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 can 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 over Zoom or phone. For now I will meet by appointment but may set up e-office hours depending on student needs.

Accessibility: The University of Oregon is working to create inclusive learning environments. Please notify us if aspects of the instruction or course design result in barriers to your participation. You are also encouraged to contact the Accessible Education Center in 164 Oregon Hall at 346-1155 or uoaec@uoregon.edu
Grading structure:
Writing assignments (7) 35%
Final project—writing assignment 40%
Final presentation 10%
Class participation 15%

References:

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