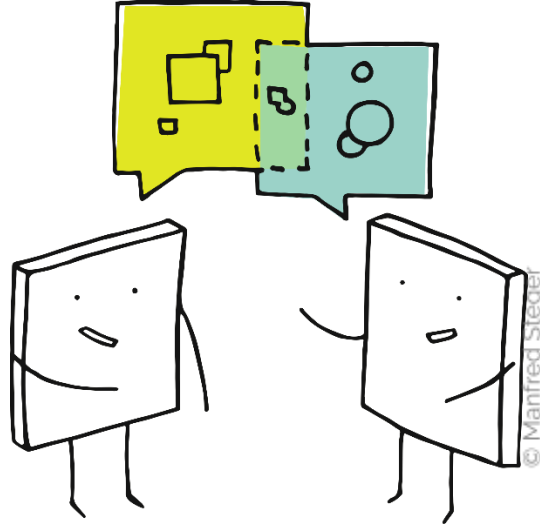


# Spring 2025 Science Communication Course



ZOO 4200 and ZOO 5290  
Spring 2025 | 3 credits | Online-only

Synchronous lab session: Wednesdays @ 9:00-11:50 am [via Zoom](#).

**Instructor:** Professor B (aka Professor Bethann Garramon Merkle) | [bmerkle@uwyo.edu](mailto:bmerkle@uwyo.edu)

Student coaching/support hours:

- Tuesdays, 1:00-2:00 pm; online via [zoom](#) (different link than class sessions)
- By appointment -- lots of flexibility to meet with you, just pop me an email!

**Teaching Assistant:** Mary De Aquino | [mdeaquin@uwyo.edu](mailto:mdeaquin@uwyo.edu)

Student support sessions:

- Wednesdays from 3:00-4:00pm via [this Zoom link](#)
- By appointment- send TA an email to set-up a meeting

**UWyo Tech Support:** [uwyo.edu/infotech/](http://uwyo.edu/infotech/)

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## Welcome!

I am excited to embark on this journey of writing, thinking, and communication with you! This won't be your typical academic experience. While you will do research, present arguments, and think carefully about how an audience will respond, you won't write standard academic research papers, and you won't be writing just to your course instructors.

Instead, this course is framed around applying the central principles of science communication (see page 4 for a definition of science communication, aka scicomm). In this course, you will gain first-hand experience communicating inside and outside your discipline. Collaboration and engagement through visual, written, and oral communication is how we learn about, connect with, inform, and affect change in the world.

This course is predicated upon a widely held (though not unanimous) interpretation of the social contract scientists have with society – that is, that we as scientists have an obligation to engage with (not just talk at) those beyond our discipline. Regardless of your ultimate career ambitions or career

paths, engaging with and listening to people inside and beyond your field is critical to professional and civic success.

This semester, you will continuously create, interpret, and share your writing, research, and thinking about how science impacts what we think, what we do, and how we do it. Throughout this course, you will push the boundaries of your creativity and critical thinking, assets for any professional, any citizen.

What we're going to work on together won't make for the easiest class you've been in. But that's okay. Authentic learning requires that we take risks, make mistakes, and learn from our experiences. Learning also requires flexibility, repetition, and exploration on our way to mastering skills and knowledge. For this class, we will all strive to contribute to a positive and comfortable learning environment for one another. This includes respecting and actively engaging with the people, ideas, topics, and issues in our course.

I really can't wait to get started! Thanks for collaborating as we all together use this course to enhance our science-related communication skills!

*~Professor B*

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## LEARNING ENVIRONMENT

To support your efforts, this course, including affiliated online spaces, supports an inclusive environment that respects the dignity of every person regardless of faith, heritage, sexual orientation or other expression of human identity and difference. In this learning community, we will welcome discourse and intellectual critique but reject harassment in all its forms. The instructors have the right to dismiss you from the classroom, study sessions, electronic forums, and other areas where disruptive behavior occurs. If you have questions about how this works, how to contribute as a student to this approach to a learning community, etc., do feel free to reach out to us. I am happy to share what we know of for resources, etc. We will also work together on the first day of class to establish shared expectations for how we support each other and learn together.

Furthermore, the University of Wyoming’s policy on classroom diversity is: “The University of Wyoming values an educational environment that is diverse, equitable, and inclusive. The diversity that students and faculty bring to class, including age, country of origin, culture, disability, economic class, ethnicity, gender identity, immigration status, linguistic, political affiliation, race, religion, sexual orientation, veteran status, worldview, and other social and cultural diversity is valued, respected, and considered a resource for learning.”

### Intellectual Risk-Taking & Safe Learning Environment

Authentic learning requires that we take risks, make mistakes, and learn from our experiences. Learning also requires flexibility, repetition, and exploration on our way to mastering skills and knowledge. In this class, we will all strive to contribute to a positive, productive, and safe learning environment for one another. This includes respecting and actively engaging with the people, ideas, topics, and issues in our course. See Inclusive Learning Community statement (above) for details.

