



Cornell University

Comm 5660

Science Communication Workshop

Spring 2024

DATES: Friday, 22 Mar 2024 – Sunday, 24 Mar 2024

[Last update: 19 Mar 2024]

This intensive weekend workshop introduces graduate students and post-docs in the sciences (including natural sciences, engineering, experimental social sciences, etc.) to communicating effectively – especially about controversial topics, such as climate change or evolution – with nonscientists such as policy makers, political stakeholders, the media, and the general public. Activities include role-playing, mini-lectures, hands-on practice writing blog posts and other outreach materials, real-time practice being interviewed for the media, and discussion with invited speakers.

We will begin on Friday afternoon with a panel of speakers talking about opportunities in public communication. After the panel, we'll have more informal discussion with the panelists, along with pizza and veggies.

On Saturday, we start right out with writing for the public through press releases and blogs. You'll get practice. Plenty of practice. Sunday is devoted to constructing a message and delivering it in a broadcast media interview. Throughout the weekend we'll also meet other scientists and science communicators, learning from their experience.

This course is supported by the [Department of Communication](#) and the [Careers Beyond Academia Program](#).

Course website

<http://blogs.cornell.edu/scicommworkshop/>

Instructor

Professor Bruce Lewenstein

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Office hours: Tuesdays, 10:00-12:00

and other times happily by appointment

Class location

Kennedy 103

Learning Objectives

After participating in this workshop, students will be able to:

- Discuss science communication opportunities, both within traditional scientific careers and as standalone careers
- Begin identifying characteristics of potential audiences for science communication
- Write drafts of short texts (such as blog posts, tweets [X's?], and similar items) for non-scientific audiences
- Begin planning for media interviews
- Discuss social, ethical, and scholarly issues associated with science communication

Assignments and grades

You will write some combination of your own press releases, blog posts, and tweets on the first day of the workshop, and you will both conduct and be the subject of a video interview on the second day. The course is graded S/U and I expect a reasonable effort.

Students with special circumstances

Cornell University (as an institution) and I (as a human being and instructor of this course) are committed to full inclusion in education for all persons. Services and reasonable accommodations are available to students with temporary and permanent disabilities, to students with DACA or undocumented status, to students facing mental health issues, to students with other personal situations (such as family emergencies or religious observances), and to students with other kinds of learning needs. Please feel free to let me know if there are circumstances affecting your ability to participate in class. Some resources that might be of use include:

- Office of Student Disability Services, <https://sds.cornell.edu/>
- Cornell Mental Health site – student section, <https://mentalhealth.cornell.edu/get-support/support-students> (you can explore other parts of the site, as well)
- Belonging & Support Services through Student & Campus Life, <https://scl.cornell.edu/belonging-support-services>
- Learning Strategies Center, <http://lsc.cornell.edu/>
- Office of Spirituality and Meaning Making/Cornell United Religious Work, <https://scl.cornell.edu/identity-resources/office-spirituality-and-meaning-making>

I would be glad to help you identify other resources if needed.

IN ADVANCE OF THE COURSE:

Come with a brief (100-200 word) written summary of your own research. You will use this summary as the basis for class activities. If you are interested in science blogging, set up your own blog site in advance (Google's Blogger service, <http://www.blogger.com/home>, is pretty simple to use, but you're welcome to try another service if you prefer; Wordpress, <https://wordpress.com/>, is also useful if you want a full website). We will discuss in class the use of X (formerly Twitter) or Meta's Threads and Instagram or Bluesky – you can decide if you want an account on one of them.

You will need a computer or tablet with a keyboard, as you will be looking at things online and writing during the workshop.

Schedule

Friday, 22 March

4:30 pm *Panel: Opportunities for public communication of science*

[Amelia Greiner Safi](#), Professor of Practice, Department of Public and Ecosystem Health,
College of Veterinary Medicine

[Allasandra Valdez](#), PhD student, Ecology & Evolutionary Biology, and
host of [The Happy Botanist](#) podcast and related materials

[Ananda Fontoura](#), Postdoctoral Associate, Department of Animal Science

[Michelle Kortenaar](#), executive director of the [Sciencenter](#)

6:00(ish) pm Informal discussion supported by pizza and veggies

Saturday, 23 March

9:00 am The basics of writing science for the public

10:30 am Break

10:45 am Developing and writing your own stories

12:00 pm Lunch (on your own)

1:00 pm Integrating communication with your graduate research
[Amanda Vilchez](#), PhD student in Communication, citizen science researcher

2:00 pm Break

2:15 pm More time actually writing, sharing ideas and drafts, getting comments
from colleagues, etc.

