

Program Proposal for an Undergraduate Certificate

1. Name of the proposed undergraduate certificate. *Science Communication*

2. Name of the department(s) involved.

Greenlee School of Journalism and Communication, English, Advanced Communication, Geological and Atmospheric Sciences, Philosophy and Religious Studies.

Additional support letters have been received from Ecology and Evolutionary Biology, History, Political Science, Natural Resource Ecology and Management and Women's and Gender Studies.

3. Name of contact person(s).

Dara Wald, Jacqueline Reber, Linda Shenk

4. General description of the undergraduate certificate.

The science communication certificate provides an opportunity for students to develop their public communication skills, to interface with students and faculty across disciplinary and science-public divides, and to give students an edge in the job market where successful communication with a multitude of stakeholders is essential. As a discipline, science communication brings together theory and practice to communicate scientific information to the public, with an emphasis on two-way and strategic communication with the public.

This certificate is designed to encourage students who are interested in the intersection of science and society to pursue coursework that provides them with the skills to practice public-facing science and effectively engage the public around complex and sometimes controversial scientific topics. In addition, *the certificate is designed to facilitate convergence across disciplines and encourage team-based collaboration* at the undergraduate level.

As a transdisciplinary certificate, this program will meet the needs of students from across campus, including students from the humanities, social sciences, and STEM fields. Key groups who might be interested in this certificate include students who are planning to pursue science, environmental, or health communication as a career or students pursuing a career in a science, engineering, math and other technical fields interested in strengthening their communication skills.

To prepare students for the challenge of communicating effectively at the intersection of science and society, students will take a core of 12-credits from the Greenlee School of Journalism and Communication, the English Department, and the Department of Philosophy and Religious Studies and 9-credits of electives from three

tracks: science in practice, science and society, and communication in practice.

The certificate requires 21 credits, where 9 of the credits taken do not fulfill any other requirements for other majors or general education. The certificate leverages existing courses as well as proposes two new courses.

Core courses (12 credits):

- (1) JLMC/PR/ADVRT 200-levelX Media Controversies in Science and Technology
- (2) PHIL 206 Introduction to Logic and Scientific Reasoning
- (3) ENGL 312 Biological Communication
- (4) JLMC 347 Science Communication

These core courses integrate scientific material with communication skills from a range of disciplines as well as include a public-outreach component.

Elective courses (9 credits):

Students will take one course from each of the three categories of electives: Science in Practice, Science and Society, and Communication in Practice (see list in Item 10). 6 of these 9 credits must be at the 300+ level.

Students who engage in an internship or research experience (including those connected to courses) may seek approval from the steering committee to have this experience counted as an elective course. This experience must include a public-facing communication/outreach component, and the steering committee will decide which of the 3 categories of electives this experience would fulfill. Students who wish to count the internship toward the certificate must track their hours as well as complete a final paper about their experiences.

5. Need for the proposed undergraduate certificate.

“There is a growing consensus that...scientists must engage more fully with the public about scientific issues and the concerns that society has about them” (*Science*, 2007, p. 161). Yet ten years after this comment, a report by the National Academies of Sciences, Engineering, and Medicine notes that few scientists today have “formal training in science communication...[and] many journalists, institutional public information officers, advocates, and others who communicate science in the course of their work lack training either in science or in the communication of science per se” (NASEM, 2017, p. 12).

Recognizing this need, NSF, NIH, and many universities have developed communication training programs in science communication; however, to date, none of the regent’s universities in Iowa offer a certificate or minor in science communication. The Science Communication Certificate aims to address this gap.

Students who complete the proposed science communication certificate will be able to (1) create, co-produce, and evaluate public-facing science communication; (2) understand and address the ethical, social, cultural, and historical factors that influence the public communication of science; and (3) promote public and cross-disciplinary understanding of scientific information across diverse and emergent media platforms and audiences.

