Engineering 398/English 398
Professional Communication for Engineers
Program Overview, Fall 2008

English 398 Curricular Timeline

Pre-2006  
English 398N (3 Credits): Professional Communication for Engineers – A professional & technical communication course taught by English writing instructors. Major assignments included: Professional Documents (Resume, Application Letter); Extended Definition; Instruction Set; Team Project Proposal.

2006-2008  
English 398 (2 Credits)/Engineering 398 (1 Credit): Professional Communication for Engineers – A collaboration between English and Engineering to accommodate SAGES Departmental Seminar requirements and ABET outcomes assessment.
- Engineering lectures addressed: Ethics, Accountability, and the Profession; Intellectual Property; Design, Creativity, and Invention; and Globalization.
- Writing Assignments included: Professional Documents (Resume, Application Letter); Extended Definition; Instruction Set; Team Project Proposal; Additional Reflection Essays (for ABET assessment).

2008-2009  
English 398 (2 Credits)/Engineering 398 (1 Credit): Professional Communication for Engineers – In response to the program’s first two years, we have updated the curriculum and assessment procedures in these two complementary courses. Engineering lectures cover the same topics; communication assignments place more emphasis on academic engineering (including translating academic topics for non-technical audiences and proposing independent research projects).
- New Assessment Procedures include: Reading quizzes in ENGR 398 to hold students accountable for lecture material and to provide ABET assessment of professional engineering outcomes (e.g., engineering ethics) in ENGR 398.
- New Communication Assignments include: Collaborative Presentation of Academic Engineering Research; Individual Project Proposal; Professional Documents (Resume, Biosketch – in both print and online formats) and Website; Usability Testing of Website.

ENGL 398 Contact Information

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Pedagogical Training & Support for Professional Communication Instructors

- Routine coordination of ENGL398/ENGR398 program (McPherson)
- Graduate seminar for new ENGL398 instructors (Emmons)
- Monthly ENGL398 instructor staff meetings (Emmons)
- Weekly Pedagogy Seminars for all writing instructors (Koenigsberger)
- Faculty mentoring for new ENGL398 instructors (Emmons)
- “Mentor TA” (advanced graduate student with experience in ENGL398) available to all ENGL398 instructors
- ENGL398 Online: Comprehensive BlackBoard support
Engineering 398 introduces major practical, theoretical, and ethical issues that shape the environment for communication among professional engineers. Weekly lectures focus on important topics such as professionalism; invention, intellectual property, and technology transfer; entrepreneurship, design, and individual and collective creativity; and technological, economic, and cultural aspects of globalization. As an introduction to broad communication environments for both academic and professional engineering, Engineering 398 promotes knowledge of contemporary engineering issues; understanding of professional, ethical, academic, and workplace responsibilities; and practices of life-long learning.

ENGR 398 complements ENGL 398, a 2-credit co-requisite seminar course, which introduces principles and strategies for effective communication in both academic and workplace engineering settings. For details of ENGL 398 objectives, work commitments, grade breakdowns, and assignments, please see the syllabus for your section.

By the end of Engineering 398, students should be able to:

- Demonstrate knowledge and application of the principles of professionalism and codes of ethics among practicing engineers.
- Describe the legal environment for matters of intellectual property and the practices and policies of academic technology transfer.
- Identify the principal issues involved in engineering entrepreneurship and design.
- Demonstrate an understanding of the global, cultural, and contextual impact of engineering solutions.

**ABET Outcomes Assessed in ENGR 398**

**Outcome F (E for CSE): An understanding of professional & ethical responsibility**
- Reading Quiz (#7-8) & Class Participation

**Outcome H: The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context**
- Reading Quiz (#9-10)

**Outcome J: A knowledge of contemporary issues**
- Reading Quiz (#5-6)

**Schedule of Topics for ENGR 398**

- The Engineering Profession (Weeks 2-5)
- Entrepreneurship & Design (Weeks 6-8)
- Intellectual Property & Tech Transfer (Week 10)
- Ethics in Engineering (Weeks 11-13)
- Engineering in a Global Environment (Weeks 14-15)
English 398: Professional Communication for Engineers

Course Description & Objectives

English 398 introduces principles and strategies for effective communication in both academic and workplace engineering settings. Through analysis of case studies and of academic and professional genres, this course develops the oral and written communication skills that characterize successful engineers. Students will prepare professional documents that focus specifically on communicating academic and technical knowledge to diverse audiences. Because such documents are always situated within professional, social, and rhetorical contexts, this course also requires students to explain and justify their communicative choices in order to become adept in navigating the rhetorical environments they will encounter as professional engineers. As a SAGES Departmental Seminar, English 398 also prepares students for the writing they will do in Capstone projects.

