

Communicating Science in the Geosciences

GEO 4170 and 6938

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.

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

Office: Turlington 3126-B

Office Hours: Mondays period 7, Wednesdays periods 7-8. If you want to make an appointment, just email me. I will accommodate you as my schedule permits.

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:

I expect you to attend every class without chronically being absent. This class has a cadence that there are often reading assignments that you must respond to followed by class discussions of the reading assignments. During the discussions, I will make some points that I believe need to be highlighted from the text. Throughout the year, you will be creating a podcast on a subject of your choice that requires application of the course objectives. You must create the podcast and communicate how you implemented the course objectives. This project is the subject of both the midterm assessment and the final project. At the end of the year, I will assign a “Concluding Self Assessment” where you will evaluate your participation in and

interaction with the course. At the end, you will assign yourself a grade based upon your participation, interaction, and ability to demonstrate mastery of the course objectives within the final project. I will evaluate this assignment along with your project and the reading assignments through the year and assign a grade accordingly using the same guidelines I provided in the self assessment. Typically, students are able to accurately assign a grade that reflects their learning during the year. But I reserve the right to either raise or lower the final grade if this is not the case. I will provide objective reasoning to defend my decision.

Grades:

A	90.0-100%	B	80.0-89.9%	C	70.0-79.9%	D	60.0-69.9%
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No classes on:

Martin Luther King, Jr. Day is on January 15.
Spring Break is March 11-15.

Tentative Weekly Schedule:

- Week 1 – Introduction, The Science Communication Profession
- Week 2 – Audience and Bias
- Week 3 – Climate Communications Summit
- Week 4 – No classes; I’m at a conference.
- Week 5 – Quantitative Methodologies
- Week 6 – Qualitative Methodologies
- Week 7 – Narrative
- Week 8 – Narrative, continued
- Week 9 – Narrative, continued
- [spring break]
- Week 10 – Public Interest Communications
- Week 11 – Listening and Conflict
- Week 12 – Persuasion, Map Creation
- Week 13 – Writing Principles
- Week 14 – Crisis Communications
- Week 15 – Statistical Significance, Talking with Journalists or Policymakers
- Week 16 – Finals Week – Self Evaluation

DISCLAIMER:

This syllabus represents my general plans and objectives. As we go through the semester, those plans may need to change to enhance the learning opportunities for the class. Such changes are typical, should be expected, and will be clearly communicated on Canvas.

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.aa.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.aa.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.