

The Art of Science Communication Course – Syllabus Summary

Week 1: Welcome to the Art of Science Communication

Pre-recorded video content:

- Course introduction

Learning objectives:

- Participants will begin to build a learning community among peers and facilitators.
- Facilitators will describe the format of the course and objectives.

****Participants record a 5-minute “before” video of a scientific topic of choice****

Week 2: What is science communication?

Pre-recorded video content:

- Session 2.1: Introduction to science communication
- Session 2.2: Goals for science communication
- Session 2.3: Motivations for science communication

Learning objectives:

- Participants will be able to explain what science communication is and who does science communication.
- Participants will be able to describe different forms of science communication.
- Participants will compare goals and motivations for science communication.
- Participants will discuss the role of diversity, equity, inclusion, and cultural awareness when communicating science.
- Participants will characterize the deficit model of communication.

Week 3: Knowing your audience

Pre-recorded video content:

- Session 3.1: Audience motivations
- Session 3.2: Who is your audience?
- Session 3.3: Perceptions of science and scientists

Learning objectives:

- Participants will identify different types of audiences.
- Participants will infer potential audience motivation.
- Participants will recognize varying perceptions of scientists and levels of trust in science.
- Participants will relate how cultural, educational, or social characteristics influence the audience perception and engagement with science.

Week 4: Connecting with your audience & building a presentation.

Pre-recorded video content:

- Session 4.1: Connect with your audience
- Session 4.2: Define your mission statement
- Session 4.3: Level the playing field
- Session 4.4: Scientific jargon

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Learning objectives:

- Participants will articulate a presentation mission statement for a specific audience.
- Students will implement analogies and framing as a tool to make their message accessible to their audience.
- Participants will understand the importance of “Level the Playing Field” when communicating with different audiences.
- Participants will identify scientific jargon and choose alternative words or phrases to describe science topics.

Week 5: The power of stories

Pre-recorded video content:

- Session 5.1: Storytelling introduction
- Session 5.2: Title, core message, AND...
- Session 5.3: Principles of BUT and THEREFORE

Learning objectives:

- Participants will summarize the elements of narrative storytelling.
- Participants will compose an engaging title, compelling opening statement, narrative hook, and “so what” statement?
- Participants will identify and practice the elements of building a scientific story.

Week 6: Presenting your story

Pre-recorded video content:

- Session 6.1: Presenting with body language
- Session 6.2: Presenting with tone and pace
- Session 6.3: Presenting with visual aids

Learning objectives:

- Participants will express the importance of body language, visual aids, and intonation.
- Participants will articulate the importance of understanding how gestures may be perceived across different cultural groups.
- Participants will identify cues of audience engagement during the presentation.
- Participants will devise complimentary visual aids and slide design for the audience and venue.

Weeks 7-8: Class Wrap-up

Pre-recorded video content: Outro video of key takeaways

****Participants record/present a 5-minute final video presentation of the same scientific topic as the “before” video****