3:00 pm Visual communication of science
[Meghan McGillin](#), PhD student in Food Science and active science communicator
(see her many projects at [WTFS-What the Food Science](#))

4:00 pm Break

4:15 pm The science communication system

5:00 pm End of (organized) day

8:00 pm REVISED PRESS RELEASES/BLOGS DUE

Sunday, 24 March

- 9:00 am Critique of press releases/blog postings
Then: Rewriting, brainstorming, using images
- 10:15 am Break
- 10:30 am Developing and delivering media messages
Hands-on practical instruction and practice about developing messages
[Jeff Tyson](#), Cornell Media Relations
- 11:30 am Develop your message box!
- 12:00 pm Lunch (on your own)
- 1:00 pm Being interviewed
Hands-on practical instruction and practice in being interviewed
on camera
- 3:00 pm Break
- 3:30 pm Science communication and science policy
[Art DeGaetano](#), Professor of Earth & Atmospheric Sciences and
Director, [Northeast Regional Climate Center](#)
- 4:30 pm Graduation (not really – this is about what time we’ll end!)

Resources

This list will be posted on the class website and periodically updated.

Books (last decade)

- Carpenter, Siri (Ed.) (2020). *The Craft of Science Writing*. Madison, WI: The Open Notebook.
- Meredith, Dennis. (2021). *Explaining Research: How to Reach Key Audiences to Advance Your Work*, 2nd ed. New York: Oxford University Press.
- Olson, Randy. (2018). *Don't be such a scientist: talking substance in an age of style*, 2nd ed. Washington, DC: Island Press.
- Olson, Randy. (2015). *Houston, We Have a Narrative*. Chicago: University of Chicago Press.
- Schwabish, Jonathan A. (Ed.) (2020). *Elevate the Debate: A Multilayered Approach to Communicating Your Research*. New York: Wiley.
- Wilcox, Christie, Brookshire, Bethany, & Goldman, Jason G. (Eds.). (2016). *Science blogging: the essential guide*. New Haven: Yale University Press.
- Wilkinson, Clare, & Weitkamp, Emma. (2016). *Creative research communication: Theory and practice*. Manchester, UK: Manchester University Press.

Books (older but still great!)

- Baron, Nancy. (2010). *Escape from the Ivory Tower: A Guide to Making Your Science Matter*. Washington, DC: Island Press.
- Bowater, Laura & Yeoman, Kay. (2013). *Science Communication: A Practical Guide for Scientists*. Oxford: Wiley-Blackwell
- Blum, Deborah, Knudson, Mary, & Henig, Robin Marantz (Eds.). (2006). *A Field Guide to Science Writing: The Official Guide of the National Association of Science Writers* (2nd ed.). New York: Oxford University Press.
- Dean, Cornelia. (2009). *Am I Making Myself Clear? A Scientist's Guide to Talking to the Public*. Cambridge: Harvard University Press.
- Gutkind, Lee. (2012). *You Can't Make This Stuff Up: The Complete Guide to Writing Creative Nonfiction—from Memoir to Literary Journalism and Everything in Between*. Boston: Da Capo.
- Hayden, Thomas, & Nijhuis, Michelle (Eds.). (2013). *The Science Writers' Handbook: Everything You Need to Pitch, Publish, and Prosper in the Digital Age*. New York: De Capo.
- Hayes, Richard, & Grossman, Daniel. (2006). *A Scientist's Guide to Talking with the Media*. New Brunswick, NJ: Rutgers University Press.
- Menninger, Holly, & Gropp, Robert. (2008). *Communicating Science: A Primer for Working with the Media*. Washington, DC: American Institute for Biological Sciences.

