CIS6890 - Technical Communication & Research Methodology - Draft Course Outline [Winter 2025, 0.50 Credits]

School of Computer Science, University of Guelph

Contact Info

Hi folks,

I'm Dr. Dan Gillis, Professor, Statistician, and Interdisciplinary Researcher - it's nice to meet you. Feel free to call me Dan. My pronouns are he/him. I have been a faculty member in the School of Computer Science since 2011. My teaching approach and research programs have community at their core.



- If you want to know more about my research, check out my <u>website</u>. I often post research opportunities there, including paid positions.
- Student hours will be posted within the first full week of class. If you have questions about course concepts or deliverables, please drop by. While I am typically on campus each week from Tuesday to Thursday (10:00 AM 5:30 PM), I'm not always in my office. I do not take meetings on Fridays as that time is dedicated to research.
- If you need to contact me, please use our course email: <u>CIS6890@socs.uoguelph.ca</u>. All emails about the course must go through this email address.
- My email address is <u>dgillis@uoguelph.ca</u>.
- My office is Reynolds 3323.

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Where we learn is important

The city we call Guelph (and much of the surrounding area) was acquired by the Crown from the Mississaugas via the "Between the Lakes Purchase" – a space that was stewarded pre-contact by several Anishinaabeg Nations, including the Attawandaron, Huron, Wendat, the Mississaugas, and others. After contact, and as a result of both colonization and war with the United States, many Indigenous people were displaced, or – in the case of the Haudenosaunee Confederacy (made up of the Mohawk, Oneida, Onondaga, Cayuga, Seneca, and Tuscarora) - moved to the Haldimand Tract – 6 miles of land on either side of the Grand River.

Despite the othering and attempted genocide of the Indigenous peoples across Turtle Island, the First Nations, Metis, and Inuit have continued to act as stewards of this land; resiliently resisting to ensure that this land we call home is protected, sustained, and nurtured – so that all of us can live and thrive here. Locally, and pre-colonization, the Indigenous peoples of the area enshrined this responsibility via the Dish With One Spoon Covenant.

Richard Hill, a citizen of the Tuscarora Nation, describes this Covenant.

"The idea was that this beautiful earth that was given to us is like a dish, and inside that dish is everything for us to be healthy and to be fed. So, all the plants, the animals, the birds...and the concept was: we're all going to share from the dish with the same spoon. Everybody gets their equal share; everybody gets an opportunity to take that. So it's about sharing the resources of this land. But in order to share it, there are some simple rules. One is you only take what you need right now - feed yourself, make yourself well. You always leave something in the dish for other people so they can enjoy it as well. And you keep the dish clean; you don't pollute your kitchen; you don't pollute where your food comes from." (Richard Hill: Ep4 - Oral History)

This treaty, this covenant, is one that we must strive to follow in our classroom, in the School of Computer Science, and beyond – in everything we do. It speaks to our collective responsibility to steward and sustain the land and environment in which we live and work, so that all peoples, present and future, may benefit from the sustenance it provides.

As we work to strengthen our relationships with and continue to learn from our Indigenous neighbours, we recognize the partnerships and knowledge that have guided the learning and research conducted in and for this class. We acknowledge that the University of Guelph resides in the ancestral and treaty lands of several Indigenous peoples, including the Attawandaron people and the Mississaugas of the Credit, and we recognize and honour our Anishinaabe, Haudenosaunee, and Métis neighbours. We acknowledge that the work we do here occurs on their traditional lands so that we might work to build lasting partnerships that respect, honour, and value the culture, traditions, and wisdom of those who have lived here since time immemorial.

What is this course all about?

CIS6890 aims to develop students' ability in technical communication and general research methodology. Each student is expected to present a short talk, give a mini lecture, review a conference paper, write a literature survey and critique fellow students' talks and lectures.

What are we going to learn?

By the end of this course, you should be able to read the following learning outcomes and proudly say "I can do that":

- 1. Critically review and evaluate academic literature
- 2. Build an annotated bibliography of peer-reviewed literature
- 3. Develop research questions, statements, goals, and objectives
- 4. Communicate research findings through the synthesis of peer-reviewed literature
- 5. Understand the elements of a thesis

How will the course be delivered?

Our course will be delivered face-to-face.

