

Advanced Graduate Certificate in Communicating Science

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Website

<https://www.aldacenter.org/>

The Advanced Graduate Certificate in Communicating Science fosters clear, vivid communication in the areas of science, engineering, health, and other research-based disciplines. Students learn to integrate scientific knowledge, creativity, ethical practice, and verbal and non-verbal communication skills. The program teaches individuals to communicate more effectively about science with a wide variety of potential audiences from their own and other disciplines, while providing background grounding in the field of science communication. Students learn and develop dynamic ways to connect with, and respond to, diverse audiences and acquire fundamental skills, including understanding and connecting with audiences, setting focused communication goals, and speaking clearly and conversationally about their work and why it matters. Additionally, individuals develop a fundamental understanding of research on science communication and apply this knowledge to practice identifying main points, speaking without jargon, explaining meaning and context, responding to questions, using narrative techniques, and using multimedia elements. Students also learn to critically examine the presentation of scientific information to society, including analyzing challenges and opportunities for science outreach and communication.

Description

The Advanced Graduate Certificate in Communicating Science offers advanced students in the sciences and other research-related disciplines a contemporary, research-based approach to science communication that will help them to share their science, and the significance of their work, throughout the span of their careers. This program complements graduate students' primary degree programs and provides professional development for those already working in the areas of science, engineering, technology, math, health and other research-based disciplines. Graduate students and professional scientists who complete the certificate will be better able to communicate effectively with a variety of audiences including employers, government officials, students, scientists in other fields, and funding agencies.

Those enrolled in the program will begin with a rigorous foundational experience with The Alda Method[®] of science communication, a dynamic and experiential approach to communication training that mirrors the Alda Center's successful workshop model. After successful completion of the foundational experience, students will choose electives that align with their core areas of interest. The program culminates in a faculty-mentored capstone project or internship that gives students the opportunity to apply what they have learned.

Student Learning Outcomes

1. Develop an understanding of the history, context, and key concepts of science communication research and theory
2. Craft a message that responds to the needs, values, and cultures of an audience
3. Use a combination of preparation and spontaneity to connect with audiences
4. Communicate vividly and expressively about science
5. Work competently and collaboratively with people of varied backgrounds and interests to expand scientific literacy
6. Critically evaluate science communication
7. Apply the skills learned to a real-world context

The Advanced Graduate Certificate in Communicating Science supports Stony Brook University's broader mission to provide comprehensive graduate education and research opportunities of the highest international quality by bringing a unique, value-added educational opportunity to Stony Brook's graduate students. Research itself depends on effective communication; this certificate is rooted in the internationally recognized work of the Alan Alda Center for Communicating Science, that aims to help scientists communicate their research more vividly and effectively to ensure greater societal benefits. The certificate supports Stony Brook's commitment to advancing research endeavors of the highest international standards to advance knowledge and create long-range practical significance. Helping scientists, engineers, medical professionals and other researchers to communicate more effectively enables the University to provide greater leadership for economic growth, technology and culture for communities on and beyond Long Island, reflecting Stony Brook's commitment to supporting local and wider geographic regions. Through its emphasis on communicating with diverse audiences, this certificate aligns with the University's commitment to celebrating diversity and positioning the University in the broader global community.

Admission to the Program

For admission, an applicant is required to have an undergraduate or graduate degree in science, engineering, technology, math, or a related field; or be currently enrolled in a graduate program in one of those fields; or be working or have a history of having worked as a scientist or a science communicator. The applicant must have had an undergraduate GPA of 3.0 or higher.

A committee consisting of the Graduate Program Director and four program faculty will evaluate all applications from non-SBU students, including exceptions to the requirements.

Applicants may be invited to interview via video conference.

The Graduate Program Director will meet with new students upon enrollment to help them chart a path for the successful completion of their certification during the duration of their graduate studies. Program faculty and the Graduate Program Director will have regular contact with students. For individuals concurrently enrolled in other degree programs, faculty will help students align their certificate coursework to complement requirements in their home disciplines.

Facilities

School of Communication and Journalism students have access to classrooms, libraries and broadcasting studios at Stony Brook University that will be used for instructional purposes.

Course Requirements

Students will complete one of the following options:

A. JRN/COM 565: Communicating Your Science (3 credits)

OR

B. ALL of the following:

JRN/COM 501: Foundations in Science Communication I (1 credit)

JRN/COM 503: Foundations in Science Communication II (1 credit)

JRN/COM 513: Science of Science Communication (1 credit)

After completing the foundational course/courses, students choose from and complete at least 2 of the following electives (for a total of 6 credits):

- JRN/COM 516: Communication Research Methods (3 credits)
- JRN/COM 522: Communicating Science to Decision Makers (3 credits)
- JRN 525: Health, Environment, Science and Technology Reporting (3 credits)
- JRN 526: Building and Assessing Communication Strategies (3 credits)
- JRN 528: Engaging with Journalists (3 credits)
- JRN/COM 534: Communicating Your Science Using Digital Media (3 credits)
- JRN/COM 575: Special Topics in Science Communication* (3 credits)
- JRN/COM 577: Communication Law and Ethics (3 credits)
- JRN/COM 585: Communicating Science and Health Risks to the Public (3 credits)
- JRN/COM 587: Independent Study (3 credits)
- JRN/COM 588: Graduate Internship* (3 credits)

Outside of the School of Journalism, JRN (as appropriate to students' home disciplines)

- WRT 621 Graduate-Level Writing (3 credits)

The Graduate Committee, which consists of the Graduate Program Director and four other faculty, will identify other relevant courses and formally review them to determine if they are appropriate for the Certificate.

Students must complete the following as the final 3 credits of the 12-credit certificate:

JRN/COM 599: Project Work in Science Communication

**JRN/COM 575 or JRN 588 may substitute for JRN 599 in some cases*

Faculty

Graduate courses offered by the School of Communication and Journalism in collaboration with the Alda Center are taught by faculty with diverse expertise including: science, technology, engineering, math, medicine, journalism, communications, public policy and theater. This multidisciplinary approach to science communication education and training helps students tap into innate connections that come alive naturally when people share a passion for their work.

Program faculty and the Graduate Program Director will have regular contact with students. Faculty affiliated with the graduate program will provide ongoing, additional mentorship. Our website provides a comprehensive overview of our faculty expertise and contact information.

For an up to date list, see our faculty page.

NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.