

Communicating Science to the Public

FISH 605

Spring, Odd-numbered years

Course information

2 credits (2+0)

Prerequisites graduate standing in the sciences
(advanced undergraduates may take the course
with instructor permission)

Schedule Friday 9-11 am

Location: Juneau and other sites by permission of
instructor. The course will be taught from Juneau.

Due to the highly interactive nature of this course, it
will be distance-delivered only to sites with at least
two students enrolled.

Instructor

Dr. Anne Beaudreau

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Office hours Friday 11am-1 pm
or by appointment

Course readings/materials

There are four required books for this course (see reading list below). Additional readings will be made available on Blackboard. Students will need to provide their own laptops, unless they are available for checkout from their home department.

Course description

FISH 605 Communicating Science to the Public

2 Credits Offered Spring Odd-numbered Years

In this course, students will gain practical skills in communicating environmental science to the public and natural resource policy makers. Short lectures, readings, and discussion will focus on communication issues in environmental science and management and best practices for good oral and written communication. Throughout the semester, students will work with peers to develop tools for effective science communication and engage with invited professionals in science journalism, public relations, and resource management. Students will gain direct experience in communicating their own original research to a public audience through a group outreach event that they will co-organize at the culmination of the course. **Prerequisites:** graduate standing in the sciences or permission of instructor (2+0)

Course goals

As researchers, we are increasingly asked to demonstrate the broader impacts of what we do to funding agencies, other scientists, and the general public. This course will provide a valuable opportunity for students to practice those communication skills before they join the workforce. The central goal of this course is for students to practice communicating their own original research to the public in oral and written form, and to showcase their skills at a public outreach event at the end of the semester. Course activities are designed to meet the following objectives:

- (1) Build the oral, written, and visual communication skills that graduate students will use throughout their careers. Specifically, students will gain extensive practice in presenting

- (2) Increase graduate student skill in communicating environmental science to diverse audiences. Students will learn to assess the prior knowledge of an audience and tailor their communication to that group. They will learn to use tools such as metaphors and analogies to tell the story of their research.
- (3) Provide experience in facilitating discussions and constructive critiques among peers. Throughout the semester, students will develop their skills in peer-review through constructive criticism and discussion of each other's work. They will learn to facilitate group discussion of literature on learning and communication.

Student learning outcomes

By the completion of this course, students will be able to:

- Present their own research clearly and effectively, with minimal jargon, in oral and written form for lay audiences.
- Assess the prior knowledge of their audience and, accordingly, translate their research effectively to specific audiences (e.g., fisheries stakeholders, natural resource managers, other scientists, general public).
- Communicate the broader impact of their own research, in particular, being able to clearly and concisely articulate why their research matters. They will practice doing so one-on-one, in small peer groups, and with a large public audience.
- Develop metaphors and analogies to effectively translate science concepts to audiences of all ages and backgrounds.
- Understand the purpose of and create original infographics to help communicate scientific concepts.
- Lead and facilitate discussions among peers and constructive critiques of each other's work.

Reading List

Baron N. 2010. Escape from the Ivory Tower. Washington, DC: Island Press. Available as UAF e-book at no cost

Dean, Cornelia. 2009. Am I Making Myself Clear? A Scientist's Guide to Talking to the Public. Cambridge, MA: Harvard University Press. Available as UAF e-book at no cost

Heath, Chip & Dan Heath. 2007. Made to Stick. New York, NY: Random House. Available from Amazon for approx. \$12 (Kindle) or \$7 (paperback).

Olson, Randy. 2009. Don't be Such a Scientist. Washington: Island Press. Available from Amazon for approx. \$10 (Kindle) or \$16 (paperback).

Other readings will be assigned throughout the semester, and will be posted on Blackboard approximately 1 week prior to the due date. See course schedule below for more details.

Instructional methods and evaluation

The course will be taught using a combination of discussion and active learning methods. Discussions will focus on current issues in the presentation of science to the public. Classroom exercises and workshops with professionals engaged in science communication (2-5 over the

Grades will be calculated as a percentage of the 550 points possible in the course. Rubrics will be