## Indigenous Land Acknowledgement

The University of Wyoming sits on land in the traditional territory of the Arapaho, Cheyenne & Lakota cultures. These are lands impacted by the still-disputed Cession 426 and the 1851 and 1861 Treaties of Fort Laramie. More recently, the Eastern Shoshone were also relocated to this region. I acknowledge my presence here as a descendent of Dutch settlers and associated colonial practices. Where possible, I work to counteract ongoing colonialism, in part through working to learn how to be a respectful guest in this place. In particular, acknowledging the traditional cultures of this place is not enough on its own. Indeed, "Moving beyond territorial acknowledgments means asking hard questions about what needs to be done once we're 'aware of Indigenous presence'" (Vowel 2016). We may sometimes find ourselves uncomfortable, but we can still work toward concrete change. See this link for information about the importance of land and territory acknowledgements: (<https://native-land.ca/territory-acknowledgement/>) and this link for more on why acknowledgements are only a start (<https://apihtawikosisan.com/2016/09/beyond-territorial-acknowledgments/>).

## Intellectual Acknowledgement & Definition of SciComm

I understand science communication as an umbrella that encompasses engagement, formal and informal teaching, writing, multimedia communications, and more. Science communication is necessarily intersectional and cannot be isolated from urgent social issues of equity, inclusion, and justice for minoritized individuals and demographics. My approach to the science of science communication has been enriched and informed by the intellectual and emotional labor of numerous brilliant scholars and practitioners through their peer-reviewed publications and their inappropriately undervalued contributions to discourse in blogs, popular publications, and on social media. Our syllabus points to some of this work, and I here acknowledge the intellectual foundations provided by many who work in this arena now and have in the past.

## Duty to Report

UW instructors are committed to supporting students and upholding the University's non-discrimination policy. Under Title Nine, discrimination based upon sex and gender is prohibited. If you experience an incident of sex- or gender-based discrimination, you are encouraged to report it. While you may talk to a faculty member, understand that as a "Responsible Employee" of the University, the faculty member **MUST** report information you share about the incident to the university's Title IX Coordinator (you may choose whether you or anyone involved is identified by name). If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are people who can meet with you. Faculty can help direct you or you may find info about UW policy and resources at [www.uwyo.edu/reportit](http://www.uwyo.edu/reportit). You do not have to go through the experience alone. Assistance and resources are available, and you are not required to make a formal complaint or participate in an investigation to access them. To the best of my abilities and what is allowed by UW policy, I will work to connect you to appropriate resources for Title Nine or other discrimination you may experience.

## COURSE OVERVIEW

This capstone course is designed to bring together and refine your experience in written, oral, and digital communication in the biological sciences. To accomplish this, you will spend the semester focused on an issue which you will choose in consultation with me.

This issue will relate to your degree and be an issue that exists in your hometown that you would like to see solved, but you don't know exactly how to solve it. You will research the issue, identify at least one

solution to argue for, and develop a number of related communications products for a stakeholder (ex: client, policy maker, wildlife manager, grant funder) who is able to contribute to the solution you propose.

These communications products will include:

- several project-in-progress products,
- a one-pager, and
- the ultimate output of your project (you have several options which are explained in the major assignments section of the syllabus).

Your project-in-progress products will include drafts and a final version of:

1. an issue report,
2. a one-page summary/overview of your issue and proposed solution which you could send to/give to your stakeholders,
3. informal presentations to your classmates,
4. an annotated bibliography identifying your sources and how you used them, and
5. a proposed action and accompanying implementation plan
6. reflections and a blog post about your experience developing the project.

## Online course structure

- We are together in this online environment because we opted for an online/distance course. However, this may be a novel learning environment for you. Please be candid about what is working for you and what isn't. Ideally, the course will be productive for us all..
- Announcements are the only group communication method used to provide updates and the like. Please check your settings in WyoCourses to be sure you are receiving notifications of announcements from our course. See a WyoCourses help guide on managing your notifications here: <https://community.canvaslms.com/docs/DOC-26683-42121235713>.
- Email correspondence for individual matters is welcomed and encouraged. Similarly, you are welcome to use the inbox/messaging function within WyoCourses to contact and correspond with me. See a WyoCourses help guide on the inbox here: <https://community.canvaslms.com/docs/DOC-10705-67952720333>
- The online course shell is organized into the following sections: Announcements, Assignments, Modules, Grades, and Resources. All content needed for coursework, including assignments, discussions, etc., will be provided within the relevant, weekly module. All assignments should be submitted to their relevant assignment pages. Discussions will be embedded within assignment pages, so they are easy to find.

## COURSE OBJECTIVES

Students in this course will develop and enhance skills in written, oral, and digital communication as appropriate to a graduate-level class. Through classroom instruction, student practice, and peer and instructor feedback, this course emphasizes and progressively develops transferable skills for students' general academic work and future professions. As a course developed for students with a wide range of career goals, this course emphasizes general, professional conventions in writing, oral, and digital communication.

By the end of the course, I hope that you will achieve or make substantive progress toward these goals as communicators:

- Purposefully use and understand the composing process and appreciate the importance of revision.
- Develop an awareness of yourself as a communicator in written, oral, and digital forms so that you can successfully navigate future communicative situations in your field and life.
- Know how to provide and use constructive feedback on a variety of tasks.
- Create a body of personal work which elaborates how your major relates to aspects of daily life, civic engagement, the environment, and/or other topics of interest to you.

