

# LIFE SCIENCES COMMUNICATION (LSC)

## LSC 100 – SCIENCE AND STORYTELLING

3 credits.

Fundamentals of effective written and spoken communication. Develops skills in gathering and evaluating information, writing research papers and other documents, and preparing and delivering oral presentations.

**Requisites:** Students required to take the MSN ESLAT cannot enroll until the ESL 118 requirement is satisfied

**Course Designation:** Gen Ed - Communication Part A  
Level - Elementary

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Explore the many ways of knowing, such as the power of storytelling and its impact on science, empathy and communication skills

Audience: Undergraduate

2. Think critically about quality evidence: distinguishing opinions from facts; good arguments from logical fallacies; develop humility in advancing one's point of view in a multicultural society

Audience: Undergraduate

3. Craft college-level essays attending to paragraph and sentence structures, effective transitions

Audience: Undergraduate

4. Give appropriate feedback to classmates for oral presentations and peer review of writing; learning thoughtful feedback and how to appreciate others' points of view as intellectual curiosity grows

Audience: Undergraduate

5. Develop intellectual confidence by recognizing academic best practices ranging from introducing evidence to documenting sources and avoiding plagiarism

Audience: Undergraduate

## LSC 155 – FIRST-YEAR SEMINAR IN SCIENCE COMMUNICATION

1 credit.

Introduces students to the field of science communication and the importance of effectively communicating about controversial and complex science and technology topics. Engage with science communication faculty and staff, campus resources, and opportunities to explore academic and career goals. Appropriate for students across a wide variety of disciplines. Examples of topics that may be discussed in the course include climate change, artificial intelligence, gene editing, and public health.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

**Learning Outcomes:** 1. Draw connections between course topics in science communication and the world around you.

Audience: Undergraduate

2. Discuss the importance of diversity and inclusion on our campus and in the field of science communication.

Audience: Undergraduate

3. Describe the importance of strong communication skills in academic and professional careers in science, technology, engineering and math.

Audience: Undergraduate

4. Develop a plan to graduation using knowledge gained about majors of interest, pre-professional and graduate school paths, and your career goals.

Audience: Undergraduate

5. Identify resources at the university that will help you succeed at UW-Madison.

Audience: Undergraduate

## LSC 212 – INTRODUCTION TO SCIENTIFIC COMMUNICATION

3 credits.

Writing effective science digests, proposals, newsletters, and trade magazine articles for agriculture, natural resources, health and science-related topics.

**Requisites:** Satisfied Communications A requirement

**Course Designation:** Gen Ed - Communication Part B

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**LSC 250 – RESEARCH METHODS IN THE COMMUNICATION INDUSTRY**

3 credits.

Introduction to research methods in the communication industry. Overview of all stages of the research process and of translating data into reports for strategic communication recommendations for clients, ranging from industry to policymakers.

**Requisites:** Satisfied Quantitative Reasoning (QR) A requirement

**Course Designation:** Breadth - Social Science

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Select an appropriate research technique

Audience: Undergraduate

2. Develop survey measures based on sound conceptual foundations

Audience: Undergraduate

3. Design and conduct surveys, experiments, and other forms of data collection

Audience: Undergraduate

4. Analyze and interpret both quantitative and qualitative data

Audience: Undergraduate

5. Clearly communicate findings and strategies to relevant audiences

Audience: Undergraduate

**LSC 251 – SCIENCE, MEDIA AND SOCIETY**

3 credits.

Introduction to communication at the intersection of science, politics and society; overview of the theoretical foundations of science communication and their relevance for societal debates about science and emerging technologies across different parts of the world.

**Requisites:** None

**Course Designation:** Breadth - Either Humanities or Social Science Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Fall 2024

**Learning Outcomes:** 1. Identify the key elements of (in)effective science communication in popular media across different countries and cultures

Audience: Undergraduate

2. Evaluate how the communication processes work among different stakeholders. Stakeholders include players in the policy arena, scientists, journalists, and lay publics

Audience: Undergraduate

3. Critically assess the cultural, political, and economic impacts on how science and technology are debated across the globe

Audience: Undergraduate

4. Understand origins of cross-country differences in consumer reactions and policy responses to emerging science

Audience: Undergraduate

5. Analyze and compare the ethical, legal, and social implications (ELSI) of science across different countries and cultures

Audience: Undergraduate

6. Critically evaluate country-specific or culture-specific social factors that shape the science-public interface

Audience: Undergraduate

7. Explain the practical implications for different aspects of science and technology, like science journalism, new (information) technology, political aspects of emerging technologies, science literacy, etc.

