

IB 496

Science Communication

"Science is not finished until it's communicated"-Sir Mark Walport

Spring 2022

WELCOME

Course Description

This class will explore 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. Students will further learn the art of writing and pitching opinion pieces to various media outlets. This class welcomes students looking to take their first steps into public engagement. Undergraduate and Graduate students are welcomed.

Course Objectives

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.

Course Learning Outcomes

1. Communicate science to different audiences through careful use of metaphors and minimal use of jargon.
2. Create persuasive, effective, and accessible arguments about different science topics.
3. Appreciate the many forms of science communication.
4. Produce a portfolio consisting of an opinion piece, a mini-Ted-talk and a press release.
5. Describe what makes a good science story.
6. Advocate for science

Course Deliverables

1. One publishable opinion piece
2. 3-5 minutes TED Talk style of your research/science subject of your choice
3. Press release of a manuscript of your choice
 - Student presentations of their 3-5 minutes Mini-TED Talk
 - All deliverables will be due on Wednesday May 11

Primary Instructor

I am Professor Esther Ngumbi in the Department of Entomology and African American Studies Department.

Email: enn@illinois.edu

Phone: 217-333-2910

Office: 417 Morrill Hall

Office hours: By appointment



Class times and Location

Mon and Wed: 10-11:30 am

3011 Natural History Building., Urbana, IL 61801

Class [Zoom Link](#) | Password: 802952 | Meeting ID: 865 3192 2982

ALL CLASS MATERIALS AND LECTURES WILL BE AVAILABLE ON CANVAS

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

Ralph Bouquet is the Director of Education and Outreach, NOVA, the PBS science documentary series produced by 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 Masters degree from George Washington University.



Diana Yates

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

Weekly Outline

Week 1

1/19 Virtually Meet and Greet /Course introduction.

Week 2

1/24 Why become a Science Communicator?

1/26 Many ways to communicate science- Guest lecture, Myeashea Alexander

Week 3

1/31 Science Communication Basics

2/2 Do's and Don'ts' of Science Communication/Examples

Week 4

2/7 What is the message?

2/9 Interactive class activities

Week 5

2/14 Why write? Guest Lecture, Holly Kearl

2/16 The Art of Writing Opinion Pieces

Week 6

2/21 Science as a Story /In class workshop activity

2/23 The art of creating science story. Guest lecture, Ralph Bouquet, NOVA

Week 7

2/28 Talking science to various audiences

3/2 Communicating Science using social media/ Guest lecture
OP -ED Due

Week 8

3/7 Communicating Risk and Uncertainty

3/9 Communicating with Politicians/Guest lecture

Week 9 SPRING BREAK -NO CLASS

Week 10

3/21 Creating Mini-Ted Talks

3/23 Creating Mini-Ted Talks /In class working activity

Week 11

3/28 Graphics and infographics

3/30 Creating visual science stories. Guest Lecture
Mini-Ted Talk Due

Week 12

4/4 Communicating Science with the Media

4/6 Guest lecture – Marc Silver, NPR

Week 13

4/11 Policy Briefs

4/13 Press Releases. Guest Lecture, Diana Yates

Week 14

4/18 Engaging Communities

4/20 Communicating with K12 Audiences/Outreach

Week 15

4/25 Podcasts /Guest Lecture

4/27 Science Communication Careers. Guest Lecture, Rosemary Keane

Week 16

5/2 Press-Release Due

5/4 LAST DAY OF CLASS/ WRAP UP

Pandemic Pedagogy

Many of us are continuing to struggle as we enter Year 3 of this 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.

Course Management System

All course materials will be available through Canvass.

Course Requirements

- **Attendance (10%):** Students will be expected to attend all class meetings.
- **Participation (10%):** Students will be expected to contribute to all class discussions.
- **Readings (20%):** Students will be expected to complete all readings and complete any assignments associated with the readings before class.

