

BME 333T: Engineering Communication
Fall, 2016 – Unique: 14140, 14145, 14150, 14155

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Class meeting times:

Unique: 14140

Time/Place: MWF 11am-12pm NOA 1.116;
W 1-2pm RLM 7.112

Unique: 14150

Time/Place: MWF 12-1pm NOA 1.116;
M 1-2pm NOA 1.110

Unique: 14145

Time/Place: MWF 11am-12pm NOA 1.116;
M 3-4pm BUR 128

Unique: 14155

Time/Place: MWF 12-1pm NOA 1.116;
F 1-2pm NOA 1.110

Overview

Welcome to BME 333T, the communication course designed for biomedical engineering majors. We extend this welcome whether you are from BME or another engineering major. In this class we will study communication across several dimensions. The main dimensions of communication covered are written, interpersonal/interactive (including leadership and working as part of a team), presentational, and professional. The course anticipates the main forms of communication used in engineering and research. This course will show you ways to communicate effectively in a variety of professional and academic situations and give you practice in doing so.

Just as important as skills in the course is the experience of speaking and writing as a means of discovering what you think—especially about issues in your field. E.M. Forester wrote, “How do I know what I think until I see what I write.” Language is not only the clothing of thought—it *is* thought. So this course will provide many varied opportunities to *explore what you think about issues* in (biomedical) engineering, how you think researchers and engineers should act when faced with difficult ethical decisions, and what roles and responsibilities engineers have in relation to their work and to the societies in which they work. You can expect to explore yourself to some degree, as well.

The Learning Record

This course utilizes the Learning Record (LR). You will determine your course grade by monitoring your progress against the grading criteria below over the course of the semester, and documenting your development and achievements in a portfolio of work, frequent self-assessments, and a formal reflection on your work at the beginning, middle, and end of the semester. The portfolio and observations will provide the evidence from which you will build an argument about your performance in the class. After reviewing your argument, I will either agree with or revise your self-assessment based on the evidence provided in your Learning Record. You will submit your portfolios and Learning Record at the beginning, midterm, and the end of semester, but you are welcome to meet me in office hours anytime to brainstorm

strategies for success in the course. If we are in disagreement on your assessment, we will discuss it individually in my office hours until we come to an agreement.

You'll assess your work and progress within five Course Strands (broad-level goals that cover a variety of skills) and you'll gauge your experience across five Dimensions of Learning (measures that are common to many different learning experiences for many "kinds" of learners).

Your Learning Record reflections will discuss how your work measures on those dimensions in terms of the Course Strands. We'll discuss the Learning Record in detail at the beginning of the semester, and we'll have various conversations about compiling your portfolio as the semester progresses.

Course Strands (goals and skills)

Written communication

In this class, you will compose writing across many different genres. We will work to understand the governing rhetorical rules of different types of writing and the grammar rules of Standard Edited American English. The class carries a writing flag: More information about the flag is below.

Public speaking

You will present your ideas and your work to the class both individually and in a group. We will discuss what makes for successful presentations, and you will have the opportunity to review your peers' presentations as well as your own.

Interpersonal communication

You will work in groups of varying sizes throughout the semester. Some activities will be in class and others will be more long running and project based. Engineering is not a solitary activity, so you will be asked to reflect on your collaboration and leadership throughout the semester in both the small in-class and the large project-based tasks.

Professional ethics

We will discuss and you will research ethical decision-making and professional ethics. This class carries an ethics flag: More information about the flag is below.

Effort and resilience

This class strand could, to an extent, be thought of as class participation. However, you will be asked to focus most specifically on reflecting on times throughout the semester when you persevered and pushed through frustration or effort to achieve an outcome. In a sense, for this course strand I am asking you to fail effectively and to reflect on that experience.

Please note ...

One of the great strengths of the Learning Record is that it isn't a one-size-fits-all grading criterion. Each of you will come into the classroom with different strengths, and you will all have different goals. Over the semester, you will all produce work that moves you towards the various Course Strands to differing degrees—and that's cool! As you'll see in the grade criteria below, you don't need to excel at every dimension of every strand to earn an A in this course.

The Five Dimensions of Learning

Confidence and independence

We see growth and development when learners' confidence and independence start to reflect their actual abilities and skills, content knowledge, use of experience, and reflectiveness about their own learning. It

is not a simple case of “more (confidence and independence) is better.” In a science class, for example, an overconfident student who has relied on faulty or underdeveloped skills and strategies learns to seek help when facing an obstacle; or a shy student begins to trust her own abilities, and to insist on presenting her own point of view in discussion. In both cases, students are developing along the dimension of confidence and independence.

Knowledge and understanding

Knowledge and understanding refers to the “content” knowledge gained in particular subject areas. Knowledge and understanding is the most familiar dimension, focusing on the “know-what” aspect of learning.

Skills and strategies

Skills and strategies represent the “know-how” aspect of learning. When we speak of “performance” or “mastery,” we generally mean that learners have developed skills and strategies to function successfully in certain situations.

Use of prior and emerging experience

The use of prior and emerging experience involves learners’ abilities to draw on their own experience and connect it to their work. A crucial but often unrecognized dimension of learning is the capacity to make use of prior experience as well as emerging experience in new situations.

Reflection (critical self-evaluation)

Reflection refers to developing awareness of your own learning process, as well as more analytical approaches to the subject being studied. In particular, it refers to the development of your ability to step back and consider a situation critically and analytically, with growing insight into your own learning processes. It provides the “big picture” for the specific details. Learners need to develop this capability in order to use what they are learning in other contexts, to recognize the limitations or obstacles confronting them in a given situation, to take advantage of their prior knowledge and experience, and to strengthen their own performance.