Audience: Undergraduate

**LSC 270 – MARKETING COMMUNICATION FOR THE SCIENCES**

3 credits.

Explores marketing, promotion, and strategic communication specific to the consumer marketplace. Analyze communication strategies for science products and industries synthesized from business goals and objectives to specific audiences. Coursework includes a variety of readings from a class textbook as well as peer-reviewed papers published in life science, marketing, communication, and general business journals.

**Requisites:** Satisfied Communications A requirement

**Course Designation:** Level - Elementary

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Fall 2024

**Learning Outcomes:** 1. Identify the unique challenges faced when marketing and communicating life science products, services and initiatives to the general public, business community, and academic peer audiences.

Audience: Undergraduate

2. Identify some of the opportunities and challenges presented when marketing life science to specific American sub-cultures.

Audience: Undergraduate

3. Understand basic communication strategies appropriate to life science firms such as effective press releases and presentations.

Audience: Undergraduate

4. Synthesize data from government sources in combination with proprietary market research to create target audience profiles and life-science marketing strategy for consumer, business and institutional audiences.

Audience: Undergraduate

**LSC 289 – HONORS INDEPENDENT STUDY**

1-2 credits.

Research work for Honors students under direct guidance of a faculty member in an area encompassing Life Sciences Communication. Students are responsible for arranging the work and credits with the supervising instructor.

**Requisites:** Consent of instructor

**Course Designation:** Honors - Honors Only Courses (H)

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2025

**LSC 299 – INDEPENDENT STUDY**

1-3 credits.

Research work for students under direct guidance of a faculty member in an area encompassing Life Sciences Communication. Students are responsible for arranging the work and credits with the supervising instructor.

**Requisites:** Consent of instructor

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2025

**LSC 314 – INTRODUCTION TO DIGITAL VIDEO PRODUCTION**

3 credits.

Principles and techniques of digital documentary and informational video production. Video styles and subject matter treatment analyzed. Information gathering, videography, scripting, producing, and editing techniques.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**LSC 332 – DIGITAL AND PRINT MEDIA DESIGN**

3 credits.

Principles and techniques of effective visual communication with industry-standard digital design software for use in digital and print publications.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Discuss the theoretical principles of design

Audience: Undergraduate

2. Present work applying digital and print media design principles to groups of peers and professionals

Audience: Undergraduate

3. Articulate effective and tactful critiques of peer work and examples of design encountered outside of the classroom

Audience: Undergraduate

4. Deploy current industry-standard software tools in digital and print media design

Audience: Undergraduate

5. Explain the ways digital and print design are integrated into professional strategic communications

Audience: Undergraduate

**LSC 340 – MISINFORMATION, FAKE NEWS, AND CORRECTING FALSE BELIEFS ABOUT SCIENCE**

3 credits.

Explores the spread of misinformation and its effects on scientific topics. Covers why people believe fake news, the role of social media in propagating fake news, and the societal impacts. Practice applying theoretical ideas and making evidence-based recommendations for correcting examples of misinformation in science, media, and industry.

**Requisites:** Satisfied Communications A requirement or graduate/professional standing

**Course Designation:** Breadth - Social Science

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Define and identify examples of misinformation and disinformation relating to scientific topics.

Audience: Both Grad & Undergrad

2. Explain psychological and contextual factors that lead people to believe false information.

Audience: Both Grad & Undergrad

3. Explain how traditional and online media contribute to the spread of misinformation.

Audience: Both Grad & Undergrad

4. Analyze examples of science misinformation and make arguments about the motivations of the creators/sharers and intended audience.

Audience: Both Grad & Undergrad

5. Build arguments about what effects misinformation is likely to have on science attitudes, trust in science, and democratic society supported by social science research.

Audience: Both Grad & Undergrad

6. Evaluate different strategies for correcting misperceptions and preventing the spread of misinformation.

Audience: Both Grad & Undergrad

7. Analyze and synthesize relevant scholarly literature related to misinformation and misperceptions.

Audience: Graduate

8. Formulate a research proposal articulating an original research project related to the study of scientific misinformation.

