IB 497 Science Communication

Spring 2024; Full term (16 weeks)

3 undergraduate/4 graduate credit hours; No prerequisites

Weekly hours of expected student work, apart from instruction time – 6 hours for undergraduate students and 8 hours for graduate students

Mon and Wed: 10-11:30 am

In-person; 2090 Natural History Building., Urbana, IL 61801

Instructor Information

Professor Esther Ngumbi in the Departments of Entomology and African American Studies

Email: enn@illinois.edu

Office hours: by appointment

Course Description

Trains emerging scientists to communicate beyond academia. Explores

the various avenues that can be used to communicate science with different audiences. Through weekly lectures, practical assignments and invited guest lecture presentations, this course builds critical skills in written and oral communication relevant to all careers as well as the art of writing and pitching opinion pieces to various media outlets for public engagement.

Student Learning Outcomes

- 1. Learn and develop skills that underlie clear and effective science communication.
- 2. Learn the art of writing and pitching opinion pieces to various media outlets.
- 3. Learn the elements of communication that are most useful with varied audiences.
- 4. Apply these elements to communicate their research projects and improve their science communication endeavors.
- 5. Communicate science to different audiences through careful use of metaphors and minimal use of jargon.
- 6. Create persuasive, effective, and accessible arguments about different science topics.
- 7. Appreciate the many forms of science communication.
- 8. Produce a portfolio consisting of an opinion piece, a mini-Ted-talk and a press release/graphical summary.
- 9. Describe what makes a good science story.
- 10. Advocate for science

Learning Management System

This course uses the Learning Management System Canvas: https://canvas.illinois.edu/

Required and Recommended Course Readings

No textbook is required. All class materials and lectures will be available on canvas.illinois.edu



Meet the Guest Lecturers



Myeashea Alexander

Myeashea Alexander is a science communicator and anthropologist who focuses on forensic anthropology and the stories that live within our skeletons. She is currently based in Brooklyn, NY with her partner, portrait and editorial photographer, Damari McBride and their two-year-old corgi, Peach.



Ralph Bouquet is the Director of Education and Outreach, NOVA, the PBS science documentary series produced by W GBH Boston. Ralph received his B.A. from Harvard University and studied secondary science methods and urban education while completing his M.Ed. at UPenn.



Holly Kearl

Holly Kearl is an author and the founder of the NGO Stop Street
Harassment. She has written three books and four national studies. She
has worked for entities like UN Women, AAUW, the OpEd Project and
the Aspen Institute. She received her B.S. from
Santa Clara University and a Master's degree from
George Washington University.

Diana Yates

Diana Yates is the Life Sciences Editor at University of Illinois at Urbana Champaign.

Course Requirements

- Attendance (10%): Students will be expected to attend all class meetings. Attendance will be taken in class during the class period.
- Participation (10%): Students will be expected to contribute to all class discussions. Active participation includes completing required readings ahead of time, asking questions, contributing to large and small group discussions, etc.
- Readings (20%): Students will be expected to complete all readings before class. Three
 hundred minimum words and 500 words maximum summary of one of the readings that a
 student selects will be submitted each week. Summaries should include a brief overview of
 the research paper including highlighting what stood out of the paper. In addition, students
 will be asked to develop two questions that they would like to ask the author as a way to
 promote critical thinking skills. These reading summaries apply to both graduate and
 undergraduate students.
- Projects (60%): 460 points total for Undergraduates, 550 points for Graduates (described more below)
 - Opinion Piece (OpEd) 120 points
 - 5-8 Minutes Mini-Ted Talk 120 points

- Either a Press Release or a Graphical summary 120 points
- o Graduate Students Only: Summary of student's research 90 points

Projects

See rubrics below. Students will be expected to complete and turn in all projects associated with this class on their respective due dates before 11:59pm. Late projects will not be accepted. Unless otherwise stated, please use 12-point font, double spacing, one-inch margins, and APA, MLA, or Chicago formatting for citations and works-cited.

One publishable opinion piece (Op-Ed). Total points – 120.

 This is a written 600 minimum to 900 maximum words publishable article on a topic chosen by the student which contains all elements of an OpEd that include a lede, the thesis of the argument, data-evidence backed support for the arguments made, and concluding paragraph.

5-8 minutes Mini-TED Talk style of your research/science subject of your choice. Total Points – 120

• This is a spoken presentation (5-8 minutes) on a topic chosen by the student that has slides and will be delivered in class by the student.

