

**Scientific Writing****BI 610** (CRN 31748)

Spring 2023

**Class meeting time:** Tuesdays and Thursdays, 10:00-11:20 am,**Location:** B042 Price Science Commons**Instructor:** Dr. Kelly Sutherland

ksuth@uoregon.edu

541-346-8783

**Office Hour:** Mon. 3-5 pm in Onyx Bridge 479

**Course description:** The ability to communicate your research in an effective and coherent way is critical to your success as a scientist. A profound scientific result is useless if it can't be conveyed to a broader audience. Yet, many of us struggle with this essential, practical skill. Communicating well takes practice. In this class we will take an applied approach to communicating science—you will bring your research or research interest in the form of written work, graphics and slides and we will work together on improving it. We will practice the fundamentals of writing, speaking, and making graphics to convey your ideas to your audience in an interesting, accessible way; along the way you'll be gaining a valuable set of tools that you will apply in your scientific career.

**Learning outcomes:**

- Improved proficiency with reading and understanding the primary scientific literature
- Improved ability to synthesize and distill scientific information and to express your arguments clearly and concisely
- Practice with presenting information orally
- Building community by providing constructive reviews your peers' work and incorporating reviews into your own work
- The opportunity to present your work visually and orally during a final presentation

**Course requirements:**

Grading will be based on class participation, your writing/presentation assignments, and on your constructive reviews of the writing of your peers. Everyone will be working on a writing project throughout the term. The writing will be a draft of all (or part) of either a research paper or a thesis proposal based on your current research or research interests. Alternative writing projects are possible and encouraged but please approach me early in the term to discuss the possibilities.

There will be weekly assignments. These assignments will require that you maintain a schedule of writing, peer review, revising, and handing in the assignments each week. There will be no final exam. Instead, during week 9 you will produce the final version of your written project. During week 10, everyone will present an oral presentation of their project; this will give you a chance to explore different ways of communicating the same information.

**Office hours:** You are welcome and encouraged to meet with me. I will be available after class each day, I have office hours each week or we can set up an alternative time to meet.

**Grading structure:**

Writing assignments (7)	35%
Final project—writing assignment	40%
Final presentation	10%
Class participation	15%

**References:**

Brown T.L. (2008) Making Truth: Metaphor in Science. University of Illinois Press, 215 pp. [MT]

Montgomery S.L. (2003) The Chicago Guide to Communicating Science. U Chicago Press, 228 pp. [CS]

Pechenik, J.A. (2013). A short guide to writing about biology. Pearson. 8th ed. 276 pp. [WAB]

Schimmel, J. (2012). Writing Science: How to get cited and get funded. Oxford Univ. Press. 221 pp. [WS]

All readings will be provided as needed to students and available on Canvas. You are welcome to purchase any of the course books for your personal reference library but this is optional.

**Artificial Intelligence Use:**

Use of artificial intelligence systems (e.g., ChatGPT, iA Writer, etc.) is allowed provided you note explicitly where in your work process you used AI (e.g. generating an outline or first draft) and which platform(s) you used. If you use text generated by an artificial intelligence system as part of an assignment submission, such as a paper, you must attribute the text to the AI-based system that is its source. For example, if you include text generated by ChatGTP, you must cite the source as follows:

ChatGPT. (Year, Month, Day of query). "Text of your query/prompt." Generated using OpenAI.  
<https://chat.openai.com/>

<b>TENTATIVE SCHEDULE (In class topics/activities)</b>	<b>ASSIGNMENTS (Due Thurs.)</b>
<b>Week 1: How to read</b> Introductions; What is your research interest/area? How to read, Practice with sentences- content	<b>Read:</b> WAB Ch 3 <b>Write:</b> 250-word research description
<b>Week 2: The scientific paper</b> What makes a scientific article effective? Being a good reviewer, Practice with sentences- clarity	<b>Bring:</b> 1 scientific article to class <b>Read:</b> CS Ch7, WS Ch1, WAB Ch10 <b>Write:</b> Annotated bibliography (3 refs.) <b>Hand in:</b> Final research description
<b>Week 3: Writing proposals</b> Engaging others in your work Practice with sentences- completeness	<b>Read:</b> CS Ch. 6, WS Ch.2 <b>Write:</b> Draft Introduction
<b>Week 4: Telling your story</b> Finding good references Writing an Introduction/ framing your work Practice with sentences- conciseness	<b>Read:</b> WS Ch. 16 <b>Write:</b> Draft Methods <b>Hand in:</b> Final Introduction
<b>Week 5: Making effective graphics</b> Making plots and schematics Explore: plots from published papers	<b>Bring:</b> 2 ex. of effective graphics <b>Read:</b> CS Ch. 9; <b>Write:</b> Draft Figure/ Results <b>Hand in:</b> Final Methods
<b>Week 6: Distilling your message</b> Writing titles and abstracts, Methods Practice with sentences- flow	<b>Read:</b> MT Ch. 2 <b>Write:</b> Draft Discussion <b>Hand in:</b> Final Figure/ Results
<b>Week 7: Metaphor in science and the bigger picture</b> Developing context for your work	<b>Bring:</b> Completed message box <b>Read:</b> WS Ch. 20, <b>Write:</b> Draft Abstract <b>Hand in:</b> Final Discussion
<b>Week 8: Knowing your audience</b> Who are you targeting? Reaching the public	<b>Bring:</b> Draft of full paper <b>Read:</b> WAB Ch. 10 <b>Hand in:</b> Final Abstract
<b>Week 9: Oral and poster presentations</b> Dos and don'ts of presenting your research; storyboarding	<b>Bring:</b> Draft of presentation <b>Read:</b> WAB Ch. 12
<b>Week 10: Final presentations</b> Oral presentations by each student	<b>Bring:</b> Final presentation <b>Hand in:</b> Final paper

General flow of assignments: Writing assignments (drafts and final versions) are always due on Thursdays. Peer reviews are on Thursdays. Readings and informal assignments that are not handed in (e.g. bringing example figures, message boxes) are due Tuesdays.

