

<b>Fiscal Unit/Academic Org</b>	School Of Communication - D0744
<b>Administering College/Academic Group</b>	Arts and Sciences
<b>Co-administering College/Academic Group</b>	
<b>Semester Conversion Designation</b>	New Program/Plan
<b>Proposed Program/Plan Name</b>	Science & Environmental Communication Certificate
<b>Type of Program/Plan</b>	Undergraduate certificate program
<b>Program/Plan Code Abbreviation</b>	SEC
<b>Proposed Degree Title</b>	Science & Environmental Communication Certificate

**Credit Hour Explanation**

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program				12	
Required credit hours offered by the unit	Minimum			6	
	Maximum			12	
Required credit hours offered outside of the unit	Minimum			0	
	Maximum			6	
Required prerequisite credit hours not included above	Minimum			0	
	Maximum			0	

**Program Learning Goals**

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

**Program Learning Goals**

- Identify and apply communication theories to the design, execution, and evaluation of effective communication about science, environmental, and sustainability topics to organizational stakeholders and the general public
- Demonstrate the ability to engage in clear, persuasive, and professional strategic communication about science, the environment, and sustainability across a range of modalities and team, organizational, and public settings.
- Enhance the ability to solve problems within science, environment, and sustainability fields through the interdisciplinary integration of communication knowledge and practice.

**Assessment**

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

**Is this a degree program (undergraduate, graduate, or professional) or major proposal?** No

**Program Specializations/Sub-Plans**

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

## Pre-Major

Does this Program have a Pre-Major? No

## Attachments

- Science and Environmental Communication Certificate Proposal.pdf: Sci & Env Comm Certificate  
*(Program Proposal. Owner: Butte,Kylie M.)*
- Science and Environmental Communication Certificate Proposal.pdf: Revised SEC Certificate  
*(Program Proposal. Owner: DeGirolamo,Anne Elizabeth)*
- SEC certificate advising sheet.doc: SEC Certificate Advising Sheet  
*(Semester Advising Sheet(s). Owner: DeGirolamo,Anne Elizabeth)*

## Comments

- Formatting issues with recent doc. See email. *(by Vankeerbergen,Bernadette Chantal on 02/27/2020 10:42 AM)*
- Contingencies have been met -Susan Kline *(by DeGirolamo,Anne Elizabeth on 02/26/2020 03:48 PM)*

## Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Butte,Kylie M.	12/10/2019 01:43 PM	Submitted for Approval
Approved	Kline,Susan Lee	12/10/2019 01:46 PM	Unit Approval
Approved	Haddad,Deborah Moore	12/10/2019 04:56 PM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	01/17/2020 05:44 PM	ASCCAO Approval
Submitted	DeGirolamo,Anne Elizabeth	02/26/2020 03:50 PM	Submitted for Approval
Approved	Slater,Michael D	02/26/2020 04:10 PM	Unit Approval
Approved	Haddad,Deborah Moore	02/26/2020 04:20 PM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	02/27/2020 10:43 AM	ASCCAO Approval
Submitted	DeGirolamo,Anne Elizabeth	03/04/2020 01:49 PM	Submitted for Approval
Approved	Slater,Michael D	03/04/2020 01:50 PM	Unit Approval
Approved	Haddad,Deborah Moore	03/04/2020 02:53 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Vankeerbergen,Bernadette Chantal	03/04/2020 02:53 PM	ASCCAO Approval



THE OHIO STATE UNIVERSITY

College of Arts and Sciences

Offices of the Associate  
and Assistant Deans

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December 9, 2019

Vice Provost Randy Smith and CAA Members:

I write on behalf of the College of Arts and Sciences in support of the proposed embedded interdisciplinary Certificate program from the School of Communication in Science and Environmental Communication. This is a well-conceived program that will certainly meet a need in the workplace, and it will be a valuable complement to majors in STEM, environmental, and sustainability majors.

Sincerely,

Steve Fink

Associate Executive Dean for Curriculum and Student Engagement

November 18, 2019

Assistant Dean Deborah Moore Haddad  
College of Arts and Sciences

Re: Request to Submit an Undergraduate Certificate in Science and Environmental  
Communication from the School of Communication

Dear Dean Haddad,

The School of Communication submits our proposed Certificate in Science and Environmental Communication, a Type 1b interdisciplinary certificate, for approval by the College.

This certificate program will educate students on the theory and practice of communicating about scientific, environmental, and/or sustainability topics and issues, as well as provide an opportunity for developing lifelong professional communication skills, while highlighting the interdisciplinary social-behavioral, educational and psychological dimensions of science and environmental communication.

The 12-credit program will serve degree seeking undergraduates who are currently enrolled at Ohio State University. Students will be required to complete two foundational courses (6 credits) within the School of Communication and an additional two courses (6 credits) from a selection of thirty courses distributed across 10 different departments and units on campus. Dr. Erik Nisbet has been a key developer of this certificate. We hope that you are enthused as we are about this proposal.

Attached you will find the proposal, four year plan, and concurrences from all participating units.

Regards,

*Susan L. Kline*

Susan L. Kline, PhD  
Associate Professor  
Director, Undergraduate Communication Program  
School of Communication

## “SCIENCE AND ENVIRONMENTAL COMMUNICATION” CERTIFICATE PROGRAM PROPOSAL

### Overview

The School of Communication proposes a 12 credit certificate program in “SCIENCE and ENVIRONMENTAL COMMUNICATION.” **We intend to serve students wishing to expand their capabilities in environment and sustainability communication, communication in a wide range of scientific and technical disciplines, and with regard to science communication more generally.** The certificate program educates students on the theory and practice of communicating about scientific, environmental, and/or sustainability topics and issues, provides an opportunity for developing lifelong professional communication skills, and highlights the interdisciplinary social-behavioral, educational, and psychological dimensions of science and environmental communication. The program designs meets the needs of undergraduate students within STEM, environmental science, and sustainability fields of study for the communication knowledge and skills necessary to be successful professionals and leaders.