There are three ways in which the proposed certificate differs from existing programs at other institutions. First, the certificate is designed to facilitate convergence across disciplines and encourage team-based collaboration at the undergraduate level. The current research landscape, driven in part by scientific agencies' support for transdisciplinary projects, will require future scholars who are prepared to work across traditional disciplinary and science-society divides. Thus, the proposed certificate includes classes designed to attract students across multiple disciplines and use a team-based approach to encourage collaboration.

Second, there remains a pressing need for skilled communicators of science able to develop, practice, and evaluate methods for engaging and co-producing knowledge with the public. This more collaborative approach allows scientific research to have greater impact, to be more locally relevant, and to facilitate trust. Thus, this certificate is designed to prepare students to communicate clearly and in a compelling manner while also encouraging a communication paradigm that embraces the co-creation of knowledge (rather than a "top-down" or science-led approach) and an understanding of the cognitive and socio-cultural variables that influence public interpretations of science, perspectives of scientists, and the acceptance or rejection of scientific advice.

Finally, scientists interested in sharing their findings with the public must navigate the complex intersection between science and society to engage a diversity of audiences with different goals and interests through a myriad of communication platforms and strategies. The proposed certificate is designed to prepare students to understand the origins and dynamics of science-related controversies; identify and address misinformation across social media, blogs, and other social and online networks; and to engage in constructive conversations about contested topics.

Due to the transdisciplinary nature of the certificate, this program would be open to students of any major. However, we have identified several key target groups who are interested in the proposed science communication certificate. The first group includes students who are planning to pursue science, environmental, or health communication as a career. The Bureau of Labor Statistics predicts faster than average increases in jobs for public relations managers, and advertising and marketing managers between 2019 and 2029. While traditional media outlets such as newspapers have decreased, the need for writers to produce online science content is soaring (Kellogg, 2017, <https://www.molbiolcell.org/doi/full/10.1091/mbc.e14-03-0813>). For example, academic journals, trade magazines, and general-interest publications need content for their traditional print formats as well as content for their websites, daily online news blogs, and social media networks. While not a comprehensive list, Indeed.com

currently has more than 342,000 job posts related to “PR, communication, marketing or advertising” and science.

Students pursuing a career in a science, engineering, math and other technical fields are also interested in this certificate program. Indeed, for them, the science communication certificate will give them an edge in the job market where successful communication with a multitude of stakeholders is essential. Growing public concern about climate change is fueling new opportunities in environmental science, sustainability, and energy. These positions often require strong oral and written communication skills to be able to communicate results or ideas to company managers, regulators, and funders. The proposed certificate capitalizes on the demand for these professionals by offering STEM students the opportunity to develop their communication skills.

6. Objectives of the proposed undergraduate certificate including the student learning outcomes and how the learning outcomes will be assessed.

Student-focused objectives

- Encourage students to engage with community members, other students and faculty across interdisciplinary boundaries, diverse backgrounds, and divergent interests.
- Prepare students to communicate scientific findings and technological advances in a clear and compelling manner while also encouraging inclusive communication that acknowledges others’ values and concerns.
- Cultivate students’ understanding of the origins and dynamics of science-related controversies and conflicts.
- Challenge students to identify and address scientific misinformation, scientific skepticism, and science denial across social media, blogs, and other social and online networks.
- Prepare students to engage in constructive conversations with diverse audiences over contested science, environmental, and health topics.

Learning outcomes

Students who complete the proposed science communication certificate will be able to:

- Create, co-produce, and evaluate public-facing science communication
- Understand and address the ethical, social, cultural, and historical factors that influence both the public communication of science and the rise and spread of science-related controversies
- Promote public and cross-disciplinary understanding of scientific information
- Co-produce knowledge with community stakeholders through public-facing projects
- Create effective and appropriate science messages across diverse and emergent media platforms, addressed to diverse audiences.
- Critically analyze science messages addressed to public audiences around science

- Identify and address misinformation across social media, blogs, and other social and online networks
- Engage in constructive conversations about contested science, environmental, and health topics.

