Communication in the Sciences (ENGL 193)
Winter 2020
TTh 11:30 AM – 12:50 PM for ENGL 193-018 (Physical)
TTh 1:00 PM – 2:20 PM for ENGL 193-008 (Life)
Hagey Hall 227

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Course Description
In this course you will learn about effective written, oral, and visual communication in the life or physical sciences. You will have the opportunity to shape these communication skills through interactive design processes that emphasize attention to your audience, the purpose of your communications, and student agency. You will work individually and collaboratively to craft messages for internal and external audiences, including scientists, government stakeholders, affected communities, or broader publics. You will learn a variety of genres such as research reports, grant proposals, conference abstracts, conference posters, public talks, blog posts, and podcasts. Overall, this course will help you enhance your capacity to conduct research and report research findings, communicate ethically, and thereby effect important change.

Course Goals and Learning Outcomes
Communication is essential for scientists, and scientists communicate in many different ways for many different audiences. In this course we will introduce you to a variety of ways scientists communicate, giving you the basis to begin sharing the importance of science in more tailored, concise and effective messaging.

Upon completion of this course, you should be able to:

• Design, draft, and persuasively deliver scientific communications to expert and non-expert audiences;
• Justify decisions about language, content, and genre used when communicating scientific information;
• Practice collaboration and peer review in support of iterative communication design processes, including revision;
• Practice research processes to find, assess, document, incorporate, and cite research resources and communicate research findings;
• Describe and appraise the purposed and ethical concerns of science communication.

Readings Available on LEARN
All readings available on LEARN. There is no course textbook in this course.
Course Requirements and Assessment
In this course, a passing grade is 50%. You will need to complete the following assignments and activities and, due to the importance of revision and process in writing and communication design, there is no final exam.

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<th>Assessment</th>
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<tr>
<td>Report: State of Science</td>
<td>20%</td>
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<tr>
<td>Grant Proposal: Crowdfunding your Research</td>
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<tr>
<td>Public Communication: Oral Presentation</td>
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<td>Poster Presentation</td>
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<tr>
<td>Contribution (discussions and peer review)</td>
<td>20%</td>
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<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Here is the perhaps strange thing about this course: every assignment is going to involve the same narrow scientific topic. The trick is you’re going to present that topic to a bunch of different audiences. It might be to other scientists, it might be to non-scientists who are just interested in learning about your research, or it might be to people who will give you money to complete your research. I have provided a list of articles and topics that can be used, and I have developed this list in consultation with faculty members in science. If you’d like to choose another topic, you’ll have to have it approved by the course instructor.

Contribution Evaluation
Contribution isn’t just showing up. Think of this as an evaluation of some aspects of interpersonal communication. Generally, the expectation is that you treat the classroom as a professional space and your peers as your colleagues. Additionally, your participation in the Skills Identification and Articulation Workshop will be measured as part of your contribution grade.

100 points–Exceptional: Frequent, substantive, formative, and original contributions to class discussions; consistently engaged and participatory demeanor; outstanding peer feedback.

90-99 points–Excellent: Only minor exceptions to the criteria described above.

80-89 points–Good: Regular contributor to discussions; consistent engagement; good peer feedback.

70-79 points–Satisfactory: Occasional contributions and inconsistent engagement; good peer feedback.

60-69 points–Marginal: Minimal contributions and/or significant lack of engagement.

< 60 points–Failure: Repeated disruptive, inappropriate, or unethical behaviour; behaviour disrespectful to others; consistent lack of commitment and/or effort.

Assignments Overview
It’s a little early for original research, so we’re going to begin with getting you up to speed on a particular research topic. You will choose an article from the approved list and you will work with this article for the entire term. You’re going to summarize it, present it to expert and public
audiences, write about it, and tear apart this article. Imagine you’re a Research Assistant (RA) and this will be the work you’re learning about for the term you are hired on.

