

# ESM 440: Strategic Environmental Communication

Spring 2017

Bren Hall 1424, Mon/Wed, 1:00-2:15 pm

## INSTRUCTORS

Lisa Leombruni  
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## COURSE OVERVIEW

Successful environmental communication is not just about getting the facts right. Before tackling an issue, it's critical to consider the intended audiences and their values and attitudes—and to use effective storytelling to reach them. To learn to message effectively, you will study the theory behind persuasion and decision-making, including how reason, emotion, and social influence work, and practice writing for a diversity of audiences, including the general public, policymakers, and funders. You will also learn how to develop compelling stories from good ideas, using conflict, drama, and character, and gain an understanding of the complex media environment in which their messages compete for attention.

## FORMAT

This is a two-part course: the first 5 weeks will cover communication theory and writing to different audiences (Leombruni), and the second 5 weeks will focus on the art of storytelling (Hutton).

## REQUIREMENTS

**Participation.** Strategic communication requires effective and open communication of ideas. In fact, the ability to communicate clearly and articulately is crucial to producing successful media. Therefore, a substantial portion of the grade will be tied to participation in class discussions. While regular participation will be expected, the quality of contributions is more important than the quantity. In addition, you may be asked to comment on readings or films on an online discussion forum (on GauchoSpace).

**Attendance.** Since participation is central to the value of the course, you are expected to attend every lecture. We also have no textbook, so what we review in class is essential; a sign-in sheet will be circulated at the beginning of each class. If for some reason you cannot make it to class due to an emergency or illness, please notify the instructors *in advance*. Planned absences can also be excused for academic or professional activities, such as conferences or interviews.

**Grading.** Your grade will be dependent upon eight homework assignments and a final project, as well as your participation in class. Grading guidelines will be provided with each assignment, and your grade will be calculated out of a total 200 points. The grading breakdown is:

PARTICIPATION	15
DRAFT FINAL	10
FINAL PROJECT	30
<i>Homework</i>	
(1) Message Grid	20
(2) GS Forum Post	5
(3) Narrative X-Ray	10
(4) Science Story	25
(5) Funding Pitch	5
(6) Short Proposal	10
(7) Six Word Stories	10
(8) Storytelling Basics	15
(9) 3-minute Pitch	20
(10) Character Portrait	25
<b>TOTAL POINTS</b>	<b>200</b>

**Assignment Format.** Assignments should be uploaded to GauchoSpace as a Word document (so your instructors can provide edits using “track changes”). Please include in a header with your name, assignment name, and date; assignments should be saved as:

**LastName\_Firstname\_AssignmentName\_MMDDYY.docx.**

## COURSE OUTLINE

PART 1: THEORY & AUDIENCE (Leombruni)			PART 2: STORYTELLING (Hutton)		
Week	Lecture	Topic	Week	Lecture	Topic
Week 1	Apr 3	Science Communication Basics	Week 6	May 8	Storytelling Basics
	Apr 5	The Message Environment		May 10	Storytelling & Drama
Week 2	Apr 10	Science of Science Communication 1	Week 7	May 15	Considering Audience
	Apr 12	Science of Science Communication 2		May 17	Story (vs. Science) Research
Week 3	Apr 17	Journalism & Science Narratives	Week 8	May 22	The Hero's Journey
	Apr 19	Strategic Communication		May 24	Pitch Sessions
Week 4	Apr 24	Ethics & Politicization of Science	Week 9	May 29	NO CLASS – Memorial Day
	Apr 26	Engaging the Public		May 31	Interviewing Session
Week 5	May 1	Funding Your Ideas	Week 10	Jun 5	Controversy in Science
	May 3	Outreach & Environmental Art		Jun 7	The Pieces Come Together

## LECTURES & READINGS

### PART 1: COMMUNICATION THEORY & AUDIENCE (Leombruni)

**April 3 – May 3, 2017**

**Apr 3: Science Communication Basics.** Course introduction, introduction to framing, basic science communication tips

- ❖ Bearzi, M. (2013) 5 Simple Tips for Communicating Science, *National Geographic, Ocean Views*.

- ❖ Olson, R. (2009) Top five tips for communicating science, *New Scientist*.
- ❖ Young, E. (2010) On jargon, and why it matters in science writing, *Phenomena*, *National Geographic*
- ❖ Zimmer, C. (2009) The Index of Banned Words (The Continually Updated Version), *The Loom*, *Discover Magazine*.