You will learn to navigate between technical/scientific writing and popular/public-facing science writing, practice giving effective oral presentations, and practice using digital tools for research and communication during a semester of interactive lectures and individual and group exercises. You will be expected to constructively evaluate your own and your peers' communication skills and to respond to constructive criticism as you improve your own communication skills.

## Time commitment and course credit

The University of Wyoming projects that students should anticipate three hours of work outside class for each credit hour of the course, each week.

We meet synchronously once a week. Some class sessions will not require the full time. The remaining time that you might typically spend in-class in a given week will be occupied by asynchronous activities which you are able to complete on your own.

This structure allows for (a) a lot of schedule flexibility, which students need for all sorts of reasons ranging from caregiving responsibilities, work schedules, athletic training, and more. This structure also (b) enables us to spend time together each week, rather than having a fully asynchronous class. Synchronous time together can help boost a sense of community and help with accountability and meeting deadlines in the class.

At a minimum, you might estimate to invest 3-5 hours per week in the course, outside of our weekly synchronous session. Some weeks, you might need more, others less. This will depend on your time management, your investment in the work you do for the class, and the nature of that week's assignments. At the far end, you might spend 9-12 hours per week on the course, including our synchronous weekly session. If the course is taking you substantially more than that each week, please contact your instructor to discuss.

## Due dates/deadlines

Deadlines will never be on weekends. All assignments are due at 8:00 pm, with a grace period until 9:00 am the following morning. This time/date provides time to review your submission before our next class. It also respects that you have other things to do with your time in the evenings.

That said, previous students in this course highly recommend working ahead, when possible, as several items may be due at the same time. If you wait until they are all due, you will likely experience additional stress.

## Assumptions

We have an extraordinary opportunity here in this class – this is a low-stakes environment where risks and experiments are encouraged, especially compared to the professional communications settings we

work in outside of this course. And, we are effectively our own focus group, available to provide generous, productive feedback on the communications materials we test-drive together. Indeed, I frame this course as structure through which you can practice and stretch your capacity to share science effectively.

However, I understand that this course is not the only thing you have going on - you are an adult with myriad responsibilities and choices to make. As a result:

- **I assume** you are taking this course because **you intend to use your degree in ways that will likely require you to interact with other humans and you want to do that effectively and meaningfully.**
- **I assume that in such interactions you will want to (1) be aware of effective strategies** for communicating with these other humans and **(2) feel confident** in where to find resources to plan and implement communication efforts that effectively reach the humans who are your target stakeholders beyond this course.
- **Therefore, I assume that you expect me to:**
  - **Engage you actively in the process of learning** which enhances your skills and confidence as an effective communicator.
  - **Challenge you to keep your communications efforts focused on what your stakeholders/target audience needs and values** (rather than the ready default of telling them what you want them to know or care about).
  - **Provide you with a range of examples and mechanisms** by which you can explore and practice effective communication through this course.
  - **Be actively interested in your intellectual growth**, both personal and professional, and provide guidance for how to connect that to coursework.
  - **Facilitate an experience that encourages you to see learning and coursework as an opportunity to develop and reflect on transferable skills** that are relevant, even necessary, beyond the classroom and the university.
- **I also assume that you are owning your own learning in this course**, by engaging in the course. This means that you own your own decisions about how fully you engage in the course, including synchronous sessions, online discussions, taking advantage of weekly student drop-in sessions, and doing the work of the course.
- **Above all, I assume that you enter the course (including discussion forums, synchronous Zoom sessions, interactions with classmates and instructors) with a generosity of spirit** rooted in our collective project this semester: to lean on the science of science communication to find and share science-based solutions to problems in our own hometowns. Therefore, I both invite and expect us all to adhere to group expectations which we will define in class on day 1 and which will be considered an addendum to this syllabus.

## Guiding principles

I want you to succeed at learning in this course, and this course is designed to help you succeed. I genuinely trust that everyone in this class can learn to share science effectively and ethically.

This course may not be easy, but there won't be tricks or gotchas. In this course, it should always be clear what you need to do to learn or perform to the level you choose. (And if something's not clear, please reach out for clarification!)

The following principles guide this course:

- Learning isn't a spectator sport. Learning is applying your combined knowledge and lived experiences to build, solve, and grow.
- Learning and fitness are similar. The trainer can't build muscles for you.
- Learning is messy. Students and teachers can take on messy, challenging learning together.
- Learning is about what you can do. Students can and will be encouraged to change, grow, and develop from their existing foundation of knowledge and lived experiences.

## COURSE SCHEDULE

Circumstances may alter the schedule. Changes will be announced asap, in class and/or via a WyoCourses announcement (not by direct emails). Be sure your WyoCourses settings are such that you receive all email updates from WyoCourses regarding this class.