A recent report to the OAA by the Sustainability Education and Learning Committee found that that OSU “should aim to provide opportunities to students to better develop communication, leadership, management, and professionalism skills. Many employers cite that these ‘soft’ skills are more critical than specific disciplinary training.”<sup>1</sup> Likewise, peer-reviewed research published in the *Proceedings of the National Academy of Sciences* on science and technology education demonstrates the “increasing importance of uniquely human skills, such as communication, negotiation, and persuasion” to science and technology professions, yet the researchers note at the same time these skills are “undersupplied through education for the labor market.”<sup>2</sup> A recent National Academies of Sciences, Engineering, and Medicine report echoes these observations by asserting that many science communicators have a shallow and narrow understanding of communication processes and objectives that hamper their ability to communicate effectively with diverse audiences.<sup>3</sup>

Our certificate helps address these needs across a broad range of science, technical, and environmental majors. The program is proposed to consist of in-person and hybrid classes of all the foundational required courses (COMM 2596, COMM 3340, and COMM 4240), and would be administered by the School of Communication with the required foundational courses taught within the School of Communication. The additional two elective courses required to complete the certificate may be selected from a list of pre-determined courses available in the School of Communication, School of Environment & Natural Resources, the Department of Agricultural Communication, Education, and Leadership, and other programs that offer a specialized course in communication/public education in their field. Students will also have the opportunity to petition to have one relevant course from their major count toward the elective requirement for the certificate if it is not explicitly included on our list.

### Rationale and Learning Objectives

*Rationale:* There are 34 environmental and sustainability related majors at the Ohio State University that collectively graduated nearly 3400 students in 2017-2018 academic year, a growth of 18% since 2013-

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<sup>1</sup>Sustainability Education and Learning Committee (20, May 2019). *Recommendations for Undergraduate Sustainability Education at Ohio State*. Sustainability Institute. The Ohio State University, pg. 13

<sup>2</sup>Borner, K., Scrivner, O., Gallant, M., Ma, S., Liu, X, Chewning, K., Wu, L., Evan, J.A. (2018). Skill discrepancies between research, education, and jobs reveal the critical need to supply soft skills for the data economy *Proceedings of the National Academy of Sciences*. 115 (50) 12630-12637; DOI: 10.1073/pnas.1804247115

<sup>3</sup>National Academies of Sciences, Engineering, and Medicine (2016) *Communicating Science Effectively: A Research Agenda*. Washington, DC: The National Academies Press. doi: 10.17226/23674. 2014.

Likewise, enrollment in the College of Engineering now accounts for 18% of all undergraduate majors at OSU and the John Glenn School of Public Affairs recently created a new minor in Science, Engineering and Public Policy. While the number of sustainability, environmental science, and STEM majors have grown at OSU, there is increasing awareness that these students need to be equipped with the knowledge and skills to effectively communicate and lead within STEM and environmental/sustainability professions and industries.

While there is lack of educational opportunities in science and environmental communication, at the same time there is a growing occupational need for a trained labor force with the requisite knowledge and skills in this area. Governmental, non-governmental organizations, corporations, and advocacy groups increasingly need public information and communication professionals and technical writers that can communicate complex science and environmental information and topics to a diverse range of audiences and stakeholders. The Bureau of Labor statistics estimates the demand for these professions will grow by 9% and 11% over the next ten years (faster than average) with median salaries ranging from \$60,000 to \$70,000 on average.<sup>5</sup>

The proposed certificate program also leverages OSU's strengths and addresses weaknesses on sustainability education highlighted in the aforementioned OAA sustainability education report. The report notes that while a strength of OSU is strong student demand for STEM and sustainability course content and programs, a core weakness at OSU is a lack of interdisciplinary programs that integrate science, environmental, and sustainability fields with social sciences and humanities - such as science and technology studies (STS) or environmental humanities programs. However, by creating an interdisciplinary certificate program at OSU that pairs courses from science, environmental, and sustainability fields with course work from social sciences centered on communication theory and skills this weakness is addressed.

*Learning Objectives:* The proposed certificate program provides a knowledge foundation for effective science and environmental, and sustainability communication, opportunities to build communication skills necessary for professional success, and provides an interdisciplinary platform for connecting STEM, sustainability, and environmental science fields with social sciences at OSU.

Therefore, upon completion of the academic certificate in science and sustainability communication learners will be better prepared to:

- Identify and apply communication theories to the design, execution, and evaluation of effective communication about science, environmental, and sustainability topics to organizational stakeholders and the general public (ELO1)
- Demonstrate the ability to engage in clear, persuasive, and professional strategic communication about science, the environment, and sustainability across a range of modalities (i.e. written, spoken, online, etc.,) and team, organizational, and public settings. (ELO2)
- Enhance the ability to solve problems within science, environment, and sustainability fields through the interdisciplinary integration of communication knowledge and practice. (ELO3)

These three established learning outcomes (ELOs) form the conceptual foundation for the design of the certificate and its curriculum.

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<sup>4</sup> Sustainability Education and Learning Committee (20, May 2019). *Recommendations for Undergraduate Sustainability Education at Ohio State*. Sustainability Institute. The Ohio State University

<sup>5</sup> See <https://www.bls.gov/ooh/media-and-communication/public-relations-specialists.htm> and <https://www.bls.gov/ooh/media-and-communication/technical-writers.htm>

## Relationship to Other Programs

*Relationship to Other Programs:* The proposed certificate program overlaps somewhat with the existing Health, Environmental, Risk, and Science minor within the School of Communication though there are substantial differences. They share the same required foundational course (COMM 2596 – An Introduction to Health, Environment, Risk, & Science Communication) and some elective offerings. However, they differ substantially in that the minor provides depth within the communication discipline with four courses (12 credits) taken within the School of Communication whilst the proposed certificate has a more interdisciplinary focus. The certificate program requires two foundation courses (6 credits) in the School of Communication with the remaining six credits may be taken within communication, other units such as SENR or CFAES, or their own major.