Audience: Graduate

**LSC 350 – VISUALIZING SCIENCE AND TECHNOLOGY**

3 credits.

Introduction to the basic principles in the visual communication of science information. Principles of design, perception, cognition as well as the use of technologies in the representation of science in the mass media will be explored through illustrated lectures and written critique.

**Requisites:** Satisfied Communications A requirement or graduate/professional standing

**Course Designation:** Breadth - Either Humanities or Social Science Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2024

**LSC 360 – SCIENCE PODCASTING & RADIO**

3 credits.

Radio and podcast writing, editing, information gathering, planning, voicing, and evaluation using digital recording and editing equipment. Write, produce and voice newscasts, advertisements, public service announcements, interviews, and features.

**Requisites:** Satisfied Communications A requirement

**Course Designation:** Gen Ed - Communication Part B

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Articulate ideas clearly and persuasively for broadcast, podcast, and social media platforms, refining speaking and writing skills to engage audiences

Audience: Undergraduate

2. Proficiently use digital audio broadcast equipment, operating recording tools, editing software, and other technologies for high-quality audio content creation

Audience: Undergraduate

3. Conceptualize, plan, and produce information-oriented radio programs and podcasts, developing expertise in content curation, scripting, recording, and editing for engaging broadcasts

Audience: Undergraduate

4. Critically evaluate peers' work in information-rich radio programs and podcasts, analyzing content quality, presentation, and effectiveness in conveying information

Audience: Undergraduate

5. Describe radio station functioning, including programming, scheduling, advertising, and management aspects

Audience: Undergraduate

**LSC 375 – SPECIAL TOPICS**

1-4 credits.

Specialized subject matter of current interest to undergraduate students.

**Requisites:** None

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2023

**LSC 399 – COORDINATIVE INTERNSHIP/COOPERATIVE EDUCATION**

1-8 credits.

An internship under guidance of a faculty or instructional academic staff member in LSC and internship site supervisor. Students are responsible for arranging the work and credits with the faculty or instructional academic staff member and the internship site supervisor.

**Requisites:** Consent of instructor**Course Designation:** Level - Advanced

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

Workplace - Workplace Experience Course

**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2025**LSC 400 – STUDY ABROAD IN LIFE SCIENCES COMMUNICATION**

1-6 credits.

Provides an area equivalency for courses taken on UW-Madison Study Abroad Programs that do not equate to existing UW courses.

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions**Learning Outcomes:** 1. Think critically and creatively to integrate ideas for problem solving.

Audience: Undergraduate

2. Connect issues related to science and society from a global perspective.

Audience: Undergraduate

3. Communicate effectively across media and targeted audiences.

Audience: Undergraduate

**LSC 430 – COMMUNICATING SCIENCE WITH NARRATIVE**

3 credits.

Understand how narrative theory influences audiences in presenting science; analyze the role of metaphor in communicating science; integrate effective writing structures for explaining complex science; learn writing and editing skills for best practices in science communication.

**Requisites:** Satisfied Communications A requirement or graduate/professional standing**Course Designation:** Gen Ed - Communication Part B

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No**Last Taught:** Fall 2021**LSC 432 – SOCIAL MEDIA FOR THE LIFE SCIENCES**

3 credits.

Explores social media communication and tools specific to the life sciences, and will be centered on building the student's social media presence. Coursework will include a variety of readings from peer-reviewed papers, marketing, business and communication journals.

**Requisites:** Satisfied Communications A requirement or graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2024**LSC 435 – BRAND STRATEGY FOR THE SCIENCES**

3 credits.

Explores strategic marketing, branding, and communication planning specific to science, technology, and environmental industries. Examines the sociological and psychological processes shaping audiences' perceptions of various brands, and discusses how to apply various strategies and frameworks to reinforce these perceptions and guide marketing and communication efforts. Combines portfolio-building writing as well as in-class presentations and discussion on contemporary marketing, branding issues, including strategic marketing plans.

**Requisites:** LSC 270, GEN BUS 311, MARKETNG 300, CNSR SCI 477, or graduate/professional standing**Course Designation:** Level - Intermediate

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No**Last Taught:** Spring 2025**Learning Outcomes:** 1. Demonstrate an understanding of the psychology and sociology behind successful branding and marketing efforts.