Assessment Plan Ideas

Over the course of completing the certificate, each student will conduct a minimum of three applied, public-facing projects that they will compile, with an accompanying reflection essay, into a final e-portfolio. The e-portfolio materials can be developed during course work required to complete the certificate. For example, in JLMC 347, students are required to create four written articles about science for the public. Two of these products could be used for the portfolio. Students will submit their e-portfolios to the science communication steering committee for assessment, and these e-portfolios may be posted on the Science Communication Project site.

7. Relationship of the undergraduate certificate to other programs at Iowa State University.

The science communication certificate supports programs across LAS and the University, providing students an opportunity to effectively practice public-facing science, bridge traditional science-public divides, and practice effective communication for technical and non-technical audiences.

8. Relationship of the undergraduate certificate to the strategic plans of the university, of the college, and of department or program.

The certificate contributes to Iowa State's and its Colleges' emphases on research and educational opportunities that involve issues at the nexus of research and society. Meeting the Grand Challenge Research Themes identified by Iowa State requires cutting-edge research that can develop scientific answers to society's greatest challenges. Science has already developed many recommendations for improving the health and sustainability of our society, such as reducing carbon emissions, increasing agricultural yields, and conserving water and land. In order for researchers to address society's greatest challenges, they must involve public stakeholders in the research and communication of their findings to build connections with diverse and often skeptical audiences. The certificate's emphasis on communication and public-facing projects participates in the university's goals to provide students with education and practical experiences promote leadership skills, inclusion, and public quality of life.

In the College of Liberal Arts and Sciences, the themes of "Enabling Healthy Lives" and "Building Sustainable Human and Natural Ecosystems" exemplify a key tension at the nexus of science and society: the public consistently expresses high levels of trust in "scientists" (Gauchat, 2010, 2012) while at the same time rating specific scientific results or scientists as biased and untrustworthy (Funk & Kennedy, 2016). Public trust in science and perceptions of scientific credibility are critical shortcuts, or heuristics, that people use

when forming opinions about science (Brossard & Nisbet, 2007). Public opinions about science and acceptance of scientific information will inform social, economic and political approaches to address climate change, encourage healthy behaviors, and regulate innovative technologies; therefore, it is critically important to enhance communication and public engagement efforts that foster trust and credibility, allowing publics and scientists to share their passions and hear each other's perspectives.

9. Comparison of the proposed undergraduate certificate with similar programs at other universities, including the Regent's universities.

As of today, none of the regent's universities is offering a science communication certificate or classes specializing in science communication. Two of the peer land grant universities offer a BS, MS and PhD in science communication (U Wisconsin, Penn State). North Carolina State University is offering a minor in science communication that requires 15 credits of communication classes. The University of Illinois – Urbana offers a graduate level science communication certificate based on workshops and projects.

The proposed comprehensive science communication certificate is unique within the Regent's and peer land grant universities.

10. Program requirements and procedures, including:

- a. prerequisites for prospective students;
Complete English 250
- b. application and selection process;
Any enrolled undergraduate student at ISU can enroll into the certificate as long as the prerequisites are met. There is no selection process.
- c. language requirements;
None
- d. courses and seminars presently available for credit toward the program;

Core courses:

- (2) PHIL 206: Introduction to Logic and Scientific Reasoning
- (3) ENGL 312 Biological Communication
- (4) JLMC 347 Science Communication

Electives:

Science in Practice

BIOL 173 Environmental Biology

BIOL 251 Biological Processes in the Environment
BIOL 355 Plants and People
ENVS 442 The Policy and Politics of Coastal Areas
ENSCI 250 Environmental Geography
ENSCI 360 Environmental Soil Science
ENSCI 384 Introduction to Ecosystems
GEOL 101 Environmental Geology: Earth in Crisis
GEOL 102 History of the Earth
GEOL 108 Introduction to Oceanography
GEOL 160 Water Resources of the World
GEOL 324 Energy and the Environment
GEOL 201 Geology for Engineers and Environmental Scientists
METEOR 404 Global Change
METEOR 406 World Climates
NREM 120 Introduction to Renewable Resources
NREM 380 Field Ecology Research and Teaching