Press release or Graphical summary of a manuscript of your choice – Total Points – 120

This is a word document (press release) or a presentation (Graphical summary) on slides.
The press release must contain all elements including the headline, lede, why the study is
important, the background and results. For the graphical summary, the slides must also
contain all the elements of a chosen manuscript including the title, background, methods
used, results and the main takeaways from the study.

Graduate students only: summary of research proposal – Total Points 90

 This is a 1200 word minimum to 1500 word maximum word document summarizing students' proposal using language accessible to the public and policy makers. The summary should highlight the broader implications of their research and how their research contributes to the achievement of societally relevant outcomes.

Grading Breakdown

The table below explains point breakdown of course for **Undergraduate** students

	Point Total	Percentage of Grade
Attendance	60	10%
Participation	60	10%
Readings	120	20%
Projects (Deliverables such as	360	60%
OpEd, Ted Talk, Press		
release/graphical summary)		
Total	600	100%

The table below explains point breakdown of course for **Graduate** students

	Point Total	Percentage of Grade
Attendance	60	8.7%

Participation	60	8.7%
Readings	120	17.4%
Projects (Deliverables such as	450	65.2%
OpEd, Ted Talk, Press		
release/graphical		
summary/one page summary		
of research)		
Total	690	100%

Final Letter Grades

Although the University of Illinois does not have a standard percentage associated with letter grades, in this course the following grading scheme will be used:

Numerical Grade	Letter Grade	Numerical Grade	Letter Grade
97-100	A+	77-79.99	C+
93-96.99	Α	73-76.99	С
90-92.99	A-	70-72.99	C-
87-89.99	B+	67-69.99	D+
83-86.99	В	63-66.99	D
80-82.99	B-	60-62.99	D-
Below 60	F		

Project Rubrics

IB497: Individual Opinion/Op-Ed Piece Grading Rubric		
Submitted on Due Date		
Opinion Piece		
Lede/Idea	<u>/</u> 15 points	
Thesis	/10 points	
Argument		
Supporting Evidence	/20 points	
Supporting Evidence	/20 points	
Supporting Evidence		
• To be sure		
Conclusion and Call to Action /10 points		
Minimum of 500 words/5 points		
TOTAL POINTS		
GRADE:		
Additional Feedback:		

IB497: MINI TED TALK/PODCAST Grading Rubric		
Engaging and creative beginning		
 Content Creative, original, well-developed ideas, and presented in an engaging style, using specific examples from research to make points clear. Well focused presentation, informative. Talk stays within topic. 	/50 points	
 Presentation Clear presentation, volume, clarity, visuals, and eye contact with audience Engaging and creative visuals/multimedia 	/40 points	
• Length (Minimum 5-8 minutes)/10 points		
TOTAL POINTS		
GRADE:		
Additional Feedback:		

IB497: PRESS RELEASE Grading Rubric		
Submitted on Due Date		
Press Release		
The headline	/15 points	
• Lead/(Lede)	/15 points	
Why important? Where published?		
Background (What did we know before this study?) Introduce		
researchers		
 Methods 	/15 points	
Key findings		
What does it mean? What is next? /15 points		
TOTAL POINTS		
GRADE:		
Additional Feedback:		

IB497: GRAPHICAL SUMMARY OF A MANUSCRIPT Grading Rubric		
Submitted on Due Date	/10 points	
Graphical Summary of a Manuscript		
Content	<u>/5</u> 5 points	
- Accurate.		
 Main results and key take aways are effectively summarized. 		
 Significant details of manuscript are included in the summary 		
 Main ideas of manuscript are included in summary. 		
 Presentation 	<u>/4</u> 5 points	
-Visually appealing summary.		
- All main elements of the manuscript are visually well presented.		
-Creative design used including the use of fonts and colors.		
- Summary uses space effectively		
Presentation time (Minimum 3minutes)		
TOTAL POINTS		
GRADE:		
Additional Feedback:		

IB497: Summary of Research (For Graduate Students ONLY) Grading Rubric		
Submitted on Due Date	/10points	
Content	/35 points	
- Main sections of a research proposal are presented.		
 Language used is accessible to the public. 		
 Language used is accessible for policy makers 		
Broader impact of research	/35 points	
-Connections between research and its broader impacts are made.		
- Potential of research to advance science and solve societal		
challenges is well explained		
-Potential of research to broaden participation in science is		
explained		
 Presentation time (Minimum 3minutes) 	/10 points	
TOTAL POINTS		
GRADE:		
Additional Feedback:		