**Report: State of Science**

Your first assignment will be a report on the state of science described in the article you have chosen. Your goal is to understand what research is presented in the article you have chosen and how it is situated in a broader research effort. Who else is working on this topic? What are they saying? What is the significance of the article that you have chosen for this research topic? First, you will want to read and re-read your article. You will need to know the general field, the topic of the article, and why that topic is important. Your report will contain the following sections:

*Student Researcher Bio*

Write yourself a biography. This should be no more than 120 words and should include your name, degree title, areas of research interest, and any other awards or notable achievements you’d like to share. Remember, a biography should have a friendly tone and should help people identify you as an expert so it should be tailored to your field.

*Abstract of the article*

You will write an abstract in your own words for the research article (~200 words). Although the article will have its own abstract in almost every case, your job is to write your own version of an abstract. While there are general ideas that need to make it in, there is no one way to write an abstract and, often, abstracts are poorly written so this is a chance to improve! Still, the following resources provide useful guidelines for producing effective abstracts: U of Toronto Writing Advice (http://advice.writing.utoronto.ca/types-of-writing/abstract/), UNC-CH's Writing Center (https://writingcenter.unc.edu/tips-and-tools/abstracts/), CMU Abstract Advice (https://users.ece.cmu.edu/~koopman/essays/abstract.html), and the Indian Journal of Psychiatry Guidelines (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3136027/).

*Article Overview*

Using the IMRaD format, summarize the findings of the article in a page or two. Don’t worry about using particular jargon. The key here is for you to explain in a complete and understandable way the key points for each section. You may find Swales’ CARs model and Toulmin’s model of argumentation useful for writing this section of your state of science report.

*Grant Proposal: Crowdfunding your Research*

For this assignment you will create a crowdfunding proposal on the same topic as the article you chose to write your State of Science Report on. Your crowdfunding proposal will have the section headings that typical crowdfunding proposals have. The budget numbers will, of course, be estimations, given that you don’t know the exact prices for items required to do the study that your State of Science article describes. Similarly, your Methods section (Experiment.com has them) will describe what you propose do, even though your article will have already done it. In sum, you propose that the research in your article is your own and that no one else has done or is doing anything like it.

To do this, first choose an appropriate platform for the kind of work you’re doing. In most cases, if you want to fund a scientific project, you might use Experiment.com. But you can also use
Kickstarter.com, or similar platforms. Just be sure you have a good rationale for why you’ve chosen a particular platform to try to fund your research.

Once you’ve chosen a platform you should look at all the different components involved, including the proposal, images in the proposal, rewards, etc. See, for example, the proposal on Experiment.com related to science communication classes: https://experiment.com/projects/can-we-empower-science-students-with-communication-skills-by-eliminating-the-barriers-of-time-and-expertise?s=discover. You’ll not the need for several sections, e.g., Overview, Methods, Lab Notes, and Discussion. There is also a budget in the proposal, context for the research, significance of the project, goals, project timeline, and so on. What will you need to craft to complete your project? You don’t need to actually create your project on the platform you choose. Instead, you can mock up a draft in your word processor. Do your best to approximate the design, although it doesn’t need to look exactly as it would if you posted your materials online.

You will also include a short paragraph identifying your audience and outlining a dissemination plan. How will you get folks to fund you? Include this paragraph on a separate title page in your submission, along with your name, platform decision, and any information you think I should have about why you chose the project or platform that you did (e.g., this is a project you’re actually hoping to crowdfund). You should be sure that your assignment is:

- About 2-3 pages in length,
- Single-spaced,
- 12-point font, and
- Emulates the format of a crowdfunding proposal (as best as you can approximate in MS Word or similar programs).

**Public Communication: Oral Presentation**

Congratulations! You successfully crowdfunded your research and completed all of your work on time. Now you’re ready to report the results. You’ve been invited to give a talk at your local library about your work. Your audience could be anyone: other scientists, people interested in your topic, students, families looking for an educational opportunity, etc. Demographics include a range of learners and you’re going to have to figure out how to communicate your complex subject to a wide audience.