Science and Society

WGS 307 Women in Science and Engineering (GE)
WGS 320 Ecofeminism
WGS/HIST 380 History of Women in Science, Technology, and Medicine
WLC 484 Technology, Globalization and Culture
SOC 382 Environmental Sociology
SOC 464 Strategies for Community Engagement
ENGL 355 Literature and Environment (GE)
EDUC 347 Nature of Science (GE)
JLMC 474 Communication Technology and Social Change
JLMC 401 Mass Communication Theory
JLMC 476 World Communication Systems
HIST 362 Global Environmental History
HIST 367 America Eats
HIST 383 Technology, Public Science, and European Culture
HIST 482 Birth, Death, Medicine, and Disease
POL S 335 Science, Technology, and Public Policy

POL S 383 Environmental Politics and Policies
POL S 443 Energy Policy
PHIL 331 Moral Problems in Medicine
PHIL 334 Environmental Ethics
PHIL 336 Bioethics and Biotechnology
PHIL 343 Philosophy of Technology
PHIL 380 Philosophy of Science
PHIL 389 Philosophy of Psychology and Psychiatry
PHIL 485 Philosophy of Physics

Communication in Practice

ENGL 309 Proposal and Report Writing
ENGL 314 Technical Communication
ENGL 332 Visual Communication of Quantitative Information
ENGL 350 Rhetorical Traditions (GE)
ENGL 411 Technology, Rhetoric, and Professional Communication
ENGL 477 Seminar in Technical Communication
ENGL 487 Internship in Business, Technical, and Professional Communication
LING 120 Computers and Language
NREM 330 Principles of Interpretation
PR 305 Publicity Methods
PR 220 Principles of Public Relations
PR 323X Strategic Communication in Agriculture and the Environment (cross-listed with AGEDS 323x)
SP CM 212 Fundamentals of Public Speaking
SP CM 310 Rhetorical Analysis
SP CM 322 Argumentation, Debate, and Critical Thinking
SP CM 327 Persuasion and Social Influence
SP CM 305 Language, Thought and Action

e. proposed new courses or modifications of existing courses;

Core course:

JLMC/PR/ADVTR 200-levelX Media Controversies in Science and the Environment

Elective:

GEOL 3XX (Class on experiment design, evaluation, and communication)

- f. advising of certificate students;
 - Advising through professional advisors. Steering committee members meet with professional advisors once per year to inform about changes etc.
- g. implications for related areas within the university.
 - By encouraging students to take classes in STEM, Humanities and Social Sciences has the potential to increase enrollment in classes and programs involved in this certificate. This program may also serve as a gateway for students to add a minor or second major in one of the collaborating programs.
 - The certificate will strengthen existing synergies and potential collaborations between faculty in adjacent programs (i.e., technical communication, communication studies, philosophy).
 - The certificate forms a curricular path for students interested in science communication.
 - The certificate will generate two new courses and lead to several name changes of existing courses.

11. General description of the resources currently available and future resource needs, in terms of:

- a. faculty members;
 - No additional faculty needed, individual teaching loads will not significantly change.
- b. computers, laboratories, and other facilities;
 - No additional space or facilities will be needed.
- c. library facilities (journals, documents, etc.) in the proposed area;
 - No additional library facilities are needed.
- d. supplies, field work, student recruitment, etc.
 - Two Fellowships for students interested in applied science communication are available from the Greenlee School (ComSHER Fellowship).
 - No additional resources are required.

12. Describe the needs for new resources and/or reallocated resources. Attach to the program proposal memos from the department chair(s), the college dean(s), and other appropriate persons, agreeing to the allocation of new resources and/or the reallocation of resources.

No need for new resources is anticipated.

13. Attach to the program proposal, letters of support, recommendations, and statements when appropriate, from programs and departments at ISU which are associated with the proposed program or have an interest in the proposed program.

14. If the new program is interdisciplinary, a governance document should be created and submitted to the Associate Provost for Academic Programs. Indicate here that it has been completed.

