Possible course titles

Sustainability Science and the Media
Introduction to Science and Sustainability Communication
Communicating Science and Sustainability to the Public
Communicating Sustainability
Climate Change and the Media (this would just require a bit of tweaking to emphasize climate change, though all the topics we’re discussing have a climate component anyway)

Course description

This course will introduce students to the issues and challenges involved in communicating complex environmental topics to the public, through both analysis of media coverage and hands-on training. We will examine how various types of media convey information (or don’t) on a variety of sustainability-related topics—things like drought, pollution, biodiversity loss, extreme weather, resource extraction—and look at how media attention influences (or doesn’t) public opinion. We will also explore the roles and responsibilities of scientists who do research in these areas. And we will look at ways that scientists can help the public become better informed about the environmental issues that will shape our world over the next century. This course is geared toward undergraduate and graduate students in the sciences who are interested in science communication.

Course objectives

In this class, students will learn:
- To understand the role of the news media in covering topics related to sustainability
- The difficulties involved in covering complexity
- How the news media decides what to cover, and how the journalism ecosystem works
- The value of narratives, and how to effectively communicate scientific topics to the public
- Strategies for using different forms of media, from blogging to op-eds to Twitter

This course will have three segments:

1. In the first segment, we will analyze media coverage of sustainability-related topics, and explore the roles and responsibilities of scientists. Students will break into small groups and choose a specific topic (e.g. wildfire, drought, biodiversity loss) and briefly explore how the media covers this topic. What types of media are covering it? What sorts of stories are they telling? What biases are revealed through the coverage? What makes a story successful or not? What are the
challenges journalists and news organizations face when reporting on these topics? We will examine where/how the public get its information about sustainability-related topics, and how framing influences public opinion. We will also examine the question of whether scientists have an ethical responsibility to engage with the public on sustainability issues.

2. In the second segment, we will explore how the journalism ecosystem works. Who decides what stories get covered? What are the different roles of reporter and editor? Who writes headlines, and why do they sometimes fail to accurately reflect the story? What is search engine optimization, and what role does it play? How does fact-checking work? How does misinformation spread? What are the communication objectives of journalists versus scientists? Are there ways scientists can help ensure more accurate content?

3. Finally, in the third segment, students will learn the basics of communicating science through the media. We’ll explore effective ways researchers can talk about their work, the ins and outs of blogging, how to write op-eds, how to use social media, and what other types of outreach are possible.

Written Assignments

There will be four written assignments during the semester:
- A group presentation and report analyzing media coverage of a particular environmental topic
- An op-ed
- A blog post
- A final paper that explores in-depth a topic covered in the course. For instance, it might be a meditation on the ethical obligations of scientists to communicate about their work. Or a report on how media coverage of a specific topic or event influenced policy. Or an examination of how journalists deal with scientific uncertainty—along with suggestions for how to improve this.

In addition, all students will be expected to contribute weekly to a class Twitter feed.

Course outline

Week 1
Course introduction. What do we mean by sustainability science? Media as one among many forms of communication.

Week 2
What makes for good science journalism?

Reading: A sampling of great science writing on environmental issues

Week 3
Understanding the role of framing in media coverage; what shapes people’s views on environmental topics? How have media representations of global warming changed over time?

Reading:


**Week 4**
Do scientists have an ethical responsibility to communicate and/or advocate?

Reading:


http://www.theguardian.com/science/political-science/2013/jul/31/climate-scientists-policies
http://dotearth.blogs.nytimes.com/2013/12/20/climate-scientists-then-and-now-espousing-responsible-advocacy/?_php=true&_type=blogs&_r=0

**Week 5**
Student presentations

**Week 6**
Introduction to the journalism ecosystem.

Week 7
What makes news?

Week 8
The plague of misinformation

Reading:


Week 9
The messy world of science: dealing with risk and uncertainty

Reading:

http://phenomena.nationalgeographic.com/2014/05/12/resveratrol-redux-or-should-i-just-stop-writing-about-health/

http://phenomena.nationalgeographic.com/2014/05/13/the-problems-of-health-journalism-storify-ed/

Week 10
The role of social media

Reading:


Week 11
How to talk to journalists—message boxes, becoming a source, the art of the interview

Week 12
Op-Eds and blogging

Week 13
TBD

Week 14
TBD