

Communicating Science in the Geosciences

GEO 4170 and 6938

Instructor: Stephen Mullens – stephen.mullens@ufl.edu

Office: Turlington 3126-B

Office Hours: Mondays, Wednesdays period 4 (10:40-11:30). If you want to make an appointment at another time, just email me. I will try to accommodate you as my schedule permits.

Class times:

Mondays at 12:50-2:45pm; Wednesdays at 12:50-1:40pm
Turlington 3018

Textbook:

Olsen, R., 2015: *Houston, We Have a Narrative*. University of Chicago Press, 252 pp.
Recommended – Kearns, F., 2021: *Getting to the Heart of Science Communication: A Guide to Effective Engagement*. Island Press, 280 pp.

Course Objectives – What we're going to cover:

- Compare and explain the differences between communicating qualitative and quantitative science.
- Construct narratives in a systematic way to aid science communications.
- Evaluate communications from geoscience organizations for their use of narrative.
- Evaluate and translate p-values and statistically significant, near significant, and non-significant results to the public.
- Understand and demonstrate persuasive techniques that successfully result in the public taking suggested actions.
- Evaluate and understand what fields attempt to communicate risk, the importance of communicating risk, and who their audiences are.
- Understand and contrast principles for communicating with media journalists and politicians, including gaining trust while maintaining ethics.
- Evaluate, plan, draft, and deliver an oral presentation meant for a public audience that motivates the audience to take action to deal with a risk to them or their community.

Grading Structure:

10% - Attendance

25% - Homework assignments

25% - Midterm Assessment

40% - Final Project

Grades:

A	90.0-100%	B+	87.0-89.9%	C+	77.0-79.9%	D+	67.0-69.9%
		B	83.0-86.9%	C	73.0-76.9%	D	63.0-66.9%
		B-	80.0-82.9%	C-	70.0-72.9%	D-	60.0-62.9%

No classes on:

Martin Luther King, Jr. Day is on January 18.

I'm at the AMS Annual Meeting on January 26.

Tentative Weekly Schedule:

Week	Mon 6-7; Wed 6	Relevant Texts
3-Jan	Introduction	
10-Jan	The Science Communication Profession	<i>Heart of SciComm</i> , Ch 1
17-Jan	Audience and Biases	<i>Thinking, Fast and Slow</i> Aristotle
24-Jan	Quantitative Methodologies	Francis Bacon
31-Jan	Qualitative Methodologies & CC Summit (Feb 3)	<i>Qualitative Research Methods</i>
7-Feb	Narrative	<i>Houston, We Have a Narrative</i>
14-Feb	Narrative	
21-Feb	Midterm Assessment	
28-Feb	Listening and Conflict	<i>Heart of SciComm</i> , Ch 5-6
7-Mar	Spring Break	
14-Mar	Public Interest Communication	CC Summit
21-Mar	Persuasion	<i>Persuasion</i> texts
28-Mar	Writing Principles	<i>The Elements of Style</i>
4-Apr	Statistical Significance	Multiple articles
11-Apr	Journalists, Politicians	<i>Escape from the Ivory Tower</i> <i>Working with Congress</i>
18-Apr	Risk Communication	<i>Risk Communication</i>
25-Apr	Final Project Due: Apr 27 2:30pm	

UF POLICIES

My Expectations of You

You will read materials for a particular class period either before or shortly after class. Learning often isn't the most joyous activity because it requires a significant effort. The nationwide standard for university scholarship says students should study (read, review, reflect, practice, do homework) at least 2 hours for every hour you are in lecture.

Though we will be doing some activities that use the internet during class, please understand that text messaging, visiting Facebook, browsing the internet, etc. during class is a major distraction from learning for your peers as well.

Web page

The class web page can be found at: elearning.ufl.edu/. If you encounter any problems with the web page, do something (anything!) to let the instructor know.

Academic Honesty

"UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (sccr.dso.ufl.edu/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class."

Accommodations

"Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester."

Excused Absences

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

"In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligation, severe weather conditions, religious holidays, and participation in official university activities such as music performances, athletic

competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused.”

I appreciate that unexpected events occur in all of our lives. If such events occur, and it causes you to attend an event (e.g., funeral, job interview) or a facility (e.g., doctor’s office, courthouse), then you will need to prove that you went to this event/facility on that date by providing some form of documentation of the event. An event program, a doctor’s note, or similar paperwork will suffice. Upon producing this documentation, you will be able to make up the midterm exam or any graded class activities from that date.

“A student should inform the faculty member of the religious observances of his or her faith that will conflict with class attendance, with tests or examinations, or with other class activities prior to the class or occurrence of that test or activity.”

Grades

UF policies on grades and GPAs can be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Course Evaluation

“Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at gatorevals.ua.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at gatorevals.ua.ufl.edu/public-results/.”

Title IX

For any concerns regarding gender-based discrimination, sexual harassment, sexual assault, dating/domestic violence, or stalking, there are resources available. To learn more or to report an incident, go to: titleix.ufl.edu. A professor/GA/TA is required to report instances of sexual harassment, sexual assault, or discrimination.

Drops, Absences, etc.

Should you decide to drop the course for whatever reason, you must request to do so through the appropriate channels by the appropriate deadlines. You will receive a W for withdrawing. Failing to do so will result in an E grade for the course. If at the time you withdraw from the course you are scoring a failing grade, you will receive an E grade.

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact the instructor as soon as possible to discuss. Generally, modifications will be made where medically necessary.

DISCLAIMER:

This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.