Due dates will never be on weekends. Usually, assignments are due at 8:00 pm, with a grace period until 9:00 am the following morning. This time/date provides time for us to review your submission before our next class. It also respects that you have other things to do with your time. You do not need to contact the instructors if you are submitting during the grace period. Occasionally, assignments will be due at other times, such as Wednesdays, before class. A select few assignments merely must be completed by the time you come to class that week. These are clearly indicated.

In the schedule posted below, the due date is typically the next such day of the week following class/lab. For example, the work listed in Week 1 that is due Monday is due the Monday after Week 1 synchronous lab/discussion class session. Another way to think of this is that work is usually due the Monday before the next synchronous lab/discussion class session.

## WEEKLY COURSE SCHEDULE

- **See course schedule on the course website, [here](#).**
- Registrar's Office official calendar: [uwyo.edu/acadaffairs/calendar/index.html](http://uwyo.edu/acadaffairs/calendar/index.html)
- Assignments are posted in WyoCourses.
- Here is a [deadline-tracking template](#) you can use to keep track of any deadline changes. (Be sure to use pencil or another removable text tool!!!)
- Due dates are usually 8:00 pm with grace period until 9:00 am the following day. Occasionally, assignments will be due at other times, such as Wednesdays, before class. A select few assignments merely must be completed by the time you come to class that week. These are clearly indicated.

## GRADING

**It is my goal for you to feel empowered to learn and grow in this course.** Setting your own goals for the course is one of the first assignments. Periodically, you should check back on those goals and see how you are doing, and whether those goals still articulate your intentions for yourself in this course. This reflection will be built into our assignments and course progression.

**Setting your goals.** To meet the goal of you pursuing your own initiative in this course, you will be reflecting on your own work and self-assessing, in addition to receiving feedback from instructors and peers. assessing your own grade at the end of the semester. Throughout the course, your instructor, your Learning Assistant, and your peers will all be providing on-going feedback about your thinking,

growth, and project. This feedback will be delivered in multiple modes: discussion threads, direct communication (individual emails and meetings, live class discussions, etc.

**Your grade.** Our course shell reads 4200 but it encompasses both the graduate and undergraduate sections of this course. The grade you receive in this shell is your final grade, regardless which course you're enrolled in. (Your transcript will reflect the course you enrolled in.)

**Grade scale.**

- This is a graded course with grading on a linear scale: A: ≥ 90% B: 80-89.9% C: 70-79.9% D: 60-69.9% F: < 60%.
- The course is worth 1000 points, as follows.

pre-/post reflection work	CYOA	participation	final project	total	possible extra credit
15%	10%	45%	30%	100%	3%
100	100	340	370	944	140

- For each assignment, you will receive points based on the following: Incomplete (0%-50%), complete (80%), above and beyond (100%, full points). All assignments can be revised and resubmitted for regrading, according to revision deadlines clarified at the time you receive that grade. Resubmission does not guarantee an improved grade; your work to meet the assignment expectations will still be graded.
- For additional details, see the syllabus section on major assignments.

**Your work will be assessed through these major assignment areas:**

- \*Participation (incl. drafts, work-in-progress assignments, discussions, reflections, and extra credit) (45%) - required components include completing >50% of assignments in this category.
- Pre/post course reflections (survey + writing samples) (15%)
- \*Public-facing final project (issue report, research, planning/implementation, blog post, assessment, and reflection) (30%) - required components include completing the full issue report+action/implementation plan, final presentation, and submitting final project files.
- Choose your own adventure assignments (10%)

There are no exams and no final in this course.

Failure to complete any of the major assignments will result in a half-letter grade deduction per missing project component. Failure to complete components marked with an asterisk (\*) will result in failure of the course.

**PARTICIPATION**

Your participation in class exercises and discussion is critical to the quality of your experience in the course and the success of your fellow students. Make every effort to attend and actively participate in each class meeting. Every week in class, and when you participate in office hours and co-working sessions, you will be responsible for engaging in discussion as an informed, thoughtful, and respectful<sup>1</sup> classmate. Participation expectations for this course are discussed in further detail below.

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<sup>1</sup> See the syllabus section about the inclusive learning environment we all commit to by being in this course together. Expectations for student behavior are detailed there and throughout the syllabus. Please contact me if you have questions or concerns.

### Key components of course participation include:

1. Course assignments and in-class participation: these include discussion threads on course website; active participation in discussions and activities in-class, per the rubric and guidelines below.
2. Reflections, discussion threads, and peer response: Submitting your reflection (and responses to 2+ peers) through the discussion thread assigned for each week's class. I will not directly moderate the thread, and may not respond to your posts every week, but I will learn from them about what you are learning and are drawn to, and that can help me support your work in and beyond this course.

