



Communication Skills for Engineering Students
Sample Course Outline

Instructor:

Contact:

Office:

Office hours:

Class schedule:

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1.0 COURSE DESCRIPTION

Communication skills are essential to a successful career in Engineering. This Communication Course for Engineering Students is designed to introduce you to written and oral communications in Engineering. The course introduces you to documents produced in response to the context of the Engineering curriculum and/or issues related to it. Students will work on realistic contextualized tasks with the aim of developing communication strategies necessary to meet the academic and entry-level professional requirements in Engineering.

2.0 COURSE OBJECTIVES

By the end of the term, students should have the ability to

- define and analyze a writing or speaking situation;
- develop a logical, clear response to that situation;
- write and present orally a response that is comprehensible to, and suitable for, a specific audience;
- work effectively as a part of a team

3.0 COURSE REQUIREMENTS

3.1 Required textbook

D. Beer, and D. McMurrey, *A Guide to Writing as an Engineer*, 3rd. Ed. John Wiley & Sons, 2009.

3.2 E-mail Policy

All course electronic communication must be conducted from Carleton e-mail accounts (WebCT or Connect). Students are required to check WebCT e-mail at least once every 24 hours.

NOTE: University policy states that instructors cannot respond to e-mail messages from students unless the e-mail originates from WebCT or the student's Connect account.

3.3 WebCT Policy

The WebCT CCDP2100 course site must be reviewed at least once every 24 hours as it is an integral part of the course.

On **WebCT** you will find:

- Course handouts and material – Before each class print out handouts and materials you will need for class
- Class announcements
- A discussion room
- Links to project related and course related sites
- Class follow-up / homework – The homework described in the course outline will be updated when necessary.

3.4 Attendance

Given the workshop format of CCDP2100, attendance is mandatory. Failure to attend all classes will result in the loss of 2% per class missed. **If you miss 20 minutes (or more) of a class, the deduction will apply.** Individual cases will be considered by the instructor and must be supported by appropriate documentation.

3.5 Class Conduct

To ensure an optimum learning environment, students are expected to behave in a professional manner at all times. Disrupting a class is considered to be an Instructional Offence (see University Calendar). CCDP2100 is a professional communication class, and it is expected that students will behave professionally. If a student exhibits disruptive behaviour in class and chooses not to refrain from such behaviour at the request of the instructor, the student will be asked to leave the class. The student's behaviour will be reported to Campus Security and the Office of the Associate Dean of Student Affairs in Engineering.

Unauthorized use of cell phones and laptops is prohibited in class. All cell phones must be turned off during class.

3.6 Final Exam

There is no final exam for this course; therefore students retain the normal options available for appeal according to the current regulations outlined in the University Calendar.

3.7 Return of Assignments

All assignments will be returned to students before the last day of classes EXCEPT the written Technical Memo, which will be available in the instructor's office for students to pick up AFTER the final grades have been posted at a time agreed upon by the instructor. Some assignments may be photocopied by the instructor for subsequent reference or kept as models for future courses, if the instructor has received the written consent of the writer. A consent form is attached to this outline. The consent form will be discussed in class.

4.0 TEAMWORK IN CCDP 2100

You will work in two different teams this term. You will have a **term project team** (3-4 members) and a **peer feedback team** (4-5 members).

4.1 The Project Team

You will choose the members for your project team. It is critical that you form your project team early and carefully. Your project team must be formed by class 3. Before forming your project team

- Consider your classmates' schedules, work ethic, personalities, and interests;
- Reflect on your learning styles and project management skills, and how/what you can contribute to the team;
- Consider the nature of the project and how the backgrounds of your proposed team members will suit the project content.

As the CCDP2100 term project is a team project, it is expected that each team member will contribute equally to the work. If a team member is not contributing and this problem cannot be solved within the team, you must contact me early on. Please note that we will engage in several activities that will help me and you monitor your team's progress throughout the term, as the course will focus a lot on **Project Management**.

Unlike the written work, oral presentations will be team presentations and there will be a team grade assigned.

4.2 The Peer Feedback Team

I will choose your peer feedback team and this team will remain together until the project proposals are submitted. The reason we have peer feedback teams is to ensure that all students have peers on whom they can rely to obtain feedback on course assignments. Once the project proposal has been submitted, you may form a new peer feedback team (made up of other students from our class) or you may remain in the original team.

