

ENGI 242 ♦ Communication for Engineers: Building a Practical Toolbox

Course Syllabus – Spring 2016 – DRAFT Subject to Change

Class meets Mondays from 3:00-5:30 in Herring Hall, room 129

Instructors

Beth O'Sullivan ♦ Lecturer in Professional and Engineering Communication ♦ Rice Center for Engineering Leadership (RCEL) betho@rice.edu ♦ 713-348-3851 ♦ 832-215-0249 ♦ Office hours by appointment

Two additional faculty members will collaborate with us extensively throughout the semester:

Dr. Beata Krupa (bkrupa@rice.edu) 832-837-9281 ♦ Dr. Gayle Moran (gayle.moran@rice.edu) 713-348-5731

Note: This syllabus reflects my commitment to you and my expectations of you in this professional learning environment. I want to hear your suggestions, and I may adjust the syllabus to ensure an effective learning experience.

Readings

ENGI 242 is a pilot course; rather than requiring one textbook, we will distribute readings from a variety of sources, giving you at least one week advance time to read the material prior to class.

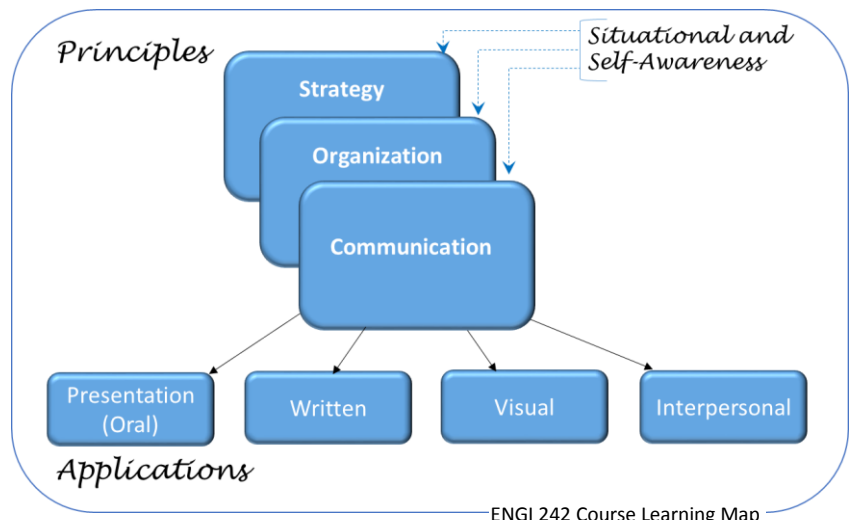
Why should engineers study and practice communication?

Organizations hire engineers to provide groundbreaking solutions to complex technical problems. Solving the problem with technology is only half the solution; implementing the solution will rely on your ability to communicate effectively. Your professional success will depend on your ability to explain, to persuade, to listen, and to collaborate. ENGI 242 focuses on building a practical toolbox of skills in presenting, writing, data visualization, and interpersonal communication, so you can communicate clearly and confidently in a variety of professional situations.

What's the big picture?

The course learning map at right gives a high level overview of the course structure. The objectives of ENGI 242 are to:

- Develop your understanding of key principles of communication strategy and frameworks for organizing communication.
- Apply those principles and frameworks in oral, visual, written, and interpersonal communication situations.
- Develop your awareness of situations and your personal presence to prepare you to communicate effectively and ethically in academic and professional engineering environments.



What can you expect to know after successfully completing ENGI 242?

After the class, you should be able to achieve your communication goals by doing the following:

- Selecting, evaluating, and using appropriate communication strategy, including
 - Context and situation analysis, purpose definition, audience analysis, selection of persuasive approach, choice of media/messengers, and measurement of outcomes
 - Development of content for key messages and support of assertions with examples, evidence, and research
 - Organizing and structuring message content logically and appropriately
- Mastering and applying communication strategy and organizational principles through
 - Development of impromptu and prepared oral presentations to inform/persuade
 - Delivery of oral presentations effectively, both individually and in a team
 - Tailoring content for technical and non-technical audiences including ability to deliver key messages concisely
 - Writing professional, engineering-related communication with simplicity, clarity, and completeness
 - Visual representation (graphics and data) to support ideas with integrity and clarity
 - Interpersonal communication, listening, giving and receiving feedback, and handling difficult conversations

- Demonstrating professional credibility and confidence in a variety of engineering and professional settings through
 - Productive team communication
 - Effective networking
 - Leadership communication and the ability to influence others

How will you be learning and engaging in this course?

