Engineering Communications 3500

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COURSE DESCRIPTION

Engineering Communications 3500 is an intensive course focusing on written, oral, and team communication. The online version of this course is built around a project, done in teams of four, the final goal of which is the construction of a general-interest magazine article about an engineering topic. The majority of the course assignments build to this project, including a written proposal, an oral proposal, an analysis of the publication a team is gearing their article toward, an annotated bibliography, a final presentation, and of course, the article itself. We employ a multiplicity of learning modes, including readings, videos, audio recordings, and regular video sessions (about 9 meetings, via Zoom). Students also write regular responses on a discussion board to the course materials, as well as to peers’ writing, one’s personal progress, and his/her team’s experiences. There are two qualitative assessments in which students describe their team’s rapport and functionality, as well as delineating their work within the team.

Students will also have a few individual assignments, including a short opinion essay on an engineering topic and a final exam, which is an essay in which student are ask to synthesize their experiences on their team with the course readings and the class discussions.

We attempt to schedule our video sessions around the busy schedules of class participants. We also record all sessions so that students can return to important parts of the discussion, or can stay caught up if they have to miss a class.

More broadly, the course is designed to prepare you to respond to the challenges of communicating as a professional engineer with certain (and often very special although not always shared) technical expertise. However, because the classroom is not the workplace (neither academic, corporate, commercial, nor industrial), and because the workplace is itself constantly changing, the goal is not to teach you how to communicate generally. Rather, the goal of this course is to help you learn to learn how communication works in any new situation.

The kinds of communicative activities you undertake in your professional life will vary, from job interviews to presentations to progress reports to emails—possibly even posting on social media sites—and so on. You couldn’t possibly, in the course of any brief period, learn every communicative form that you will one day encounter. So, instead, we focus in this course on the framework of how communication happens—the things, in other words, that different communicative activities have in common.
For example, all communication takes the form of a genre. That genre is appropriate to both a context and purpose. And, emergent from that genre, context and purpose, there is an identity, a persona or agent who selects purpose. And, there is always an acknowledgment of the success of the performance (as well as the performer), most often by representatives of the community (sometime communities) for whom that performance is most relevant and salient. In this course, I will ask you to consider these “elements” of underlying form as you perform your communicative activities.

**READINGS AND MEDIA**

Articles, audio clips, and video clips available via Google Drive.

Library resources can found at [http://guides.library.cornell.edu/3500](http://guides.library.cornell.edu/3500)

**COURSE GOALS**

Why take ENGRC 3500? You might think, _Because of that pesky technical writing requirement_. But why does the requirement exist? Here are some reasons:

1. Engineers frequently write and present reports for people who do not have the same level of engineering expertise—managers, clients, people in marketing, grant committees, venture capitalists, even the general public. It is very likely that you at some point will have to address both an expert and a non-expert audience in the same document or presentation.

2. You will no doubt be asked to collaborate with colleagues on a job; this course builds the skills necessary for this kind of work.

3. Engineers produce presentations that are much more than mere words on a slide. To wit, you need to be skilled at designing slides that are visually literate and transparently accessible. And of course you need to be adept at oral presentation.

4. Questions of ethics and management necessarily call upon skills of communication. ENGRC 3500 provides a forum for discussing and writing about these important issues.

Unfortunately, this course does not—indeed, cannot—provide you with a static set of skills. You’ll adapt what you learn here, because communication depends on context—the job, the industry, the organization, the corporation. Use ENGRC 3500 to build on what you already know and to set the groundwork for the future.
COURSE ASSIGNMENTS

By way of realizing the course goal of learning to learn how, I will ask you, in collaboration with other team members, to engage in a major project. Simply stated, this project is to write a feature article suitable for publication in an existing science/engineering magazine (or, for that matter, merely a magazine that publishes material related to science and engineering).

Of course, simply stating the project belies the complexity of successfully completing it. For example, your team will need to develop a thorough understanding of what is involved in writing a feature article (the above elements of underlying form) for a magazine that you (your team) select. I can assure you that it will include a myriad of complex and interrelated tasks. Your team will need to develop a project plan for completing this article in an efficient and effective (tangible progress with publication as the aim) way. And, you (your team) will need to develop relationships with people who might be able to help you. Perhaps the most important people are those fellow team members, whose expertise, hard work, good will, and understanding you will surely come to need and rely on. Again, there is more that will be needed, and together we will discover it.

In addition to the article itself, you will be asked to do other (mostly related) work. See below for a description of each task.

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<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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<tbody>
<tr>
<td>Annotated Bibliography (team)</td>
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<tr>
<td>Magazine Analysis (team)</td>
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<td>Discussion Board Entries (individual)</td>
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<td>Query Letter Draft (team)</td>
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<tr>
<td>Query Letter Final (team)</td>
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<td>Pitch Presentation (team)</td>
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<td>Article Draft (team)</td>
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<td>Final Article (team)</td>
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<td>Presentation (team)</td>
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<td>Op-ed (individual)</td>
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<td>Class &amp; Team Citizenship</td>
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<tr>
<td>Final Exam (individual)</td>
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ATTENDANCE

Much of the work in this course is collaborative and, like all collaborations, the details are worked out by the teams. That said, there will be eight Zoom video sessions—at which we’ll talk about progress, as well as about readings and other discussion topics—and I expect you to be able to be present for the vast majority of these. I recognize that, this time of year, some of you may be traveling one day, and have to miss a class. But on the whole, you should be able to commit to these sessions.