The proposed certificate program, thus, is a unique interdisciplinary complement to existing programs in SENR, CFAES, or ASC that focus on science, environment, or sustainability. The SENR and Department of Agricultural Communication, Education, and Leadership in CFEAS are major partners in providing elective course offerings for the certificate program and their concurrence for the program are included. Other programs that contribute courses to the certificate's electives are the John Glenn School of Public Policy, the College of Pharmacy, and the Departments of Comparative Studies, Evolution, Ecology, and Organismal Biology in ASC.

## Proposed Curriculum

The certificate program requires 12 credits of coursework with six credits stemming from two required courses and six credits selected from a list of pre-determined electives. The courses selected for the required and elective portions of the curriculum all align with one or more of the outline established learning outcomes (ELOs) of 1) identifying and applying communication theories to the design, execution, and evaluation of effective communication on science, environmental, and sustainability topics (ELO1), 2) demonstrating the ability to engage in clear and persuasive strategic communication about science and the environment across a range of modalities and settings (ELO2), 3) enhancing the ability to solve problems within science, environment, and sustainability fields through the interdisciplinary integration of communication.

### *Required Courses:*

Two courses within the School of Communication are required for the certificate and two courses may be selected from a list of provided electives. The first required course provides a broad overview and introduction to key components of science and environmental communication across multiple dimensions and contexts. This required course is:

- COMM 2596: An Introduction to Health, Environment, Risk, and Science Communication
  - Provides a general introduction to the fields of science, risk, environmental and health communication from multiple perspectives including psychological, social, and cultural. The course provides the conceptual and knowledge foundation for engaging in effective communication of science and environmental topics across a range of contexts. Upon successful completion of this course, students will (1) have the conceptual and knowledge foundation for engaging in effective communication of science and environmental topics across a range of contexts (ELO1) (2) experience analyzing and communicating about communication problems or challenges within science, environment, or sustainability (ELO2).

In addition to COMM 2596, students are required to choose one of two more advanced offerings in either science or environmental communication depending on their interest and needs. These two courses are

- COMM 3340: Principles of Environmental Campaigns
  - Principles Environmental Campaigns equips students with the knowledge and practical knowledge regarding the creation, dissemination, and evaluation of campaigns aimed at environmental issues. The course will introduce students to advanced theories of

environmental communication, psychological behavior change, as well as research methodology pertaining to campaign design, measurement, and evaluation. Upon successful completion of this course, students will (1) be able to identify and apply communication theories toward the development of a campaign aimed at a specific environmental or sustainability outcome (i.e., raising awareness or changing behavior), (ELO1) (2) demonstrate the ability to clearly and persuasively communicate about an environmental problem or topic to diverse audience across a range of channels and communication mediums within a team setting (ELO 2), and (3) and critically evaluate interdisciplinary issues pertaining to public understanding of environmental and sustainability topics and issues (ELO3).

- COMM 4240: Science Communication
  - This course is a hybrid course focusing on the theory and practice of science communication to public and non-expert audiences. Topics include how audiences understand and process science information, expert communication by scientists and policy-makers to public audiences, informal communication about science in museums and science centers, science journalism, the role of the mass media in shaping understanding and beliefs about science, education and documentaries, and citizen-science. Upon successful completion of this course, students will (1) identify and apply communication theories and practices to design effective science communication programs for diverse audiences and contexts (ELO1), (2) have an understanding of informal science communication in mediated and interpersonal contexts including news media, documentaries, science centers, and science cafes (ELO2), 3) work as a team to critically analyze a science communication problem and develop strategy and plan to communicate it clearly and persuasively to target audiences (ELO2), 4) an understanding of how science communication intersects with other approaches to communication and outreach in science and sustainability fields (ELO3).

### *Elective Courses*

In addition to the two required courses, students will chose AT LEAST 2 elective course from a selection of courses from the School of Communication and other units offering opportunities to further develop their ability to engage in clear and persuasive strategic communication about science and the environment across a range of modalities and settings (ELO2) and/or their the ability to solve problems within science, environment, and sustainability fields through the interdisciplinary integration of communication (ELO3).

#### Elective Courses in School of Communication

Communication 2131: Business & Professional Speaking (ELO 1, 2)

Communication 2511: Visual Communication Design (ELO 1, 2)

Communication 3325: Introduction to Organizational Communication (ELO 1, 2)

Communication 3330: Communication and Conflict Management (ELO 1, 2)

Communication 3332: Risk Communication (ELO 1, 2, 3)

Communication 3333: Crisis Communication (ELO 1, 2)

Communication 3340: Principles of Environmental Campaigns (if not selected as foundation course) (ELO 1, 2, 3)

Communication 3628: Contemporary Persuasion Theory (ELO 1, 2)

Communication 4240: Science Communication (if not selected as foundation course) (ELO 1, 2, 3)

#### Elective Courses in School of Environment & Natural Resources

Environment & Natural Resources 2367: Communicating Environmental and Natural Resources



Information (ELO 2, 3)

Environment & Natural Resources 3400: Psychology of Environmental Problems (ELO 1, 3)

Environment & Natural Resources 3611: Foundations for Environmental Communications, Education and Interpretation (ELO 1, 2, 3)

Environment & Natural Resources 4611: Environmental Interpretation and Visitor Services (ELO 1, 2, 3)

Environment & Natural Resources 5400: Interventions to Promote Pro-environmental Behavior (ELO 1, 2, 3)

Elective Courses in Department of Agricultural Communication, Education, and Leadership