"How to" Websites

- <http://www.explainingresearch.com/> (produced by longtime science writer Dennis Meredith to accompany his book, *Explaining Research*)
- <http://www.aaas.org/communicatingscience> (produced by American Association for the Advancement of Science, includes webinars, tipsheets, etc.)
- <https://www.agu.org/Share-and-Advocate/Share> (a rich set of resources from the American Geophysical Union)

<https://scripttraining.net/> (science communication training guides from [SciDev.Net](https://www.sciencenews.org/), a news service for science and development)

<http://www.theopennotebook.com/> (a set of resources with comments and interviews from science writers about many aspects of how they report, write, and think about their stories and their lives as writers; see especially the section on “Getting Started” --

<https://www.theopennotebook.com/getting-started-in-science-journalism/>; TON published a collection of items from its articles in book form in 2020, listed above)

Social media discussion ABOUT science communication

X/Twitter: [#sci_comm](https://twitter.com/sci_comm) (also be sure to check out: [#SerialKillerOrScientist](https://twitter.com/SerialKillerOrScientist) and [#ScientistOrSerialKiller](https://twitter.com/ScientistOrSerialKiller))

The SciCommer, <https://thescicommer.substack.com/>, a weekly newsletter

Science outreach websites (the “informal science education” community)

<http://www.informalscience.org/> (a resource and online community for informal learning projects, research and evaluation; it provides access to a wide range of material)

Science news commentary (perhaps a dying category?)

<http://undark.org/> (from MIT’s Knight Science Journalism project, a variety of stories demonstrating and probing science journalism)

http://www.cjr.org/the_observatory/ (published from the late 2000s until 2015, “a lens on the science press” from the *Columbia Journalism Review*)

Science news sites (just a few of the many, many possibilities...I’m not even sure this list is worth providing...let’s talk about that!)

New York Times (<http://www.nytimes.com/pages/science/>), especially the Tuesday "Science Times" section (you will need to register, but there is no cost)

Google News’s “Sci/Tech” category (<http://bit.ly/2NZVh2d>)

Yahoo! News’s “Science” category (<http://news.yahoo.com/science/>)

Livescience.com (<http://livescience.com>)

Slate’s “Science” section – which, since 2018, is a subset of its “Technology” section. Exam question: Shall we talk about why? (<https://slate.com/technology/science>)

SciDev.net (a site specifically for science journalists in the developing world, but with relevance for anyone trying to communicate science), <http://www.scidev.net>

Science blogs [hmm...between 2021 and 2024, this category seems to have all but disappeared.

Is it still a useful category?]

Some available through <http://scienceseeker.org/>

Science story ideas/press releases

<http://www.eurekalert.org> (Basic source for science press releases)

<http://www.alphagalileo.org/> (A European counterpart to EurekAlert!)

<http://www.newswise.com/articles/list?category=science> (An independent alternative to EurekAlert! – site also has many topics besides science)

<http://www.sciencedaily.com/> (Another independent alternative to EurekAlert!)

Other sites to explore

<https://www.pcst.network/>, International Network on Public Communication of Science and Technology

<http://www.nps.gov/hfc/services/evaluation/>, Media Evaluation and Visitor Research site, maintained by National Park Service

<http://www.nscalliance.org/>, Natural Science Collections Alliance, a support organization for natural science collections (including museums and their staffs)

<https://www.science.org/careers>, *Science Magazine*'s careers page, which includes many stories about communication and outreach options

<https://www.nature.com/careers>, *Nature*'s equivalent to *Science*'s careers page

Organizations you might want to join

Many of the following organizations have extremely useful resources on their websites – guidelines, ethical codes, handbooks, etc., often available at no charge and without the need to join.

<http://www.amwa.org/>, American Medical Writers Association

<http://www.publicgardens.org/>, American Public Gardens Association

<http://www.healthjournalism.org/>, Association of Health Care Journalists

<http://www.astc.org/>, Association of Science-Technology Centers

<http://www.aza.org/>, Association of Zoos and Aquariums

<http://www.councilscienceeditors.org/>, Council of Science Editors

<http://www.nasw.org>, National Association of Science Writers

<http://naaee.org/>, North American Association for Environmental Education

<http://www.sej.org>, Society of Environmental Journalists

<https://citizenscience.org/>, home of the Citizen Science Association (which may soon become “Association of Participatory Sciences” or something like that)

...and there are many others