

# COM

## Communication

### COM 501: Foundations of Science Communication I

An introduction to the Alda Method®, the Alan Alda Center's proprietary training approach to science communication, rooted in empathy and connection. Students experience improvisation first hand to help them embrace flexibility while maintaining an appropriate level of preparation when presenting scientific information. The workshop nature of this course allows students to practice building connections with others through eye contact and body language, developing relevant analogies, sharing powerful examples, and storytelling. Students will learn to communicate scientific information with accuracy, integrity, and passion, to ensure it resonates with their audience.

*1 credit, Letter graded (A, A-, B+, etc.)*

### COM 503: Foundations of Science Communication II

An extension of COM 501: Foundations of Science Communication I, students apply their foundational communication skills to develop and deliver compelling scientific presentations. Particular emphasis is placed on visual presentation strategies, allowing students the opportunity to practice using technology to complement and enhance their presentations, rather than detract from them. Students reflect on their own performance regularly, and also offer peer feedback to others. Prerequisite: COM 501

*1 credit, Letter graded (A, A-, B+, etc.)*

### COM 516: Communication Research Methods

Inquiry into social science research that enables students to ask meaningful questions and conduct research to find reliable and valid answers to those questions. Students explore traditional and non-traditional data collection methods, tools for analysis, and current research trends. Students engage in the empirical research process by identifying research questions and hypotheses, reviewing past research, collecting and analyzing data, and evaluating the credibility of published research findings. As part of this course students will identify and delve more deeply into a content area within the Science of Science Communication field to build greater knowledge about how specific areas of science communication are interpreted, measured, and disseminated. Numerical and statistical concepts to analyze and interpret empirical

data will be explored using a commonly used statistical package (e.g., Statistical Package for the Social Sciences, SPSS).

*3 credits, Letter graded (A, A-, B+, etc.)*

### COM 517: Advanced Communication Research Methods

An advanced exploration of data analysis techniques commonly employed in the field of communication and related social science disciplines. Students will build on their foundational knowledge of communication research methods to explore more advanced concepts, data analysis procedures, and practice analyzing data with a commonly used statistical package (e.g., Statistical Package for the Social Sciences, SPSS). Instruction will be provided on how to employ SPSS to conduct a variety of specific analysis techniques such as descriptive statistics, analysis of variance, correlation and regression, and exploratory factor analysis. Prerequisite: COM 516

*3 credits, Letter graded (A, A-, B+, etc.)*

### COM 522: Communicating Science to Policy Makers

A hands-on experience that provides students with the skills, practice, and knowledge to clearly, concisely, and effectively communicate the importance of science to policy makers. Communication is essential to secure funding and successfully advocate for or against legislation that could greatly impact research. Learning how to effectively communicate science to state and federal elected officials and agency staff is crucial for scientists, healthcare professionals, and professional science communicators. Students will explore communication tactics and methods based in theory and practice.

*3 credits, Letter graded (A, A-, B+, etc.)*

### COM 526: Building and Assessing Communication Strategies

A comprehensive overview of strategic communication focused on advancing effective communication about science and related fields (e.g., health, technology, engineering, math) in institutionally diverse settings. Students learn to build and assess strategic communication campaigns based in 21st century communication practices. Grounded in ethics and the concept of principled public relations, students learn core skills and practice that enable them to work as effective science communication practitioners in an era of misinformation and information overload. Because project management is critical to advancing successful strategic communication efforts, students will also learn project management skills through the design and

implementation of a targeted communication plan.

*3 credits, Letter graded (A, A-, B+, etc.)*

### COM 534: Communicating Science Using Digital Media

An exploration into using digital platforms to communicate science to public audiences. Science and health information increasingly travels by digital media, as new ways emerge for scientists, health care professionals, and others to communicate directly with the public, without the intermediaries of press or public relations. Students will learn to be effective and engaged online communicators, to help science reach broader audiences in meaningful ways. This course offers a practical, hands-on approach to using digital "tools of the trade" such as blogs, videos, audio/podcasts, and social media platforms. Students will also learn about the great potential and perils of social media, as they learn to think critically about the broader issues surrounding this medium.

*3 credits, Letter graded (A, A-, B+, etc.)*

### COM 565: Foundations of Science Communication

A foundational course in science communication and an introduction to the Alda Method®. Students will learn about evidence-based approaches to communicate scientific concepts and data accurately and effectively to diverse audiences. Through an exploration of science communication literature and applied-improvisational theater exercises, students build communication skills to help them understand, connect, relate, and adapt to various audiences such as peers, professors, employers, policy makers, funders, journalists, and the public. Students hone their written and oral science communication skills by creating, delivering, and evaluating audience-centered messaging.

