COMP3301 A (Fall 2025)
Technical Writing for Computer Science

Land acknowledgement:

Carleton University acknowledges the location of its campus on the traditional, unceded territories of the Algonquin nation.

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- **Primary Communication:** Refer to the communication policy below before reaching out.
- **Call Me:** Connor (pronounced 'kon -ur') or Mr. Hillen (pronounced 'hill -len') if you prefer

Course Information
- **Lecture Times:** Tue. Thu. 13:05 - 14:25
- **Lecture Locations:** In-Person, Refer to your schedule
- **Course Website:** https://brightspace.carleton.ca

Student Hours: Instructor student hours will be posted on the course website beginning Week 2. **Teaching Assistants:** Our TA email other information will be made available on Brightspace.

Important dates and deadlines can be found here: https://carleton.ca/registrar/registration/dates/academic-dates/, including class suspension for summer break and statutory holidays.

1. Course Calendar Description

Technical communication for computer science majors, concentrating on writing scientific papers and technical reports. Principles of clarity and precision in writing and communication. Practical exercises and readings from recent technical publications will be used.

Prerequisite(s): COMP 2402 and (COMP 2404 or SYSC 3010 or SYSC 3110).

2. Topics Covered and Learning Outcomes

A full calendar with week-by-week topics and deadlines is posted on Brightspace and in Section 11.

The major learning goals of the course are as follows:

- **Process:** Understand the writing process, including planning, drafting, revising, and editing.
- **Writing Mechanics:** Apply correct grammar, punctuation, and style in technical writing.
- **Organization:** Organize and present information clearly and effectively for technical audiences.
- **Reading & Critiquing:** Analyze and critique technical documents for writing style, correctness, and clarity.

There are different settings for different types of writing and many aspects of writing are subjective. As such, this course will focus on using examples of writing to highlight how the different rules and guidelines apply in different contexts. Additional topics may come up throughout the course to address specific needs of the class to help achieve the above goals.

2.1. Course Outline Quick Links

It is your responsibility to read the full course outline carefully, but here are some quick links so that you can easily refer to them throughout the course if you have questions:

3. Learning Material and Other Course/Lab-Related Resources

Students are not required to purchase textbooks or other learning materials for this course. Still, a textbook is highly recommended for additional reading and reference.

1. **Recommended Textbook:** *Writing for Computer Science* by Justin Zobel, 3rd Edition, 2014.
   - **Free E-Book:** Students have free access to the e-book version of this textbook through the Carleton Library (Scholars Portal Books and Springer Nature).
   - **Physical Copy ($80.50):** Students who wish to purchase a physical copy of the textbook can request a copy be printed on-demand at the Carleton Bookstore. It will take some time to print and ship physical copies.
2. **Software:** You will be required to use a (free) markup language for this course. You have the options of either:
   - **LaTeX:** The free, open-source industry standard for technical writing and document preparation. Difficult to learn, but highly recommended.
     - **Online Editor:** You may use Overleaf (https://overleaf.com) to write LaTeX documents online for free.
     - **Local Editor:** You will need to install a LaTeX distribution (e.g., MikTex for Windows) and an editor to work with it (e.g., VS Code with LaTeX Workshop, TexWorks which comes with MikTex, TexMaker, etc.).
   - **Typst:** A free, open-source markup language based on Rust which is still in early development. It is generally easier to read and write compared to LaTeX, but is not standard in industry, not widely adopted, and subject to breaking changes in the language.
     - **Online Editor:** You may use Typst's online editor (https://typst.app) to write Typst documents online for free.
     - **Local Editor:** You will need to install the Typst CLI (https://typst.app/docs/installation) and an editor to work with it (e.g., VS Code with Tinymist extension, or command line execution).

4. Assessment Scheme

Below is a table of the assessments and their default weighting, as well as approximate topics for each which are subject to change as the course progresses. Re-weighting and accommodations are described later.