Audience: Both Grad &amp; Undergrad

2. Analyze data and information from appropriate sources to build a foundation for a strategic marketing plan.

Audience: Both Grad &amp; Undergrad

3. Define and recognize audience segments and target appropriate marketing tactics to those segments to achieve marketing goals.

Audience: Both Grad &amp; Undergrad

4. Demonstrate professional skills, including writing and presentation appropriate for the workplace.

Audience: Both Grad &amp; Undergrad

5. Analyze and synthesize relevant scholarly literature related to brand strategy and management.

Audience: Graduate

6. Formulate a research proposal articulating a primary research project in strategic science communication in an industry setting.

Audience: Graduate

### **LSC 440 – DIGITAL MEDIA AND SCIENCE COMMUNICATION**

3 credits.

Explores how to navigate the complex world of digital and networked communication tools with an eye toward a wide variety of careers in communication. Understand and evaluate social implications of digital media, informed by the most recent scholarship and classical theories. Attention is given to implications for public engagement with controversial scientific issues.

**Requisites:** Satisfied Communications A requirement or graduate/professional standing

**Course Designation:** Breadth - Social Science

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Demonstrate understanding of the most influential theories and perspectives regarding the social and political implications and effects of digital communication technologies.

Audience: Both Grad & Undergrad

2. Evaluate contemporary claims about the social effects of communication technologies based on the extent to which they are supported by sound social scientific research.

Audience: Both Grad & Undergrad

3. Apply scientific knowledge about the societal implications of digital communication technologies to popular discussions about scientific topics and their social effects.

Audience: Both Grad & Undergrad

4. Demonstrate effective communication skills through the articulation of critical thinking about digital media and political communication through writing and informal oral presentation.

Audience: Both Grad & Undergrad

5. Analyze and synthesize relevant scholarly literature related to digital media and its relation to contemporary science communication surrounding emerging technologies and/or controversial issues involving science.

Audience: Graduate

6. Formulate a research proposal articulating an original empirical research project exploring the role of digital media in contemporary science communication.

Audience: Graduate

### **LSC 450 – DOCUMENTARY PHOTOGRAPHY FOR THE SCIENCES**

3 credits.

Trains students in visual storytelling and how to think photographically for communicating science, health and the environment. Students study the contributions of social documentary photography while assignments create a portfolio of documentary photography, and final team projects create effective still-image video stories that employ intellectual property rights.

**Requisites:** Satisfied Communications A requirement or graduate/professional standing

**Course Designation:** Breadth - Either Humanities or Social Science

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**LSC 460 – SOCIAL MEDIA ANALYTICS**

3 credits.

Provides an introduction and practical guide to understanding, collecting, and analyzing data from social media to evaluate their impact on consumer choices, human interaction, and public opinion of scientific issues and industries. Prepares students to apply metrics from current social media platforms (e.g. Instagram, Youtube, Twitter, etc.) to develop strategic communication recommendations for clients, ranging from industry to policymakers.

**Requisites:** Satisfied Quantitative Reasoning A requirement or graduate/professional standing

**Course Designation:** Breadth - Social Science

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Describe key concepts related to humans/groups/institutions' activities on social media and ethical considerations for social media researchers

Audience: Both Grad & Undergrad

2. Select an appropriate social science qualitative or quantitative research method technique for collecting and analyzing social media data

Audience: Both Grad & Undergrad

3. Analyze and clearly communicate about the relationship between social media content and user click data

Audience: Both Grad & Undergrad

4. Demonstrate basic knowledge of the R data science software

Audience: Both Grad & Undergrad

5. Evaluate social media data's impact on consumer choices, human interaction, and public opinion of scientific issues and industries

Audience: Both Grad & Undergrad

6. Apply metrics from social media platforms to develop strategic communication recommendations for clients, ranging from industry to policymakers

Audience: Both Grad & Undergrad

7. Analyze and synthesize relevant scholarly literature related to social media, internet studies, and computer-mediated communication

Audience: Graduate

8. Formulate a research proposal articulating a primary research project studying consumer choices, human interaction, public opinion, and/or discourse on social media

Audience: Graduate

**LSC 477 – NAMA PROJECT: AGRI-MARKETING STRATEGY AND IMPLEMENTATION**

2 credits.