ENGI 242 begins with what you inherently know about communication, followed by additional instruction, practice, and feedback. Most of your learning will happen on your feet – classes will focus on hands-on learning with extensive discussion, exercises, simulations, presentations, coaching, and peer/faculty feedback. Outside of class, you will complete assigned readings, research, writing assignments, and preparation for individual and team presentations.

The course requires your active engagement and your commitment to driving your own learning process. So, please take a moment to read “the fine print” on our mutual expectations on page 5 of this syllabus.

How will you be evaluated?

Faculty will post specific instructions and expectations for each assignment to OWL-Space under the Assignments tab. Read and follow instructions carefully. The following grading scale applies to all assignments in this course:

Graded Assignments

A+ = 100-98	A-/B+ = 90	B- = 82-80	C- = 72-70
A = 97-95	B+ = 89-87	C+ = 79-77	D = 69-60
A- = 94-91	B = 86-83	C = 76-73	F = below 60 R = Resubmit

Class Participation and Professionalism Rubric

100-96	Exceptional and consistently insightful comments in class. Exceptional engagement in and completion of individual and group activities, outstanding attention to peers.
95	Frequent and strong class contributions. Strong engagement in and completion of individual and group activities, and strong attention to peers.
85	Occasional class comments. Satisfactory engagement in and completion of individual and group activities. Adequate attention to peers.
75	Little participation in class discussions. Careless or incomplete engagement in or completion of individual or group activities. Occasional or rare attention to peers.
0-25	Excessive unexcused absences. Poor participation in discussions and unsatisfactory engagement in or completion of individual or group activities. Inadequate attention to or respect for peers, or unprofessional conduct.

Graded Assignment Summary, Due Dates, and Percent Weightings

Due Date	Assignment (see assignment instructions for details)	Individual (I) or Team (T)	Percent of Final Grade
February 8	Informational Interview Assignment	I	5%
February 15	Oral Presentation #1 (Individual informative presentation with PPT)	I	10%
February 26	Writing Assignment #1	I	10%
March 14	Oral Presentation #2 (Individual persuasive presentation with PPT)	I	10%
March 21	Writing Assignment #2	I	15%
March 28	Visualization of Data Assignment	I	10%
April 4	Team Roundtable Presentation	I/T	5% I 5% T
April 18	Final Individual Presentation	I	15%
Various dates	Class participation and professionalism: this grade includes weekly class participation and professional engagement in the course, completion of homework such as the self-assessments, various individual and group in-class exercises, “stand and deliver” presentations, progress emails, and the quality of feedback you offer your peers.	I	15%

Weekly Class Plans and Schedule of Assignments (shaded by week, Spring of 2016)