## UNIVERSITY POLICIES AND RESOURCES

### Accessible Education

The University of Oregon and I are working to create more inclusive learning environments, including for students who identify as having a disability. If there are aspects of the instruction or design of this course that result in disability-related barriers to your participation, please contact me.

You are also encouraged to contact the Accessible Education Center in 164 Oregon Hall at 541-346-1155 or [uoaec@uoregon.edu](mailto:uoaec@uoregon.edu). The AEC offers a wide range of support services including note-taking, testing services, sign language interpretation and adaptive technology.

### Accommodations for Religious Observances

The University of Oregon respects the right of all students to observe their religious holidays, and will make reasonable accommodations, upon request, for these observances. If you need to be absent from a class period this term because of a religious obligation or observance, please fill out the [Student Religious Accommodation Request fillable PDF form](#) and send it to me within the first weeks of the course so we can make arrangements in advance.

### Your Wellbeing

Life at as a graduate student can be very complicated. Students often feel overwhelmed or stressed, experience anxiety or depression, struggle with relationships, or just need help navigating challenges in their life. If you're facing such challenges, you don't need to handle them on your own--there's help and support on campus.

As your instructor if I believe you may need additional support, I will express my concerns, the reasons for them, and refer you to resources that might be helpful. It is not my intention to know the details of what might be bothering you, but simply to let you know I care and that help is available. Getting help is a courageous thing to do—for yourself and those you care about. [University Health Services](#) helps students cope with difficult emotions and life stressors.

University Counseling Services (UCS) has a team of dedicated staff members to support you with your concerns, many of whom can provide identity-based support. All clinical services are free and confidential. Find out more at [counseling.uoregon.edu](http://counseling.uoregon.edu) or by calling 541-346-3227 (anytime UCS is closed, the After-Hours Support and Crisis Line is available by calling this same number).

### Basic Needs

Being able to meet your basic needs is foundational to your success as a student at the University of Oregon. If you are having difficulty affording food, don't have a stable, safe place to live, or are struggling to meet another need, visit the [UO Basic Needs Resource page](#) for information on how to get support. They have information food, housing, healthcare, childcare, transportation, technology, finances (including emergency funds), and legal support. If your need is urgent, please contact the Care and Advocacy Program by calling 541-346-3216, filling out the [Community Care and Support form](#), or by [scheduling an appointment](#) with an advocate.

### Respect for Diversity

You can expect to be treated with respect in this course. Both students and your instructor(s) enter with many identities, backgrounds, and beliefs. Students of all racial identities, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual

orientations, citizenship statuses, ability and other visible and non-visible differences belong in and contribute to this class and this discipline. All students are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class. Class rosters are provided to instructors with students' legal names. Please let me know if the name or pronouns I have for you are not accurate. It is important to me to address you properly.

Please let me know if aspects of the instruction, course design, or class activities undermine these principles in any way. For additional assistance and resources, you may also consider contacting the [Division of Equity and Inclusion through their website](#) or by phone (at 541-346-3175), or the [Center for Multicultural Academic Excellence through their website](#) or by phone (at 541-346-3479).

### **Academic Integrity**

The University Student Conduct Code (available on the [Student Conduct Code and Procedures webpage](#)) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at the Libraries' [Citation and Plagiarism page](#).

### **Mandatory Reporter Status**

I am an assisting employee. For information about my reporting obligations as an employee, please see [Employee Reporting Obligations](#) on the Office of Investigations and Civil Rights Compliance (OICRC) website. Students experiencing sex or gender-based discrimination, harassment or violence should call the 24-7 hotline 541-346-SAFE [7244] or visit [safe.uoregon.edu](http://safe.uoregon.edu) for help. Students experiencing all forms of prohibited discrimination or harassment may contact the Dean of Students Office at 541-346-3216 or the non-confidential Title IX Coordinator/OICRC at 541-346-3123. Additional resources are available at UO's [How to Get Support](#) webpage.

### **Academic Disruption due to Campus Emergency**

In the event of a campus emergency that disrupts academic activities, course requirements, deadlines, and grading percentages are subject to change. Information about changes in this course will be communicated as soon as possible by email, and on Canvas. If we are not able to meet face-to-face, students should immediately log onto Canvas and read any announcements and/or access alternative assignments. Students are also expected to continue coursework as outlined in this syllabus or other instructions on Canvas.

### **Inclement Weather**

It is generally expected that class will meet unless the University is officially closed for inclement weather. If it becomes necessary to cancel class while the University remains open, this will be announced on Canvas and by email. Updates on inclement weather and closure are also communicated as described on the Inclement Weather webpage.