Date: March 30, 2021

To: Dara Wald

From: Michael Dahlstrom; Director of the Greenlee School of Journalism and Communication

Re: Support for Certificate in Science Communication

The faculty and director of the Greenlee School of Journalism and Communication strongly support the creation of an interdisciplinary Certificate in Science Communication along the lines of your proposal. Science communication is a strength of the Greenlee School, with permanent science communication courses at the undergraduate and graduate levels as well as multiple faculty with research emphases in science communication.

We believe that a certificate in science communication that brings together the strengths of multiple Iowa State programs will be an attractive choice for students in the sciences as well as students in communication fields. We support this proposal to create the program.

Sincerely,



Dr. Michael Dahlstrom
Director
LAS Dean's Professor
Greenlee School of Journalism and Communication
Iowa State University

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of English
527 Farmhouse Lane
203 Ross Hall
Ames, Iowa 50011-1201
515 294-2180
FAX 515 294-6814

To: Dara Wald, Assistant Professor, Greenlee School of Journalism and Communication
From: Volker Hegelheimer, Chair, Department of English
Date: March 17, 2021
Re: Undergraduate Science Communication Certificate program proposal

As a land grant institution, Iowa State has consistently worked to create transdisciplinary opportunities to accomplish precisely what this Science Communication certificate is designed to foster--students and faculty putting research into practice that serves, and connects with, the broader public. The Science Communication certificate creates meaningful synthesis across STEM and communication-focused fields and allows students to produce public-facing projects that will give them tangible credentials and skills for their professional careers and work as engaged citizens. I strongly support this proposal.

The Department of English plays a significant role in this certificate with our English 312 as one of the four core courses and a significant number of our other courses included as electives. Our department's Director of Advanced Communication approves of this certificate and will be writing a letter of support, and the faculty who teach courses included in the certificate approve of this opportunity as well. The certificate strengthens our existing offerings in Technical Communication, Rhetoric, Speech Communication, and Literature.

Sincerely,



Volker Hegelheimer
Chair, Department of English
chair_engl@iastate.edu
515-294-2282

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of English
203 Ross Hall
Ames, Iowa 50011-1201
515 294-2180
FAX 515 294-6814

April 9, 2021

To: Dara Wald, Assistant Professor, Greenlee School of Journalism and Communication
From: Jenny Aune, Director of Advanced Communication & faculty member in Rhetoric and Professional Communication
RE: Support for Undergraduate Science Communication Certificate

As Director of the Advanced Communication as well as a colleague in Rhetoric and Professional Communication (RPC) in the Department of English, I write in full support of the certificate in Science Communication. One of our courses in Advanced Communication (English 312) is a core course in this certificate, and a substantial number of the courses listed as electives are offered by my colleagues in RPC. On April 7, 13 of my colleagues in RPC had an area meeting, and the area expressed full support for this certificate, appreciating its clear benefits for students and for the RPC program, its interdisciplinarity, and its focus on public-facing communication.

This certificate exemplifies the work Advanced Communication has been expanding for years that connects communication with cross-disciplinary work, and I fully support its creation.

Sincerely,

Jenny Aune

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of Geological and
Atmospheric Sciences
253 Science I
2237 Osborn Drive
Ames, Iowa 50011-3212
515 294-4477
FAX 515 294-6049

Date: March 17, 2021
To: Dara Wald, Assistant Professor, Greenlee School of Journalism and Communication
From: Kristie Franz, Chair, Dept. of Geological & Atmospheric Sciences
RE: Undergraduate Science Communication Certificate program proposal

The Department of Geological & Atmospheric Sciences (GeAt) strongly supports this proposal to create an undergraduate Science Communication Certificate program. Developing effective communication skills is a core part of a scientist's training. There is increasing demand across all sectors for scientists who can communicate to diverse audiences, and the Science Communication certification will be attractive to GeAt students interested in jobs with federal and state agencies, private consulting firms, and graduate school. Job postings for meteorological forecasting positions, for example, have long listed public communication skills as a requirement. Increasingly, the National Weather Service is emphasizing the need for skill in "risk communication". GEAT has recently created an Interdisciplinary Studies in Climate Science degree pathway and is preparing to propose a new major in Climate Science. Science Communication will be an optional focus area in these Climate Science degree programs and the certificate will be a valuable credential for these majors.

