Science Communication
200 Boston Ave, Room 4747, Tues. 9-11:30
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Office Hours: by appointment

Course Description: This course is designed to help graduate students learn how to communicate better about science to the public, to their fellow scientists, to advocacy groups, and to funding agencies. Scientists are increasingly called upon to explain and advocate science to diverse groups. This course will provide training in writing, speaking, and graphical presentation skills in a variety of formats. Students will also learn how to effectively edit and critique their work and others’. We will focus on writing and communicating in a popular style so that students can develop their abilities to present information clearly and logically; such skills will translate naturally into writing for scientific journals, for grants, and for presentations at conferences.

Course Objectives:
1. Develop skills in editing and critiquing
2. Learn the mechanics that underlie clear and effective communication
3. Increase ability to recognize logical flow and to create logical arguments

Required Books:

Other good books:

Grading:
Grades are based both on the quality of your own writing, and on the quality of your editing of your colleagues’ assignments.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Due date</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>News and Views 1</td>
<td>Feb. 17</td>
<td>15%</td>
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<tr>
<td>News and Views 2</td>
<td>Feb. 24</td>
<td>15%</td>
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<tr>
<td>Newspaper 1</td>
<td>Mar. 10</td>
<td>15%</td>
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<tr>
<td>Long piece</td>
<td>Apr. 14</td>
<td>15%</td>
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<tr>
<td>In class assignments</td>
<td></td>
<td>30%</td>
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<tr>
<td>Improvement/participation</td>
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<td>10%</td>
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(EDT: 1/8/15)
Course schedule (subject to modification):

20 January – **Mechanisms**
Basic grammatical techniques for clear writing. Sentence diagramming. Misplaced modifiers. Noun phrases. Avoiding Engfish, the stilted, confusing, overly formal language of poorly written journal articles.
Assignment: Find a clearly written, short piece of science journalism. Rewrite it in Engfish.
Reflection: Look for examples of poor structure around you. How would you rephrase them?

27 January – **Editing Engfish**
Reading: Greene, ch. 3, 4, 5.
In class: Edit the Engfish pieces. How close to the original article is your edited version?
Assignment: ?

3 February – **Why do we care?**
Reading: Greene, ch. 6-9.
In class: ?
Assignment: Re-write an article as a News and Views story. 500 words maximum.
Reflection:

10 February – **Editing for structure**
Reading: Greene, ch. 10, 11.
Outlining again. Topic sentences. Inverted pyramid.
In class: Edit the N&V story.
Assignment: Revise your first N&V story. Write a second N&V story. 500 words.

17 February – **Newspaper stories and interviews**
Reading: von Bubnoff
Why have quotes? Purpose of the interview.
In class: 5 min talks about the N&V stories. Editing the second N&V story.
Assignment: Revise N&V 2. Find an area lab group with a recent publication. Interview the lead author about the work. Write it up as a newspaper story. 300 words.

24 February – **Editing again**
Special visitor: Kristina Aiken, Tufts Writing Fellow program director
In class: Edit the newspaper story.
Assignment: Revise newspaper story. Bring in examples of unclear and clear figures from the literature.

(EDT: 1/8/15)
3 March – **Graphical presentation**
Reading: Tufte, ch. 4-8. Points of view.
In class: Redrawing figures. Drawing your hypotheses.
Assignment: ?

10 March – **Telling a story**
And, but, therefore. Writing for story. The hero’s journey.
Reading: Olson
In class: Shifting baselines?

17 March - SPRING BREAK
24 March – **Science journalism**
Guest: Heidi Ledford, Staff Writer, Nature
In class: Pitch for research story

31 March – **Making an argument**
Persuasive writing and speaking. Heading off the opposition.
In class: Debate 1. Critique

7 April – **Long-form writing**
Guest: Magazine writer?
In class: Peer editing the longer pieces

14 April – **Style**

21 April - **Translating to technical writing**
Longer pieces due

(EDT: 1/8/15)