ASSESSMENT	WEIGHT	DUE DATE	TOPICS
10 In-Class Writing	20%	In-Class	Short prompts and reflections
8 Short Writing	40%	Thursdays starting Sep. 04, 08:00 due the following Tuesday before class	Summaries, 400-600 words
Long Writing 1	12.5%	Sep. 18, 08:00 - Oct. 14, 23:59	Programming + 2500-3000 words
Long Writing 2	12.5%	Oct. 16, 08:00 - Nov. 25, 23:59	Presentation + 2500-3000 words
Final Exam	15%	Scheduled by Registrar	Chapters 1 - 7

Information about re-weighting (e.g., "Best X of Y" policies) and accommodations can be found in Section 4.2.

A full calendar with week-by-week deadlines can be found on Brightspace as well as in Section 11.

4.1. Writing Assignments

Anonymized samples of submitted writing, possibly with modifications, will be shared in class to provide opportunities to review mistakes and receive feedback.

In-Class Exercises: About once per week, there will be a short in-class writing exercise marked SAT / UNSAT. The exact number might vary, but 10 in-class exercises are planned. **Attendance is required** to receive credit for these exercises. They must be submitted before the end of class.

Short Writing Assignments: There will be 8 short writing assignments due throughout the term. These writing assignments are generally based on a reading that will be announced and released that day. The readings will be posted to Brightspace and are generally from the Communications of the ACM (CACM) or papers. They will typically involve 400-600 word summarizations, revisions, or reflections. Marking will be based on a simple rubric. **Short Writing Assignments** may be revised and resubmitted the following week to improve your mark. Late submissions will not be accepted.

Short writing assignments will be released most Thursdays and are due the following Tuesday by 23:59 (11:59PM). Late submissions before the TA / Instructor download the submissions the following morning will be accepted without penalty, but this window is variable and should not be relied upon. Any submissions that come in after the TA / Instructor download the submissions will be marked SAT / UNSAT and not graded as per the accommodations policy (Section 4.2).

Long Writing Assignments: There will be two long writing assignments throughout the term. These are more substantial, 2500-3000 word assignments which involve additional work beyond the writing.

1. **Reporting on Data:** The first long writing assignment will involve programming a simple simulation and reporting the results in a technical report.
2. **Research Review and Presentation:** The second long writing assignment will involve conducting a small literature review on one of several provided topics and presenting the results in a technical report. The final three lectures will be dedicated to brief student presentations on these topics in class.

Final Exam: The exam is written in-person and scheduled by the Registrar's Office. Expect brief writing exercises which are similar to the in-class and short writing exercises.

4.2. Accommodations and Missed Work Policies

Missed In-Class Exercises: In-Class writing prompts will be marked **best 8 out of 10**. You can miss two in-class exercises without penalty. If you experience a long-term illness or other extenuating circumstances preventing you from attending class for several weeks, please review the Academic Consideration Policy reach out to the instructor to discuss accommodations.

Missed Short Writing Assignments: Short writing assignments will be marked **best 6 of 8**, but unlike in-class exercises, non-submissions will *not* be dropped. You may submit up to two short writing assignments late before the end of term. These will only be marked SAT/UNSAT but SAT submissions will be dropped.

Missed Long Writing Assignments: If circumstances beyond your control prevent you from being able to work on a long writing assignment, **one** long writing assignment can be accommodated by reviewing the Academic Consideration Policy and reaching out to the instructor as soon as you are able, within 24 hours of the deadline unless circumstances prevent you from reaching out. A second accommodation will not be considered.

Missed Presentation: If you are unable to attend your presentation due to circuto mstances beyond your control, you may be eligible for accommodation but must reach out the instructor as soon as possible to discuss alternative arrangements.

Final Exam: The final exam is scheduled by the Registrar's Office and accommodations are handled through them. Take time to review the Deferral Policy and the Academic Consideration Policy to understand the process and requirements for requesting a deferral or accommodation for the final exam.

4.3. Support

Feeling Sick? If you are feeling very sick (e.g., fever, chills, stomach upset) please do not come to campus. If you have missed lectures, please reach out to classmates for notes and discussion to catch up.