This certificate program does not conflict with any major or minor degree programs offered by GeAt.

Sincerely,



Kristie J. Franz
Chair, Department of Geological & Atmospheric Sciences
kfranz@iastate.edu
(515) 294-1837

INTEROFFICE COMMUNICATION

To: Jacqueline E. Reber
From: Heimir Geirsson, Chair, PhilRS
cc:
Date: March 11, 2021
Re: Science Communication certificate

We have quite likely never seen times when there is stronger need for clear and effective science communication. We have, in the U.S., climate deniers, COVID deniers, anti-maskers, anti-vaxers, and fairly wide-based general distrust of science. It seems very clear that there is strong need for people who can bridge the considerable gap between science and the public, and it would appear that it takes special knowledge and understanding to reach the anti-science population. The proposed Science Communication certificate is a step in the direction of addressing some of the above and so I strongly support the proposal. The proposal has, I think, an appropriate mix of disciplines and the appropriate division between the social and the “hard” sciences.

Philosophy does play a significant role in the certificate and one of the four core courses is a philosophy course. The instructor for that course likes the proposal and is already thinking about how to adjust assignments so that they can be of further use to future certificate holders.

Overall, this seems to be a timely and useful program that I am very happy to support.

3 November 2021

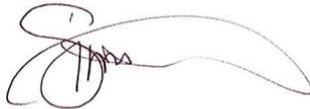
Prof. Linda Shenk
Department of English
Iowa State University

Dear Prof. Shenk,

It is a great pleasure to write on behalf of the ISU History Department in support of the planned undergraduate certificate in Science Communication and to applaud your choice of History courses as potential electives for students pursuing the certificate. Combining the discipline of communication and STEM fields into this innovative and, for students, sensibly rewarding option is a terrific idea for which the steering committee is to be congratulated.

Please contact me if you have any questions or need further information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Simon Cordery', with a large, sweeping flourish extending to the right.

Simon Cordery
Professor and Chair
scordery@iastate.edu

IOWA STATE UNIVERSITY

OF SCIENCE AND TECHNOLOGY

College of Liberal Arts and Sciences
Department of Political Science
503 Ross Hall, 527 Farm House Lane
Ames, Iowa 50011-1054
515-294-7256
FAX 515-294-1003

October 29, 2021

Dr. Linda Shenk
Department of English
233 Ross Hall
527 Farm House Lane
Ames, IA 50011-1054

Dear Dr. Shenk:

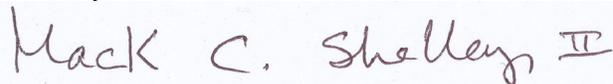
The Department of Political Science strongly supports the proposed undergraduate Science Communication Certificate. The proposed curriculum offers skills that would helpfully complement the substantive material covered in Political Science and other social science curricula, emphasizing skills in understanding and presenting data that have relevance to a wide range of professional careers. Communication is vital to politics and policymaking, and pairing it with the special skills needed to understand and present scientific information is especially useful as technical questions increasingly extend into new societal arenas.

The Department also feels comfortable that we can accommodate, without requiring additional resources, the additional enrollment in Political Science courses that may occur because of their role within the new certificate's curriculum.

We enthusiastically look forward to contributing to the Science Communication Certificate.

Thank you.

Sincerely,

A handwritten signature in dark ink that reads "Mack C. Shelley II". The signature is written in a cursive style with a double underline under the name.