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COURSE CONDUCT AND RESOURCES

Access and Accommodations

Your experience in this course is important to me. If you have already established accommodations with Student Disability Services (SDS), please communicate your approved accommodations to me as soon as possible so we can discuss your needs for this course. If you have not contacted SDS, but require an accommodation due to a disability, please contact SDS at 607-254-4545 or email sds_cu@cornell.edu for additional assistance.

Academic Integrity

Please be familiar with Cornell’s Cornell's Code of Academic Integrity.

Online Environment

Because this is an online course, please be familiar with some what people (unfortunately ) call Netiquette. Top Five Rules of Netiquette in an Online Course
Daily Schedule, January 2 – 19, 2019

Team Post = one post from entire team  
Discussion Board = everyone writes an individual post

Wednesday, January 2

- Zoom Meeting: discuss course goals and syllabus (1pm EST)  
- discuss ways of communicating (Zoom, email, Google Docs, etc.)  
- Break Out Sessions: discussion (in groups) about article possibilities

Thursday, January 3

- Teams: work on picking a target magazine  
- **Team Post (1):** present ideas to class (150 words per team) (by 1pm EST)  
  (You’ll post these on the Google Drive under Submissions/Team Posts)  
- Within your team, choose two sample articles from past classes that everyone on your team will read.  
- **Discussion Board (1):** Individually respond to two past articles (by midnight EST)  
  (You’ll post these on the Google Drive under Submissions/Discussion Board)

Friday, January 4

- **Team Post (2):** each group comments on other teams’ article ideas (by 2pm EST)  
- Explore Library resources online (see bric-a-brac page links)  
  *Due: bibliography (via Google Drive by 5pm EST)*

Saturday, January 5

- Read James Suroweiki’s “Committees, Juries, and Teams: the Columbia Disaster and How Small Groups can be Made to Work"  
- **Discussion Board (2):** Response to Suroweiki  
- **Zoom Class:** Trouble-shoot article lift-off; discuss Suroweiki (11am EST)  
- **Team Post (3):** post a sample article from your team’s target publication (doesn’t have to be on your topic) (by 5pm EST)  
  *Due: magazine analysis (via Google Drive by 5pm EST)*
Sunday, January 6

- Read sample articles from each team’s target publication (posted yesterday)
- **Team Post (4)**: Is each team’s article idea a good fit for their magazine? (250 words total) (by 5pm)
- **Discussion Board (3)**: What is working in terms of group communication? OR, How might I/we run our small organization better?

Monday, January 7

- Have an op-ed topic in mind before class meeting.
- Read three sample op-eds and “How to Write an Op-Ed”
- **Discussion Board (4)**: Response to one or more sample op-eds, perhaps in relation to your op-ed idea.
- **Zoom class**: Discuss op-ed ideas, troubleshoot (1pm)

Tuesday, January 8

- TED talk: Melissa Marshall, “Talk Nerdy to Me”
- **Discussion Board (5)**: Response to Marshall’s TED talk
  
  *Due: query letters (via Google Drive by 5pm EST)*

Wednesday, January 9

- **Zoom Class**: pitch presentations (1pm EST)
- **Due: op-ed (via Google Drive by 5pm EST)**

Thursday, January 10

- **Team Post (5)**: Team A responds to Team B’s query letter (and vice versa); Team C responds to Team D (and vice versa)
- Work on Article
- Read Malcom Gladwell’s “Blowup”
- **Discussion Board (6)**: Response to Gladwell’s “Blowup” (midnight EST)
Friday, January 11

- **Team Post (6)**: Respond to four Op-Eds (schedule is posted on Team Post 6 page on Google Drive)
- Work on Article
- **Zoom class: Discuss Gladwell, Marshall, troubleshoot articles (1pm EST)**

Saturday, January 12

- Work on Article
- **Discussion Board (7)**: What are some of the problems that we're encountering in the project? (And how might we mitigate those problems?) (midnight EST)

Sunday, January 13

- Work on Article

Monday, January 14

- Work on Presentations
- **Discussion Board (8)**: Response to Rodenburg interview (midnight EST)
- **Due: article draft (via Google Drive by midnight EST)**

Tuesday, January 15

- Read article drafts of all other teams
- **Discussion Board (9)**: What are my strengths as a communicator/team member? What are some of my weaknesses? (midnight EST)
- **Team Post (7)**: Respond to other teams’ article drafts (schedule will be posted) (5pm EST)
- **Zoom Class: Article Workshop, with special focus on Team Post 7 (responses to drafts) (1 pm EST)**
Wednesday, January 16

• Work on Article and Presentation Revisions

Thursday, January 17

• Draft Final Presentations via Zoom (1pm EST)
• Work on Article and Presentation Revisions

Friday, January 18

• Work on Article and Presentation Revisions
• Final Presentations via Zoom (1pm EST)

Saturday, January 19

Due: Team Assessments (by email, midnight EST)
Due: Final Exam (via Google Drive, midnight EST)
Due: Final Article (via Google Drive, midnight EST)
Due: Op-Ed Revision (via Google Drive, midnight EST)