5.0 EVALUATION

All assignments (unless you are told otherwise) will be graded for content (which includes accuracy and relevance), organisation (which includes logical flow of ideas), format (which includes accessibility of information), audience awareness (which includes style and tone), language use (which includes grammatical accuracy), and for how effectively you make use of feedback to improve drafts.

5.1 Grade Breakdown

Note: Unless otherwise specified grades will be individually assigned.

Assignment	Grade
LETTER TO CLASSMATES	5%
TERM PROJECT COMPONENTS	
• Explanation of technical concept (in class assignment)	7%
• Project Proposal	15%
➤ Meeting with peer mentor	2%
• Status Report Presentation (team grade)	5%
• Mini-presentation	No grade
• Log book postings	10%
• Library Research Activity	5%
• Final Technical Memo	35%
• Final Oral Presentation (team grade)	12%
➤ Meeting with peer mentor	2%
➤ Peer feedback	2%

5.2 Meetings with the Peer Mentor

The peer mentor is an upper year engineering student who will assist you with your project's technical content. Project teams are required to meet with the peer mentor twice during the term. The first meeting must take place before the submission of the project proposal. The second meeting must take place before the final oral presentation. Each meeting is worth 2% of your grade. Specific details about the meetings will be provided in class.

Note: You are of course encouraged to contact me at any time throughout the term if you have any questions or wish to discuss course requirements. I will be offering extended office hours when it is necessary (sometimes on weekends).

5.3 Format & Submission Requirements

All assignments, unless specified otherwise, must be typed in **12-point font** and **double-spaced**, using Office Word. If the assignment is not typed using 12-point, 5% will be deducted from the total possible mark for this assignment (for example, if the assignment is out of 10, you will lose 0.5 marks). If the assignment is not double-spaced, 5% will be deducted from the total possible mark for this assignment.

You must submit both a soft copy and hard copy of your assignments (unless instructed otherwise).

Soft copy submission: Send your assignment to me through WebCT Assignments. For each assignment submission, include any soft copies of sources you cited in your assignment¹. Also attach any preliminary drafts which were electronically reviewed.

Hard copy submission: Submit in a letter-size folder. Documents of more than one page must be stapled and the pages must be numbered. On a label on the front cover of the folder clearly write your name and contact information, course code and section, and project topic.

¹ **Hard copy sources** such as textbook pages must be scanned and saved as a file. If you don't have access to a scanner, there is a scanner on the main floor of the library for free use. You could use a digital camera. If you wish to convert images to document files, you can use software found at www.qipit.com. **Soft copy sources** (websites, ebook pages, etc.) must also be saved as files.

5.4 Citations and Referencing

All students in CCDP2100 are required to use IEEE documentation style for all assignments. IEEE has two parts: the **citation** and the **list of references**.

IEEE **citations** are numerical codes in square brackets found throughout the text. The citations identify an idea or fact the writer has borrowed from elsewhere, or a supporting source of information. The **list of references** provides a complete and detailed list, at the end of the document, of all the sources the writer used. Refer to in-class discussions (class #2) and the textbook (pp. 257-265) for specific details about IEEE documentation style.

Note: If an assignment does not include an appropriate list of references and corresponding in-text citations (all in IEEE format), 50% of the total percentage value of the assignment will be deducted. In the case of other instances of inappropriate use of (or absence of) citations and/or references a deduction will be applied at the discretion of the instructor, and will depend on the severity of the problem.

5.5 Requirement for Drafts and Feedback

5.5.1 Drafts

All written assignments must be submitted along with a minimum of one complete draft. Each draft must include peer feedback. **Note:** Peer feedback must be from a peer in your CCDP2100 class.

Drafts submitted with each assignment must be complete drafts. For example, if an assignment has three components – a letter, an abstract and a project plan – there must be a minimum of 1 draft for each component.

To be considered a new draft, the document must exhibit significant change. For example, you cannot change only a date, or a heading, or a signature block, or a few words in a document and then submit it as a new version.

Each draft must be clearly labelled with a **footer** that includes the

- Author's name
- Document title
- Draft number
- Date of draft
- Name of peer reviewer and date reviewed
- Page number

Note: If you receive feedback from the instructor and/or the peer mentor on a draft, the feedback from the instructor and/or the peer mentor should be included with the submission (as well as the feedback from the peer).