However, we will do whatever we need to do to ensure the health and wellness of everyone in the class (including the teaching team, visitors, and our community partner). With that in mind, each of us needs to remain as flexible and patient as possible during the semester if rising COVID-19 cases (or other public health issues) necessitate moving to virtual delivery of the course content.

Attending every class will improve your chances of successfully mastering the course learning outcomes. However, I realize there may be times when this won't be possible. You are responsible for catching up on any material you missed. This includes in-class and in-lab conversations related to course concepts and deliverables.

If you miss a class, you are responsible for catching up on what you have missed.

You are expected to review course materials before class to ensure our time together is productive.

When are we getting together?

Lecture Tues/Thurs REYN1101

11:30 AM - 12:50 PM

What skills should we have before we take this course?

Students enrolled in CIS6890 are expected to have the desire to improve their writing and communication skills, and the ability to work in teams.

What textbooks will we be reading?

Readings and links to other resources will be provided on Moodle. You do not need to buy a textbook. Cost of the materials needed for this course: \$0.00.

Where can we find course materials?

There are a lot of things to cover in this course! But never fear – all course material, news, announcements, and grades will be regularly posted on our CIS6890 website. You can find it here. You must check the website and your University of Guelph email regularly. While other tools (such as Slack, Discord, etc.) might be used and can be super helpful, always refer to the course website for course information, ask the teaching team, or check your uoguelph.ca email.

Email Communication

As per university regulations, all students must regularly check their uoguelph.ca e-mail account: e-mail is the official communication route between the University and its students.

The only reliable sources of information about CIS6890 course deliverables are the teaching team, the course website, and messages sent to your uoguelph.ca email address. While Discord, Reddit, and other social media can be excellent communication tools, you must verify any assumptions about course deliverables with the teaching team. Unverified assumptions about course deliverables can not be used to justify a regrade or reweighting of a deliverable.

Lecture Materials

Slides and other lecture materials will be available on our course website. If we offer a virtual session, it will be recorded and the video will be posted as soon as possible after class. Links to the video will be posted on our course website.

What types of assessments are there?

The course has a variety of deliverables. Each student must submit their own work for any deliverable labelled "Individual Grade". Deliverables that are based on the work of the team will be evaluated as follows:

- A team grade will be determined.
- The team grade will be modified based on peer evaluations to determine your (individual) grade.

If you have questions about any deliverables, please contact the teaching team at least 48 hours before the due date.

I will not reweight deliverables for any reason (except those explicitly outlined below), particularly if those reasons are provided to me at the end of the course. If you have concerns about external factors affecting your ability to succeed in the course, talk to me immediately. It is your job to effectively time-manage all external factors such as part-time or full-time jobs, co-op positions, clubs, sports, or other courses.

Assignments

Assignments must be uploaded to Moodle by 11:00 AM on the due date listed (unless otherwise stated).

- Assignment 1 Ethics Training & Do No Harm
 - Due January 17, 2025 [20%]
 - This assignment is associated with Learning Outcome 1
- Assignment 2 Literature Review & Critiques
 - Literature Reviews are due February 7 February 14, 2025 [10%]
 - Critiques are due February 14 February 25, 2025 [10%]
 - o This assignment is associated with Learning Outcomes 1, 2, and 4
- Assignment 3 Presentation & Critiques
 - Presentations will take place in class on March 4th and March 6th [10%]
 - o Critiques are due March 5 and March 7, 2025 [10%]
 - This assignment is associated with Learning Outcomes 1, 2, 3, and 4
- Assignment 4 Poster Session & Critiques

- Poster Session will take place in class on March 18th and March 20th [10%]
- Critiques are due March 19th and March 21st [10%]
- o This assignment is associated with Learning Outcomes 1, 2, 3, and 4
- Assignment 5 Literature Review II & Thesis Outline & Critiques
 - Literature Review & Thesis Outline are due March 28th [10%]
 - o Critiques are due April 4th [10%]
 - o This assignment is associated with Learning Outcomes 1, 2, 3, 4, and 5

Research must be peer-reviewed. As such, part of your grades for most assignments will include an assessment of the work you have personally completed, but also an assessment on critiques you provide to your peers.