You will first need to decide what aspect of your topic you think will appeal to your audience. What is particularly interesting about your work and what do you most want to share with others? Then you can begin the hard work of planning a talk. You will want to figure out how much you can cover in just 5-7 minutes! It isn’t a long time to talk so you’re going to need to be selective about what you cover. Prepare a slideshow or some other kind of multimedia to use during your talk. If you would rather not use media to support your talk, that is okay, but you’ll want to think about performative aspects of how you’ll tell your story. Are you able to modulate your voice, do you have vivid metaphors to describe abstract concepts, and does your story follow an arc with a powerful conclusion? All these aspects should be included in everyone’s talks, but it is a challenge to do well without any supporting materials. You should be sure that your presentation is:

- Less than 7 minutes long,
- Polished and practiced, and
Aimed at a wide audience with different kinds of expertise.

Criteria for Evaluation:

- Clear topic with a narrow focus.
- Well-organized (arrangement!) presentation with a clear narrative arc.
- Clear statement of purpose, following the CARS model.
- Biography (if you have one) or listing only your research article citation.
- Technical presentation (well designed, well formatted, consistent fonts, attractive and memorable graphics, etc.).
- Delivery is well prepared, with good eye contact, clear enunciation, enthusiasm, natural gesturing.

**Poster Presentation**

Did you know there are often prizes for the best poster presentation by students at academic conferences? Fame, fortune—a CV line, posters are prized among many scientific disciplines to communicate your research at annual conferences in your field. The prizes signal something important: we care about how well you’re able to present your findings. Work in the lab or on the bench doesn’t mean a whole lot until you can share it with others, and it is that sharing of findings that propels science forward. Posters, however, are a real challenge because they bring together almost every model of communication you need to master: written communication, visual communication (particularly representing data), oral communication in your short explanation of your research, and even interpersonal communication as you answer questions and possibly develop collaborations. All term you’ve been working on different aspects of these forms of communication. It’s time to bring it all together.

At North Carolina State University (in the USA), a handy introduction to poster presentations has been developed and I recommend you begin there: [https://projects.ncsu.edu/project/posters/](https://projects.ncsu.edu/project/posters/). We will take up similar points in class, but what you will need to do is a little homework on your own discipline. Are there posters in your field in the halls outside your labs? What is included (what seems to be excluded)? Are there great visual representations of data? Find some exemplars and be prepared to share them with the class (snap a photo!).

Prepare a poster based on the research article you have chosen to use in this course. You can imagine your a research assistant tasked with presenting your PI’s research at an annual conference. In addition to the poster itself you will write a short summary script of the research you will memorize and present when someone asks about your poster. You will also write a one page design rationale that includes a justification for your focus, your design decisions, and that explains the importance and visual significance of any graphics you include.

You should be sure that your poster is:

- Written for a poster format and not a direct quote from your State of Science Report.
- Focused on a particular issue in the research that you’re summarizing.
- Includes graphics such as related images or visual representations of data.
- Polished and free of errors.

Criteria for Evaluation:

- Clear topic with a narrow focus.
Well-organized poster that uses the IMRaD model.

- Clear statement of purpose, following the CARS model for the introductory paragraph.
- Technical presentation (font a readable size, visuals well-placed and credited, tables and figures labeled, references formatted according to your disciplinary citation style such as CSE, AIP, or ACS).
- Correct spelling and grammar (including complete sentences).

Course Outline

It is your responsibility to email me in advance regarding any confusions you might have about due dates. See LEARN for detailed weekly readings. The schedule below is subject to change.