Grade Criteria

| | |
|----------|--|
| A | Represents outstanding engagement in all course activities; all assigned work completed on time, with exceptionally high quality in work produced for the course. Evidence of significant development across the five dimensions of learning in at least one course strand. The Learning Record at this level demonstrates activity that goes significantly beyond the required course work in more than one course strands. |
| B | Represents good engagement in all course activities; all assigned work completed on time, with high quality in course work. Evidence of marked development across the five dimensions of learning in at least one course strand. |
| C | Represents fair engagement in all course activities; all assigned work completed, with generally fair quality overall in course work. Evidence of some development across the five dimensions of learning in at least one course strand. |
| D | Represents uneven engagement in course activities; some gaps in assigned work completed, with inconsistent quality in course work. Evidence of development across the five dimensions of learning is partial or unclear. |
| F | Represents minimal engagement in course activities; serious gaps in assigned work completed, or very low quality in course work. Evidence of development is not available. |

Required Texts:

1. The following two texts are available at the Coop bookstore:

Steven Pinker – *Sense of Style: The Thinking Person's Guide to Writing in the 21st Century*

Rebecca Shafir – *Zen of Listening: Mindful Listening in the Age of Distraction*

2. You must purchase and bring with you (most days) a grammar reference of your choice. Go to Half Price Books, Amazon, or your bookstore of choice, browse the grammar references available, and purchase the one that makes the most sense to you. You should probably go ahead and keep this book forever.

3. All other class readings and videos will be posted on Canvas and or the Google doc daily schedule as external links or PDFs.

4. We will be using the Top Hat (www.tophat.com) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message.

You can visit the Top Hat Overview (www.support.tophat.com/hc/en-us/articles/200019034-Top-Hat-Overview-Getting-Started) within the Top Hat Success Center. This overview outlines how you will register for a Top Hat account and provides a brief overview to get you up and running on the system. An email invitation will be sent to you to join our class.

Top Hat will require a paid subscription, and a full breakdown of all subscription options available can be found here: www.tophat.com/pricing.

Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491.

5. We will be using the GoReact app to video record student presentations. This app will be integrated with Canvas, but there is a fee associated with use of the app. The fee should be around \$20, but rates may vary from term to term. Once you log in to the first assignment, you will be prompted to set up an account if you do not have one already.

Should you require assistance with GoReact, please let me know so I can contact the support team for our class.

Undergraduate Writing Center (UGWC)

The UGWC, located in the FAC, is a wonderful resource that you're already paying for through your student fees to the university. Please use it (in addition to the TA, LA, and myself) for reviewing your writing assignments.

Ethics and Leadership Flag

This course carries the Ethics and Leadership flag. Ethics and Leadership courses are designed to inspire critical thinking on issues related to making ethical decisions in your adult and professional life. You should therefore expect a substantial portion of your grade to come from assignments involving ethical issues and the process of applying ethical reasoning to real-life situations.

Writing Flag

This course carries the Writing Flag. Writing Flag courses are designed to give students experience with writing in an academic discipline. In this class, you can expect to write regularly during the semester,

complete substantial writing projects, and receive feedback from your instructor to help you improve your writing. You will also have the opportunity to revise one or more assignments, and you may be asked to read and discuss your peers' work. You should therefore expect a substantial portion of your grade to come from your written work. Writing Flag classes meet the Core Communications objectives of Critical Thinking, Communication, Teamwork, and Personal Responsibility, established by the Texas Higher Education Coordinating Board.

Attendance

Absolutely mandatory and necessary for the grade you want. Most of the material in class is taught with discussions, which cannot be posted online. Furthermore, rhetoric/grammar quizzes and in-class writings do count toward your final grade (via the Learning Record), and they cannot be made up at a later date. If you need to be absent, email Dr. DeMont and copy the message to the TA as soon as you know you need to be absent.

A Few Other Rules

Our class involves a lot of risk-taking and self-revelation. It is therefore crucial that everyone respect and support each other. One way to do this is to respect each other's views. Another way is to be a wonderful audience when someone is presenting. A third way is to give your full and honest effort when collaborating on your projects.

One way to show courtesy to instructors is to always put your name, date, and name of assignment on all your work.

The TAs should be treated with utmost respect; they are terrific resources.

Part of being respectful in class means not reading the news, not being on your computer (Facebook, etc.), not being on your phone (texting), and not sleeping.

In short, be actively, mindfully present.

Course Assignments and Announcements

Posted on Canvas; you are expected to check Canvas regularly. Please note that the reading assignments need to be read before class for the day when they are listed.

Academic Honesty

You are expected to understand the University's policies regarding academic dishonesty, which includes even unintentional plagiarism. This is an area where I am not at all lenient.

Disabilities

The University of Texas provides upon request appropriate academic accommodations for qualified students with disabilities. For more information contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

Overview of major deadlines and topics by week

| Week | Topic | Deadline |
|------|----------------------|-----------------------------|
| 1 | Intro to course | Learning Record #1 |
| 2 | Professional writing | |
| 3 | Interviewing | Job packet |
| 4 | Ethics | |
| 5 | Collaboration | Annotated bibliography |
| 6 | Ethics | Outline & Draft 1 of report |

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| 7 | Public speaking | |
| 8 | Public speaking | Learning Record #2 |
| 9 | | Group presentations |
| 10 | Persuasive writing | Draft 2 of report |
| 11 | Persuasive writing | |
| 12 | Public speaking | |
| 13 | Persuasive writing | Final draft of report |
| 14 | Ethics | |
| 15 | | Final group presentations |
| 16 | Classes are over | Learning Record #3 |