Copies of Out-Of-Class Assignments

Keep paper and/or other reliable backup copies of all out-of-class assignments: you may be asked to resubmit work at any time.

What happens if something is missed?

Missed Assignments

If you do not submit an assignment on time or within the penalty period, it will automatically be assigned a grade of 0. See "What if I need more time on an assignment?" for more details about extension requests.

What happens if something is late?

If you submit an assignment late, it will be subject to the following late penalty policy:

- If an assignment is submitted up to 2 days late, there will be a 10% penalty.
- If an assignment is submitted between 2 and up to 4 days late, there will be a 25% penalty.
- If an assignment is submitted between 4 and up to 7 days late, there will be a 50% penalty.
- If an assignment is submitted more than 7 days late, it will receive a 0.

You will be asked to resubmit if you fail to submit your assignment properly. The late penalty will be applied to work that is resubmitted.

You are expected to manage your time wisely. Requests to reconsider late penalties due to poor time management or failing to follow instructions will be ignored. External factors - including but not limited to, part-time or full-time jobs, co-op positions, clubs, sports, or other courses - have set schedules that you will know well in advance. This document and the course website provide due dates for all relevant deliverables. It is your responsibility to manage external and course-related due dates effectively.

What if I need more time on an assignment?



I understand that external factors can affect your ability to complete your assignments on time. If you are in this situation, you can request an extension up to 48 hours before the assignment due date. All extension requests must be made via our course website. You will receive a notification about your extension request via our course website. Extension requests made less than 48 hours before the assignment due date will not be considered and the late penalty policy will apply. Situations that typically warrant an extension are those that are unexpected.

You are expected to manage your time wisely. Extension requests made due to poor time management or failure to follow instructions will be ignored. External factors - including but not limited to, part-time or full-time jobs, co-op positions, clubs, sports, or other courses - have set schedules that are set well in advance. This document and the course website provide due dates for all relevant deliverables. It is your responsibility to manage external and course-related due dates effectively. Extensions based on jobs or other courses will not be granted as these are not unexpected.

What happens if something needs to be regraded?

If you believe a deliverable is graded incorrectly, present your case (via the regrade request form found on the course website) to the teaching team. All regrade requests must be made within 5 days of receiving feedback (including weekends) on the deliverable you would like regraded. All regraded material will be completely regraded. This could result in your grade being reduced. Regrade requests will be added to a queue and processed as quickly as possible. Please be patient.

Please refer to <u>Resolution 1 of the University of Guelph's grading policy</u> before requesting a regrade.

What if I need to drop the course?

Courses that are one semester long must be dropped by the end of the last day of classes; two-semester courses must be dropped by the last day of classes in the second semester. The regulations and procedures for Dropping Courses are available in the Graduate Calendar.

Can we use ChatGPT or similar AI tools?

The short answer is no. The long answer is also no. Any course deliverable or part of a course deliverable submitted for grading that the teaching team suspects has been developed/produced using AI tools will be processed in the following manner:

- The entire deliverable will immediately receive a grade of 0.
- Within 2 days of receiving deliverable feedback, the student or team must schedule a meeting with the instructor. The meeting must take place within 10 days of receiving deliverable feedback.
- The student or team will have to complete an oral exam to verify their understanding of the course concepts covered by the deliverable.
- A grade will be assigned by the instructor based on the oral exam.

Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offenses from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offense should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is outlined in the Graduate Calendar.

You should watch this video to understand Academic Integrity within the School of Computer Science.

Including the work of others

In particular, it is your responsibility to accurately and clearly indicate the work of any contributing people, including yourself, in all presented and submitted materials. By handing in any work for this (or any) course, unless you have specifically identified any other authorship, you are claiming that the sole authorship is your own. Including work from any other person without directly indicating the source of such work constitutes academic fraud. As long as the true authorship of all materials is clearly indicated, you will never have a problem with plagiarism.

Requesting grades based on personal circumstances

Grades are given based on demonstrated proficiency in the course material. Personal circumstances may interfere with opportunities to demonstrate this proficiency. Course accommodations in terms of adjusted or alternate methods to demonstrate proficiency may be arranged, WELL IN ADVANCE OF DUE DATES with SAS or the course instructor. Please discuss these at the earliest possible opportunity if the need arises. Personal circumstances NEVER result in a change of grading after the fact, under any conditions whatsoever. Requesting a change to a grade based on personal circumstances is a type of academic fraud, and will be referred for discipline under academic misconduct.

