COMP 3301: Technical Writing

Contact

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Prerequisites

This course is aimed at upper-level computer science students. I will assume a general familiarity with data structures, software engineering, and technology. Some of this can be acquired within the framework of the course, but at minimum, you will have taken COMP 2401 and COMP 2402 or the equivalents.

Textbooks and Resources

The required textbook for this course is "Writing for Computer Science", by Justin Zobel. You can begin reading this book from the first day of class.

In addition, we will have many assigned readings from the computer science literature, mainly from the Association for Computing Machinery's journal *Communications of the ACM*, sometimes referred to as *CACM*. You may have access to an online version of the journal through a student membership in the ACM, but if not, you have online access through Carleton's institutional subscription to the ACM Digital Library.

Topics

The course's main topics include the following:

- Writing process: how to approach the task of writing; what is involved in writing a long-form document
- Genre: how your approach to writing should vary depending on the audience and the audience's expectations
- Organization: strategies for arranging your content; macro- and micro-level organization
- Grammar: the low-level mechanics of writing
- Clarity: advice for making your writing more understandable
- Scientific Writing: the particulars of this genre

Grading Scheme

In-class exercises & presentations: 20%
Small writing assignments: 40%
Large writing assignments: 25%
Final exam: 15%

Note that this course will not have a midterm exam.

Assignments and Exercises

Attaining expertise in writing requires practice. In this course, we will undertake numerous short writing exercises, both in class and outside of class. A typical assignment will be to read a designated article from CACM and summarize it in 400-600 words. Assignments will be graded on clarity, readability, and organization. Write from an outline and do at least one round of revisions before submitting.

We will also undertake three longer writing tasks during the term. Each will require approximately 2500-3000 words. A typical longer-form writing assignment will ask for a discussion of a broad question, and you should try to devise an answer and present evidence supporting your stance. At least one of the long writing assignments will have an accompanying programming assignment, in which you write code to address some standard problem and then analyze the data acquired from running your code.

Although this course is primarily about writing, it also embraces communication more generally. Near the end of the term, each student will give an individual in-class presentation. You will prepare your own slides based on a recent CACM article or topic of interest, and present them to the class.

Dates and Deadlines

Sept 4: Classes begin.
Oct 2: Due date for outline for long assignment #1. Oct 9: Due date for submission of long assignment #1. Oct 21-25: Fall break, no classes.
Oct 28: Due date for graphs for long assignment #2.
Nov 4: Due date for submission of long assignment #2.
Nov 13: Topic selection for final assignment.
Nov 24: Due date for slides for in-class presentation.
Nov 25-29: In-class presentations.
Dec 6: Final written assignment due.

A Note on LaTeX

LaTeX will be used to format all submissions. While more difficult to use than a WYSIWYG word processor, it produces technical typesetting of unparalleled

quality. If you enter graduate school, you will likely be required to use LaTeX, as it is the preeminent tool of technical communication. Even if you have no plans for grad school, familiarity with a markup language is helpful for many technical tools as well.