**Apr 5: The Message Environment.** Audience considerations, the science media landscape, public perceptions of science in the U.S., anti-science campaigns, online click economy, pop science, popular science YouTubers & bloggers

- ❖ Listen to: “Seeing is Believing,” (Mar 10, 2017) from NPR’s *On the Media*. (Segments 2, 3, and 4: *How the Environment Got Political*, *How to Answer: “Is This Caused By Climate Change?”*, *The Great Pacific Garbage Patch Is Worse Than You Think*) [38 min]
- ❖ Oreskes & Conway (2010) Defeating the merchants of doubt, *Nature*, 465(7299), 686-687.
- ❖ **Research & post:** Find a science blogger or YouTuber whom you think presents a more modern or compelling take on science. Post to the forum on YouTube, and check out the others posted there (***DUE 10 am on Wed Apr 5***)
- ❖ National Academies of Sciences, Engineering, and Medicine. (2017). Ch. 4: Communicating Science in a Complex, Competitive Communication Environment *Communicating Science Effectively: A Research Agenda*. Washington, DC: The National Academies Press. doi: 10.17226/23674. (\*ok to skim\*)

Optional, for additional context: (or just skim)

- ❖ Introduction from: Singer & Avery (2007) *Unstoppable Global Warming*, Rowman & Littlefield: Lanham, MD.
- ❖ Bailey, Ronald (2002). *Global Warming and Other Eco-Myths: How the Environmental Movement Uses False Science to Scare Us to Death*, Prima Publishing: Roseville, CA.

**April 10: The Science of Science Communication 1.** Deficit model, persuasion, dual-process theories, fear appeals; discuss Message Grid assignment

- ❖ Marshall, G. (2014) Ch 23: If They Don’t Understand the Theory, Talk About it Over and Over and Over Again: Why Climate Science Does Not Move People, in *Don’t Even Think About It: Why Our Brains Are Wired To Ignore Climate Change*, New York, NY: Bloomsbury. (p. 121-126)
- ❖ Chess, C., & Johnson, B. B. (2007). Information is not enough. In S. C. Moser & L. Dilling (Eds.), *Creating a climate for change: Communicating climate change and facilitating social change*. Cambridge, UK: Cambridge University Press. (p. 223–233)
- ❖ Marshall, G. (2014) Ch 10: The Two Brains: Why We Are So Poorly Evolved to Deal With Climate Change, in *Don’t Even Think About It: Why Our Brains Are Wired To Ignore Climate Change*, New York, NY: Bloomsbury. (p. 46-51)

**April 12: The Science of Science Communication 2.** Group identity and social influence, motivated reasoning, intergroup communication, social networks

- ❖ Marshall, G. (2014) Ch 6: The Jury of Our Peers: Why We Follow the People Around Us, in *Don’t Even Think About It: Why Our Brains Are Wired To Ignore Climate Change*, New York, NY: Bloomsbury. (p. 26-32)

- ❖ Stoknes, P. E. (2015) Chapter 9: The Power of Social Networks, In *What We Think About When We Try Not To Think About Global Warming*, White River Junction, VT: Chelsea Green. (p. 95-109)
- ❖ Stoknes, P. E. (2015) Ch 6: The Roots of Denial and Ch: 7 The Five Psychological Barriers to Climate Action, In *What We Think About When We Try Not To Think About Global Warming*, Chelsea Green, White River Junction, VT. P. 70-84.
- ❖ Pew (2013) Mapping Twitter Topic Networks: From Polarized Crowds to Community Clusters

**April 17: Journalism & Science Narratives.** Journalistic norms, press releases, op-eds, science stories, effective narrative structures; discuss Narrative X-Ray assignment

- ❖ Burke, K. L. (2015) 12 Tips for Scientists Writing for the General Public, *American Scientist*.
- ❖ Jabr, F. (2014) A New Generation of American Chestnut Trees May Redefine America's Forests. *Scientific American*.
- ❖ Kintisch, E. (2014) Into the Maelstrom, *Science* 344, p. 250-253.
- ❖ Rosen, J. (2015) Narrative X-Rays: Looking at Stories' Structural Skeletons, *The Open Notebook*.

Writing motivation / inspiration:

- ❖ Henderson, M. (2013, April 26). Mark Henderson on Science Writing: "Be open about what you think." *The Guardian*.
- ❖ Lamott, A. (1995) Shitty First Drafts. In *Bird by Bird*, (pp. 21-27). New York, NY: Anchor Books.

**April 19: Strategic Communication.** (Guest Speaker: TBD) Community-based social marketing, campaign design, theories of change

- ❖ Cox, R. (2009) Ch 7: Environmental Advocacy Campaigns, In: *Environmental Communication and the Public Sphere* (2nd ed.). Thousand Oaks, CA: Sage Publications. (p. 225 – 252)
- ❖ McKenzie-Mohr et al. (2012). Chapter 7: Protecting Fish and Wildlife Habitats, In: *Social Marketing to Protect the Environment: What Works*, Sage, Thousand Oaks, p. 109-132.
- ❖ Lertzman, R. (2016) Reducing Desire for Ivory, Prepared for the World Wildlife Foundation. (Read Parts 1, 3, 4)

Optional, for additional context: (or just skim)

- ❖ McKenzie-Mohr et al. (2012). Chapter 1: Fostering sustainable behavior, In: *Social Marketing to Protect the Environment: What Works*, Sage, Thousand Oaks, p. 3-20.