Tentative Course Schedule

Date	Topic	Reading, Assignment, etc.
Jan	Meet and Greet	
17	/Course	
	introduction	

Jan	Why become a	Week 2 Readings (PDF's will be downloaded and made available
22	Science	to class).
	Communicator?	1. Baron, N. (2010). Stand up for science. Nature, 468: 1032-1033. https://www.nature.com/articles/4681032a
		 Pace, ML. et al. (2010). Communicating with the public: opportunities and rewards for individual ecologists. Frontiers in Ecology and the Environment, 8: 306-313.
		https://doi.org/10.1890/090168
		3. Rose, KM., Markowitz EM., Brossard D. (2020). Scientists'
		incentives and attitudes toward public communication.
		PNAS - https://doi.org/10.1073/pnas.1916740117
		4. Cacciatore, M. (2021). Misinformation and public opinion
Jan	Many ways to	of science and health: Approaches, findings, and future
24	communicate	directions. PNAS, 118: 1912437117.
	science- Guest	https://doi.org/10.1073/pnas.1912437117
	lecture,	5. Baram-Tsabari A., Lewenstein BV. (2017). Science communication training: What are we trying to teach?
	Myeashea	International Journal of Science Education, Part B,7:285-
	Alexander	300. https://doi.org/10.1080/21548455.2017.1303756
		6. Jensen P., et al. (2008). Scientists who engage with society
		perform better academically. Science and Public Policy,
		35: 527-541. http://doi.org/10.3152/030234208x329130
Jan	Science	Week 3 Readings (PDF's will be downloaded and made available
Jan 29	Science Communication	Week 3 Readings (PDF's will be downloaded and made available to class).
		to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-
	Communication	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science
	Communication	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666.
	Communication	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575
	Communication	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific
	Communication	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy
	Communication	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368.
29 Jan	Communication Basics Do's and Don'ts	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368. https://doi.org/10.1177/1470594X14538570
29	Communication Basics Do's and Don'ts of Science	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368.
29 Jan	Communication Basics Do's and Don'ts of Science Communication/E	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368. https://doi.org/10.1177/1470594X14538570 3. Crameri F., Shephard GE., Heron PJ. (2020). The misuse of
29 Jan	Communication Basics Do's and Don'ts of Science	 Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368. https://doi.org/10.1177/1470594X14538570 Crameri F., Shephard GE., Heron PJ. (2020). The misuse of colour in science communication. Nature Communications. 11:5444 https://doi.org/10.1038/s41467-020-19160-7
29 Jan	Communication Basics Do's and Don'ts of Science Communication/E	 Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368. https://doi.org/10.1177/1470594X14538570 Crameri F., Shephard GE., Heron PJ. (2020). The misuse of colour in science communication. Nature Communications. 11:5444 https://doi.org/10.1038/s41467-020-19160-7 Iyengar S., Massey DS. (2018). Scientific communication
29 Jan	Communication Basics Do's and Don'ts of Science Communication/E	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368. https://doi.org/10.1177/1470594X14538570 3. Crameri F., Shephard GE., Heron PJ. (2020). The misuse of colour in science communication. Nature Communications. 11:5444 https://doi.org/10.1038/s41467-020-19160-7 4. Iyengar S., Massey DS. (2018). Scientific communication in a post-truth society. PNAS, 116(16): 7656-7661.
29 Jan	Communication Basics Do's and Don'ts of Science Communication/E	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368. https://doi.org/10.1177/1470594X14538570 3. Crameri F., Shephard GE., Heron PJ. (2020). The misuse of colour in science communication. Nature Communications. 11:5444 https://doi.org/10.1038/s41467-020-19160-7 4. Iyengar S., Massey DS. (2018). Scientific communication in a post-truth society. PNAS, 116(16): 7656-7661. https://doi.org/10.1073/pnas.1805868115
29 Jan	Communication Basics Do's and Don'ts of Science Communication/E	 Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368.
29 Jan	Communication Basics Do's and Don'ts of Science Communication/E	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368. https://doi.org/10.1177/1470594X14538570 3. Crameri F., Shephard GE., Heron PJ. (2020). The misuse of colour in science communication. Nature Communications. 11:5444 https://doi.org/10.1038/s41467-020-19160-7 4. Iyengar S., Massey DS. (2018). Scientific communication in a post-truth society. PNAS, 116(16): 7656-7661. https://doi.org/10.1073/pnas.1805868115 5. Lewenstein BV. (2003). Models of public communication of science and technology.
29 Jan	Communication Basics Do's and Don'ts of Science Communication/E	 Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368.
29 Jan	Communication Basics Do's and Don'ts of Science Communication/E	to class). 1. Hottecke, D., Allchin D. (2020). Reconceptualizing nature-of-science education in the age of social media. Science Education, 104(4): 641-666. https://doi.org/10.1002/sce.21575 2. Keohane, RO. et al. (2014). The ethics of scientific communication under uncertainty. Politics, Philosophy &Economics, 13: 343-368. https://doi.org/10.1177/1470594X14538570 3. Crameri F., Shephard GE., Heron PJ. (2020). The misuse of colour in science communication. Nature Communications. 11:5444 https://doi.org/10.1038/s41467-020-19160-7 4. Iyengar S., Massey DS. (2018). Scientific communication in a post-truth society. PNAS, 116(16): 7656-7661. https://doi.org/10.1073/pnas.1805868115 5. Lewenstein BV. (2003). Models of public communication of science and technology.