### Participation rubric

Assignments = in-class and out-of-class assignments and activities

element	exceeds (A)	satisfactory (B)	needs work (C)	unsatisfactory (D/F)
frequency	actively balances self and peers' participation	actively participates at appropriate times	sometimes participates, sometimes disengaged	seldom participates; generally not engaged
impact on class	expands conversation in novel, mutually productive ways	frequently helps advance conversation	sometimes advances conversation	does not advance or actively harmful to conversation
listening	holds space so peers are fully included, heard, and engaged	actively and respectfully listens to peers and instructor; does not interrupt	sometimes displays lack of interest or interrupts	projects lack of interest or disrespect for others
preparation	engages beyond what is assigned	fully prepared	sometimes unprepared or superficial prep	little evidence of thought about assigned material
quality	brings in new, relevant material and/or invests in self & peer growth	relevant; reflects understanding of assigned texts & peers' remarks	sometimes irrelevant or betrays lack of prep or lack of attention to peers' remarks	little understanding of, or engagement with, the assignment or peers' remarks

For additional context, a minimum of 3 posts (yours and at least two responses) are expected for discussions online. As a point of good citizenship in online discussions, please keep an eye out for posts by peers that haven't yet been engaged with and focus there. Just as in live discussions, be sure to hold space for everyone and not to dominate the discussion online. Further, postings should be significant and add to the knowledge base in the discussion. Avoid simple statements such as "I agree," unless you build on that in more detail.

### ATTENDANCE GUIDELINES

**Attendance & assignment submissions are up to you.** You are free to choose not to attend a class meeting if your circumstances warrant. You do not need to tell me why you are not/were not in class; that is your own business. You are responsible for classes you miss, and you should contact your coaching group for notes, updates, materials, etc. If you are not in class, you will, of course, not be assessed for participation that day. The same policy applies for completing assignments. Nuances of this policy are detailed below.

**I understand that life happens, and I am happy to be flexible in consideration of that.** However, regular failure to complete assignments (informal or formal) and/or low investment/participation in class will be considered when assigning final grades. If low attendance becomes a persistent issue, a more restrictive policy may be put in place for the entire course.

**You are expected to turn in** drafts of assignments on the dates they are due. If you anticipate being absent, please plan ahead to turn in assignments, etc. I reserve the right to lower your course grade for poor attendance or routinely late work.

Failure to submit assignments on time can result in: 1) limited or no feedback, and 2) a reduction in your grade on that assignment and/or in your final course grade. In extreme circumstances, failure to turn in assignments and/or participate in class can result in failure of the course. If you anticipate needing a deadline extension, please make such arrangements at least one week prior to the due date.

**To get the most out of class**, and to be a valuable addition to your classmates' experiences, please arrive in class having engaged with any material assigned. Much of your in-class work will depend upon work you do outside of class. Thus, please come to class with completed assignments, readings, drafts, etc., available for your reference.

**Deadlines will typically be weekdays at 8:00 pm.** No late penalty will be imposed for any assignments submitted by 9:00 AM on the following day. These deadlines are set to respect that you have other responsibilities and priorities in addition to this course. They also aim to encourage time-management decisions that support healthy sleep habits.

## REQUIRED MATERIALS

### You!

Every class day, you will be responsible for engaging in class discussion as an informed, thoughtful, and respectful classmate. To get the most out of class, and to be a valuable addition to your classmates' experiences, please:

1. Come to class every week, and
2. Arrive in class having engaged with the material assigned.
3. Most importantly, strive to bring your enthusiasm, curiosity, and good will to class every day. But I get it – life happens. We'll work together to mitigate. See the participation section of the syllabus for a complete attendance policy.

### Technology

- You will need consistent access to a working computer and internet for this course.
- You will need internet and a working computer/phone **with camera capacity** (*cameras are expected to be on during class*).
- You will submit digital files (not links) of your work for assignments. You will therefore need access to some kind of word processing program (e.g., Word, Google Docs, etc.).
- Contact your instructor well in advance if you need to troubleshoot this.

### Course Texts

All course texts will be provided via WyoCourses. Assigned "texts" will predominantly focus on peer-reviewed articles. On occasion, we may also discuss popular texts, as well as multimedia materials (videos, podcasts, etc.).

Brief written or visual reflections on the texts will often be integrated into assignments, to stimulate your own metacognitive thinking about how you are applying the material.

### Course websites

- WyoCourses (<https://uwyo.instructure.com/courses/599973>): We will use WyoCourses to post announcements, assignments, resources, readings, and other course materials. To that end, be sure to check all your settings within WyoCourses, and adjust them to ensure you receive updates (via announcements, assignment postings, etc.) from within the course system. After the first week of classes, all announcements and assignments will be distributed via WyoCourses, not via emails.
- Engage Laramie Science ([engagelaramiescience.weebly.com/](http://engagelaramiescience.weebly.com/)): This public-facing site is for sharing your work with an audience beyond the classroom. Throughout the semester, your instructors may invite you to share work that you have submitted on this blog.

### Note-taking/drafting

Some research suggests that writing notes on paper helps you learn and study better. But if you have a need or preference to use a digital device, that's fine. Out of respect for everyone's privacy, audio or video recording in class is prohibited unless prior authorization is granted. Students whose excessive in-class use of electronic devices distracts themselves, other students, or the instructor will receive lower participation grades, may be requested to leave the classroom, etc., as the situation warrants.

## COURSEWORK

**File naming format matters.** It might seem pedantic but naming files so that you and I can recognize them later will help streamline our interactions over your work. Specific, consistent file naming is useful for your own organization/data management and tracking your own growth over time. Similarly, knowing who submitted and for what assignment helps me keep my focus on providing feedback and resources.