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<th>Wk</th>
<th>Date</th>
<th>Topic/Activities</th>
<th>Readings/Due</th>
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<tr>
<td>1</td>
<td>Jan. 7 (Tues.), Jan. 9 (Thurs.)</td>
<td><strong>Genres of Science Communication</strong>: In the first week of classes we will discuss the idea of genre in rhetorical studies. You will be introduced to this concept through a series of examples of genres in science communication, from popular genres such as TED talks about science to professional genres such as the research article. Putting this into practice, we will look at and/or discuss your resumés as an example of a genre, and then explore how genres actually function together (e.g., the cover letter and resumé responds to the job call, and connects to an interview).</td>
<td>Reading: Genres in scientific and technical rhetoric</td>
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<td>Review syllabus, discuss course objectives, assignments.</td>
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<td>2</td>
<td>Jan. 14 (Tues.), Jan. 16 (Thurs.)</td>
<td><strong>Argumentation—Collecting your Evidence</strong>: Arrangement is one of the core concepts in rhetoric, and builds on our discussion of genre. Arrangement of an argument helps you understand how to stage your ideas. We will discuss how to anticipate the information your audience will need, what information they will already have, and how you can build the argument you need to make with respect to your anticipated audience. This week we will spend time finding an article and breaking down the steps used to make the argument (to be reused in your State of Science Report).</td>
<td>Reading: The importance of stupidity in scientific research.</td>
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<td>Due for peer review: Short 120-word bio as discussed in class.</td>
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<td>3</td>
<td>Jan. 21 (Tues.), Jan. 23 (Thurs.)</td>
<td><strong>What Counts as Evidence</strong>: We further explore how to situate an argument in a particular genre. Specifically, we investigate how to 1) situate one’s argument in a current research conversation, and 2) how to frame evidence, such as data. A visit from the Science Liaison Librarian addresses the topic of critical appraisal, the process of systematically evaluating information to judge it’s trustworthiness, value, and relevance in a particular context. The librarian will also describe research expectations and bias within the academic context and uses a sample article on the topic of wearable fitness trackers as a focal point to help you practice using the RADAR framework for evaluation. This will also be a</td>
<td>Reading: How to (seriously) read a scientific paper; Check for publication integrity before misconduct</td>
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<td>Summarize the article chosen for the State of Science Report;</td>
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<td>Date</td>
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<td>Jan. 28</td>
<td>Tues., Jan. 30</td>
<td>Research Reports—State of Science: With the conceptual frameworks established to understand there are different kinds of writing in the sciences (i.e., genres), particular strategies to make an effective and logical argument (i.e., arrangement), and particular forms of evidence expected to support a situated argument (i.e., evidence), we will now focus on putting this together in a particular genre of science communication: the research report. To do this, we will explore linguist John Swales’ work on the Introduction, Methods, Results, Discussion (IMRaD) model, and his Create a Research Space (CARS) model. These two models give us a way to map the typical form of a research report or a research article in the sciences, and it applies to both physical and life sciences. IMRaD describes the form of an overall report or article, and CARS is a set of moves found in introductory sections (establish a territory for the research, a gap in the research, and then explain how you’re going to address the gap).</td>
<td>Readings: Infographic: How to read a scientific paper; Swales CARS model</td>
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<td>Feb. 4</td>
<td>Tues., Feb. 6</td>
<td>Grant Proposals—Crowdfunding your Research: Increasingly research doesn’t happen without securing external funds. This week explores the task of writing a grant application. Introducing the concept of a grant, how different kinds of grants function in the Canadian academy, and what grants students can actually apply for (e.g., NSERC Undergraduate Student Research Awards), this week is a crash course in grant writing. Crowdfunding proposals will serve as an exciting and accessible example. Experiment.com is a rich resource for students to find examples tailored to science, and all the basic elements one might find in a traditional proposal are included in crowdfunding proposals, such as budgets, biographies, and, of course, the proposal itself. Using crowdfunding also allows, and demands, we talk about the kind of audience one might have for a proposal (it is an academic multidisciplinary panel, as in traditional grants, or a complex ground of academic and publics giving us their own money, as in crowdfunding. How do we write differently for those audiences?</td>
<td>Reading: Crowdfunding article; Secrets to writing a winning grant</td>
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This week we will identify forms of evidence in the article chosen for your State of Science Report.