Feb 5	What is the	Week 4 Readings (PDF's will be downloaded and made available
	message?	to class).
Feb 7	Interactive class	1. Besley JC. (2015). What do scientists think about the
	activities	public and does it matter to their online engagement?
		Science and Public Policy, 42: 201-214.
		https://doi.org/10.1093/scipol/scu042
		2. COMPASS Science Communication, Inc. (2017) The
		message box workbook.
		https://www.compassscicomm.org/
Feb	Why write? Guest	Week 5 Readings (PDF's will be downloaded and made available
12	Lecture, Holly	to class).
	Kearl	1. Parks P., Takahashi B. (2016). From apes to
Feb	The Art of Writing	whistleblowers: How scientists inform, defend, and excite
14	Opinion Pieces	in newspaper Op-Eds. Science Communication, 38(3):
		275-302. https://doi.org/10.1177/1075547016642240
		2. Sommer B., Maycroft JR. (2008). Influencing public policy:
		An analysis of published op-eds by academics. Politics &
		Policy, 36:586-613. https://doi.org/10.1111/j.1747-
		<u>1346.2008.00122.x</u>
		3. Goh H-H., Bourne P. (2020) Ten rules for writing scientific
		op-ed articles. PLoS Computational Biology
		16(9)e1008187.
		https://doi.org/10.1371/journal.pcbi.1008187
		4. Coppock A., Ekins E., Kirby D. (2018). The long-lasting
		effects of newspaper op-eds on public opinion. Quarterly
		Journal of Political Science, 13(1): 59-87.
		http://dx.doi.org/10.1561/100.00016112
Feb	Science as a Story	Week 6 Readings (PDF's will be downloaded and made available
19	/In class	to class).
	workshop activity	1. Dahlstrom MF (2014). Using narratives and storytelling to
		communicate science with nonexpert audiences. PNAS
		11:13614-13620.
		https://doi.org/10.1073/pnas.1320645111
		2. Kohler S. Dietrich TC. (2021). Potentials and limitations of
		educational videos on YouTube for Science
Feb	The art of	Communication. Frontiers in Communication, 6: 581302
21		https://doi.org/10.3389/fcomm.2021.581302
21	creating science story. Guest	3. Elshafie SJ (2018). Making science meaningful for broad
		audiences through stories. Integrative and Comparative
	lecture, Ralph	Biology, 58(6):1213-1223.
	Bouquet, NOVA	https://doi.org/10.1093/icb/icy103
		4. Green SJ., Grorud-Colvert K., Mannix H. (2016). Uniting
		science and stories: Perspectives on the value of