Agricultural Communication 2130: Visual Media in Agriculture and Natural Resources (ELO 2, 3)

Agricultural Communication 4130: Publication Design and Production (ELO 2, 3)

Agricultural Communication 4530: Communicating Agricultural Issues (ELO 2, 3)

Agricultural Communication 5535: Data Visualization and Scientific Storytelling (ELO 2, 3)

Other Elective Courses

Comparative Studies 2104: Literature, Science, and Technology (ELO 1, 3)

Comparative Studies 2340: Introduction to Cultures of Science and Technology (ELO 2, 3)

Comparative Studies 2341: Technology, Science and Society (ELO 2, 3)

Comparative Studies 3646: Cultures, Natures, Technologies (ELO 2, 3)

Agricultural, Environmental, and Development Economics 3102: Principles of Agribusiness Marketing (ELO 2, 3)

Pharmacy 3410: Science Communication & Engagement (ELO 2,3)<sup>6</sup>

Pharmacy 5410: Understanding and Changing Vaccine Hesitancy Perspectives (ELO 2,3)

City & Regional Planning 3550: Environmental Planning and Policy for a Sustainable Future (ELO 2,3)

Evolution, Ecology, and Organismal Biology 5610: Translating Evolution (ELO 2,3)

Public Affairs/Environmental Engineering 5600: Science, Engineering and Public Policy (ELO 2,3)

Public Affairs 5770: Risk & Decision Analysis in Public Affairs (ELO 2, 3)

Biomedical Education and Anatomy (Bioethics) 5881: Sustainable Health Care in the Current Climate Crisis (ELO 2,3)

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<sup>6</sup> limited to PHR BSPS students only

Approved Elective in Student's Major: To maximize flexibility and recognize the wide-range of relevant science and sustainability focused coursework at Ohio State University, students may petition to have one course from within their major count toward fulfilling the elective coursework for the certificate program. Course content must meet one or more of the certificate ELOs as determined by the School of Communication. The petition would be reviewed by the administering unit (School of Communication).

New Elective Development

The School of Communication is open to new discipline-specific science or environmental communication, informal education, outreach, and /or interpretation courses that meet one or more of the certificate ELOs and may be considered for inclusion as an elective offering within the certificate program.

## Enrollment

This proposed curriculum program is an undergraduate academic certificate program that falls under Type 1b (embedded certificate for degree seeking undergraduates who are currently enrolled at Ohio State University). The Type 1b program would be implemented spring 2021 semester.

*Student Demand:* Student interest in the certificate will likely be especially high in SENR and the College of Food, Agricultural, and Environmental Sciences. In addition, students in the natural and physical sciences, engineering, and public policy with an interest in science communication will also be attracted to this certificate program.

The certificate program will also draw significant interest from CFAES majors who are interested in science communication with electives available from their college as well as students from the John Glenn College of Public Affairs who are minoring in Science, Engineering and Public Policy as the elective course Public Affairs/Environmental Engineering 5600 is also a required course for that minor.

The broad range of electives and the ability to petition for a course from one's own major to be considered for the elective requirement also increases the attractiveness of the certificate program to students in other natural and physical science programs and units such as EEOB and pharmacy. The School of Communication estimates that it can enroll up to 50 students (150 credit hours) annually in the required and elective communication courses a year with current staffing levels.

*Completion Process:* Completion of the certificate program will be managed by the School of Communication Advising Office. Upon successful completion of the required and elective courses with in-academy GPA of 2.0 and a total minimum of 12 credit hours, students must submit the completion form to the School of Communication advising office. This begins the process for generating their certificate and formally recognizing their work with the University Registrar. See Appendix C for a full copy of the completion form.

*Certificate Promotion:* Promotion of the certificate will occur through multiple communication channels including:

- An electronic brochure distributed to advising offices and directors of undergraduate education in targeted departments and units.
- Collaboration with the Sustainability Institute to promote the certificate program as an interdisciplinary component of sustainability education at OSU
- Collaboration with faculty in targeted units (e.g. SENR, CFAES) to make in-class announcements about availability of certificate program in targeted introductory classes.
- In-person information sessions on certificate program held at the beginning of each semester for interested undergraduate students conducted by SOC staff and faculty.

## SEC Certificate Rationale and Assessment Plan

### Certificate Program Rationale

The goal of this certificate program is to provide a knowledge foundation for effective science and environmental, and sustainability communication, opportunities to build communication skills necessary for professional success, and to provide an interdisciplinary platform for connecting STEM, sustainability, and environmental science fields with social sciences at OSU.

We will use several metrics to assess the certificate program.

- The first is the enrollment into the certificate program courses and the completion rate over time.
- A second metric is student performance within the program across required coursework.
- As the program is highly interdisciplinary and will draw a diverse range of students across different majors, we will also assess general performance within the certificate program by major to see if any adjustments to the curriculum are necessary to ensure that each expected learning outcome is met by the coursework.
- Lastly, we will administer a customized online evaluation survey to students completing the certificate to assess their experience, whether the program is meeting its stated learning objectives, and students' plans for using knowledge obtained from the program.
- Below is the assessment plan for our required courses.

*ELO 1. Students identify and apply communication theories to the design, execution, and evaluation of effective communication about science, environmental, and sustainability topics to organizational stakeholders and the general public.*

- Topics: In Comm. 2596 lecture topics cover public perceptions of science and scientists, risk and rationality, environmental advocacy, and health communication; Comm. 3340 lecture topics cover environmental attitudes and behaviors, environmental risk, communication challenges, campaign theories and structure, research methods and statistical analysis; and Comm. 4240 discusses how audiences understand science information, expert communication by scientists and policy-makers to public audiences, informal communication about science in museums and science centers, science journalism, the role of mass media in shaping understanding and beliefs about science, education and documentaries, and citizen- science.
- Materials: Comm. 2596 and 4240 uses individual readings on the course topics, while Comm. 3340 uses a textbook that teaches the design of environmental messages. Additional readings cover experimental research methods and statistical analysis.
- Activities: Comm. 4240 uses online discussions and short papers to develop students' understanding about science communication as discussed in movies and documentary films. Comm. 3340 uses five assignments to train students to design and execute an environmental communication campaign. The second assignment asks students to develop a conceptual framework that explains the theoretical concepts being applied to create a campaign.

