

Course Name: Public Communication of Science & Technology

Institution: Cornell University

Instructor: Bruce Lewenstein, professor

Course level: Undergraduate, but available to graduate students

Audience: Mostly seniors, with a few juniors and graduate students who major in communication, biology and society, or science and technology studies

Semester: Spring 2010

Class schedule: Mondays and Wednesdays, 2:55 p.m. to 4:10 p.m.

Office hours: Wednesdays, 11:15 a.m. to 2:00 p.m., or happily by appointment

Typical Enrolment: 10-15

Course overview

This course explores the structure, meanings, and implications of "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 examine the contexts in which communication about science occurs. We will look at the motivations of and constraints on people involved in producing information about science for nonprofessional audiences. We will analyze the functions of public communication of science and technology. We will also try to link knowledge about PCST to research in communication more broadly, in order to develop new knowledge about science communication.

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 each class session, one of you will lead the discussion. You 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). It will be helpful for discussion leaders to bring the questions on a handout for everyone. Even better would be to circulate the questions a couple of days before class, via Blackboard system.

Most of our readings will come from two recent books that have a nice series of chapters that describe the current state of the PCST field.

We will have some guest speakers address the Marcellus Shale issue, and if appropriate may become involved in some project associated with that issue. A basic introduction to the Marcellus Shale issues is available at <http://gasleasing.cce.cornell.edu/history.html>.

Required texts and reading

Holliman, Richard; Thomas, Jeff; Smidt, Sam; Scanlon, Eileen; & Whitelegg, Elizabeth (Eds.). (2009). *Practising science communication in the information age*. New York: Oxford.

Holliman, Richard; Whitelegg, Elizabeth; Scanlon, Eileen; Smidt, Sam; & Thomas, Jeff (Eds.). (2009). *Investigating science communication in the information age: Implications for public engagement and popular media*. New York: Oxford.

In addition, we will read some sections of a recent report (chapters will be posted online):

Bell, P., Lewenstein, B. V., Shouse, A., & Feder, M. (Eds.). (2009). *Learning Science in Informal Environments: People, Places, and Pursuits*. Washington, DC: National Academies Press.

Additional readings will be available in a password-protected section of the class website or via handouts.

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*.

Grades

About 50 percent 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 percent 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>. 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.

Class Schedule

Week 1, Jan 25: Introduction

Week 2, Feb 1: Engagement (*Investigating*, section 1)

Week 3, Feb 8: Publics (readings from Josh Braun)

Week 4, Feb 15: Researching PCST (*Investigating*, sections 2 & 3, plus additional reading online, including *Learning Science in Informal Environments*, executive summary)

Week 5, Feb 22: Audiences for PCST (*Investigating*, section 6)
NO CLASS Monday, 22 February

Week 6, Mar 1: Science journalism (*Investigating*, section 4, plus additional reading online, including *Learning Science in Informal Environments*, ch. 8)
NO CLASS Wednesday, 3 March

Week 7, Mar 8: Science museums (readings posted online, including *Learning Science in Informal Environments*, ch. 5)

Week 8, Mar 15: Informal science education (readings posted online, from: *Learning Science in Informal Environments*, executive summary, chapters 4 & 6)

SPRING BREAK

Week 9, Mar 29: Scientists communicating (*Practicing*, sections 1 & 2)

Week 10, Apr 5: Controversies (*Practicing*, sections 3 & 4)

Week 11, Apr 12: Popular culture (*Practicing*, section 5; *Investigating*, section 5)

Week 12, Apr 19: Back to engagement (*Practicing*, section 6)

Week 13, Apr 26: Presentations

Week 14, May 3: Presentations

Final paper due:
Tuesday, 18 May, 11:30 am