Mental Health Concerns? If you are struggling, please do not hesitate to reach out to me. I am happy to listen, or even to just provide/direct you to resources that might help. If class work is overwhelming, check out the support resources below and consider attending office hours with the instructor or TAs to try and catch up. Carleton offers a wide array of mental health resources, and I encourage you to take time to review them: https://wellness.carleton.ca/mental-health/resource-guide/

Help with Course Materials: You can expect to spend about 8 hours per week on this course, in addition to lecture time. If you find yourself spending a very long time with assignments, feeling like you've missed important parts of the course materials and are getting lost, or otherwise are struggling with the material, support is available! Review the communications policy for more information about how to reach out for help with in-class materials. The following are some helpful resources for general support:

- **General academic skills support?**
  - Science Student Success Centre: https://sssc.carleton.ca/
    - Peer mentoring, workshops, industry events.
  - Carleton Computer Science Society Events: https://ccss.carleton.ca/events/
    - Workshops, study groups, community events, and more.
  - Centre for Student Academic Support: https://carleton.ca/csas/
    - Time management, study skills, organization, general academic skills.
- **Less-academic support?**
  - Mental and Physical Wellness: https://carleton.ca/wellness/
  - Ombuds Services: https://carleton.ca/ombuds/
    - Confidential, impartial, and independent support for students
    - Non-academic misconduct, harassment, sexual violence, issues with housing/landlords, problems with courses or faculty or staff, university administration, student accounts, scholarships, etc.

5. Communication Policy

In order for the teaching team to work effectively and to maintain a healthy work-life balance, it is important to follow the communication policy outlined below to receive the most timely and effective responses to your questions and concerns. I **strongly encourage** questions and discussion, but in the appropriate places at the appropriate times.

Lectures & Announcements: It is your responsibility to read the course announcements **each day**. They will not release daily, but you must keep up to date with them as it may have important or urgent information. You are also expected to attend lectures to receive announcements and reach out to a classmate if you miss a lecture to catch up on missing details. Lectures will be the primary place for general questions.

Brightspace Forums: Brightspace forums will be provided for out-of-class questions and clarifications as well as general interest and discussion, but are not monitored daily and lectures and student hours are ideal for most questions.

Emails: There are not many reasons to email in this course. Most public concerns should be raised on the Brightspace forums or in-class. If you would like additional feedback for your writing, you may attend student hours.

- **Instructor:** For accommodations, serious academic concerns, concerns about your wellbeing, or other personal matters that are not appropriate for public discussion forums, email the instructor. Make sure to include your student number and a clear subject line with the course code. It is also helpful to include how you would like to be addressed (e.g., Connor, Mr. Hillen, etc.) in the email.
- **Response Time:** Emails will be responded to within three business days or addressed in-class or via Brightspace announcement.

Professionalism: All communication must be respectful and professional. We will not tolerate abuse or hostility towards the teaching team or other students and any abusive or hostile communication will be reported to the Dean's Office.

6. Course Scheduling and Modality

In-person attendance to lectures is expected for this course. In the event of a severe weather event, illness, or other circumstances that prevent in-person attendance or would otherwise risk the health and safety of students or the instructor, the lecture may be moved to Zoom or be cancelled and pre-recorded. In any event that forces rescheduling of a lecture, an announcement will be released on Brightspace as soon as possible. Lectures **will not be recorded**. If you miss material, you can review the provided slides and discuss the materials with a classmate.

7. Plagiarism Policy

If you are unsure of the expectations regarding academic integrity (how to use and cite references, if collaboration with lab or classmates is permitted (and, if so, to what degree)), then you must ask your instructor. **Sharing assignment specifications** or posting them online (to sites like Chegg, CourseHero, OneClass, etc.) is **always** considered academic misconduct (at any time, **even after the course has concluded**).

You are **never permitted to post, share, or upload course materials** (even for portfolio purposes, e.g., a public GitHub repository, Stack Overflow) without receiving explicit permission from your instructor. Academic integrity offences are reported to the office of the Dean of Science. Information, process and penalties for such offences can be found on the ODS webpage: https://science.carleton.ca/students/academic-integrity/. You **are** permitted to post your own created work for portfolio purposes once the class has completed.

General expectations for academic integrity in this course include:

1. All work must be completed individually unless explicitly stated on the specification,
2. General discussion of the material, readings, and concepts is encouraged,
3. Always provide clear citations any time that you use another source, including all required information to identify the original source,
4. Direct quotation should be very rare and clearly identified.