*ELO 2. Students demonstrate the ability to engage in clear, persuasive, and professional strategic*

*communication about science, the environment, and sustainability across a range of modalities (i.e. written, spoken, online, etc.,) and team, organizational, and public settings.*

- Topics & Materials: In Comm. 2596 and Comm. 3340 lectures examine the topics of communication challenges and risk; Comm. 4240 uses readings and documentary films to illustrate how communication issues are discussed.
- Activities: Comm. 2596 asks students to write an academic review of a science-based film that enables students to experience analyzing and communicating about how popular films/entertainment might impact public understanding of science. Comm. 3340 has students work with a client to create and evaluate a campaign that addresses a specific science/environmental communication goal. Students develop their written and oral communication skills across these five assignments. Comm. 4240 has students develop a science issue brief, or summary memo that discusses the public understanding/public opinion about a prominent scientific or technological issue, the primary communicators on both sides of the issue, the public communication challenges surrounding the issue, and discussion of possible science communication strategies to improve public understanding/acceptance of the issue.

*ELO 3. Students demonstrate the ability to solve problems within science, environment, and sustainability fields through the interdisciplinary integration of communication knowledge and practice.*

- Lecture topics and readings: Comm. 3340 discuss issues involved in environmental controversies, like environmental risk; Among many relevant topics Comm. 4240 discusses the role of values in scientific controversies, while Comm. 2596 discusses public perceptions of scientists, science denialism, communicating risk, and environmental advocacy.
- Activities: In Comm. 3340, the campaign assignments involve solving a particular environmental problem by either raising awareness or changing behavior with particular types of communication. In Comm. 4240, students' analyses of documentary films develop their ability to identify systemic issues and values underlying scientific controversies to facilitate the design of effective communication responses. For instance, in Week 13, 4240 students analyze the film, "Climate of Doubt" and use a research article on the institutional denialism of science to identify rhetorical and science denial strategies that link to the movie's examples of climate denialism.

#### *Assessment Procedures*

Assessing effectiveness of the required courses on the expected learning outcomes will be evaluated in the following ways:

1. ELO 1: Comm. 2596 will be assessed directly through embedded examination questions. The learning outcome would be achieved if a minimum of 80% of the students answer the questions correctly, as they would be considered to have demonstrated their ability to understand relevant concepts provided in the reading/lectures. This would signify the achievement of Milestone (2) for ELO 1 in which students "*identify and apply communication theories to the design, execution, and evaluation of effective communication about science, environmental, and sustainability topics*" ELO1 will be directly assessed in Comm. 3340 in the Conceptual framework assignment, which asks students to use the communication/psychological theories taught in class to write a formal conceptual framework explaining the theoretical frameworks being applied in creating an environmental campaign. A minimum of 76% of students should correctly apply concepts in their theoretical framework. ELO1 will be assessed in Comm. 4240 through the take home exam response to a theory-relevant question; a minimum of 76% students

understanding the concepts posed in the question would signify achievement at Milestone (2).

2. ELO 2: Comm. 2596 will be assessed with a written assignment that asks students to conduct an academic review of a science-based film from a list of approved films. Students apply theories and concepts learned in class when assessing their chosen film, which enables students to experience analyzing and communicating about how popular films/entertainment might impact public understanding of science. A minimum of 76% of students communicating their insights with evidence is one direct measure of achievement of the learning outcome at Milestone (2), for ELO2 that students *demonstrate the ability to engage in clear, persuasive, and professional strategic communication about science, the environment, and sustainability.* ELO2 will be assessed in Comm. 3340 with five written assignments that constitute the campaign project. In particular, the data analysis and recommendations, along with the executive report and presentation, asks students to develop their written and oral skills. A minimum of 80% of students communicating their insights with evidence would achieve Milestone 2. Similarly, the science issue brief in Comm. 4240 will be assessed for the extent to which students communicate their insights with evidence, with a minimum of 80% of students communicating their insights with evidence, achieving Milestone 2.
3. ELO 3: Comm. 2596 requires students to complete several in-class assignments, with at least one assignment focused on critically evaluating controversial issues pertaining to the public understanding of science and environmental topics. A minimum average score of 76% will directly mark achievement of ELO 3 Milestone (2), in that students *“can apply their knowledge of concepts in this discipline to inform their understanding of potential solutions to social problems and relevant social policies.”* The movie review assignment in Comm. 2596 can also serve as an assessment of ELO3. ELO3 can be assessed in Comm. 4240 and Comm. 3340 by analyzing the written work identified for ELO2 for the extent concepts are applied accurately, with similar Milestone 2 expectations.

Several indirect assessments of the SEC Certificate will be conducted, too.

1. We will administer an online evaluation survey to students completing the certificate to assess their experience, and students’ plans for using knowledge obtained from the program. We plan to ask about their perceived level of accomplishment for each expected learning outcome.
2. We will assess performance within the certificate program by major by monitoring the course syllabi of courses that students take as electives. Such analysis will enable us to adjust the curriculum to ensure that each expected learning outcome is met by the coursework.
3. Finally, we will monitor enrollment into certificate program courses and the completion rate over time.

The data will be evaluated annually by the Director for Communication Undergraduate Studies and the faculty who teach the required courses in the School of Communication. The group will confer to determine if students are meeting the learning outcomes and if improvements could be made to improve the courses or assignments on the learning outcomes. These evaluations will also examine if the learning outcomes are being met regardless of the method of delivery.