Mack C. Shelley, II
Chair, Department of Political Science
University Professor of Political Science, Statistics, and School of Education

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

5 November 2021

To:
From: Stephen J. Dinsmore, Chair, NREM
Subject: Science Communication Certificate

College of Agriculture and Life Sciences
Department of Natural Resource
Ecology and Management
339 Science II
Ames, Iowa 50011-3221
515 294-1458
FAX 515 294-2995

This letter confirms support for the proposed Science Communication Certificate by the Department of Natural Resource Ecology and Management (NREM). There is a clear need for skills in communication, especially those with the general public, and we believe this certificate offers a formal process for our students to gain these skills. We are pleased that a small number of NREM courses are included in the list of course electives for this certificate and expect that a small number of our students will be interested in this certification. We are pleased to offer our support!

8 November 2021

To: Jacqueline Reber (Geology and Atmospheric Sciences), Dara Wald (Greenlee School of Journalism and Communication) and Linda Shenk (English)

From: Lynn G. Clark



Interim Chair, Ecology, Evolution, and Organismal Biology

Re: Proposal for the new Science Communication Certificate

I have read the information regarding the new Science Communication Certificate to be offered through the College of Liberal Arts and Sciences, and on behalf of the Department of EEOB, I am pleased to support this proposal. Without a doubt, there is a critical need for students to increase their expertise in science communication, and this need will only grow. We anticipate that the biology courses listed as electives for the certificate will continue to be taught for the foreseeable future.

IOWA STATE UNIVERSITY

College of Liberal Arts and Sciences
Women's and Gender Studies Program
217 East Hall
Ames, Iowa 50011-2060
515-294-9283
FAX 515-294-3741

Dr. Linda Shenk
Department of English
233 Ross Hall
527 Farm House Lane
Ames, IA 50011-1054

November 11, 2021

Dear Dr. Shenk:

I am writing in support of the proposed undergraduate Science Communication Certificate that is being forwarded to the Faculty Senate Academic Affairs Council. The proposal includes valuable material and skills that will advance the curriculum for science education and communication at ISU. The Women's and Gender Studies Program offers a few courses in the areas of women in STEM fields and women and the history of science that would be excellent additions to this overall proposed certificate. These communication skills and background are important for students entering the fields of science, as well as general work in public service, private industry, and non-profit organizations.

The Women's and Gender Studies Program can accommodate the additional enrollment in several of these WGS courses due to the increase in students from this new certificate curriculum. We look forward to contributing to the Science Communication Certificate.

Please feel free to contact me if you need additional information about our program's support for your initiative.

Sincerely,

Ann M. Oberhauser

Ann M. Oberhauser
Professor of Sociology
Director, Women's and Gender Studies

Academic Program Approval Voting Record

This document is to be appended as the last page of the proposal for any new or revised academic program to record the successive votes of approval as the proposal moves through its required review and approval steps. Consult Faculty Handbook Section 10.8 or the Faculty Senate Curriculum Committee website for information regarding Committee review and voting requirements for each action.

Curricular Action: (check appropriate boxes below)

1. New Program Name Change Discontinuation Concurrent Degree for:
2. Undergraduate Major Graduate Major Undergraduate Minor Graduate Minor
 Undergraduate Certificate Graduate Certificate Other: _____
3. Name of Proposed Change: ___Creation of the Science Communication Certificate
(Undergrad)___
4. Name of Contact Person: Dara Wald e-mail address: dwald@iastate.edu
5. Primary College: LAS Secondary College: _____
6. Involved Department(s): GSJC _____ GEAT _____
ENGL _____

Voting record for this curricular action:

Voting Body	Votes			Date of Vote
	For	Against	Abstain	
Dept. or Program Committee				
Greenlee School of Journalism and Communication (GSJC)	19	0	0	April 2, 2021
Geologic and Atmospheric Sciences (GEAT)	16	0	0	March 18, 2021
English (Undergraduate Studies Committee)	6	0	0	April 7, 2021
College Curriculum Committee	6	0	0	April 23, 2021
College Approval Vote				
--LAS Representative Assembly	21	0	0	April 27, 2021
Graduate Council				
Faculty Senate Curriculum Committee	6	0	0	September 15, 2021
Faculty Senate Academic Affairs Council	11	0	0	September 22, 2021
Faculty Senate				