5.5.2 Feedback

Inherent in the design of CCDP2100 is the understanding that students will do better if they receive feedback on their written and oral assignments. In CCDP2100 students will have three sources of feedback: peers, the peer mentor, and the instructor. This term, instructors will not be able to give as much individual feedback to students as in past terms, because they will be teaching 40% more students than normal. As such, I will be meeting with students in groups, not individually, to give feedback and answer questions regarding assignments. Electronic feedback (from the instructor) will be provided on a first-come first-serve basis and may not be available depending on the demand, and the timing of the request.

Given the increase in student numbers, students will have to pull together and help each other as much as possible. To promote such collaboration, students will be put into peer feedback teams, **and** students will be required to share the most valuable feedback that they receive (from peers, the peer mentor or the instructor) with the whole class. For each assignment a discussion group will be created in WebCT, and students will post the most valuable feedback that they receive, to these discussion groups. Students will be awarded up to 2 bonus marks (2%) if feedback is shared in a timely fashion, and is of a satisfactory quality.

5.6 Plagiarism

Although the term project is a team project, **written assignments for this project must be prepared by each team member individually, unless otherwise specified.** One of the reasons for insisting on individually written

assignments is to ensure that each student receives individual feedback from other peers, the peer mentor and the instructor.

If a written assignment, in whole or in part, is copied from a project teammate or another peer the assignment will receive a grade of zero. To use and pass off as one's own idea or product the work of another, without expressly giving credit to another, is plagiarism. Plagiarism is an instructional offence. Offenders will be reported to the Office of the Dean and will be dealt with in accordance with University policies. (See University Calendar)

NOTE: One way to avoid copying from a teammate is to ensure that you do not share drafts with your **project team** members. As well, never post a draft to a WebCT site. You should be sharing drafts with students in the class who are not part of your project team (in other words, with your peer feedback team), and who are therefore writing on different topics.

5.7 Penalty for Late Submission of Assignments

For every day late (up to 2 days) 15% of the total percentage value of the assignment will be deducted. Therefore, if your assignment is two days late you will receive a deduction of 30%. If an assignment is 3 or more days late, the assignment will receive a grade of zero.

In individual cases extensions may be granted under verifiable exceptional circumstances (e.g. upon submission of a medical certificate, etc. – **note:** computer technical difficulties will not be considered a valid excuse).

6.0 SPECIAL CONSIDERATIONS FOR STUDENTS

For Students with Disabilities	Students with disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities for a formal evaluation of disability-related needs. Registered PMC students are required to contact the centre at 613-520-6608 every term to ensure that their course instructor receives their letter of accommodation no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations.
For Religious Observance	<p>To be worked out on individual basis with instructor. Consult Equity Services Website or an Equity Advisor (ext. 5622) for Policy and list of Holy Days (www.carleton.ca/equity)</p> <p>Student with Religious Obligations</p> <p>1. As soon as you receive your course syllabus, identify any potential conflicts between your religious obligations and course requirements.</p> <p>NOTE: Contact Equity Services if you are unclear if your religious observance requires accommodation under the Policy</p> <p>2. Make a formal written request to your instructor indicating the nature of the religious obligation and suggest possible alternative dates and/or means of satisfying the academic requirements.</p> <p>NOTE: Such request should be made during the first two weeks of the term, or as soon as possible after a need for accommodation is known to exist, but in no case later than the second last week of classes for that term.</p> <p>Even if you are unclear as to the exact date of the obligation (e.g., when waiting for a moon sighting) you are still expected to notify your instructor of the potential conflict and explore accommodation options.</p> <p>3. If your request for accommodation is denied you may contact Equity Services and request assistance in an informal review of the decision.</p> <p>http://www.carleton.ca/equity/accommodation/student_guide.htm</p>
For Pregnancy	Contact Equity Services (ext. 5622) to obtain <i>letters of accommodation</i> .

7.0 TENTATIVE COURSE CALENDAR

Notes:

- Students are expected to download and bring to class any assignment sheets or other documents posted on Web CT.
- Check WebCT for homework updates.
- Take point form notes for all assigned readings and bring notes to class.