*3 credits, Letter graded (A, A-, B+, etc.)*

### COM 575: Special Topics in Science Communication

A seminar course on a current topic in science communication. Students enrolled in the MS in Science Communication or the MS in Journalism may repeat the course as the topic changes. This course cannot be used more than once to satisfy requirements for the Advanced Graduate Certificate in Science Communication.

*3 credits, Letter graded (A, A-, B+, etc.)  
May be repeated for credit.*

### COM 577: Communication Law and Ethics

An exploration into the legal and ethical considerations that science communicators, journalists, mass media professionals, and consumers face in the 21st century. Students learn about the Society of Professional Journalists Code of Ethics, the First Amendment Handbook from the Reporters Committee for the Freedom of the Press, and review case studies and current newsworthy stories to build an analytical model through which they can understand, analyze, and act on relevant legal and ethical issues in public communication settings.

*3 credits, Letter graded (A, A-, B+, etc.)*

### **COM 583: Principles of Inclusive Engagement**

An exploration of the role of communication in facilitating conversations that acknowledge and are inclusive of individual and group differences. Students will learn how individual and group differences can become disadvantages, the role of communication in developing responses to such disadvantages, and how differences can also become offers of discovery, development, and depth. Students will learn to engage others through communication that is inclusive, empathetic, and just. Among the techniques explored in this course are applied-improvisational theater exercises that will help students connect with others, pay close and dynamic attention, read nonverbal cues, respond freely, and work through nerves and self-consciousness in a variety of communication settings.

*3 credits, Letter graded (A, A-, B+, etc.)*

### **COM 585: Communicating Science and Health Risks to the Public**

An exploration of risk communication theories and strategies, and their application to effective communication in science, environmental, and public health settings. The processes and effects of persuasive communication as they relate to message framing are also explored. Students will learn to use effective communication to advance individual and community-level decision-making about science and public health issues. Specifically, risk communication through interpersonal, organizational, and mediated channels will be explored, with particular attention paid to message features that are believed to generate predictable effects. Students will explore how communication impacts the public's experience of risk, and practice designing and delivering culturally competent messages about potential science, health, and environmental hazards. This hands-on course provides opportunities to practice designing and delivering a variety of risk messages.

*3 credits, Letter graded (A, A-, B+, etc.)*

### **COM 587: Independent Study**

Intensive study of a special topic or intensive work on a reporting project undertaken with close faculty supervision. May be repeated. Prerequisites: Permission of instructor and graduate program director Every semester, 0-6 credits. S/U grading

*3 credits, Letter graded (A, A-, B+, etc.)*

### **COM 588: Graduate Internship**

A practical, hands-on application of science communication skills in a real-world setting. Students participate in a semester-long internship with an organization or institution devoted to one or more of the programs themes of science, health, environment, and/or technology. The work must allow students to apply communication skills related to the educational goals of the program. Student interns will report regularly to a faculty member and will submit a portfolio of their work at the conclusion of the internship.

*0-6 credits, S/U grading  
May be repeated for credit.*

### **COM 599: Project Work in Science Communication**

A culminating experience for students in the Advanced Graduate Certificate in Communicating Science. Students work individually or in groups to plan, design, and complete a capstone project rooted in science communication. Projects should allow students to apply what they have learned about science communication to a real-world context. Examples may include but are not limited to competing in science communication competitions, creating podcasts, writing book chapters, recording educational videos, designing a social media campaign, and/or creating outreach opportunities in the community. Students will submit a project proposal and participate in peer workshops sessions to offer and receive feedback on their work throughout the semester. Students will formally present their work to peers, faculty, and members of the campus/community at the conclusion of the course.

*3 credits, Letter graded (A, A-, B+, etc.)*

### **COM 605: Environmental Communication**

An overview of the empirical and theoretical foundations of environmental communication. This course will examine scholarship from the nascent days of the environmental movement to modern day research often focused on addressing the climate crisis. How experts, the public, and policy-makers interact with and perform environmental communication will be of considerable interest in this course.

By analyzing broader public discourses about environmental topics such as environmental disasters and renewable energy, a deeper understanding of how our values and the environment are related will be reached. Students will also be expected to engage in environmental communication research during the course.

*3 credits, Letter graded (A, A-, B+, etc.)*

### **COM 699: Master's Project in Science Communication**

A culminating experience for students in the MS in Science Communication. Students will identify and secure a faculty mentor under whom they will work independently to plan, design, and complete a research-based, science communication project. The project should reflect what students have cumulatively learned in the program and respond to the needs of an organization, community, or stakeholder group. Projects may take the form of original research intended for submission to an academic conference or translational research that informs the content development for a specific audience (e.g., educational module, communication campaign, social media strategy, etc.). Each project will have written, visual, and/or interactive components. Students will formally present their work to peers, faculty, and members of the campus/community at the conclusion of the course.

*3 credits, Letter graded (A, A-, B+, etc.)*