Date and Topics (Mondays unless otherwise noted)	Assignments, Readings, and Notes
January 11 <ul style="list-style-type: none"> • Introduction to Communication for Engineers • The Six Chair Experience • Effective Listening and Speaking: Foundations for Communication • Peer Introductions • Oral Assessments 	<p>Today we will give you directions on how to complete two baseline assessments of your skills:</p> <ol style="list-style-type: none"> 1. The communication self-assessment spreadsheet 2. A written assessment to gauge your writing abilities <p>PLEASE COMPLETE THE ASSESSMENTS BY 9:00 a.m. on FRIDAY, JANUARY 22 and upload to OWL-Space in the appropriate assignment tab.</p>
January 18: No class, in honor of Martin Luther King Day – note readings due for next time!	
January 25 <ul style="list-style-type: none"> • Foundations of Communication Strategy (in conjunction with the case discussion) • Strategic Thinking for Communication (example and application) • The Pyramid Principle (a hands-on experience in building logical and well-organized communications) 	<p>Read before class:</p> <ul style="list-style-type: none"> • The full course syllabus • <i>Communication Strategy</i> • <i>Think Before You Communicate</i> • Case: <i>Installing a Medical Waste Incinerator</i> <p>After class: start identifying your interviewee for the informational interview due on Feb. 8</p>
February 1 <ul style="list-style-type: none"> • How to Structure and Deliver Powerful Presentations • Simplicity and Creativity • Networking, Personal Presence, Personal “elevator pitches,” and Effective Thank You Notes 	<p>Email proposing your topic for Oral Presentation #1 due by email to Betho@rice.edu by class time.</p> <p>Take the online Myers-Briggs Type Indicator (MBTI) personality inventory (we will provide a link in class on Jan. 25) and bring your results to class.</p>
Note: Friday, February 5—Career and Internship Expo sponsored by the Center for Career Development (CCD)	
February 8 <ul style="list-style-type: none"> • Visual Support for Oral Presentations • PowerPoint (PPT) Best Practices • The Zen of Graphics • Additional Presentation Media 	<p>Informational Interview Assignment is due to OWL-Space before class meets (be prepared to do a “stand and deliver” on your interview at any time).</p>
February 15 <ul style="list-style-type: none"> • Individual Oral Presentation #1 – Informative • Effective Peer Feedback • Moving from “Tell” to “Sell” – highlights of persuasive techniques and introduction to second oral presentation assignment 	<p>First oral presentation. Complete <i>Think Before You Communicate</i> and upload it to OWL-Space in the assignment tab before class.</p> <p>Before class:</p> <ul style="list-style-type: none"> • Practice your presentation • Anticipate questions your audience might ask and be ready with answers

Date and Topics (Mondays unless otherwise noted)	Assignments, Readings, and Notes
February 22 (Dr. Gayle Moran) <ul style="list-style-type: none"> • Writing for Engineers <ul style="list-style-type: none"> - Introduction to Writing for Engineers - Tailoring Style and Tone for your Audience - Imposing visible structure - Email best practices - Tailoring Voice - Improvising Genre - Building effective introductions - Summarizing effectively 	Dr. Moran will explain the first graded writing assignment today - upload your completed assignment to OWL-Space by FRIDAY February 27 at 5:00 pm.
February 29: No class in observance of Spring Break	
March 7 (Dr. Gayle Moran) <ul style="list-style-type: none"> • Writing for Engineers Continued <ul style="list-style-type: none"> - Revising and Editing - Powerful Sentences - Word Choice and Reducing Wordiness - Framing Knowledge - Moving from Known to New - Writing for Engineers Wrap Up and Review 	Continue work on developing your second oral presentation.
March 11 – CDC Chili Cook-off and Career Carnival	
March 14 <ul style="list-style-type: none"> • Individual Oral Presentation #2 - Persuasive 	Second Oral Presentation. Complete <i>Think Before You Communicate</i> and upload it to OWL-Space in the assignment tab before class. Before Class: <ul style="list-style-type: none"> • Practice your presentation • Anticipate questions your audience might ask and be ready with answers
March 21 (Dr. Beata Krupa) <ul style="list-style-type: none"> • Visualization of Data • Engineering Poster Design 	Read before class: <ul style="list-style-type: none"> • <i>Designing Visual Information</i> Writing Assignment #2 due to OWL-Space by class time.
Note: March 28, Career Expo Prep Sessions sponsored by CCD	
March 28 <ul style="list-style-type: none"> • Intercultural Communication and Linguistic Style • How to Design and Deliver a Roundtable Presentation 	Graphics Assignment due to OWL-Space by class time. Read before class: <ul style="list-style-type: none"> • <i>Who Gets Heard and Why</i> (link to Fondren will be available on OWL—Space)
Note: March 30 –CCD Texas Job Fair	

Date and Topics (Mondays unless otherwise noted)	Assignments, Readings, and Notes
April 4 <ul style="list-style-type: none"> Roundtable Presentation – Case: <i>WBC Labs Management Briefing</i> Revisiting Listening Skills Difficult Conversations – Part One 	<p>Before class:</p> <ul style="list-style-type: none"> Read <i>WBC Labs Management Briefing</i> and prepare the team roundtable presentation for next time Practice your presentation and anticipate questions your audience might ask and be ready with answers. BRING copies of your presentation deck according to the assignment instructions and upload the PPT to OWL-Space by class time. <p>Email due with topic for final presentation – due to Beth at betho@rice.edu by class time.</p>
April 11 <ul style="list-style-type: none"> Difficult Conversations – Part Two Emotional Intelligence Putting Voice to Values in Ethical Situations 	<p>Read before class:</p> <ul style="list-style-type: none"> Handouts on Interpersonal Communication Ethics Mini-cases
April 18 <ul style="list-style-type: none"> Final Presentations and Class Evaluation 	<p>Final oral presentation. Complete <i>Think Before You Communicate</i> and upload it to OWL-Space in the assignment tab before class.</p> <ul style="list-style-type: none"> Practice your presentation. Anticipate questions your audience might ask and be ready with answers.
<p align="center">There will be no final exam.</p>	

What's the "fine print" of our mutual expectations?

