



Rationale

The graduate minor in communicating science addresses two primary problems.

First, scientists and health professionals today need to connect to and to engage with the lay public, policy makers, funders, students, and professionals from other disciplines. Therefore, they increasingly need to tailor their communication for a variety of audiences who are not (or not yet) scientific experts or researchers.

Second, instead of assuming traditional PI roles and post-docs, many PhD-level scientists and health professionals are turning frequently to careers in business and industry, public policy, science reporting, and other fields. These emerging roles require the ability to communicate specific scientific knowledge to broad audiences (Funk & Rainie, 2015).

In both cases, current graduate programs in the sciences provide limited preparation for these communication expectations. As a result, this minor seeks to fill that educational gap for future scientists and health professionals.

About the Minor

The minor in communicating science is designed for masters and doctoral students in the sciences and health professions to **develop audience-centered communication**, **distill scientific concepts** into meaningful narratives, and **connect effectively** with collaborators and funders.

The program brings together communication and rhetorical theory with the techniques of applied improvisation to enhance students' career prospects, help them secure funding, and serve as effective teachers.

Learning Outcomes

1. Select and create appropriate forms of communication to connect ethically with non-scientific audiences using narrative, explanatory, and persuasive modes (PGPL 1, 3, 4)
2. Transform scientific communication from formal research reports into publicly accessible forms in face-to-face, electronic, and print contexts (PGPL 3, 4)
3. Evaluate, modify, and continually adjust the length and complexity of a concept for a given rhetorical situation (PGPL 4)
4. Measure and modify the effectiveness of communication in given rhetorical situations (PGPL 3)

Learn more:

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Graduate Minor in Communicating Science
Required Courses (Total 12 credit hours)

Students are required to take two semesters of 3, one-credit hour co-requisite courses.

Co-Requisite Block 1 (3 cr hrs):

COMM-C 534 Distilling Your Message: Communicating Science (1 cr)
COMM-C 533 Improvisation for Scientists: Communicating Science (1 cr)
ENGL-W 533 Science Writing for Public Readers: Communicating Science (1 cr)

Co-Requisite Block 2 (3 cr hrs):

COMM-C 535 Using Electronic Media: Communicating Science (1 cr)
ENGL-W 535 Science Writing for Public Readers II: Communicating Science (1 cr)
COMM-C 536 Connecting with the Community: Communicating Science (1 cr, Program Capstone)

Students will chose two courses (6 credit hours) from the following list:

COMM-C 510 Health Provider-Consumer Communication (3 cr.)
COMM-C 521 Family Communication in Health Contexts (3 cr.)
COMM-C 591 Topics in Applied Communication (3 cr.) with relevant topics in science/health
COMM-C 592 Advanced Health Communication (3 cr.)
COMM-C 650 Health Communication in Mediated Contexts (3 cr.)
COMM-C 695 Seminar in Communication and Healthcare (3 cr.)
ENG-W 600 Topics in Rhetoric and Composition (3 cr.), with relevant topics in science/health
HIST-546 History of Science, Medicine, and Technology
IBMG G655: Research Communications (3 cr.)
JOUR-J 528 Public Relations Management (3 cr.)
JOUR-J 560 Public Relations Research and Evaluation (3 cr.), with topics in Public Relations in the Life Sciences and Integrating Marketing Communication in Health Care
PBHL-H 612 Marketing for Health Services Delivery (3 cr.)
PBHL-S 625 Applied Public Health Campaigns and Social Marketing Strategies (3 cr.)
PBHL-S 622 Coaching for Health Behavior Change (3 cr.)
PBHL-E 606 Grant Writing: From Befuddlement to Brilliance (3 cr.)

Note

The Communicating Science minor is not open to Health Communication PhD students or Applied Communication MA students.

Course Descriptions

Co-Req Block 1 (Fall)

COMM-C 533 Improvisation for Scientists (1 cr)

Students will learn to communicate effectively and responsively through a series of exercises drawn from the methods of improvisational theater. Students will practice connecting to an audience, paying dynamic attention to others, reading nonverbal cues, and responding appropriately.

COMM-C 534 Distilling Your Message (1 cr)

Students learn to communicate clearly and vividly about complex scientific research and why it matters, in terms non-scientists can understand. Students practice finding common ground with lay audiences and adjusting levels of message complexity for different audiences.

ENGL-W 533 Science Writing for Public Readers (1 cr)

With an emphasis on shorter forms of writing, students discover voices, messages, and forms appropriate for bringing scientific expertise to non-science readers. They practice processes of response, revision, and editing to shape presentations for various readers, contexts, and paths of publication.

Co-Req Block 2 (Spring)

COMM-C 535 Using Electronic Media (1 cr)

Given the significant gaps in understanding between the public and scientists (Funk & Rainie, 2015), this course trains students in the sciences and health professions to format and structure complex, scientific information for a variety of new, electronic communication platforms including social media. Students will collate, synthesize, and translate scientific evidence into information that a non-expert audience can access, understand, and act on.

ENGL-W 535 Science Writing for Public Readers II (1 cr)

Each student identifies a complex project that includes long forms and/or multi-genres of writing to deliver scientific expertise to non-science readers in a specific community or context. Collaborating through peer-critique and role-playing relevant readerships, students adjust their messages and modes of delivery.

COMM-C 536 Connecting with the Community (1 cr, Program Capstone)

Students in the sciences and health professions theorize about and develop techniques for shared meaning-making and collaboration with community partners. They test methods to develop common ground between scholarly experts and community members including the lay public and non-science trained policy makers. In-class activities focus on developing trust, opening lines of communication, and sharing expertise in a way that values and respects the lived experiences of community members. Students will practice turning scientific findings into compelling messages for public awareness, partnership, and policy development.