Comm 4660/STS 4661:
Public Communication of Science & Technology
Spring 2013

This syllabus (including any updates) appears at http://blackboard.cornell.edu
This version updated: 19 January 2013

Professor
Bruce Lewenstein
321 Kennedy Hall
Cornell University
Ithaca, NY 14853
Phone: 255-8310
Fax: 254-1322
E-mail: b.lewenstein@cornell.edu

Office hours
Tues., 12:30 – 2:30 in Kennedy 321
and happily by appointment

Time and location
MW 2:55-4:10
Kennedy 211

Course description
This course is about ways to think about "public communication of science and technology" (PCST). We will do so primarily by reading about current research in the field, rather than experiencing it ourselves. We will begin by looking at several models of PCST. Then we'll work through a series of topics (GMOs, nanotechnology, climate change, etc.) to explore different approaches to studying these topics. Essentially, we’ll be looking to see if the models help explain the research results – or, put another way, whether the models match up with what happens in the real world. More formally, the course objectives are:

- To learn to read, analyze, and critique scholarly literature (about PCST)
- To understand approaches to thinking (about PCST)
- To learn to apply scholarly analyses (of PCST) to real-world examples

This will be a seminar course. That means that everyone does the reading and everyone comes to class prepared to explore the readings. To "explore the readings" means you've read the texts, you've thought about them, and you're ready to see where the arguments lead. It also means you've identified inconsistencies or problems with the logic and are ready to tear the text apart. You will usually find material that is intellectually challenging: it may require multiple readings to make sense, or it may challenge beliefs you already have (even though you may not have known that you have them). You will be expected to justify your reactions to the texts with specific references to the texts or, when relevant, to other texts.

For most class sessions, one of you will lead the discussion. The leader will come to class with a specific set of questions raised by the readings. Those questions may emerge from the content of the reading, or they may question the logic or approach taken by the author(s). Discussion leaders will have to circulate the questions a couple of days before class, via Blackboard.
Readings
The readings will all be posted online (with direct links to publications, links through the Cornell library system, and occasionally to scanned copies of material not available online).

You should also consider browsing some of the key journals in the field, looking for relevant articles. The most relevant journals are Public Understanding of Science and Science Communication. If your interests tend more towards communication issues, look at Journalism and Mass Communication Quarterly, Journal of Communication, Health Communication, and Critical Studies in Mass Communication. If your interests run more towards science studies or science policy issues, consider Social Studies of Science and Science, Technology & Human Values.

You should also be exploring some blogs focused on PCST:
- [http://alicerosebell.wordpress.com/](http://alicerosebell.wordpress.com/) (An academic sort of like me)
- [http://nanopublic.blogspot.com/](http://nanopublic.blogspot.com/) (Another academic sort of like me)
- [http://blogs.nottingham.ac.uk/makingsciencepublic/](http://blogs.nottingham.ac.uk/makingsciencepublic/) (A whole project of academics sort of like me, in the UK)
- [http://caise.insci.org/](http://caise.insci.org/) (A set of practitioners who I talk with a lot, mostly from the museum world)
- [http://ksj.mit.edu/tracker](http://ksj.mit.edu/tracker) (commentary on science journalism)
- [http://www.cjr.org/the_observatory/](http://www.cjr.org/the_observatory/) (more commentary on science journalism)
- A mailing list, PCST-L – see instructions for subscribing at [http://mailmanlist.net/cgi-bin/mailman/listinfo/pcst](http://mailmanlist.net/cgi-bin/mailman/listinfo/pcst).
- And a brand new one, just showed up two days before class began: [http://figureoneblog.wordpress.com/](http://figureoneblog.wordpress.com/).

Grades
About 50% of your grade will depend on class participation, electronic bulletin board participation, your activity as a discussion leader, and small assignments during the semester; the remaining 50% will depend on a final project or paper (exact format to be determined).