Expected Learning Outcome	Methods of Assessment	Level of student achievement expected	Process used to review data to improve the certificate to improve student learning
<p><b>ELO 1</b> Students identify and apply communication theories to the design, execution, and evaluation of effective communication about science, environmental, and sustainability topics to organizational stakeholders and the general public.</p>	<p>Direct methods: 2596, embedded test questions; 4240; take home exam questions; 3340; conceptual framework assignment</p> <p>Indirect methods: exit survey on students' achievement of ELO1</p>	<p>The expected learning outcomes are achieved if a minimum of 80% of the 2596 students answer relevant questions correctly, if 76% of 4240 students use theories/concepts correctly, and if 76% of 3340 students use basic theories/concepts correctly. Scores signify achievement of Milestone (2)</p>	<p>The certificate data will be evaluated annually by a committee comprised of the frequent instructors of the courses and the Director for the Undergraduate Communication Program. The committee will confer to determine if students are meeting the learning outcomes and if improvements could be made to improve the required courses or assignments on the learning outcomes.</p>
<p><b>ELO 2</b> Students demonstrate the ability to engage in clear, persuasive, and professional strategic communication about science, the environment, and sustainability across a range of modalities (i.e. written, spoken, online, etc.,) and team, organizational, and public settings.</p>	<p>Direct methods: 2596, 3340, 4240, written/oral responses evaluated on movie review, executive report &amp; presentation, &amp; science issue brief.</p> <p>Indirect methods: exit survey on students' achievement of ELO2</p>	<p>A minimum of 76% of students communicating effectively in Comm. 2596; and 80% for Comm. 3340 &amp; Comm. 4240. Students' movie review, executive report, science issue brief evaluated for clarity &amp; evidence-based analysis, as indicators of achievement of Milestone (2).</p>	
<p><b>ELO 3</b> Students demonstrate the ability to solve problems within science, environment, and sustainability fields through the interdisciplinary integration of communication knowledge and practice.</p>	<p>Direct methods: 2596, in-class assignment; 3340 &amp; 4240, conceptual framework, in-class responses</p> <p>Indirect methods: exit survey on students' achievement of ELO3</p>	<p>A minimum of 76% for students' accurate application of concepts on assignments identified under ELO2. The score indicates achievement of Milestone (2).</p>	

**SAMPLE CERTIFICATE COMPLETION SHEET)**

**COLLEGE OF ARTS AND SCIENCES (DEI)**

**Science and Environmental Communication (SEC) CERTIFICATE**

---

**STUDENT NAME:**

\_\_\_\_\_

**STUDENT OSU EMAIL:**

\_\_\_\_\_

**CERTIFICATE ADVISOR NAME:**

\_\_\_\_\_

---

**REQUIRED CORE COURSES (6 HOURS)**

<b>Course (Hours)</b>	<b>Course Grade</b>	<b>Term Completed</b>
COMM 2596 (3)		
Choose <b>1</b> of the following: COMM 3340 (3) COMM 4240 (3)		

**ELECTIVE COURSES (6 HOURS MINIMUM)**

In addition, students will select two or more courses (**6 credits minimum**) from the approved electives (see advising sheet).

<b>Course (Hours)</b>	<b>Course Grade</b>	<b>Term Completed</b>

**SUBSTITUTIONS**

**APPROVED:**

\_\_\_\_\_

---

**CERTIFICATE ADVISOR SIGNATURE**

\_\_\_\_\_

**DATE** \_\_\_\_\_

# Science and Environmental Communication Certificate Completion Plan

(general plan for any major)

Created 11/2019



## Sample Completion Plan

Year 1 or Year 2  
Autumn or Spring

<b>Communication 2596</b>	3
# of Credits	3

Year 2 or 3  
Autumn or Spring

<b>Communication 3340 or 4240</b>	3
<i>Elective Offering</i>	3
# of Credits	6

Year 3 or 4  
Autumn or Spring

<i>Elective Offering</i>	3
# of Credits	3

**Required Courses**     *Elective Courses*



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ARTS AND SCIENCES

**SCHOOL OF COMMUNICATION**



# Science and Environmental Communication Certificate

(general plan for any major)

The certificate program educates students on the theory and practice of communicating about scientific, environmental, and/or sustainability topics and issues, provides an opportunity for developing lifelong professional communication skills, and highlights the interdisciplinary social-behavioral, educational, and psychological dimensions of science and environmental communication.

The Science and Environmental Certificate Program requires the completion of at least four courses for 12 credits, including two foundational courses. To declare the certificate program, students should meet with their assigned academic advisor or any advisor in the School of Communication. Any variation from the program described below needs the approval of the Director of Undergraduate Studies. Students may request approval of a certificate variation by filing a petition through the School of Communication Advising Office.

## Required foundational courses (6 credit hours)

COMM 2596: An Introduction to Health, Environment, Risk, & Science Communication (3)

One of following two courses:

COMM 4240(H): Science Communication (3)

COMM 3340: Principles of Environmental Campaigns (3)

## Choose at least two from these electives (6 credit hours)

COMM 2131: Business & Professional Speaking (3)

COMM 2511: Visual Communication Design (3)

COMM 3325: Intr. to Org Communication (3)

COMM 3330: Communication and Conflict Management (3)

COMM 3332: Risk Communication (3)

COMM 3333: Crisis Communication (3)

COMM 3340: Principles of Environmental Campaigns (3) (if not selected above)

COMM 3628: Contemporary Persuasion Theory (3)

COMM 4240(H): Science Communication (3)

(if not selected above for required class)

ENR 2367: Communicating Environmental and Natural Resources Information (3)

ENR 3400: Psychology of Environmental Problems (3)