Submit files to WyoCourses as .doc, .docx, or .PDF files using the following naming style:

YYYYMMDD\_FirstLast\_Assignment\_1.



Date Submitted      Your name      Identify assignment      #s if submission has 2+ parts

### Importance of revision

Coursework will often build upon previous work, so that you can create robust, polished final projects and prepare for presentations. Because thinking and communicating go hand-in-hand, and because revision is an essential aspect of the composition process, most assignments will involve a combination of drafts, peer reviews, and instructor feedback.

Demonstrated engagement in the composition and revision process will be a key component of how your work is graded.

### In-class work builds on assignments.

In-class work will depend upon the design, drafting, writing, revision, research, and other work you do outside of class. With this in mind, please come to class with assigned work completed. We will use

your work every day for full-class workshops, small-group discussions, peer review, and individual revision. Always bring a current draft of your work-in-progress to class in a format you will be able to share with a partner or in a small group. For example, have a file you can share or a link to a Google Doc or the like.

### Images ~ Citations

For any assignment for which you reference images, you should include commentary or captions about how they are informing your work. Consider these images as references. Cite/treat them as you would text references from your discipline's literature. Doing this research, and thinking about how visualizations work and were created, will enhance your visual literacy and inform your own approach to using visuals. Learning from others' visualizations is fundamental to graphic design and art traditions which underpin visual scicomm, just as learning from prior research is a key part of science. With that in mind, all visuals in this syllabus are by me, unless otherwise noted.

### Deadlines

Deadlines will typically be Mondays at 8:00 p.m. with a grace period to 9:00 am the next morning. This time/date provides time for us to review your submission before our next class. It also respects that you have other things to do with your time in the evenings.

## MAJOR ASSIGNMENTS

Your work will be assessed through these major assignment areas:

- \*Participation (including drafts, work-in-progress assignments, discussions, and reflections) (45%)
- Pre/post course reflections (survey + writing samples) (15%)
- \*Public-facing final project (issue report, research, planning/implementation, assessment/reflection) (30%)
- Optional assignments + extra credit opportunities (10%)

Failure to complete any of the major assignments will result in a half-letter grade deduction per missing project component. Failure to complete components marked with an asterisk (\*) will result in failure of the course.

As mentioned earlier in the syllabus, this is a project-based course. The course will be comprised of the following major project components. Detailed assignment prompts and/or rubrics will be provided, via WyoCourses, for individual assignments that scaffold up to completing major assignments.

### 1. \*Participation, drafts, work-in-progress assignments, discussions, and reflections (45% of final grade)

Participation is discussed in detail above, in the participation section of the syllabus. See the Characteristics of ABCD Writing handout for details on how to self-assess your own written work in this course. Rubrics and detailed assignment prompts will be provided throughout the course for various assignments. Most weeks, you will post a reflection on the readings, activities, and/or discussion you engaged with. Most weeks, you will be responsible for responding to your peers' reflections as well. Detailed expectations will be posted with each discussion assignment. Some weeks, you will also be assigned additional reflections (e.g., checking in on your progress toward your semester goals, etc.).

## 2. Pre/post course reflections (15% of final grade)

The two components of this reflection are a valuable way for you to reflect on your own behaviors, attitudes, and motivations about science communication. To better understand what students learn from science communication courses, collaborators and I are also conducting an on-going study of science communication courses taught at UWyo. I ask you to complete both parts of the assessment at the beginning and end of the course:

1. Pre-course Survey. This survey provides an opportunity for you to reflect on your current skills, interests, and what you hope to build on in this class and beyond. When paired with your post-course survey, it also provides us with important information about the impacts of this class and how I can make it better. Note: if you prefer not to complete the survey, you may submit a written reflection (1,500-2,000 words) discussing your past experiences with scicomm, prior scicomm training, along with your attitudes and motivations for doing scicomm. Written reflections should also discuss challenges, concerns, etc., relating to doing scicomm as a student or an early career professional.
2. Pre-Course Writing Sample. The writing samples you submit will help you, and us, understand how your skills develop during this course, toward the task of communicating science with different audiences.

## 3. \*Public-facing final project (30% of final grade)

Over the course of the semester, you will research and develop an issue report, propose an action and implementation plan, and then work on a final product that meets your own objectives, within the parameters of the project assignment. You should expect to invest significant time in all phases of this project. There will be scheduled check-in/update sessions in class, and there will be time to work on your project in class. However, your project will be self-directed, and you should plan to work on it outside of class, as well.

Throughout the semester (see course schedule for dates), you will have several opportunities in class to present project updates and practice. During these presentation sessions, you and your classmates will be guided to focus on specific aspects of each other's presentation style, to provide meaningful peer review. Your instructors will also provide feedback.

