



## Resources for teaching oral communication in science

### Comprehensive resources for educators

Maguire, K. Incorporating oral communication skills in your class. School of Communication, Cleveland State University Ohio.

*-handout from a workshop with suggestions for small and large class assignments, several example rubrics and websites with resources for educators*

<https://www.csuohio.edu/sites/default/files/OralCommHandout.pdf>

Teacher resources: oral communication focus. General Education Office, University of Hawai'i at Manoa.

*-assignment examples, suggestions on training students, assessments*

<http://www.hawaii.edu/gened/oc/oc.htm>

Brownell, S.E., Price, J.V., and Steinman, L. 2013. Science communication to the general public: why we need to teach undergraduate and graduate students this skill as part of their formal scientific training. *Journal of Undergraduate Neuroscience Education*, 12(1): E6-E10.

*-provides an example and a series of recommendations*

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3852879/>

### Example oral communication assignments

Professional communication projects: training science students to communicate. Pedagogy in Action, Science Education Resource Centre, Carleton College.

*-detailed examples of professional communication projects for science*

[http://serc.carleton.edu/sp/library/communications\\_curricula/index.html](http://serc.carleton.edu/sp/library/communications_curricula/index.html)

Ideas for Speaking Assignments. Communication Within the Curriculum, School of Arts and Sciences, University of Pennsylvania.

*-descriptions of variety of oral communication assignments*

<http://www.sas.upenn.edu/cwic/oca.html>

Kolber, B.J. 2011. Extended problem-based learning improves scientific communication in senior Biology students. *Journal of College Science Teaching*, 41(1): 32-3.

*-syllabus for multiple class presentations (Table 1), evaluation criteria for instructor and peer review (p. 34).*



## Writing Across the Curriculum+ Program

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### Example oral presentation learning objectives, outcomes, goals

Learning Outcomes: The Communication Major. Curry College.  
*-learning outcomes and goals for communication course*  
<https://www.curry.edu/programs-and-courses/undergraduate-programs/majors-minors-and-concentrations/majors/communication/learning-outcomes.html>

Program goals and student learning outcomes. Communication Arts & Sciences, California State University, Chico.  
*-learning outcomes and goals for communication program*  
<http://www.csuchico.edu/cmst/goals-slos.shtml>

Kerby, D., and Romaine, J. 2009. Develop oral presentation skills through accounting curriculum design and course-embedded assessment. *Journal of Education for Business*, 85(3): 172-179.  
*-example learning outcomes in Appendix A and an example rubric in Appendix B*

### Example rubrics and assessment criteria

Oral communication assignments and assessment. Center for Teaching and Learning. San Diego State University.  
*-links to several example rubrics and the workshop slides*  
<https://drive.google.com/file/d/0B4Sxc-cex9sBTEJOU1MtaTN2R2M/view>

Quigley, B.L. 1998. Designing and grading oral communication assignments. *New Directions for Teaching and Learning*, 74: 41-49. *-example rubric (p. 44)*

Bugarcic, A., Colthorpe, K., Zimbardi, K., Su, H.W., and Jackson, K. 2014. The development of undergraduate science students' scientific argument skills in oral presentation. *International Journal of Innovation in Science and Mathematics Education*, 22(5): 43-60.  
*-argumentation rubric is the result of a 2-year study*

Sample Scoring Rubrics for Presentations. How People Learn Engineering. University of Wisconsin-Madison.  
[http://hplengr.engr.wisc.edu/Rubric\\_Presentation.doc](http://hplengr.engr.wisc.edu/Rubric_Presentation.doc)

### Resources for students

Presentation Skills. Student Toolkits, UBC Learning Commons, University of British Columbia.  
*-video, links to other resources*  
<http://learningcommons.ubc.ca/student-toolkits/presentation-skills/>



## Resources for students

Resources. Communication Across the Curriculum, School of Arts and Sciences, University of Pennsylvania.

*-resources for students on podcasts, nervousness, visual aids, voice and movement, non-native speakers*

<http://www.sas.upenn.edu/cwic/resources.html>

Creating a 10-15 minute scientific presentation. Collaborative Learning and Integrated Mentoring in the Biosciences, Northwestern University.

*-videos about creating scientific presentations, including slides*

<http://www.northwestern.edu/climb/resources/oral-communication-skills/creating-a-presentation.html>

Robinson, J.P. Presentation 101 for graduate students. Department of Basic Medical Sciences & Weldon School of Biomedical Engineering, Purdue University.

*-series of slides give tips on presenting and slide design*

[http://www.cyto.purdue.edu/archive/Education/2010\\_data/Presentation\\_101\\_for\\_Graduate\\_Students.pdf](http://www.cyto.purdue.edu/archive/Education/2010_data/Presentation_101_for_Graduate_Students.pdf)