A full-scale marketing campaign culminating in a national student competition for National Agricultural Marketing Association during their annual convention held every spring. Development of campaign plan includes brand identity, associated visuals, market research, strategic communication, competitive analysis, presentation skills, and learning how to work as a team toward a common goal.

**Requisites:** None

**Repeatable for Credit:** Yes, for 8 number of completions

**Last Taught:** Spring 2025

**LSC 480 – CULTURALLY RESPONSIVE SCIENCE COMMUNICATION**

3 credits.

Analyzes inequities in science communication and explores approaches to increase equity and cultural competence in an evolving social landscape. Covers participatory research methods and critiques of approaches that do not center the community as co-creators of science communication designed to serve community priorities. Opportunities to engage with professionals and communities working to achieve culturally responsive science communication in contexts such as health, agriculture, and the environment.

**Requisites:** Satisfied Communications A requirement or graduate/professional standing

**Course Designation:** Ethnic St - Counts toward Ethnic Studies requirement

Breadth - Social Science

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Identify historic societal injustices related to science and science communication

Audience: Both Grad & Undergrad

2. Apply co-creation and participatory approaches to engage diverse communities in science-related topics

Audience: Both Grad & Undergrad

3. Consider civic and social responsibilities to engage diverse groups in science

Audience: Both Grad & Undergrad

4. Evaluate different approaches for communicating science more effectively to underrepresented, marginalized and other communities

Audience: Both Grad & Undergrad

5. Evaluate the cultural responsiveness of science communication and offer recommendations for how to create science communication that is more culturally responsive and culturally sustaining

Audience: Both Grad & Undergrad

6. Work as part of a team to create culturally responsive science communication for real-world project

Audience: Both Grad & Undergrad

7. Create culturally responsive science communication as part of group project

Audience: Both Grad & Undergrad

8. Independently design a graduate-level research prospectus related to examining a culturally responsive science communication context for a marginalized group in the U.S. related to your interests and research program

Audience: Graduate

**LSC 515 – SOCIAL MARKETING CAMPAIGNS IN SCIENCE, HEALTH AND THE ENVIRONMENT**

3 credits.

Design, production and evaluation of communication programs aimed at informing and educating the public about agricultural, environmental, science, health and human ecology issues.

**Requisites:** Senior standing, declared in Life Sciences Communication, LSC 250 and 251

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Understand principles and tactics of social marketing communication

Audience: Undergraduate

2. Plan a social marketing campaign

Audience: Undergraduate

3. Use communication, persuasion, and behavioral principles that inform campaign planning

Audience: Undergraduate

4. Conduct qualitative and quantitative research

Audience: Undergraduate

5. Engage in strategic and creative thinking, writing, and message production

Audience: Undergraduate

6. Collaborate effectively as part of a team

Audience: Undergraduate

**LSC 532 – WEB DESIGN FOR THE SCIENCES**

3 credits.

Provides an opportunity to design websites that focus on agricultural, life and social sciences. It covers characteristics of web users, science information goals for websites, needs assessment, search strategies, formative evaluations, legal issues.

**Requisites:** Satisfied Communications A requirement or graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025



**LSC 560 – SCIENTIFIC WRITING**

3 credits.

Focuses on scientific writing techniques that can be applied to academic papers, scientific journals, grant proposals, and other written and oral professional work in science and technology related fields.

**Requisites:** LSC 212 or graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2024

**Learning Outcomes:** 1. Apply the practices and principles that produce both strong scientific arguments and writing that is clear, easy to interpret, and enjoyable to read.

Audience: Both Grad & Undergrad

2. Use the elements of story to engage scientific audiences and to structure both written and oral communications.

Audience: Both Grad & Undergrad

3. Identify the purpose and structure of various genres of scientific writing, such as grant proposals and journal articles, and what readers expect from each.

Audience: Both Grad & Undergrad

4. Describe the common barriers to effective science communication and apply practices for overcoming them.

Audience: Both Grad & Undergrad

5. Critically evaluate their writing and the writing of others, and use best practices for giving constructive, respectful feedback during peer review.

Audience: Both Grad & Undergrad

6. Integrate knowledge of the principles of effective communication with new technical skills to write and speak about aspects of their own research.

