

Communicating Science to the Public SIOB 292
Fall 2019 Course Information

Instructors:

Lisa Gilfillan lgilfillan@ucsd.edu
Cari Paulenich cpaulenich@ucsd.edu

Office hours are available by appointment.

Course Description:

Students will focus on the development of science communication and interpretive skills through the study of pedagogy and learning theory. The course will examine the role of the audience, crafting a message and best practices for engagement. The course culminates with an opportunity to put theory into practice through development, implementation, and informal evaluation of an educational activity for the public at the Birch Aquarium.

Meeting Time:

Wednesdays, 1:00-4:00 pm
Birch Aquarium, West Classroom

The SIO shuttle stops at the Aquarium.

Requirements:

1. Attend class and participate in discussions and on-line assignments.
2. Develop a written **Elevator Talk** that details your area of research. The talk will be revised during the quarter to reflect topics covered in class.
3. Observe ocean science activities along with visitors at Birch Aquarium at Scripps and complete an **Observation Instrument**. Observe a Birch school program on Scripps Pier and complete an Observation Instrument about the program and about the similarities and differences between a program tailored for schoolchildren and one for the public. Please refer to the information page *Visiting the Aquarium* regarding dates, times, and procedures.
4. Participate in presenting ocean science activities to visitors at Birch Aquarium at Scripps (BAS), sometimes with a partner. The Activity Days will involve implementing an activity you have designed, with a partner, based on criteria and models presented in the course. Activity Days will take place in lieu of class during weeks 6 and 8.
5. Develop an activity of your own design with your partner. The activity design process has three parts:

- a. Prepare an **Activity Idea Proposal** with your partner, which briefly describes your idea for an activity. This is a partner assignment and each set of partners will turn in one activity proposal that they have developed together. Please feel free to discuss your ideas with the instructors and your classmates before developing your proposal.
- b. Prepare a **Written Activity Plan** with your partner describing the goal and key concepts of the activity along with a description of the activity you plan to do. You will be given an activity template to use as you design your lesson. Be sure to incorporate how you will use the concepts discussed in class. This is a partner assignment and each set of partners will turn in one activity plan that they have developed together. Again, please feel free to discuss your ideas with the instructors and your classmates before developing your plan.
- c. A **Final Written Activity Plan** prepared by you and your partner will reflect any changes you have made to the activity based on your experiences implementing the activity with a live audience on the floor of the Aquarium.
6. Prepare an **Activity Debrief** after you teach the activity for the public, sharing what went well and how you might change your activity to be even more effective were you to teach it again. THIS IS AN INDIVIDUAL ASSIGNMENT. You can discuss your ideas with your partner before writing your debrief, but each person is responsible for writing his or her own activity debrief in his or her own words.
7. Conduct a **Final Presentation** of your Elevator Talk during the final session of the course (12/5).

Note: Late assignments may be penalized 10% for each day they are late. Documented, valid excuses will be taken into consideration. Any 'partner issues' that affect your ability to complete work in a timely manner must be brought to our attention as soon as they arise.

Grading:

Attendance

- Attendance will be taken into consideration when assigning final grades.
- Missing three or more classes may result in an automatic U (unsatisfactory).
- Missing 1 teaching obligation may result in you not passing the course.

Assignments

In class assignments

	<u>Points</u>
Participation in class discussions (7 x 50 points each)	350
Peer Evaluation of Elevator Talk	50
Final Presentation*	100

Written Assignments	
Elevator Talks (2x 50 points each)	100
Activity Idea Proposal	100
Activity Plan*	150
Activity Debrief*	150
Final Activity Plan	100
Broader Impact Statement (2x 50 points each)	100
Floor Activities	
Observation Instruments:	
Aquarium	50
School Program	50
Teaching:	
Activity Days (2 x 100 points each)	<u>200</u>
	1500

All assignments denoted with an asterisk (*) must be completed in order to pass the course.

All assignments denoted with an asterisk (*) must be completed in order to pass the course. You must earn 950 points to receive a satisfactory (S) grade in this course.