The overarching framework of the final project is that you will spend the semester focused on an issue which you will choose in collaboration with your instructors. This issue will relate to your degree and be an issue that exists in your hometown that you would like to see solved, but you don't know exactly how to solve it. You will research the issue, identify at least one solution to argue for, and develop several related communications products for a stakeholder (ex: patient, policy maker, wildlife manager, grant funder) who is able to contribute to the solution you propose. These products will include:

- **Issue report.** The Issue Report helps you ensure that you have something unique, legitimate, and debatable to add to the current conversation about a particular issue. Specifically, the Issue Report process will guide you through the steps that a professional normally takes in moving from a general, broad idea to a specific research question that guides you in completing interesting and valuable research that will eventually culminate in a communications effort associated with your proposed solution. For additional information about why an Issue Report is important and how to create one, see this <https://libguides.usc.edu/writingguide>, although not all sections outlined in this resource will be relevant to your project.
- **One-pager (a summary/overview for stakeholders).** "One-pagers", in formats such as policy briefs and fact sheets, are designed to increase the accessibility of policy-relevant research.

The project you are working on, and the solution you propose, likely has policy implications. One-pagers can also enhance your ability to collaborate and communicate with diverse stakeholders. After all, distilling all your research and ideas into a single page is a valuable skill. This assignment will provide you with the tools to craft your own, personalized one-pager.

- **Annotated bibliography.** An Annotated Bibliography is a list of sources, like any other bibliography – except, each source is accompanied by your own annotation. An Annotated Bibliography helps you to: a) Think critically and strategically about your sources, both in terms of how they support your proposed solution and with regards to the source’s credibility. b) Identify at least 5 credible sources to support your argument. c) Be able to explain to yourself and someone else why you chose the sources you chose.
- **Final project.** The ultimate nature of this project is up to you. You will design, implement, and assess a communications effort which conveys relevant aspects of your research and your proposed solution to the stakeholder group of your choice. Possibilities for this project include a poster, research brief, social media campaign, podcast series, artwork/visual communication, poetry collection, outreach activity, and more.

#### 4. Choose Your Own Adventure assignments (10% of final grade)

Because this course is about actually sharing science, throughout the course you will be able to opt-in to numerous science communication activities and opportunities. Once you have met the points total for 10% of the course grade, any additional activities will be applied as extra credit to your final grade. You are also welcome to propose additional activities of interest and relevance to you. I encourage you to do something that relates to the kind of science communication you want to do after the class is over. Doing so helps you start or continue building your capacity in that area. It might also be strategic for you to combine this assignment with aspects of your final project, but that is up to you.

## ACADEMIC INTEGRITY

Participating regularly in discussions and staying up to date on coursework is an important aspect of academic integrity. In addition, you must also follow UW’s Academic Honesty Code ([UW Regulation 2-114](#)), which prohibits acts of plagiarism. For the purposes of this course, plagiarism is presenting the writing, images, or other intellectual property of others as one’s own without appropriate permission, attribution and/or citation. Just as you cite written sources, you are expected to attribute images with the same diligence. If you have questions about how to credit and/or cite sources and images in your work, please contact me; I’m happy to help you.

**Note: Academic dishonesty includes anything that represents someone else’s ideas as your own without attribution.** Representing someone else’s work as your own is intellectual theft – stealing – and includes (but is not limited to):

- unapproved assistance on exams
- plagiarism (use of any amount of another person’s writings, blog posts, images, publications, and other materials without attributing that material to that person with citations, including ideas conjured up by Large Language Models, aka AI such as ChatGPT, or AI-generated images, etc.)
- fabrication of referenced information (which LLMs like ChatGPT are well-known to do frequently).
- Facilitation of another person’s academic dishonesty is also considered academic dishonesty and will be treated identically.

**As a result, use of LLMs and other types of AI requires obtaining instructor permission in advance.** You are permitted to use large language models (LLMs), advanced automated artificial intelligence (AI), or other machine learning tools on assignments in this course on a case-by-case basis, *only if you obtain my permission in advance*. Unless given permission to use those tools, you are expected to complete each assignment without assistance from automated tools. In particular, generation of text, images, and ideas from tools like ChatGPT and visual equivalents are prohibited without instructor permission obtained in advance. (The exception is use of spell- and grammar-checking tools including those built-in to MS Word and Google Docs, as well as similar tools such as Grammarly, the Hemmingway app, the Writer's Diet tool, and the like. These are useful tools for polishing your ideas and work, not replacing your own thinking with auto-prediction from a bot.)

**All uses of AI are to be disclosed/cited like any other intellectual property being cited in your work.**

**Attributing images is required with the same diligence as citing written sources.** Just as you cite written sources, you are expected to attribute images with the same diligence.

**Questions?** If you have questions about how to credit and/or cite sources and images in your work, please contact Professor B immediately so you know how to do your coursework ethically.

## SUPPORT

### Disability support statement

If you have a physical, learning, sensory or psychological disability and require accommodations, please let us know as soon as possible. You will need to register with, and provide documentation of your disability to, University Disability Support Services (UDSS) in SEO, room 330, Knight Hall.

### Instructor support for you

University of Wyoming data indicates students who seek additional support for their coursework tend to do better.

I will be actively engaged in your work throughout the course, in class and in response to assignments. We will meet throughout the semester during one-on-one meetings dedicated to discussing your work as you progress through the course. I am also available for additional meetings during office hours or by appointment. I will provide regular feedback on your work, and I will bring in resources, suggest additional readings, etc., as I think you may find them useful.