Audience: Graduate

**LSC 561 – WRITING SCIENCE FOR THE PUBLIC**

3 credits.

Focuses on science writing concepts and techniques that can be used to communicate purposefully and effectively with public audiences about science, research, and technology.

**Requisites:** Junior standing

**Course Designation:** Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Harness the elements of story to more deeply engage public audiences in science and to organize both written and oral communications.

Audience: Both Grad & Undergrad

2. Apply more concise, clear, and powerful language when writing and speaking about science and research.

Audience: Both Grad & Undergrad

3. Appreciate the need to understand others' perspectives when communicating about science and apply strategies for responding empathetically to audience concerns.

Audience: Both Grad & Undergrad

4. Foster dialogue and community by participating thoughtfully and respectfully in discussions, including peer reviews of each other's work.

Audience: Both Grad & Undergrad

5. Integrate the concepts and skills learned in the course to write a personal essay or opinion piece about a timely and relevant science topic or controversy.

Audience: Both Grad & Undergrad

6. Combine knowledge of the principle of effective science communication with new technical skills to write and speak about aspects of their own research.

Audience: Graduate

**LSC 614 – ADVANCED VIDEO PRODUCTION**

3 credits.

An advanced digital video production course. Students will receive advanced instruction in producing, videography, scripting, and editing digital video.

**Requisites:** LSC 314 or graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2021

### **LSC/COM ARTS/JOURN 617 – HEALTH COMMUNICATION IN THE INFORMATION AGE**

3 credits.

Examines the role of communication in health, how the revolution in information technology has affected health communication, and the assumptions about health information and communication that drive current efforts to use technologies.

**Requisites:** Junior standing

**Course Designation:** Breadth – Social Science

Level – Advanced

L&S Credit – Counts as Liberal Arts and Science credit in L&S

Grad 50% – Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2024

**Learning Outcomes:** 1. Demonstrate their understanding of major theories, approaches, concepts, and current research findings in the area of health communication

Audience: Both Grad & Undergrad

2. Gain a sense of the methodological issues involved in the construction and evaluation of health communication

Audience: Both Grad & Undergrad

3. Demonstrate their understanding of the connections between the environment (e.g., physical, social, media), cognition, and behavior

Audience: Both Grad & Undergrad

4. Communicate effectively through written reports, oral presentations and discussion

Audience: Both Grad & Undergrad

5. Evaluate ideas from different sources critically

Audience: Graduate

6. Derive new testable hypotheses by integrating or contrasting different theories

Audience: Graduate

7. Develop variations on theoretical models or ideas such as contingent conditions or mediating factors

Audience: Graduate

### **LSC 625 – RISK COMMUNICATION**

3 credits.

Examines risk as a central concept in the communication process. Since risk is intrinsically an interdisciplinary concept, the examination will rely on literature from a wide range of disciplines and perspectives, such as communication, psychology, sociology and formal risk analysis. Case studies will be drawn from a wide range of global issues and cultural contexts, including environmental, technological or health risks; food safety risks; international military crisis or threats of terrorism; and natural disasters.

**Requisites:** Junior standing and (LSC 250 or 251); or graduate/professional standing

**Course Designation:** Breadth – Social Science

Level – Advanced

L&S Credit – Counts as Liberal Arts and Science credit in L&S

Grad 50% – Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Identify the psychological processes by which risk perceptions are formed across the world and explain these in lay terms to different audiences

Audience: Both Grad & Undergrad

2. Analyze media portrayals of risk and their effect on public perceptions in different cultural settings

Audience: Both Grad & Undergrad

3. Describe the importance of social, political and cultural contexts for risk related issues at the global scale

Audience: Both Grad & Undergrad

4. Critically assess campaigns aiming at persuading individuals to make specific decisions in high-risk situations around the world

Audience: Both Grad & Undergrad

5. Analyze and synthesize relevant scholarly literature related to risk communication

Audience: Graduate

6. Formulate a research proposal articulating a primary research project in riskcommunication

Audience: Graduate

**LSC 640 – CASE STUDIES IN THE COMMUNICATION OF SCIENCE AND TECHNOLOGY**

3 credits.

Examination of social scientific research addressing characteristics of science, public understanding of science, science news, and relationships between scientists and journalists. Application of this knowledge to several case studies examining the function of communication in specific scientific or technical contexts.