		storytelling for communicating science. FACETS, 3:164-
		173. https://doi.org/10.1139/facets-2016-0079
Feb	Talking science to	OP-ED Due March 1 st .
26	various audiences	
Feb	Communicating	Week 7 Readings (PDF's will be downloaded and made available
28	Science using	to class).
	social media/	1. Davis JJ. (1995). The effects of message framing on
	Guest lecture.	response to environmental communications. Journalism
	OP-ED DUE.	& Mass Communication Quarterly, 72:285-299.
		https://doi.org/10.1177/107769909507200203
		2. Huber B., Barnidge M., Gil de Zuniga H., Liu J. (2019).
		Fostering public trust in science: The role of social media.
		Public Understanding of Science, 28(7): 759-777.
		https://doi.org/10.1177/09636625198690
		3. Kuehne LM., et al. (2013). Practical science
		communication strategies for graduate students.
		Conservation Biology, 28: 1215-
		1235. https://doi.org/10.1111/cobi.12305
		4. Liang X., et al. (2014). Building buzz: (Scientists)
		communicating science in new media environments.
		Journalism & Mass Communication Quarterly, 91: 772-
		791. https://doi.org/10.1177/10776990145500
		5. Bik HM., et al. (2013). An introduction to social media for
		scientists. PLOS Biology. 11:
N 4 =	Camananiantina	e1001535. https://doi.org/10.1371/journal.pbio.1001535
Mar	Communicating Risk and	Week 8 Readings (PDF's will be downloaded and made available
4		to class).
Mar	Uncertainty	1. Morton TA., Rabinovich A., Marshall D., Bretschneider P. (2011). The future that may (or may not) come: How
6	Communicating with	framing changes responses to uncertainty in climate
0	_	change communications. Global Environmental Change,
	Politicians/Guest lecture	21:103-109.
	lecture	https://doi.org/10.1016/j.gloenvcha.2010.09.013
		2. Spiegelhalter D (2017). Risk and uncertainty
		communication. Annual Review of Statistics and its
		Application 4:31-60. https://doi.org/10.1146/annurev-
		statistics-010814-020148
		3. Bhatt et al. (2021). Uncertainty as a form of
		transparency: Measuring, communicating, and using
		uncertainty. Proceedings of the 2021 AAI/ACM
		conference on AI, Ethics and Society, PP. 401-413.
		https://doi.org/10.1145/3461702.3462571

	1	
		 Van der Bles et al. (2019). Communicating uncertainty about facts, numbers, and science. Royal Society Open Science, 6:181870. https://doi.org/10.1098/rsos.181870 Krause et al. 2020. Fact-checking as risk communication: the multi-layered risk of misinformation in times of COVID-19. Journal of Risk Research, 23:7-8. https://doi.org/10.1080/13669877.2020.1756385 Oliver K., Cairney P. (2019). The dos and don'ts of influencing policy: a systematic review of advice to academics. Palgrave Communications, 5: 21. https://doi.org/10.1057/s41599-019-0232-y
		Mar 11-15 SPRING BREAK NO CLASS
Mar 18 Mar 20	Creating Mini-Ted Talks Creating Mini-Ted Talks /In class working activity	 Week 10 Readings (PDF's will be downloaded and made available to class). Xia SA., Hafner CA. (2021). Engaging the online audience in the digital era: A multimodal analysis of engagement strategies in TED talk videos. IBERICA-Journal of the European Association of languages for specific purposes - https://doi.org/10.17398/2340-2784.42.33 Mackrill K., Silvester C., Pennebaker JW., Petrie KJ. (2021). What makes an idea worth spreading? Language markers of popularity in TED talks by academics and other speakers. Journal of the Association for information science and technology, 72:1028-1038. https://doi.org/10.1002/asi.24471
Mar	Graphics and	Mini-TED Talks Due March 27 th .
25 Mar 27	infographics Creating visual science stories. Guest Lecture. Mini-TED Talks Due	 Week 11 Readings (PDF's will be downloaded and made available to class). 1. Spicer JO., Coleman CG. (2022). Creating effective infographics and visual abstracts to disseminate research and facilitate medical education on social media. Clinical Infectious Diseases, 74:e14-e22. https://doi.org/10.1093/cid/ciac058 2. Sutherland KE. (2020). Creating compelling images, graphics, memes, and infographics. Book Chapter. Strategic social media management, PP 325- 357. 3. Gottlieb MD., et al. (2022). Educator's blueprint: A howto guide for creating a high-quality infographic. AEM Education and Training. https://doi.org/10.1002/aet2.10793
Apr 1	Communicating Science with the Media	Week 12 Readings (PDF's will be downloaded and made available to class).