ENR 3611: Foundations for Environmental Communications, Education and Interpretation (3)

ENR 4611: Environmental Interpretation and Visitor Services (3)

ENR 5400: Interventions to Promote Pro-environmental Behavior (3)

AGCOMM 2130: Visual Media in Agriculture and Natural Resources (3)

AGCOMM 4130: Publication Design and Production (3)

AGCOMM 4530: Communicating Agricultural Issues (3)

AGCOMM 5535: Data Visualization and Scientific Storytelling (3)

COMPSTD 2104: Literature, Science, and Technology (3)

COMPSTD 2340: Introduction to Cultures of Science and Technology (3)

COMPSTD 2341 Technology, Science and Society: (3)

COMPSTD 3646: Cultures, Natures, Technologies

AEDECN 3102: Principles of Agribusiness Marketing (3)

PHR 3410: Science Communication & Engagement (3)\*\*



THE OHIO STATE UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

SCHOOL OF COMMUNICATION

PHR 5410: Understanding and Changing Vaccine Hesitancy Perspectives (3)  
CRPLAN 3550: Environmental Planning and Policy for a Sustainable Future (3)  
EEOB 5610: Translating Evolution (3)  
PUBAFRS / ENVENG 5600: Science, Engineering and Public Policy (3)  
PUBAFRS 5770: Risk & Decision Analysis in Public Affairs (3)  
BIOETHC 5881: Sustainable Health Care in the Current Climate Crisis (3)

Approved Elective in Student's Major: To maximize flexibility and recognize the wide-range of relevant science and sustainability focused coursework at Ohio State University, students may petition to have one course from within their major count toward fulfilling the elective coursework for the certificate program. Course content must meet one or more of the certificate ELOs as determined by the School of Communication. The petition would be reviewed by the administering unit (School of Communication).

\*the Honors (H) version of any of the above courses can be used to meet the requirements for the certificate program

\*\* limited to PHR BSPS students only

*Plan may vary depending on course offerings, placement test scores, any credit previously earned, individual student scheduling, major specialization selected, and major. Students are encouraged to meet with their advisor at least once per semester to discuss scheduling and ensure they are on the track they hope to be on for completing their certificate.*



**School of Communication  
Science and Environmental Communication Certificate Program Proposal  
Concurrences**

College of Business

College of Engineering

College of Pharmacy

College of Public Health

Department of Agricultural Communication, Education, and Leadership

Department of Agricultural, Environmental and Development Economics

Department of Biomedical Education and Anatomy

Department of Comparative Studies

Department of Evolution, Ecology, and Organismal Biology

John Glenn School of Public Affairs

School of City & Regional Planning

School of Environment & Natural Resources

## Smith, Aaron

---

**From:** Prud'homme, Andrea  
**Sent:** Wednesday, February 12, 2020 4:11 PM  
**To:** Smith, Aaron  
**Subject:** FW: Concurrence request: Sci and Env Comm Certificate Proposal\_Business

Aaron:

I do not believe this is an issue for Fisher.

A reminder regarding the concurrence request below and attached. Please let us know if there is any additional information you may need.

It would be most helpful if we could receive a response by Friday 2/14.

Thank you for your consideration,

**Andrea M. Prud'homme, PhD, CPIM-F, CSCP, CLTD, CIRM**

Pronouns: she/her/hers

Associate Dean Undergraduate Programs

Associate Professor – Clinical, Management Sciences

Fisher College of Business

614 Fisher Hall

614.292.3173 Office

[prudhomme.3@osu.edu](mailto:prudhomme.3@osu.edu)



---

**From:** Makhija, Anil <[makhija.1@osu.edu](mailto:makhija.1@osu.edu)>  
**Sent:** Wednesday, February 12, 2020 4:08 PM  
**To:** Prud'homme, Andrea <[prudhomme.3@osu.edu](mailto:prudhomme.3@osu.edu)>  
**Subject:** RE: Concurrence request: Sci and Env Comm Certificate Proposal\_Business

Agreed. Please go ahead and share that with them. Thanks.

---

**From:** Prud'homme, Andrea <[prudhomme.3@osu.edu](mailto:prudhomme.3@osu.edu)>  
**Sent:** Wednesday, February 12, 2020 4:06 PM  
**To:** Makhija, Anil <[makhija.1@osu.edu](mailto:makhija.1@osu.edu)>  
**Subject:** RE: Concurrence request: Sci and Env Comm Certificate Proposal\_Business

Anil:

No this doesn't look like an issue for us.

**Andrea M. Prud'homme, PhD, CPIM-F, CSCP, CLTD, CIRM**

Pronouns: she/her/hers

Associate Dean Undergraduate Programs  
Associate Professor – Clinical, Management Sciences  
Fisher College of Business  
614 Fisher Hall  
614.292.3173 Office  
[prudhomme.3@osu.edu](mailto:prudhomme.3@osu.edu)



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**From:** Makhija, Anil <[makhija.1@osu.edu](mailto:makhija.1@osu.edu)>  
**Sent:** Wednesday, February 12, 2020 12:53 PM  
**To:** Prud'homme, Andrea <[prudhomme.3@osu.edu](mailto:prudhomme.3@osu.edu)>  
**Subject:** FW: Concurrence request: Sci and Env Comm Certificate Proposal\_Business

Any concerns regarding giving concurrence? If not, would you please write back giving concurrence. Thanks.

---

**From:** Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>  
**Sent:** Wednesday, February 12, 2020 11:27 AM  
**To:** Makhija, Anil <[makhija.1@osu.edu](mailto:makhija.1@osu.edu)>; FCOB ugp\_contact <[FCOB-ugp\\_contact@osu.edu](mailto:FCOB-ugp_contact@osu.edu)>  
**Cc:** Slater, Michael <[slater.59@osu.edu](mailto:slater.59@osu.edu)>; Kline, Susan <[kline.48@osu.edu](mailto:kline.48@osu.edu)>; Nisbet, Erik <[nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)>  
**Subject:** RE: Concurrence request: Sci and Env Comm Certificate Proposal\_Business

A reminder regarding the concurrence request below and attached. Please let us know if there is any additional information you may need.