8. Generative AI

Generative AI tools are highly tempting in a writing setting, but will ultimately undermine your learning and growth of writing and communication skills unless used correctly. For this section, generative AI tools are defined as any tools that use advanced artificial intelligence tools to generate text or provide complex reworking of written text (e.g., ChatGPT, Grammarly Premium revision features, Copilot).

Personal Note from Connor: Before discussing policies, I want to provide a few personal notes on AI tools and their place in a course like this:

- There are numerous, valid ethical concerns surrounding the recent forms of generative AI, including issues of intellectual property, bias in AI-generated content, environmental concerns, and equitable access.
- Learning happens through struggle and engagement, and generative AI tools are far too easily used to bypass the necessary struggle of learning.
- There are ways to use generative AI to to enhance learning, but it is often best used by people with enough expertise to be able to interrogate and critically evaluate AI outputs.
- You cannot fully know the prompts / source materials that trained the AI or generated chat outputs and cannot validate that they are correct, what biases or voice they may have, and it may strip away your own voice from the work.

Unless explicitly allowed on an assignment specification, you are NOT permitted to:

1. Use generative AI or advanced AI grammar correction tools on any work that is submitted for marks,
    1. This includes using AI to analyze your text, provide feedback, or suggest revisions.
2. Submit any work that has been generated by a generative AI tool.

You **are** permitted to use generative AI to review and revise already marked work that will not be re-submitted for marks to help improve your own writing. You are also permitted to use it to help better understand the course content and to provide examples of writing rules, but know that the AI could give false or otherwise incorrect information.

9. School of Computer Science Information

Undergraduate Academic Advisors: The Undergraduate Advisors for the School of Computer Science are available in Room 5302HP; or by email at scs.ug.advisor@cunet.carleton.ca. The undergraduate advisors can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisors will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and Writing Tutorial Services.

SCS Computer Laboratory: Students taking a COMP course can access the SCS computer labs. The lab schedule and location can be found at: https://carleton.ca/scs/tech-support/computer-laboratories/. All SCS computer lab and technical support information can be found at: https://carleton.ca/scs/tech-support/. Technical support staff may be contacted in-person or virtually, see this page for details: https://carleton.ca/scs/tech-support/contact-it-support/.

10. Academic Accommodations and Regulations

Academic Accommodation: Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes are outlined on the Academic Accommodations website (https://students.carleton.ca/course-outline/).

Academic Integrity: Students are expected to uphold the values of academic Integrity, which include fairness, honesty, trust, and responsibility. Examples of actions that compromise these values include but are not limited to plagiarism, accessing unauthorized sites for assignments or tests, unauthorized collaboration on assignments or exams, and using artificial intelligence tools such as ChatGPT when your assessment instructions say it is not permitted.

Misconduct in scholarly activity will not be tolerated and will result in consequences as outlined in Carleton University's Academic Integrity Policy.

A list of standard sanctions in the Faculty of Science can be found here.

Additional details about this process can be found on the Faculty of Science Academic Integrity website..

Students are expected to familiarize themselves with and abide by Carleton University's Academic Integrity Policy.

Student Rights & Responsibilities: Students are expected to act responsibly and engage respectfully with other students and members of the Carleton and the broader community. See the 7 Rights and Responsibilities Policy for details regarding the expectations of non-academic behaviour of students. Those who participate with another student in the commission of an infraction of this Policy will also be held liable for their actions.

Student Concerns: If you have any concerns regarding this course, your first point of contact is me. Please email me or visit during my student hours, and I will do my best to address your concerns. If I cannot resolve the issue, the next point of contact is the School of Computer Science at studentconcerns@scs.carleton.ca. If the concern remains unresolved, the final point of contact is the Office of the Dean of Science at ODScience@carleton.ca. Please follow this order of contact.

Note: You can also bring your concerns to Ombuds services.

11. Approximate Course Calendar

The following is an **approximate** calendar and the dates and exact topics are all highly subject to change per the needs of the class. Keep an eye on announcements in-lass and on Brightspace for any modifications to this schedule.