In short, your instructor and TA(s) are resources. To provide a bit of context for the kinds of support we can provide you, we have posted bios on the course website. You can find them in the resource announcement on the course shell. Feel free to engage with Professor B and TA further if you'd like to hear more about their career backgrounds, etc. For example, Professor B's is widely varied and mostly outside academia.

### Email + staying in touch

We are delighted to help if you're having any difficulty within or beyond the course, so please don't hesitate to schedule a meeting if you have questions, concerns, or difficulties with the class or beyond. We check email at least once per day, M-F (~9-4 pm) unless circumstances prevent doing so. Still,

there are times when it may take a day or more to reply to your messages, so plan accordingly. Please check your email daily so you can stay abreast of any course updates which will be distributed through the course announcements function.

## SciComm resources

There are a host of resources listed on the course website. These include campus resources for mental and physical health, academic tutoring, and all sorts of interest-focused resources (e.g., Data Science Club, Writing Center), along with writing and visual scicomm resources. They are all available on the course website via the resources link.

Also, a key campus resource for sharing science is the UW Science Communication Initiative: [www.uwyo.edu/wysci](http://www.uwyo.edu/wysci), which offers a free science communication certification towards which all your work in this course can count! Learn more about the certification here:

<https://www.uwyo.edu/wysci/programs-and-resources/scicomm-certification.html>

## Campus resources

There are LOTS of valuable student resources on campus, ranging from coaching on writing and presentations to mental health support and more. See the Resources tab on the course site for a list, see highlights below, or reach out to Professor B or your TA for support.

**Ask for help when you need it.**

**You may think it's a sign of weakness to ask for help, but UW graduation and student success data show that students who seek help get better grades, graduate at higher rates, and are generally getting more from their time in college.**

We have many, many free resources for you at UW – tutoring (<https://www.uwyo.edu/step/>) and study group apps, IT support (<http://www.uwyo.edu/infotech/>), the Writing Center (<http://www.uwyo.edu/writing-center/>), supplemental instruction (<http://www.uwyo.edu/learn/>), peer mentors and Cowboy Coaches (<http://www.uwyo.edu/student-success/cowboy-coaches/index.html>), and the Student Success and Graduation Hub (<http://www.uwyo.edu/student-success/index.html>).

For academic assistance for this course or other courses, please contact me for available resources. Several great resources are available here (<http://www.uwyo.edu/learn/>) and here (<https://www.uwyo.edu/dos/student-resources/>).

## COVID-related UW policies

1. COVID-19 Requirements: As a matter of public health and safety due to the COVID-19 pandemic, all members of the University of Wyoming community must follow university, state, and federal requirements. Please check the UW COVID-19 website for University policies, guidelines, and resources.
2. COVID-19 Vaccination and Boosters: UW continues to strongly recommend COVID-19 vaccination and boosters, which have been proven to be highly effective and safe -- and effective in preventing severe illness and hospitalization, even with Omicron and its highly transmissible subvariants. UW's only vaccination requirement -- in accordance with a federal rule -- is for employees of health care units, with religious and medical exemptions available.

3. Facial Coverings: As has been the case since Feb. 21, 2022 masks are not required in UW facilities, except health care settings. Individuals are provided the opportunity to assess their health and wear a mask if deemed appropriate.
4. Preventive Guidelines. The University encourages all students, faculty, and staff to abide by the preventive guidelines which keep our community healthy, including:
  - Not coming to campus if you are sick.
  - Minimizing contact with shared surfaces.
  - Washing your hands often with soap and water for at least 20 seconds. If soap and water are not available, use hand sanitizer.
  - Avoiding touching your eyes, nose, and mouth with unwashed hands.
  - Covering coughs and sneezes with a tissue or use the inside of their elbow
5. Classroom Behavior: Everyone in this class is responsible for maintaining an appropriate learning environment regardless of the mode of instructional delivery. As with other disruptive behaviors, we have the right to dismiss you from the classroom (Zoom and physical), or other class activities if you fail to abide by these COVID-19 policies. *Instructor note: These behaviors will be referred to the Dean of Students Office using the UWYO Cares Reporting Form for Student Code of Conduct pro.*
6. Online Absences: An official student absence for the online version of this course is when a student meets the following criteria:
  - a. The student does not engage with the week's course material and/or does not turn in the week's assignment on time.
  - b. The student or a dedicated representative of the student fails to communicate the reason for not engaging with the course material and/or not turning in the week's assignment on time within the week of the absence.
  - c. The dedicated student representative is the person tasked by the student for reaching out on their behalf when they are not able - e.g., parents, other family member, significant other, etc. A faculty member can receive information from the student's dedicated representative but would need a FERPA release in place to discuss anything further. The Dean of Students will assist in these situations.
7. Disclaimer: The University of Wyoming COVID Policy, including this Student Attendance Policy, is informed by health and safety recommendations from the CDC and the Wyoming Department of Health. The COVID Policy may be modified based on the evolving environment and virus transmission. Please refer to this document regularly. You can find the UW COVID Policy and other information at: <http://www.uwyo.edu/alerts/campus-return/index.html>.