Library visit (Jan. 23).
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<td>Feb. 11</td>
<td><strong>Scientific Visuals and Visualization</strong></td>
<td>Visuals and visualization are another mode of communication that is crucial to scientific research. We will explore the different ways that visuals can operate across genres of science communication. As well, we will explore issues of data visualization and anticipate questions of ethical concerns in addition to readability and clarity. In-class analysis and discussion of visuals in your research articles. Wishing you all a Happy International Women and Girls in Science Day, Feb. 11: <a href="https://www.womeninscienceday.org/">https://www.womeninscienceday.org/</a></td>
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<td>Feb. 18</td>
<td>Mid-Term Study Break.</td>
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<td>Feb. 25</td>
<td><strong>Skills Identification and Articulation Workshop</strong></td>
<td>The <em>Skills Identification and Articulation Workshop</em> helps you identify the skills you are developing throughout your undergraduate career. After completing this workshop, you will become better able to recognize your skills and develop strategies for expressing these to target audiences (e.g., to potential employers in job interviews). The workshop was developed and will be facilitated by a Career Advisor from the Centre for Career Action. It has been tailored to this course, so as to help you gain a deeper understanding of how class activities and concepts can be applied in various employment and professional contexts. If you are actively pursuing the EDGE certificate, or wish to pursue the program in the future, you will receive a milestone for participation in the workshop.</td>
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<td>Feb. 25</td>
<td><strong>Public Communication of Science</strong></td>
<td><em>Public Communication of Science</em>: While many opinions exist on how we communicate science to publics, we’re going to throw a lot of them out since they often rely on the so-called deficit model. This model assumes a deficit of knowledge on the behalf of your audience (the public). If you could just fill them up with the correct knowledge—presto!—they think just like you. No longer do anti-vaccine proponents debate you, no longer is there a push to “teach the controversy,” and who would even dream of suggesting the Earth is flat? The problem with the deficit model of science communication, particularly in controversial cases,</td>
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<td><strong>Reading</strong></td>
<td>Need for effective science communication; Science communication, digital media, and the human voice; What it takes to give a great presentation Working on public presentations (In-class peer review).</td>
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is that the point of contention isn’t agreed upon. Throwing data at the controversy just doesn’t work. What works will depend, and we’ll talk about tools to help you better engage in communication of both controversial and non-controversial science with broad publics. And, if you’re wondering just what the heck "publics" means, this is lesson #1: you have a lot of different public groups with different views, needs, etc., so understanding their complexity lets you understand your actual audience. We’ll take up Jeanne Fahnestock’s important work on “accommodating” science for different publics, and look at some other strategies for thinking about science in public discourse and debate.

