

## **EST 304 Communication for Engineers and Scientists**

Stony Brook University  
Spring 2019  
Tues/Thur 10:00-11:20am  
Melville Library N4000

### **Instructor:**

Dr. Krista Thyberg  
Krista.Thyberg@stonybrook.edu

### **Office Hours:**

Tuesday 12:30-3:30, By Appointment

### **Course Overview:**

In today's society, it is essential for educated people to be able to present technical information to a range of audiences using various communication methods and styles. In EST 304, students learn how to communicate about technical concepts that make sense not only to other scientists and engineers, but also to audiences ranging from students to technical consumers in the world marketplace. Course content emphasizes: writing clearly, concisely, and persuasively; creating effective visuals; presenting research verbally during oral presentations; providing and receiving feedback on assignments; and working collaboratively in groups. Written, verbal and visual communication styles will be examined.

EST 304 is designed to help students improve their communication skills so that they can effectively communicate in their field of study (Technology, Science or Engineering). Students will be required to write in multiple forms (e.g., professional letter, technical memorandum, proposal, business plan, technical report, presentation notes) aimed at various audiences, as well as present their work during in-class presentations.

### **Course Objectives:**

In EST 304, students will learn to:

- Write in clear, coherent English
- Plan, draft, revise, and edit documents for use in professional settings
- Adapt communication styles to various audiences
- Effectively present research findings during oral presentations
- Improve research skills using resources available at SBU
- Avoid plagiarism and reference materials correctly
- Collaborate with classmates

### **Optional Text and Resources:**

Markel, Mike. *Technical Communication*. Eleventh Edition. Bedford St. Martin's, 2014 (OPTIONAL).

David A. McMurrey, Online Technical Writing: Online Textbook (free) (OPTIONAL)

Available At: <https://www.prismnet.com/~hcexres/textbook/>

Resources to help students improve their writing and speaking skills will be posted on the EST 304 Blackboard page. Students should review this material and use these skills when preparing their assignments and presentations.

### **Grading:**

Participation and Attendance:	30%
10 Homework Assignments:	40%
Research Project (presentation & paper):	30%

#### *Grades*

A: 94-100

A-: 90-93

B+: 87-89

B: 83-86

B-: 80-82

C+: 77-79

C: 74-76

C-: 71-73

F: Less than 71

### **Participation and Attendance:**

Participation grades will be based upon observations of student work in classroom exercises, in-class assignments, participation in class discussions, and class attendance. Attendance will be taken at every class session. Points will be deducted if a student misses more than two classes.

### **Homework Assignments:**

Written homework assignments will be assigned regularly. All submissions are to be submitted electronically on Blackboard and assignments must be completed by the end of the day on the day which they are due unless otherwise noted. All assignments will be checked for plagiarism with Safe Assign.

The assignments will require students to write in proper English and in their own words. Where necessary, references must be cited. All of your work should be proofread. Grammar, spelling and punctuation count!

Late submissions will be penalized as follows:

Up to 2 days late: 10% off

3 to 6 days late: 20% off

7 or more days late: 30% off

### **Research Project (Paper and Presentation):**

Students will be required to write a research paper on a science/engineering/technology/mathematics topic of their choice. Students will research the issue thoroughly in order to fully explore and analyze the varying perspectives regarding the topic. The paper should include a clear thesis statement and references in-text, as well as a complete reference list at the end of the paper. The paper should be approximately 7 to 9 pages in length (plus references) and it is due on May 9. Late papers will not be accepted.

During the second half of the semester, there will be multiple class meetings where each student will give a presentation on their research topic. Several presentations will be scheduled at each class meeting. The presentations should be approximately 10 minutes in length and the students should include visuals (e.g., PowerPoint slides). Students will be encouraged to ask questions to the presenters after each presentation and students will be expected to review the presentations given by classmates.