Arrive on time and attend all classes

I will always begin on time and end on time. You must attend all classes unless excused **in advance**. Please contact me via email (betho@rice.edu) or phone (832-215-2049) if needed **before class** if you cannot attend or believe you will be late. I will consider legitimate reasons (e.g., sickness, documented job interview, etc.) as excused absences; unexcused absences will result in reduction in your course grade.

Be prepared and participate in class

The best learning experiences happen when everyone is prepared for and participates in class. Your class participation will represent 20 percent of your grade. Please complete any assigned readings, think about discussion questions I pose, and be ready to contribute in each class. In addition to class discussions, the course will include numerous in-class activities including "stand and deliver" impromptu presentations.

Participating in class allows you to practice critical thinking and listening skills while developing the ability to balance advocacy for your own ideas with inquiry into the ideas of others. I may "cold call" to ensure that everyone participates and that you have been listening. Whenever possible, I expect you to build upon or help to clarify other students' insights. Your contributions should demonstrate both your own ideas and your ability to analyze ideas of your colleagues.

Be professional

This syllabus does not offer a rule to cover every contingency or situation – I pledge to treat you with respect and consideration and expect that you will treat faculty, as well as each other, with the same level of courtesy and professionalism. Professionalism is demonstrated in many ways, which we will discuss in class on day one.

Turn in work on time and apply high standards of care

Submit your work on time. I may accept late submissions at my discretion, but only if you notify me in a timely manner, and I reserve the right to apply a grade penalty if appropriate. All makeup work is also at my discretion and needs to be completed within one week from the original deadline for a given assignment.

I will review and grade all assignments only once unless I ask you to resubmit. However, if you have questions at any time about the evaluation or feedback please contact me, or contact Dr. Moran or Dr. Krupa in the case of their sessions.

In addition to clear thinking and expression, your work should be free from spelling, usage, and grammatical errors. The quality and attention to detail in your work is part of your overall professional character and reflects your competence and care here at Rice and later on, in the workplace. Review the “Keys to Better Writing” posted to OWL-Space.

Adhere to the Rice Honor Code

Honor Pledge: *On my honor, I have neither given nor received any aid on this assignment.*

You are responsible for maintaining the highest standards of honesty and integrity in your work and conduct. All written work and oral presentations submitted in this course are subject to the Rice Honor Code. You are personally responsible for all assigned work, unless the syllabus explicitly states that the assignment is a team endeavor. The Honor Pledge should be typed and “signed,” using your student ID number, on all work submitted for the course. For team submissions, list all students’ ID numbers or names as appropriate. For PPT presentation slides, put the Honor Pledge in 16-point font on the last slide in your slide deck, along with citations for sources you used. Note: do NOT put student ID numbers on PPT decks.

Under the Honor Code, plagiarism is considered academic fraud and can be reported to the Rice Honor Council. The Council defines plagiarism as: “quoting, paraphrasing, or otherwise using another's words or ideas as one's own without properly crediting the source.” If you are uncertain about what constitutes plagiarism, refer to the Honor System Handbook (<http://honor.rice.edu/honor-system-handbook/>) or contact me, Dr. Krupa, or Dr. Moran. Thank you for reading this far! When you reach this point, please take a moment to email me at betho@rice.edu to let me know you have completed the assignment to read the syllabus – we’ll talk more about this in class next time.

What if I need special assistance or accommodations?

Any student with a special need or documented disability requesting academic adjustments or accommodations should contact Beth by email during the first week of class. All discussions will remain confidential. Students with disabilities will also need to contact Disability Support Services in the Allen Center at 713.348.5841 or <http://dss.rice.edu>.