Week 1 (Aug 31 - Sep 06)
- Thu. Sep 04: Lecture 1 Topic: Course Structure & Critical Reading
- Thu. Sep 04, 08:00: **Short 1** (Summary) Releases

Week 2 (Sep 07 - Sep 13)
- Tue. Sep 09: Lecture 2 Topic: Genres of Writing
- Tue. Sep 09, 23:59: **Short 1** due
- Thu. Sep 11: Lecture 3 Topic: Writing Summaries
- Thu. Sep 11, 08:00: **Short 2** (Summary) Releases

Week 3 (Sep 14 - Sep 20)
- Tue. Sep 16: Lecture 4 Topic: Simplicity and Clarity
- Tue. Sep 16, 23:59: **Short 2** due
- Thu. Sep 18: Lecture 5 Topic: Outlines
- Thu. Sep 18, 08:00: **Short 3** (Summary) Releases
- Thu. Sep 18, 08:00: **Long Response 1** Releases

Week 4 (Sep 21 - Sep 27)
- Tue. Sep 23: Lecture 6 Topic: Organization
- Tue. Sep 23, 23:59: **Short 3** due
- Thu. Sep 25: Lecture 7 Topic: Epistemology
- Thu. Sep 25, 08:00: **Short 4** (Summary) Releases

Week 5 (Sep 28 - Oct 04)
- Tue. Sep 30: Lecture 8 Topic: Strong Writing
- Tue. Sep 30, 23:59: **Short 4** due
- Thu. Oct 02: Lecture 9 Topic: Flow
- Thu. Oct 02, 08:00: **Short 5** (Summary) Releases

Week 6 (Oct 05 - Oct 11)
- Tue. Oct 07: Lecture 10 Topic: Figures and Tables
- Tue. Oct 07, 23:59: **Short 5** due
- Thu. Oct 09: Lecture 11 Topic: Sentence Structure

Week 7 (Oct 12 - Oct 18)
- Mon. Oct 13: Lecture Cancelled
- Tue. Oct 14: Lecture 12 Topic: Punctuation
- Tue. Oct 14, 23:59: **Long Response 1** due
- Thu. Oct 16: Lecture 13 Topic: TBA
- Thu. Oct 16, 08:00: **Long Response 2** Releases

Week 8 (Oct 19 - Oct 25)
- Mon. Oct 20: Fall Break
- Tue. Oct 21: Fall Break
- Wed. Oct 22: Fall Break
- Thu. Oct 23: Fall Break
- Fri. Oct 24: Fall Break

Week 9 (Oct 26 - Nov 01)
- Tue. Oct 28: Lecture 14 Topic: Transitions
- Thu. Oct 30: Lecture 15 Topic: TBA
- Thu. Oct 30, 08:00: **Short 6** (Summary) Releases

Week 10 (Nov 02 - Nov 08)
- Tue. Nov 04: Lecture 16 Topic: Revision and Editing
- Tue. Nov 04, 23:59: **Short 6** due
- Thu. Nov 06: Lecture 17 Topic: TBA
- Thu. Nov 06, 08:00: **Short 7** (Summary) Releases

Week 11 (Nov 09 - Nov 15)
- Tue. Nov 11: Lecture 18 Topic: Algorithms
- Tue. Nov 11, 23:59: **Short 7** due
- Thu. Nov 13: Lecture 19 Topic: TBA
- Thu. Nov 13, 08:00: **Short 8** (Summary) Releases

Week 12 (Nov 16 - Nov 22)
- Tue. Nov 18: Lecture 20 Topic: Communication in Presentations
- Tue. Nov 18, 23:59: **Short 8** due
- Thu. Nov 20: Lecture 21 Topic: TBA

Week 13 (Nov 23 - Nov 29)
- Tue. Nov 25: Lecture 22 Topic: Ethics and Plagiarism
- Tue. Nov 25, 23:59: **Long Response 2** due
- Thu. Nov 27: Lecture 23 Topic: In-Class Presentations

Week 14 (Nov 30 - Dec 06)
- Tue. Dec 02: Lecture 24 Topic: In-Class Presentations
- Thu. Dec 04: Lecture 25 Topic: In-Class Presentations