**April 24: Ethics & Politicization of Science.** Ethics of marketing and strategic messaging, activism vs. advocacy, objectivity in science; peer review of Draft Science Story assignment

- ❖ Goldman et al. (2017) Ensuring scientific integrity in the Age of Trump, *Science* 355, p. 696-698.
- ❖ Mann, Michael. If you see something, say something, *New York Times* (Jan 17 2013).
- ❖ Young., E. (2010) Should journalists take sides? *Phenomena*, *National Geographic*.

**April 26: Engaging the Public.** (Guest Speaker: Lance Orozco, KCLU Ventura & Santa Barbara Public Radio.) Broadcast media framing and storytelling, interviews in class, interviewing tips

- ❖ Chapter 10, *Fine-Tune for Radio and Television*, p. 143 – 151 in: Baron, N. (2010). *Escape from the Ivory Tower: A guide to making your science matter*. Washington, DC: Island Press.

**May 1: Funding Your Ideas.** (Guest Panel: Lotus Vermeer, Director of Development, Bren School; Owen Bailey, Executive Director, Environmental Defense Center; Kathi King, Development Activities Manager, Community Environmental Council, Anais Pellegrini, Community Environmental Council). The environmental funding landscape, how to prepare an effective funding pitch or proposal, project design

- ❖ Read example grant proposals posted on Gauchospace

**April 27: Outreach & Environmental Art.** Science communication in informal settings, environmental art, design, and creative indicators

- ❖ Marshall, G. (2014) Ch 19: Cockroach Tours: How Museums Struggle to Tell the Climate Story, In *Don't Even Think About It: Why Our Brains Are Wired To Ignore Climate Change*, New York, NY: Bloomsbury. (p. 46-51)

## **PART 2: STORYTELLING (Hutton)**

**May 2 – June 1, 2016**

**May 8: Storytelling Basics.** Relationship between science and media; importance of compelling communication; storytelling basics; consuming/producing media; *Eviction Day* screening and discussion.

- ❖ *The Storytelling Animal: How Stories Make Us Human*, by Jonathan Gottschall (Houghton Mifflin, 2012) preface and Chapter 1; pp. xi-xvii; 1-20.

**May 10: Storytelling & Drama.** What is drama; what is its relationship to story? The spectrum of drama; use (and abuse) of emotions in media. *Judgment Day/When the Levees Broke* screenings.

- ❖ *The Sixth Extinction*, by Elizabeth Kolbert, Chapter 1
- ❖ *Sredni Vashtar*, by H.H. Munro

**May 15: Considering Audience.** What is an audience's expectations; "producer-driven vs. audience-driven" media; determining goals; determining format -- documentaries vs. features; class exercise – speaking to an audience

- ❖ *Thirty Year Plan*, edited by Jennifer Sahn. (The Orion Society, 2012) Readings from the compilation: pp. 28-29; 36-39, 67-70, 79-81, 86-88

**May 17: Story (vs. Science) Research.** Elements a content producer looks for; importance of casting; a "God-like" knowledge of the subject; what your audience needs to know; tone; *Supersize Me* screening and discussion

- ❖ "Draft No. 4," by John McPhee (The New Yorker)

- ❖ “What Writers Really Do When They Write,” by George Saunders (The Guardian)

**May 22: The Hero’s Journey.** Guest Lecturer: Cheri Steinkellner

**May 24: Pitch Sessions.** Prepared pitches; critiques

**May 29: NO CLASS.** Memorial Day.

**May 31: Interviewing Session.** Intro to interviewing; interviewing goals and techniques; three or four interviewees

- ❖ Sample profiles TBD
- ❖ “Elicitation,” by John McPhee (from *The New Yorker*)

**Jun 5: Controversy in Science.** Role and importance of controversy; what is “objectivity” in journalism; delivering uncertain science; headwinds, and how journalists respond; screening *The Great Global Warming Swindle*

- ❖ *Merchants of Doubt*, by Naomi Oreskes and Erik M. Conway (Bloomsbury Press, 2010) TBD
- ❖ *Evolution* Foreword
- ❖ Cook et al. (2013) Quantifying the consensus on anthropogenic global warming in the scientific literature, *IOP Science, Environmental Research Letters*, 8.
- ❖ Friends of Science Society (2014) 97% Consensus? No! Global Warming Math Myths & Social Proofs, *Friends of Science Society, Calgary*.

Optional additional reading (or just skim):

- ❖ Idso, Carter, & Singer (2015) Why Scientists Disagree About Global Warming, *The Heartland Institute*.

**Jun 7: The Pieces Come Together.** Successful environmental and non-environmental initiatives -- commercial, noncommercial, political, and/or philanthropic: a group analysis, applying the principles covered throughout the course.