Class	Class content/focus	Readings from Beer & McMurrey text & other homework/assignments as specified
Class 1	<ul style="list-style-type: none"> * Introductions / Overview of course outline * Engineering writing – purposes and audiences * Writing effective letters, memos, and e-mails * Introduction to term project and brainstorming session 	<p>For class 2:</p> <p>Read and take notes on key ideas from:</p> <ul style="list-style-type: none"> - Chapter 1 - Engineers and Writing - Chapter 4 – Letters, Memoranda, Email, and Other Media for Engineers - Chapter 11 – Documentation & Ethics in Engineering Writing <p>Letter to classmates – self-introduction, project ideas, and availability (post to WebCT before class #2)</p> <p>Download and bring RFP to class.</p>
Class 2	<p>Letter to classmates due</p> <ul style="list-style-type: none"> * Communication & feedback * Introduction to term project * Introduction to Request for Proposals (RFP) * Proposal writing * Team formation * Documentation and IEEE Referencing 	<p>For class 3:</p> <p>Read and take notes on key ideas from:</p> <ul style="list-style-type: none"> - Chapter 8 – Accessing Engineering Information - Chapter 5 – Proposals (pp. 107-113) <p>Preparation of notes for technical concept assignment</p> <p>Note: Project teams must be established and topics selected before class #3.</p>
Class 3	<p>Explanation of a technical concept assignment (will be written in class)</p> <ul style="list-style-type: none"> * Review of proposal requirements <ul style="list-style-type: none"> - research tables - connecting research/theories and project - team contracts * Introduction to team log books 	<p>For class 4:</p> <p>Read and take notes on key ideas from:</p> <ul style="list-style-type: none"> - Chapter 2 - Engineering Writing Guidelines - Chapter 3 - Eliminating Intermittent Noise in Writing <p>Complete first draft of proposal and bring to class #4</p>
Class 4	<p>PROPOSAL draft #1 due</p> <p>Explanation of a technical concept assignment – second draft (will be written in class)</p> <ul style="list-style-type: none"> * Review of sample proposals * Peer feedback on proposal drafts 	<p>For class 5:</p> <p>Write final draft of proposal - due in class #5</p> <p>Read and take notes on key ideas from:</p> <ul style="list-style-type: none"> - Supplemental Reading – Abstracts & Summaries (see WebCT link)

Class 5	PROPOSAL due <ul style="list-style-type: none"> * Abstracts & summaries * Introduction to library research activity * Team building exercise 	For class 6: Read and take notes on key ideas from: - Chapter 5 — Progress Reports (pp. 113-116) - Chapter 9 — Engineering Your Speaking Complete research exercise – due in class #6
Class 6	RESEARCH EXERCISE due <ul style="list-style-type: none"> * Progress/Status reports * Oral presentations (general + status reports) * Mini-presentations (2 groups) 	For class 7: Prepare status report presentation
Class 7	STATUS REPORT PRESENTATIONS <ul style="list-style-type: none"> * Mini-presentations (2 groups) 	For class 8: Read and take notes on key ideas from: - Chapter 6 - Writing an Engineering Report - Chapter 7 - Constructing Engineering Tables and Graphics
Class 8	<ul style="list-style-type: none"> * Engineering reports * Discussion of technical memo requirements * Discussion of final oral presentations * Mini-presentations (2 groups) 	For class 9: Write 1 st draft of technical memo and bring to class #9 (Background and Discussion sections only)
Class 9	Bring first draft of TECHNICAL MEMO <ul style="list-style-type: none"> * Feedback on 1st drafts of technical memos * Presentation preparations and outlines * Mini-presentations (2 groups) 	For class 10: Write 2 nd draft of technical memo and bring to class #10 (Entire report)
Class 10	<ul style="list-style-type: none"> * Feedback on 2nd drafts of technical memos * Final report / presentation preparations * Abstracts * Mini-presentations (2 groups) 	For class 11: Prepare for team oral presentations (Group A) Write final draft of technical memo (Group B)
Class 11	TEAM ORAL PRESENTATIONS (Group A) TECHNICAL MEMOS DUE (hard and soft copy) (Group B) <ul style="list-style-type: none"> * Final technical memo / presentation preparations 	For class 12: Prepare for team oral presentations (Group B) Write final draft of technical memo (Group A)

Class 12	TEAM ORAL PRESENTATIONS (Group B) TECHNICAL MEMOS DUE (hard and soft copy) (Group A) * Course Wrap-up * Team reflections and evaluations	
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COURSE PREVIEW