Projects (Opinion Piece, 5-8 Minutes Mini-Ted Talk, and a Press Release) (60%):

Students will be expected to complete and turn in all projects associated with this class on their respective due dates before 11:59 Pm. 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.

Course Grading System

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	A	73-76.99	C
90-92.99	A-	70-72.99	C-
87-89.99	B+	67-69.99	D+
83-86.99	B	63-66.99	D
80-82.99	B-	60-62.99	D-
Below 60		F	

Evaluation

All the course deliverables will be evaluated by the instructor

Course Policies

Statement on University Policies and Regulations: As the instructor for this course, I respect and uphold all University policies and regulations pertaining to the observation of religious holidays; assistance available to the physically handicapped, visually and/or hearing-impaired student; plagiarism; sexual harassment; and racial or ethnic discrimination. All students are advised to become familiar with the respective University regulations and are encouraged to bring any questions or concerns to our attention.

Statement on Academic Integrity: Each student in this course is expected to abide by the Illinois Student Code as 'It is the responsibility of each student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids other in such infractions.' In this course, the normal penalty for a violation of the student code is an "F" for the term.

* Please know that it is our responsibility as instructors to uphold the academic integrity policy of the University, which can be found here: http://studentcode.illinois.edu/article1_part4_1-401.html. Please note that you are responsible for reading this policy. Do not hesitate to ask us if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

Statement on Emergency Response Recommendations: Emergency response recommendations can be found at the following website: <http://police.illinois.edu/emergency/>. Please review this website and the campus building floor plans website within the first 10 days of class: <http://police.illinois.edu/emergency/floorplans/>.

Statement on the 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.

Statement on Equity, Diversity and Inclusion

This is an equal opportunity classroom, and we value diversity, equality, and inclusion.

Note to Students with Disabilities: To ensure that disability-related concerns are properly addressed from the beginning, students with disabilities who require assistance to participate in this class are asked to contact Disability Resources and Educational Services (DRES) and see us as soon as possible, or make an appointment to see us, or see us during our office hours. DRES provides students with academic accommodations, access, and support services.

To contact DRES you may visit 1207 S. Oak St., Champaign, call 333-4603 (V/TDD), or e-mail a message to disability@uiuc.edu. <http://www.disability.illinois.edu/>.

Emergency Response Recommendations

Emergency response recommendations can be found at the following website:

<http://police.illinois.edu/emergency/>. A two-minute video can be found at:

<http://police.illinois.edu/emergency-preparedness/run-hide-fight/>

Run > Hide > Fight

Emergencies can happen anywhere and at any time. It is important that we take a minute to prepare for a situation in which our safety or even our lives could depend on our ability to react quickly. When we're faced with any kind of emergency – like fire, severe weather or if someone is trying to hurt you – we have three options: Run, hide or fight.

Run

Leaving the area quickly is the best option if it is safe to do so.

Take time now to learn the different ways to leave your building.

Leave personal items behind.

Assist those who need help but consider whether doing so puts yourself at risk.

Alert authorities of the emergency when it is safe to do so.



Hide

When you can't or don't want to run, take shelter indoors.

Take time now to learn different ways to seek shelter in your building.

If severe weather is imminent, go to the nearest indoor storm refuge area.

If someone is trying to hurt you and you can't evacuate, get to a place where you can't be seen, lock or barricade your area, silence your phone, don't make any noise and don't come out until you receive an Illini-Alert indicating it is safe to do so.



Fight

As a last resort, you may need to fight to increase your chances of survival.

Think about what kind of common items are in your area which you can use to defend yourself.

Team up with others to fight if the situation allows.

Mentally prepare yourself – you may be in a fight for your life.



Please be aware of persons with disabilities who may need additional assistance in emergency situations.

Other resources

police.illinois.edu/safe for more information on how to prepare for emergencies, including how to run, hide or fight and building floor plans that can show you safe areas.

emergency.illinois.edu to sign up for Illini-Alert text messages.

Follow the University of Illinois Police Department on Twitter and Facebook to get regular updates about campus safety.