**Requisites:** Senior standing, declared in Life Sciences Communication, LSC 250 and 251

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**LSC 660 – DATA ANALYSIS IN COMMUNICATIONS RESEARCH**

3 credits.

How to use chi-square, analysis of variance, simple and multiple correlation and regression analysis, and various nonparametric tests in communication research.

**Requisites:** LSC 250 and senior standing or graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

**LSC 681 – SENIOR HONORS THESIS**

2-4 credits.

Individual study for majors completing theses for Honors degrees as arranged with a faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Honors - Honors Only Courses (H)

**Repeatable for Credit:** No

**Last Taught:** Fall 2024

**LSC 682 – SENIOR HONORS THESIS**

2-4 credits.

Second semester of individual study for majors completing theses for Honors degrees as arranged with a faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Honors - Honors Only Courses (H)

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**LSC 691 – SENIOR THESIS**

1-3 credits.

Individual study for undergraduate students completing a thesis in the area of science communication, as arranged with a research faculty member.

**Requisites:** Consent of instructor

**Repeatable for Credit:** No

**Learning Outcomes:** 1. Apply classroom knowledge to develop research proposal

Audience: Undergraduate

2. Assess state of research in a field of study and develop research questions or hypotheses

Audience: Undergraduate

3. Translate research question into research design and instruments

Audience: Undergraduate

**LSC 692 – SENIOR THESIS**

1-3 credits.

Second semester of individual study for undergraduate students completing a thesis in the area of science communication, as arranged with a research faculty member.

**Requisites:** Consent of instructor

**Repeatable for Credit:** No

**Learning Outcomes:** 1. Analyze data to answer research questions or hypotheses

Audience: Undergraduate

2. Extract broader implications of research findings for field of research or society

Audience: Undergraduate

3. Write senior thesis based on original research project

Audience: Undergraduate

**LSC 699 – SPECIAL PROBLEMS**

1-4 credits.

Individual advanced work in an area of Life Sciences Communication under the direct guidance of a faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2022

**LSC 700 – COLLOQUIUM IN LIFE SCIENCES COMMUNICATION**

1 credit.

Gives graduate students exposure to the many faculty across the UW campus who work on communication issues within their own fields. Weekly speakers represent diverse departments and other units; many will focus on science, health technology and related issues.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2025

**LSC 720 – INTRODUCTION TO COMMUNICATION THEORY AND RESEARCH**

3 credits.

Introduction of concepts fundamental to conduct of social scientific research, overview of history and structure of field of communication, survey of major theoretical perspectives on mass communication at both micro and macro levels, with treatment of micro-macro and mass-interpersonal integration.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2024**LSC/JOURN 811 – CONCEPTUALIZATION AND DESIGN OF MASS COMMUNICATION RESEARCH**

2-3 credits.

Assists students in turning research questions into substantive research designs with understanding of the concepts involved. For most students, the final product will be a well-developed thesis or dissertation proposal.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2024**LSC/ENVIR ST/JOURN 823 – SCIENCE AND ENVIRONMENT COMMUNICATION**

3 credits.

Tracks the evolution of mass media coverage of science and the environment. Emphasis on how journalists utilize evidence, the influence of scientific and journalistic norms on stories, and the effects of mass media on science and environment messages to the public.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2023**LSC/JOURN 825 – LAW AND ETHICS OF COMMUNICATION AND MEDIA**

3 credits.

Explores critical questions of media law and ethics within the United States.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2021**Learning Outcomes:** 1. Understand the dimensions of legal and ethical philosophies and frameworks as applied to media work.

Audience: Graduate

2. Interpret and critique common elements of media ethics codes and practices.

Audience: Graduate

3. Interpret and critique legal precedents and doctrines

Audience: Graduate

4. Apply philosophy and frameworks to current media concerns and controversies.

Audience: Graduate

5. Rationally defend or critique choices in specific media contexts.

Audience: Graduate

6. Research and write about law and ethics in scholarly or professional publications.

Audience: Graduate

**LSC/JOURN 826 – JOURNALISM THEORY**

3 credits.

Focus on the content and purposes of journalism, explores cultural values associated with journalism, relationships between journalism and other institutions, and current issues facing journalists at a time when the profession faces many challenges.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2025**LSC/COM ARTS/JOURN 831 – PSYCHOLOGY OF ENTERTAINMENT MEDIA**

3 credits.