	6	4. David N. (2040) What a conditation also t
Apr 3	Guest lecture – Marc Silver, NPR	 Baron N. (2010). What you need to know about journalists. In: Escape from the Ivory Tower. A guide to
	iviaic Silver, INFIX	making your science matter. Pp. 29-40
		• • • • • • • • • • • • • • • • • • • •
		2. Baron N. (2010). Tell me a story: What journalists want
		from you. In: Escape from the Ivory Tower. A guide to
		making your science matter. Chapter 4: Pp. 41-61. PDF of
		book chapters will be provided on Canvas.
		3. Stecula DA., Merkley E. (2019). Framing climate change:
		Economics, ideology, and uncertainty in American news
		media content from 1988 to 2014. Frontiers in
		Communication, 4:6:
		https://doi.org/10.3389/fcomm.2019.00006
Apr 8	Policy Briefs/	Week 13 Readings (PDF's will be downloaded and made
	Guest Lecture	available to class).
Apr	Graphical	 Keepnews DM. (2016). Developing a policy brief. Policy,
10	summaries/Press	Politics, & Nursing Practice, 17(2):61-65.
	Releases. Guest	https://doi.org/10.1177/15271544166606
	Lecture, Diana	2. Mea M., Newton A., Uyarra MC., Alonso C., Borja A.
	Yates	(2016). From science to policy and society: Enhancing the
		effectiveness of communication. Frontiers in Marine
		Science, 3:168
		https://doi.org/10.3389/fmars.2016.00168
		3. Arnautu D., Dagenais C. (2021). Use and effectiveness of
		policy briefs as a knowledge transfer tool: a scoping
		review. Humanities & Social Sciences Communications,
		8:21. https://doi.org/10.1057/s41599-021-00885-9
		4. Hetherington ED., Phillips AA. (2020). A scientists guide
		for engaging in policy in the United States. Frontiers in
		Marine Science, 7:409
		https://doi.org/10.3389/fmars.2020.00409
		5. National Institutes of Health (2018). Crafting a science
		news release. https://www.nih.gov/about-nih/what-we-
		do/science-health-public-trust/perspectives/science-
		health-public-trust/crafting-science-news-release
Apr	Engaging	Week 14 Readings (PDF's will be downloaded and made
15	Communities	available to class).
Apr	Communicating	1. Dudo A., Besley JC. (2016). Scientists' prioritization of
17	with K12	communication objectives for public engagement. PLoS
	Audiences/Outrea	ONE, 11:1-18. https://doi:10.1371/journal.pone.0148867
	ch	2. Fiske ST., Dupree C (2014). Gaining trust as well as
		respect in communicating to motivated audiences about
		science topics. PNAS, 111: 13593-13597.
		https://doi.org/10.1073/pnas.1317505111
		11000111 donors/ 10110701 prid311317303111

		3. Varner J. (2014). Scientific outreach: Toward effective
		public engagement with biological science. Bioscience,
		64(4):333-340. https://doi.org/10.1093/biosci/biu021
Apr	Podcasts /Guest	Week 15 Readings (PDF's will be downloaded and made
22	Lecture	available to class).
Apr	Science	1. McGarr O. (2009). A review of podcasting in higher
24	Communication	education: Its influence on the traditional lecture.
	Careers. Guest	Australian Journal of Educational Technology, 25(3): 309-
	Lecture,	321. https://doi.org/10.14742/ajet.1136
	Rosemary Keane	2. Aenlle J., et al. (2022). Podcasts in production: An
		examination of current and best practices for agricultural
		and natural resource podcast producers. Journal of
		Applied Communications, 106: Iss. 4.
		https://doi.org/10.4148/1051-0834.2461
		3. Quintana DS., Heathers JAJ. (2020). How podcasts can
		benefit scientific communities. Trends in Cognitive
		Sciences, 25:3-5.
		https://doi.org/10.1016/j.tics.2020.10.003
		4. MacKenzie LE. (2019). Science podcasts: analysis of global
		production and output from 2004 to 2018. Royal Society
		Open Science, 6: 180932.
		https://doi.org/10.1098/rsos.180932
Apr	Press-	Press-Release/Graphical Summary Due
29	Release/Graphical	
	Summary Due	
May	Last day of	Graduate Students Only: Summary of Research Due
1	class/wrap up	

Students with Disabilities

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor as soon as possible and provide the instructor with a Letter of Academic Accommodations from Disability Resources and Educational Services (DRES). To ensure that disability-related concerns are properly addressed from the beginning, students with disabilities who require assistance to participate in this class should apply for services with DRES and see the instructor as soon as possible. If you need accommodations for any sort of disability, please speak to me after class, or make an appointment to see me or see me during my office hours. DRES provides students with academic accommodations, access, and support services. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 217-333-1970, e-mail disability@illinois.edu or visit the DRES website at https://dres.illinois.edu/. Here is the link for information to apply for services at DRES, https://dres.illinois.edu/information-before-you-apply/application-process/.