Academic integrity
As you know, you are responsible for following Cornell’s Code of Academic Integrity. You should review the Code at [http://cuinfo.cornell.edu/Academic/AIC.html](http://cuinfo.cornell.edu/Academic/AIC.html). In particular, any work that you hand in should be your own. If you have any questions about how to interpret the Code in the context of assignments or activities in this class (especially any that involve collaboration with your colleagues), please feel free to contact me or the University Ombudsman.
Course plan, as of 18 January 2013

**Week 1: 21, 23 January: How to approach public communication of science and technology**

- Alice Bell on public engagement: [http://www3.imperial.ac.uk/graduateschool/currentstudents/publicengagement](http://www3.imperial.ac.uk/graduateschool/currentstudents/publicengagement)
- A debate on approaches to PCST:

**Week 2: 28, 30 January: Deficits and engagement**

- Bauer, Martin W., Allum, Nick, & Miller, Steve. (2007). What can we learn from 25 years of PUS survey research? Liberating and expanding the agenda. *Public Understanding of Science, 16*(1), 79-95. [link]
- [http://iseevidencewiki.org/index.php/Public_Engagement](http://iseevidencewiki.org/index.php/Public_Engagement)

**Supplementary readings**

- A recent online discussion about the links between research and practice in the area of informal science education. [on Blackboard]

**Recent detailed research**


**Week 3: 4, 6 February: Learning science in informal environments**

See the critiques of the report in *Curator: The Museum Journal*, vol. 53, no. 2, April 2010, accessible through the Cornell Library [link].

**Week 4: 11, 13 February: The science of science communication**

- *The Macro View: Social Dynamics in Science Communication*, Dietram Scheufele, University of Wisconsin, Madison (21 mins)
- *New Media Landscapes: Where Do People Go for Information About Science and How Do They Evaluate What They Find?*, Dominique Brossard, University of Wisconsin, Madison (24 mins)

**Week 5: 18, 20 February: Topic: GMOs (genetically modified organisms) and food labeling**

- Schuld, Jonathon P., & Hannahan, Mary. (2013). When good deeds leave a bad taste: Negative inferences from ethical food claims. *Appetite*, 62(0), 76-83. [link]

**Week 6: 25, 27 February: Topic: Nanotechnology**

• Pidgeon, Nick, & Rogers-Hayden, Tee. (2007). Opening up nanotechnology dialogue with the publics: Risk communication or "upstream engagement"? Health, Risk & Society, 9, 191-210. [link]
• http://www.nisenet.org/

Supplementary readings:
• For much more on nanotechnology and public engagement, see the full special issue from which the Jasanoff, van Est, van Oudheusden, and Guston readings come: Science & Engineering Ethics, 17(4), November 2011. [link]

Week 7: 4, 6 March: Topic: Climate change
• Schuldt, Jonathon P., Konrath, Sara H., & Schwarz, Norbert. (2011). "Global warming" or "climate change"? Public Opinion Quarterly, 75(1), 115-124. [link]
• http://www.climatechangecommunication.org/ [look for most recent reports]
• Trust in Scientists, Controversy Among Scientists, and American Public Opinion on Climate Change: How Attitude Formation and Change Unfolds, Jon Krosnick, Stanford University (26 mins)
• Building Organizational Infrastructures for Effective Communication: What Have We Learned from Experiences in the Corporate, Governmental, and Academic Worlds?, Ed Maibach, George Mason University (22 mins)
• The National Partnership for Climate Communication, Anthony Leiserowitz, Yale University (15 mins)

Week 8: 11, 13 March: Topic: Evolution
• Bhattacharjee, Yudhijit. (2010). NSF Board Draws Flak for Dropping Evolution From Indicators. Science, 328(5975), 150-151. [link]
• National Center for Science Education: http://ncse.com/

SPRING BREAK
Week 9: 25, 27 March: Topic: Fracking
This is an ongoing controversy – we’ll look for whatever is current.

Week 10: 1, 3 April – Topic: Citizen science

Supplementary readings:
- Some relevant blogs:
  - http://blogs.plos.org/citizensci/
  - http://scistarter.com/blog/

Week 11: 8, 10 April – Topic: Broadcasting
Selections from the following:

Week 12: 15, 17 April – Class presentations

Week 13: 22, 24 April – Class presentations

Week 14: 29 April, 1 May – Studying PCST

Final paper/project due:
Tuesday, 14 May, 11:30 am