Supplemental Materials
for
The Art of Science Communication—A Novel Approach to Science Communication Training
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Appendix 1: *The Art of Science Communication* Course Syllabus

Pre-Course

The pre-course material gives an overview of the course inspiration, setup and logistics. Students will also be asked to record and submit their “before” videos.

- **Session 0: Course Introduction**

**Week 1- Science Communication Overview, Part 1: Scientists**

The first week of the course provides an introduction to science communication. Starting with a definition of science communication, the content provides information about specific motivations and expectations from the perspective of scientists. Also provided is a historical overview of science communication.

- **Session 1.1: What is Science Communication?**
- **Session 1.2: History of Science Communication**
- **Session 1.3: Goals for Science Communication**
- **Session 1.4: Motivations for Science Communication**

**Week 2- Science Communication Overview, Part 2: Audience**

The focus of Week 2 is on the audience for science communication. Content in this week looks at how scientists are viewed and the factors that influence those views, along with motivations and expectations from the point of view of the audience in relation to those for scientists. The content also provides a brief overview of different types of potential audiences.

- **Session 2.1: Perceptions of Scientists**
- **Session 2.2: Credibility, Influence and Persuasion**
- **Session 2.3: Audience Motivations**
- **Session 2.4: Knowing Your Audience**
Week 3- Preparing Your Presentation

Starting in Week 3, we begin going over the specific aspects of a presentation, looking at the preparation necessary to place a presentation in the proper context for the particular audience. Content in this week goes over developing mission and “level the playing field” statements that help relate the scientific content to the audience. Also included is information about the mindset that scientists need to have when presenting non-scientific audiences, as well as techniques for relating to audiences.

- Session 3.1: Presentation Setup
- Session 3.2: Define Your Mission
- Session 3.3: Connect With Your Audience
- Session 3.4: Leveling the Playing Field

Week 4- Constructing Your Presentation

In Week 4, we go over the actual construction of a presentation, incorporating the lessons and content from Week 3 on preparation and setup. Content in this week includes how to start and finish strong, tips for formatting and delivering the actual content of the presentation, and methods for evaluation.

- Session 4.1: Getting Started With Your Presentation
- Session 4.2: Presentation Layout
- Session 4.3: Conclusion/Call to Action
- Session 4.4: Evaluation

Week 5- Delivering Your Presentation

The final week of the course focuses on the actual giving of a presentation. Content in this week demonstrates effective use of PowerPoint, proper non-verbal communication and presentation delivery and style.

- Session 5.1: Building a Great PowerPoint Slide
- Session 5.2: Presentation Setup
- Session 5.3: Presentation Mechanics
- Session 5.4: Presentation Delivery
Weeks 6-8- Student Presentations

After all of the course content has been delivered, students will present their refined final presentations.
Appendix 2: Example of Student Assignment

Course participants populate an empty Bingo card with lessons learned throughout the six weeks of instruction. This card is then used to help to evaluate final presentation videos during the virtual discussion sessions. (Inspired by M. Metzler’s “Bad Presentation Bingo” www.monicametzler.com/bad-presentation-bingo)

<table>
<thead>
<tr>
<th>Category</th>
<th>Adapts vocabulary to audience</th>
<th>Answers audience question</th>
<th>Speaks clearly and slowly</th>
<th>Moves without pacing or swaying</th>
<th>Speaks in an impromptu fashion rather than as if reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never uses the word “very”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Returns to central theme repeatedly to ensure audience has a reference point</td>
</tr>
<tr>
<td>Begins with why we should care about the topic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shows personal excitement in subject</td>
</tr>
<tr>
<td>No inappropriate jokes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Answers questions</td>
</tr>
<tr>
<td>Dressed appropriately</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Is enthusiastic</td>
</tr>
</tbody>
</table>

FREE: Speaks loudly enough to be heard