Absence and Late Assignment Policy

Your attendance at all scheduled classes is required and essential for success in the course. However, circumstances occasionally occur where you may need to miss a class. It is realized that you have a life beyond the scope of this course. However, if you are unable to complete an assignment/attend class because of other obligations, you should notify the instructor(s) ahead of time. It is good practice to prepare/post any assignments early before a planned absence. Unexcused late work will receive a 10% per day penalty.

Students should generally adhere to the guidelines specified in the UIUC Student Code (http://studentcode.illinois.edu/article1_part5_1-501.html). If you have any questions regarding these policies, please review the Office of the Dean of Students webpage About Absence Letters. This page describes how absence letters should be requested.

Academic Integrity

The University of Illinois Urbana-Champaign *Student Code* should also be considered as a part of the syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: http://studentcode.illinois.edu/.

Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policy: https://studentcode.illinois.edu/article1/part4/1-401/. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor(s) if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

Pandemic Pedagogy

Many of us are continuing to struggle after the global pandemic. Please know that while I hope to help you learn everything in this class, my primary goal for the semester is for you to stay healthy, balanced, and grounded. Remember to seek help when you need it. If at any moment during the semester you are falling behind, please reach out. Talk to me. If I cannot help, we will find someone who can. I will not judge you or think less of you if you have any difficulty at any point during the semester. I hope you will extend me the same courtesy.

Family Educational Rights and Privacy Act (FERPA)

Any student who has suppressed their directory information pursuant to *Family Educational Rights and Privacy Act* (FERPA) should self-identify to the instructor to ensure protection of the privacy of their attendance in this course. See http://registrar.illinois.edu/ferpa for more information on FERPA.

Mental Health

Significant stress, mood changes, excessive worry, substance/alcohol misuse or interferences in eating or sleep can have an impact on academic performance, social development, and emotional wellbeing. The University of Illinois offers a variety of confidential services including individual and group counseling, crisis intervention, psychiatric services, and specialized

screenings which are covered through the Student Health Fee. If you or someone you know experiences any of the above mental health concerns, it is strongly encouraged to contact or visit any of the University's resources provided below. Getting help is a smart and courageous thing to do for yourself and for those who care about you.

- Counseling Center (217) 333-3704
- McKinley Health Center (217) 333-2700
- National Suicide Prevention Lifeline (800) 273-8255
- Rosecrance Crisis Line (217) 359-4141 (available 24/7, 365 days a year)
- If you are in immediate danger, call 911.

Community of Care

As members of the Illinois community, we each have a responsibility to express care and concern for one another. If you come across a classmate whose behavior concerns you, whether in regards to their well-being or yours, we encourage you to refer this behavior to the Student Assistance Center (217-333-0050 or http://odos.illinois.edu/community-of-care/referral/). Based on your report, the staff in the Student Assistance Center reaches out to students to make sure they have the support they need to be healthy and safe.

Further, as a Community of Care, we want to support you in your overall wellness. We know that students sometimes face challenges that can impact academic performance (examples include mental health concerns, food insecurity, homelessness, personal emergencies). Should you find that you are managing such a challenge and that it is interfering with your coursework, you are encouraged to contact the Students for support and referrals to campus and/or community resources.

Disruptive Behavior

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office for Student Conflict Resolution (https://conflictresolution.illinois.edu; conflictresolution@illinois.edu; 333-3680) for disciplinary action.

Emergency Response Recommendations

Emergency response recommendations and campus building floor plans can be found at the following website: https://police.illinois.edu/em/run-hide-fight/. I encourage you to review this website within the first 10 days of class.

Religious Observances

Illinois law requires the University to reasonably accommodate its students' religious beliefs, observances, and practices in regard to admissions, class attendance, and the scheduling of examinations and work requirements. Students should complete the Request for Accommodation for Religious Observances form should any instructors require an absence letter in order to manage the absence. In order to best facilitate planning and communication

between students and faculty, students should make requests for absence letters as early as possible in the semester in which the request applies.

Sexual Misconduct Reporting Obligation

The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University's Title IX Office. In turn, an individual with the Title IX Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options.

A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: wecare.illinois.edu/resources/students/#confidential. Other information about resources and reporting is available here: wecare.illinois.edu.