring Examples to Class.
* Peer Review of Instructions.

**Module 8: Working Collaboratively and Running Meetings**

***Week 9: October 14-18***

* **Due: Instructions**. Chapter 5. Working Collaboratively. Form Groups for Analytical Reports.
* Activity: Communication Style.
* Activity: Listening Competence.

**Module 9: Formal Research and Lab Reports**

***Week 10: October 21-25***

* Reading: “How to Write a Research Journal Article in Engineering and Science.”
* Introduction and Literature Review
* Formulate a Methodology.

***Week 11: October 28-November 1***

* Present Preliminary Evidence. Activity: Organizing Information.
* Peer Review of Formal Research Report.
* **Due: Formal Research Report**. Proposal Overview and Best Practices: What is an RFP?

**Module 10: Proposals**

***Week 12: November 4-8***

* Chapter 24. Writing up the Problem. Group Work: Brainstorm Proposal, Discuss Team Organization.
* Due: Outline and Brief Problem Statement. Activity: Audience Analysis. Using Convincing Research.
* No Class: Homecoming.

***Week 13: November 11-15***

* No Class: Veteran's Day.
* Describing a Feasible Solution.
* Progress Reports.

***Week 14: November 18-22***

* Due: Progress Reports. Group Consultation with Instructor.
* Group Consultations.
* Due: Proposal. Revised Drafts to Project Manager. Professional Style: Paragraph and Whole-Document Coherence.

***Week 15: November 25-29***

* Presentation Strategies.
* No Class: Thanksgiving
* No Class: Thanksgiving

***Week 16: December 2-4***

* Proposal Presentations.
* Proposal Presentations.