Note: ENGL 398 complements ENGR 398, a 1-credit co-requisite lecture course, which introduces major practical, theoretical, and ethical issues that shape the environment for communication among professional engineers. For details of the ENGR 398 objectives, work commitments, grade breakdown, and assignments, please see the separate syllabus for that course.

By the end of English 398, students should be able to:

- Produce written texts in a variety of professional genres - texts that communicate effectively and adhere to professional ethical standards.
- Deliver clear and professional oral presentations on a range of engineering topics.
- Reflect on and justify the rhetorical choices involved in planning, writing, revising, and presenting academic and professional engineering documents.
- Summarize the research writing of an academic engineer for a non-technical audience.
- Demonstrate the ability to work as part of a research team, coordinating workflow and collaboratively presenting outcomes.
- Synthesize the academic research and professional best practices related to an engineering project in the student’s field.
- Produce and refine an array of personal professional documents.
- Demonstrate the capacity for life-long learning through sustained reflection, revision, and research.

ABET Outcomes Assessed in ENGL 398

Outcome D: An ability to function on multidisciplinary teams
- Instructor & Peer review of Faculty Interview Project & Presentation (Unit 1)

Outcome G.1 (Outcome F.1 for CSE): An ability to communicate effectively (written)
- Individual Project Proposal (Unit 2)

Outcome G.2 (Outcome F.2 for CSE): An ability to communicate effectively (oral)
- Individual Project Proposal Oral Presentation (Unit 2)

Outcome I: A recognition of the need for, and an ability to engage in life-long learning
- Usability Test Report Memo, based on final exam/professional website (Unit 4)
Unit One: Translating Academic Research
As an introduction to current research and to academic genres in engineering, this unit requires students to work collaboratively with a group of peers to identify and summarize the research program of an academic engineer. This unit comprises the following assignments:

- A selection and annotation of key articles representing the scholarship of an academic engineer (collaborative);
- An interview with that engineer about her/his research (collaborative);
- A memo describing the engineer’s research and its significance to a non-technical audience (individual);
- A group presentation arguing for the significance of the engineer’s work (collaborative);
- A reflection in writing on the process of collaboration and on the rhetorical choices made in the oral and written texts (individual).

Unit Two: Independent Research Proposal
This unit requires students to propose an independent research project within their specific fields of engineering. This unit comprises the following assignments:

- An audience analysis and project topic statement in memo format;
- An initial status report (including the statement of the problem/topic and a research plan/timeline) in standard format;
- A second status report (including a thorough literature review and revisions to the statement of the problem/topic and research plan/timeline);
- A final project proposal in standard format;
- A reflection in writing on the rhetorical choices made in your final Project Proposal.

Unit Three: Professional Portfolio
This unit focuses on the public professional presentation of oneself. In addition to paper documents, this unit asks students to prepare online versions of key professional genres. This unit comprises the following assignments:

- A professional resume using document design best practices;
- A professional biosketch (i.e., a narrative introduction of your qualifications and research interests);
- A Website that archives print versions of a resume, biosketch, and project proposal (from Unit 2) and that presents the resume and biosketch in appropriate online versions;
- A reflection in writing about the rhetorical choices made in creating this Website and the print and online documents that it contains.

Unit Four (Final Exam): Usability Feedback & Revision Plans
The final examination for this course asks students to gather usability feedback about their professional Websites (Unit 3) from their peers and then to write a final memo describing the test, their peers’ reactions, and their own plans for revisions of the site. This unit comprises the following assignments:

- A usability survey for peers;
- Participation in peers’ usability tests during the final examination period;
- Collection and summary of data from the usability test;
- A memo reporting on the usability test results and plans for revision.
### ABET Assessment in English 398/Engineering 398
2007-2008

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<td>D. An ability to function on multidisciplinary teams</td>
<td>Peer evaluations of team participation (Project Proposal)</td>
<td>N/A</td>
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<td>F. An understanding of professional &amp; ethical responsibility <em>(Outcome E for CSE)</em></td>
<td>Reflection Essay on Engineering Ethics &amp; Course Participation</td>
<td>N/A</td>
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<td>G1. An ability to communicate effectively (written) <em>(Outcome F1 for CSE)</em></td>
<td>Instruction Set</td>
<td>N/A</td>
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<td>G2. An ability to communicate effectively (oral) <em>(Outcome F2 for CSE)</em></td>
<td>Group Oral Presentation (Project Proposal)</td>
<td>N/A</td>
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<td>H. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context</td>
<td>Reflection Essay on Engineering Ethics</td>
<td>N/A</td>
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<td>I. A recognition of the need for, and an ability to engage in life-long learning</td>
<td>Extended Definition In-Class Writing</td>
<td>N/A</td>
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<td>J. A knowledge of contemporary issues</td>
<td>In-Class Writing Reflection Essay 2 (Most important engineering issue)</td>
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<td>J. A knowledge of contemporary issues</td>
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<td>Reading Quiz (#5-6)</td>
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