Syllabus

1. Course Staff and Office Hours

Instructor: Ronald Marge
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Important Information:

Course Method: Synchronous (live) lectures via *Zoom* online conferencing.
Lecture will occur on Tuesdays 7:35pm to 9:25pm

Online office hours/Discussion Session: Wednesdays 8:00pm to 9:30pm
via ***Zoom*** (will setup invite)

Please check Blackboard for the most up-to-date information.

2. Course Description

Topics include how technical writing differ from other forms of writing, the components of technical writing, technical style, report writing, technical definitions, proposal writing, writing by group or team, instructions and manuals, transmittal letters, memoranda, abstracts and summaries, proper methods of documentation, presentations and briefings, and analysis of published engineering writing. Also covered are the writing of resumes and cover letters.

Prerequisite: WRT 102; ESE or ECE major, U3 standing;

Pre- or Corequisite: ESE 314 or 324 or 380 or 382

Credit Hours: 2 credits

3. Textbook

Barry J. Rosenberg, *Technical Writing for Engineers and Scientists,* Addison-Wesley, Upper Saddle River, NJ: May 2005.

4. Course Learning Objectives

Upon completion of the course, students will have

- an understanding of the fundamentals of technical writing to communicate effectively
- skills in writing a variety of documentation that will be required as professional engineers
- skills in creating and giving technical presentations to a verity of audiences

- skills in team writing through final team project of writing a technical proposal and a technical presentation

- Learn what plagiarism is and how to avoid it along with other ethical topics

5. Student Learning Outcomes

	Student Outcomes	% contribution
1	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	
3	an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	
3	an ability to communicate effectively with a range of audiences.	50%
4	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.	15%
5	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.	25%
6	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions.	
7	an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	10%

6. Schedule

Lectures will be held via Zoom on Tuesdays/Thursdays from 8:15pm to 9:35pm..

Week 1.	• Course requirements / expectations. • Technical communication overview.
Week 2.	• Review types of technical writing and oral communication tasks a professional engineer will encounter in their career. • To learn how to edit and revise your writing and others.
Week 3.	• To understand various audience analysis methodologies and parameters including vocabulary, sentence length, and learning style. • Lab report writing fundamentals. • Writing user / instructional manuals.
Week 4.	• To learn how to edit effectively. • To develop editing diplomacy skills.

	• Ethics in engineering (consequences of plagiarism, etc.).
Week 5.	• To deliver executive summaries. • To write abstracts. • Field, trip, and progress reports. • Composing effective PowerPoint presentations in a technical environment.
Week 6.	• To write effective proposals and grant applications. • How to write a proposal that gets the required action you desire. • Writing proposals for industry (solicited vs. unsolicited). • Evaluation criteria of proposals and grants.
Week 7.	• Proposal writing (cont). • Fundamentals of technical oral presentations. • To improve your tables and figures.
Week 8.	• Fundamentals of technical oral presentations (cont). • To learn how to write an effective manual. • To enhance sentence variety.
Week 9.	• To enhance your skills writing lab reports. • Detailed review of specifications for final projects (technical proposal and oral presentation based on proposal).
Week 10.	• To learn the secrets of effective oral presentations. • To improve students' speaking through practice and feedback.
Week 11.	• One-on-ones with each group to discuss final proposal project and final technical oral presentation based on proposal.
Week 12.	Final project technical presentations by groups Class participation in analysis on effectiveness of each presentation
Week 13.	• Final project technical presentations by groups • Class participation in analysis on effectiveness of each presentation
Week 14	• Review of Main Themes / Components of Course Final Assignment

7. Assignments

7.1. Homework Assignments

Homework Assignments will be issued weekly. Assignments will be posted to Blackboard. (This schedule will be updated as needed.) All assignments will be due on the due day. Reading assignments will also be posted on Blackboard.

Homework assignments must be turned electronically.

7.2. Collaboration Policy

Homework assignments are to be completed individually. You may *discuss* them with your classmates. (In fact, you are encouraged to do so.) However, you must write up your own solution individually without any help from any other person.

8. Grading

Your grade will be based on in-class assignments, homework assignments, individual presentations, team projects, a midterm writing project, and one final assignment.

Task	Point Value
Lab report, writing assignments, speeches, homeworks, etc.	50
Final project	25
Mid-term writing project	10
Final Writing Assignment	15
Total	**100 points**
Grade Ranges	
A	90 – 100
B	80 – 89.9
C	70 – 79.9
D	65 – 69.9
F	0 – 64.9

9. Academic Honesty

Any academic dishonesty on a written homework will result in a zero grade for the assignment for all parties involved.

All exam work must be entirely your own with no collaboration or outside materials/information. Any academic dishonesty on the final exam will result in failing the course. The case will be submitted to the College of Engineering's Committee on Academic Standing and Appeals.

10. Electronic Communication Statement

Email and especially email sent via Blackboard (http://blackboard.stonybrook.edu) is one of the ways the faculty officially communicates with you for this course. It is your responsibility to make sure that you read your email in your official University email account.

If you need technical assistance, please contact Client Support at (631) 632-9800 or supportteam@stonybrook.edu.

11. Student Accessibility Support Statement

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, 128 ECC Building, (631) 632-6748, or at sasc@Stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

12. Academic Integrity Statement

Each student must pursue their academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

13. Critical Incident Management Statement

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.