Provides an in-depth look into entertainment media, including its effects on individuals, social groups, and society. The focus on entertainment content is across platforms - from "mass" to social media. Emphasis will be paid to psychological, individual-level effects.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No

**LSC/JOURN 833 – TECHNOLOGY AND SOCIETY**

3 credits.

Considers the effects of new communication technologies on everyday life and political mobilization.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2024

**LSC 835 – STRATEGIC SCIENCE COMMUNICATION**

3 credits.

Examines science communication through the framework of strategic communication. Examines frameworks and concepts from marketing, branding, advertising, public relations, organizational communication, and related fields to help inform organizational and individual-level science communication and engagement strategies. Explores topics such as messaging tactics, persuasion, audience segmentation and DEI (diversity, equity, and inclusion), and behavior change.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Learning Outcomes:** 1. Identify theoretical approaches and methodologies behind strategic communication and how they apply to science communication and engagement.

Audience: Graduate

2. Critically evaluate the effectiveness of strategic science communication efforts in contemporary society, and their impact on diverse audiences.

Audience: Graduate

3. Define and recognize audience segments and how to apply appropriate strategic communication initiatives to achieve audience-specific communication and engagement goals.

Audience: Graduate

4. Formulate a research proposal articulating an original research project in strategic science communication.

Audience: Graduate

**LSC 850 – VISUAL SCIENCE COMMUNICATION**

3 credits.

Introduces the theoretical, practical, and ethical principles of visual communication, with a focus on how such principles can be applied to communicating scientific phenomena, evidence, and reasoning to both expert and non-expert audiences. Covers the effectiveness of visuals as a tool for science communication, their effects at the individual level as well as the potential long-term impact on society.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Learning Outcomes:** 1. Describe the unique benefits of visuals for communicating sciences.

Audience: Graduate

2. Identify the theoretical, practical, and ethical principles of visual communication.

Audience: Graduate

3. Explain how theoretical, practical, and ethical principles can be applied to the visual communication of sciences.

Audience: Graduate

4. Assess the effects of science visualizations on attitudes, emotions, and behaviors with a multidisciplinary reflection on theories and empirical evidence.

Audience: Graduate

5. Develop research proposals and/or original arguments pertaining to the effectiveness of science visualizations.

Audience: Graduate

6. Critique the design, content, and integrity of science visualizations.

Audience: Graduate

7. Incorporate visuals effectively in scholarly writing and public speaking.

Audience: Graduate

**LSC 875 – SPECIAL TOPICS**

1-4 credits.

Specialized subject matter of current interest to graduate students.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Fall 2022

### **LSC 902 – PUBLIC OPINION OF LIFE SCIENCE ISSUES**

3 credits.

Advanced seminar on public opinion surrounding the science issues and science policy. Examines the intersection of public opinion, science, and politics; issues related to public opinion measurement; and the importance of public opinion for different aspects of life science communication.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2024

### **LSC 912 – PUBLIC UNDERSTANDING OF POLITICIZED SCIENCE**

3 credits.

Focuses on the intersections of science, politics, and communication, and their implications for public opinion and public understanding of science, particularly in the context of controversial science and technology issues. A solid understanding of public opinion and communication dynamics surrounding today's controversial science issues requires deep knowledge of core concepts and theories of political polarization, attitudes, and information processing, especially in the context of contemporary digital media environments. Focus on how these concepts and theories are applied in contemporary research on public opinion about science and science-related issues. Consider how such applications may potentially offer new and unique opportunities for deeper understanding of broader dynamics of contemporary communication.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Learning Outcomes:** 1. Describe key theoretical and conceptual models for understanding and explaining public understanding of science issues that intersect with politics and political communication.

Audience: Graduate

2. Assess how social scientific research addresses the relationship between communication and the public's understanding of controversial science issues.

Audience: Graduate

3. Identify opportunities for original scholarly work related to improving understanding about, or interventions to improve, public understanding of science.

Audience: Graduate

### **LSC 990 – RESEARCH**

1-12 credits.

Independent research in preparation of a graduate thesis under supervision of a faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2025

### **LSC 999 – INDEPENDENT RESEARCH**

1-3 credits.

Independent research.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2024