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<th>Readings</th>
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<td>8 Mar. 3</td>
<td>Public Engagement: Science communication is changing, and these changes have generated critical discussion around the ethics of science communication. Often we talk about how to communicate research ethically and seriously to engage broader publics in science. An increasingly popular way to do this is through citizen science. Unlike traditional consultation models (town halls, public forums, etc.; see, e.g., India’s Bt brinjal debate or British Columbia’s Site C controversy), citizen science brings everyday people into science not only to advance research, but to ensure research aids in civic discussion. This is a highly important turn and scientists in every discipline, from ecology to physics, are leading the charge with projects such as Galaxy Zoo to the protein-folding game Foldit to the, remarkably longitudinal (over 100 years!) Christmas Bird Count. PLOS Citizen Sci (read a post and be ready to report back to class); or find another example of citizen science engagement (e.g., Foldit) or town halls (e.g., C site).</td>
<td>Science’s Next Frontier? It’s Civic Engagement; Scistarter; Zooniverse</td>
<td>Crowdfunding proposal; Continue working on public presentations (In-class peer review).</td>
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<td>9 Mar. 10</td>
<td>Public Engagement, Continued.</td>
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<td>In-class oral presentations.</td>
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<td>Public Communication—Oral Presentations: It’s your turn this week and next. Everyone will present on their research articles to a public audience. You can find details in the assignment descriptions, but the real trick here is to focus on engaging your audience. You love science: let them know it and invite them to join you. If you’re in the audience, you’re not off the hook. Show your support for your colleagues and your love of science by not only showing up, but being prepared to ask engaged questions and provide either support or suggestions. Sign up: <a href="https://docs.google.com/document/d/1gBdy8RMXPO_nGei-0GW0M0iJurk1zQG12A-2CBkgN38/edit#">https://docs.google.com/document/d/1gBdy8RMXPO_nGei-0GW0M0iJurk1zQG12A-2CBkgN38/edit#</a></td>
<td>Presentation Outlines and Overheads.</td>
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<td>Date</td>
<td>Mar. 17 (Tues.), Mar. 19 (Thurs.)</td>
<td>Mar. 24 (Tues.), Mar. 26 (Thurs.)</td>
<td>Mar. 31 (Tues.), Apr. 2 (Thurs.)</td>
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<td><strong>Public Communication—Oral Presentations, Continued.</strong></td>
<td><strong>Ethics in Communication Design, Continued.</strong></td>
<td><strong>Research Conference—Poster Presentations:</strong> You’ll be presenting the research you have learned about over the course of the term. The point here isn’t, of course, to present your own research, but to present the research of the paper you’ve studied all term. You’ll have prepared your posters.</td>
<td><strong>Due:</strong> Poster Presentaton Display posters at the Science Communication</td>
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<td><strong>Ethics in Communication Design:</strong> How we communicate to participants in research, how we communicate research findings, and how we choose (or choose not to) involve ourselves as experts in public debate all involve ethical decisions. Researchers at every level take most seriously the way we inform participants about their involvement in our work: we often talk about informed consent—the obvious communication challenge here being certain we are, indeed, informing our participants accurately. How we communicate research findings is also an ethical matter in that we must do so accurately, transparently, and within the norms of our discipline. WEIRD (Western, Educated, Industrialized, Rich, And Democratic) in human-focused sciences, replication problems across disciplines, and the rise of registered reports (a kind of proposal you write for a research journal before you have even run your study, let alone written the article) are all marks of ongoing ethical engagements by scientists at the level of our research design and, importantly for your communication practices, reporting. And, perhaps most obviously, when do scientists weigh in and on what topics? Senior scientists often taken on civic debate; e.g., Carl Sagan to Neil deGrasse Tyson to our own Chris Hadfield and Governor General, Her Excellency the Right Honourable—and, don’t forget, astronaut, engineer, and scientific communicator who has made numerous radio spots—Julie Payette. Sometimes the engagement is about a specific science-based civic matter, such as the Flint Water crisis where Virginia Tech Professor Marc Edwards, an expert in water supply safety and “whistleblowers,” stepped in to aid citizens in their battle for clean water.</td>
<td><strong>Readings:</strong> Death of Expertise; Science communication in the digital age; Call for Justice Based Ethics Finalize posters and pitches for pre-Showcase online peer evaluation.</td>
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and now is your chance to explain complex research findings in a short elevator pitch. 

Showcase (STC).

Late Work
I will not accept late assignments if you were not granted an extension. To be granted an extension, you must have a compelling reason (e.g., medically documented illness). If you know you will need an extension, speak with me at least 48 hours prior to the due date. Should your grades concern you then you must speak with me within the first 3/4 of the term; the last quarter of the term will not provide sufficient time to markedly improve your final grade. Finally, I will not grant an incomplete in the course; if you have concerns about completing your term, please write to me as soon as possible.

Academic Integrity
In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. See the UWaterloo Academic Integrity webpage and the Arts Academic Integrity webpage for more information.

Discipline
A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71–Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline. For typical penalties check Guidelines for the Assessment of Penalties (https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/guidelines-assessment-penalties).

Grievance
A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4 (https://uwwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70). When in doubt, please be certain to contact the department’s administrative assistant who will provide further assistance.

Appeals
A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72, Student Appeals (https://uwwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-72).

Students with Disabilities
The AccessAbility Services office, located on the first floor of the Needles Hall extension (NH 1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you
require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

**Writing and Communication Centre (WCC)**
The Writing and Communication Centre (WCC) works with students in all faculties to help you consider your audience, clarify your ideas, develop your voice, and write in the style appropriate to your discipline. WCC staff offer one-on-one support for writing papers, delivering presentations, citing research, and revising for clarity and coherence. Group appointments for team-based projects, presentations, and papers are also available.

You can pre-book appointments with WCC staff, or drop in at the Library for quick questions and feedback from WCC peer tutors. To book an appointment and to see drop-in hours, visit [https://uwaterloo.ca/writing-and-communication-centre/](https://uwaterloo.ca/writing-and-communication-centre/). Please note that communication specialists guide you to see your work as readers would. They can teach you revising skills and strategies, but will not change or correct your work for you. Please bring hard copies of your assignment instructions and any notes or drafts to your appointment.