The consequences of any type of academic fraud at the University are significant, and all cases that arise are submitted to the Dean's office for judicial review.

If you have any questions about what academic fraud such as plagiarism entails, or about any other forms of academic misconduct, please ask your course instructor, the library, or any other faculty. We will be quite happy to help you understand this important concept.

All academic misconduct will be referred to the Dean's office for action. If you are unsure whether some activity is academic misconduct - ask!

Discomfort Statement

Learning isn't always easy. It is often challenging and uncomfortable. As the instructor of this course, my job is to challenge you to help you learn, develop, and master the skills identified in the learning outcomes (among others). Some of our conversations and learning will be easy for

you. Some of it might not be. When it's not, I ask that you continue to engage. Ask questions. Identify assumptions or biases you might have. Be open to new ways of understanding the world. And importantly, learn to be comfortable with being uncomfortable.

Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway. Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to make a booking at least 10 business days in advance, and no later than the first business day in November, March or July as appropriate for the semester. Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

More information: www.uoquelph.ca/sas.

Accommodation of Religious Obligations

Accommodation of Religious Obligations: if you can't meet an in-course requirement due to religious obligations, please email the course instructor within two weeks of the start of the semester to make alternate arrangements.

See the Academic Calendar for information on regulations and procedures for Academic Accommodation of Religious Obligations.

What will we learn during the lectures?

The following is a list of potential topics that we will cover during the course (in class, in lab, or as part of a quiz). Please note that the order may vary, depending on various factors.

We	eek	Topics Covered (order/content may vary)
1	1	Course Outline, Research Ethics & Do No Harm Use of AI in Research (with Dr. Kurtis Sobkowich)
2	2	Critiquing Academic Literature Data Management (with Lucia Costanzo)
3	3	Research Statements Annotated Bibliographies (with Jaqueline Kreller-Vanderkooy)
۷	1	Literature Reviews Working with LaTeX
5	5	Data Management Scientific Outreach
ć	6	Designing A Presentation
		READING WEEK
7	7	Designing A Poster
8	3	Presentations
ç	9	Drafting a Thesis Academic Responsibilities
1	0	Poster Session
1	1	Writing
1	2	Peer-Review

Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

What if we aren't feeling well?

While your health and wellness are always important, it is essential in this class and to me. I want you to put yourself first this semester. We must do whatever we can to support each other, our family, friends, and the community. With that in mind, we must work together, practice patience and empathy, and remain honest about our needs. Only then can we foster and promote a safe, supportive environment, and good physical, emotional, spiritual, cultural, and mental health and wellness for everyone.



If you are sick, heartbroken, or exhausted, get rest, reach out to someone, and take whatever steps necessary to get well.

Work is not more important than your health.

-Dr. Max Liboiron

Health and Wellbeing

The University of Guelph provides a wide range of health and wellbeing services at the Vaccarino Centre for Student Wellness. If you are concerned about your mental health and not sure where to start, connect with a Student Wellness Navigator who can help develop a plan to manage and support your mental health or check out our mental wellbeing resources. The Student Wellness team are here to help and welcome the opportunity to connect with you.

Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, ID #, and e-mail contact. See the Graduate Calendar for information on regulations and procedures for Academic Consideration.

If you are experiencing challenges, please do not hesitate to contact me, and know that there are resources on campus to help you.

- Medical concerns? Student Health Services at x52131
- Threats of violence, personal safety? Campus police at x2000
- Psychological or emotional concerns? Counselling services at x53244
- Accessibility concerns? SAS at x56208
- Sexual assault? Campus police at x2000, or counselling services at x53244
- Mental Health concerns? Please see the Mental Health Resources page <u>here</u>.
- Student Wellness, Monday to Friday, 8:30 am-4:30 pm, x52131, J.T. Powell Building
- Counselling Services, Monday to Friday, 8:15 am-4:15 pm, x53244, Level 3, University Centre
- Campus Safety Office, 24/7, x2000, Trent Building
- Good2Talk, 1.866.925.5454
- Here 24/7, 1.844.437.3427

Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.