### Spring 2019 Dates\*

Week	Date	Topic	In Class Exercise	Assignment Assigned	Assignment Due
1	1/29	Course Introduction and Syllabus Review	Writing Diagnostic		
	1/31	Career Readiness (Cover Letter, Resume, Email, Elevator Speech)	Resume/Cover Letter Critique	Cover Letter and Resume	
2	2/5	Common Writing Mistakes, Formatting and Editing Written Documents	Writing Improvement Exercise		
	2/7	Analyzing your Audience and Purpose, Technical Memos	Audience Profile	Technical Memo	Cover Letter and Resume
3	2/12	Research Writing: Theses, Outlining Papers, Writing Proposals	Reading on Technical Writing	Draft Research Proposal and Outline	
	2/14	Peer Reviewed Journal Articles, Referencing and EndNote, Avoiding Plagiarism	Journal Article Reading and Questions	Read a scholarly journal article and bring a copy to the next class	Technical Memo
4	2/19	Research Papers and Projects	Research Paper Assignment		
	2/21	Writing Collaboratively, Business Plans and Vision Statements Part 1	Divide into groups and build a company. Discuss ideas for the mission statement, vision and goals	Draft Business Plan	Draft Research Proposal and Outline
5	2/26	<i>Work Session: Business Plans and Vision Statements Part 2</i>	<i>Meet with Group to Discuss Business Plans, Formulate Final Plan &amp; Prepare Class Overview</i>	Final Business Plan (one per group)	Draft Business Plan
	2/28	<i>Work Session: Business Plans and Vision Statements Part 3</i>	<i>Meet with Group to Discuss Business Plans, Formulate Final</i>		

			<i>Plan &amp; Prepare Class Overview</i>		
6	3/5	Business Plans and Vision Statements Part 4	Discussion on Presentations		
	3/7	Business Plans and Vision Statements Part 5	Discussion on Presentations	Come prepared to next class to discuss your research paper topic	Final Business Plan (1 per group)
7	3/12	Writing Proposals Part 2	Review proposals of classmates, Discussion on Research Paper Topics	Revised Research Proposal and Outline	Group Project 1 Team Member Evaluation Form
	3/14	Abstract Writing, Journal Articles			
8	3/19 and 3/21	<i>No Classes- Spring Break</i>			
9	3/26	Library Research Skills		Preliminary Reference list	Revised Research Proposal and Outline
	3/28	Persuasive Video Communication	TED Talks		
10	4/2	Writing Persuasively	Persuasion group and topic assignment, Brainstorming Exercise	Persuasion Project (one per group)	Preliminary Reference list
	4/4	<i>Work Session- Persuasion Project</i>	<i>Work with Group on Persuasion Project</i>		
11	4/9	Persuasion Presentations and Discussions Part 1	Reflection		
	4/11	Persuasion Presentations and Discussions Part 2	Reflection		Persuasion Project (one per group)
12	4/16	Visual Communication, Digital and Social Media	Info-graphics Assignment	Documentaries, Project Progress Report	Group Project 2 Team Member Evaluation Form
	4/18	Oral Communication: Presentation Skills	Research Presentation Outline, Research Topic Audience Survey		
13	4/23	Documentaries	Class discussion on documentaries		Project Progress Report, Documentaries
	4/25	Presentations	Peer Feedback	Work on Presentation and Research Paper	
14	4/30	Presentations	Peer Feedback		

	5/2	Presentations	Peer Feedback		
15	5/7	Presentations	Peer Feedback		
	5/9	Presentations	Peer Feedback		<b>FINAL RESEARCH PAPER DUE</b>

\*subject to change

*Note:* for work sessions, students do not need to meet in the classroom. They can work in a location of their choice.

## **OTHER INFORMATION**

### ***Student Accessibility Support Center (SASC) Statement:***

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

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and the staff at the Student Accessibility Support Center (SASC). For procedures and information go to the following website: <http://www.stonybrook.edu/ehs/fire/disabilities> ]

### ***Academic Integrity Statement:***

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are 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](http://www.stonybrook.edu/commcms/academic_integrity/index.html)

### ***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 Judicial Affairs 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.