It would be most helpful if we could receive a response by Friday 2/14.

Thank you for your consideration,



**Aaron Smith** Assistant to the Director  
School of Communication  
3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210  
614-292-0451 Office | 614-292-2055 Fax  
[smith.1543@osu.edu](mailto:smith.1543@osu.edu)

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**From:** Smith, Aaron  
**Sent:** Thursday, January 30, 2020 5:15 PM  
**To:** Makhija, Anil <[makhija.1@osu.edu](mailto:makhija.1@osu.edu)>; 'fisherundergrad@fisher.osu.edu' <[fisherundergrad@fisher.osu.edu](mailto:fisherundergrad@fisher.osu.edu)>  
**Cc:** Slater, Michael <[slater.59@osu.edu](mailto:slater.59@osu.edu)>; Kline, Susan <[kline.48@osu.edu](mailto:kline.48@osu.edu)>; Nisbet, Erik <[nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)>  
**Subject:** Concurrence request: Sci and Env Comm Certificate Proposal\_Business

Dean Makhija,

We are writing from the School of Communication with a request for concurrence regarding a proposed Certificate Program in Science and Environmental Communication.

OAA requires programs that deal with the Environment to request concurrence from your unit.

Please let us know if you have additional relevant courses that you would also like included in the proposal.

Attached is the current draft of the certificate program as well as copies of concurrences already received:

Department of Agricultural Communication, Education, and Leadership  
Department of Agricultural, Environmental, and Development Economics  
Department of Biomedical Education and Anatomy  
Department of Comparative Studies  
Department of Evolution, Ecology, and Organismal Biology  
College of Pharmacy  
John Glenn School of Public Affairs  
School of City & Regional Planning  
School of Environment & Natural Resources

If you could please respond by Friday February 14<sup>th</sup> it would be most helpful.

Thank you for your consideration,



**Aaron Smith** Assistant to the Director

**School of Communication**

3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210

614-292-0451 Office | 614-292-2055 Fax

[smith.1543@osu.edu](mailto:smith.1543@osu.edu)



THE OHIO STATE UNIVERSITY

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**College of Engineering**

Undergraduate Education & Student Services

122 Hitchcock Hall  
2070 Neil Avenue  
Columbus, OH 43210-1278

614-292-2651 Phone  
614-292-9379 Fax

[engineering.osu.edu](http://engineering.osu.edu)

February 13, 2020

Michael Slater, Director  
School of Communication

Re: Concurrence for the Science and Environmental Communication Certificate Proposal

Dear Michael,

This is to inform you that on February 10, 2020, the College of Engineering Committee on Academic Affairs voted unanimously to support the Science and Environmental Communication Certificate proposal.

Yours sincerely,

*Rosario Quinzon-Bonello*

Rosario Quinzon-Bonello M.Ed.  
Assistant Dean for Curriculum and Assessment  
College of Engineering

## Smith, Aaron

---

**From:** Kwiek, Nicole  
**Sent:** Tuesday, November 5, 2019 9:47 AM  
**To:** Nisbet, Erik; Seguil, Cesar  
**Cc:** Kline, Susan; Smith, Aaron; Slater, Michael  
**Subject:** RE: Sci&Env Comm Certificate Program\_Pharm

Hi Erik,  
Thanks for including us on this!

We offer PHR3410 every term. PHR5410 is a new course being offered for the first time in SP20, and we are hoping to offer it at least once per year (if not more).

Best,  
Nicole

Nicole Cartwright Kwiek, Ph.D.  
Assistant Dean of Undergraduate Studies  
Clinical Associate Professor of Pharmacology  
Director, Generation Rx  
Ohio State University College of Pharmacy  
500 W. 12th Avenue | 136A Parks Hall  
Columbus, OH 43210  
Phone: 614-688-5951

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**From:** Nisbet, Erik <nisbet.5@osu.edu>  
**Sent:** Tuesday, November 5, 2019 9:44 AM  
**To:** Seguil, Cesar <seguil.1@osu.edu>; Kwiek, Nicole <kwiek.1@osu.edu>  
**Cc:** Kline, Susan <kline.48@osu.edu>; Smith, Aaron <smith.1543@osu.edu>; Slater, Michael <slater.59@osu.edu>  
**Subject:** Re: Sci&Env Comm Certificate Program\_Pharm

Hi Cesar

This email should be sufficient for approval (if thats okay with you), but if you could just tell us the frequency of offering in addition, that would be helpful.

Thank you

Sincerely,

Erik

Erik Nisbet, PhD Associate Professor  
School of Communication, Department of Political Science (by courtesy), & Environmental Policy and Decision Making (by courtesy)  
Co-Director, Eurasian Security & Governance Program ([www.eurasianprogram.org](http://www.eurasianprogram.org))  
Mershon Center for International Security Studies



Affiliate Faculty, OSU Sustainability Institute  
Faculty Fellow, USC Center on Public Diplomacy  
3062 Derby Hall | 154 North Oval Mall Columbus, OH 43210-1234  
Mobile: 607-280-7030  
Email: [nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)

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**From:** Seguil, Cesar <[seguil.1@osu.edu](mailto:seguil.1@osu.edu)>  
**Sent:** Tuesday, November 5, 2019 9:38 AM  
**To:** Nisbet, Erik <[nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)>; Kwiek, Nicole <[kwiek.1@osu.edu](mailto:kwiek.1@osu.edu)>  
**Cc:** Kline, Susan <[kline.48@osu.edu](mailto:kline.48@osu.edu)>; Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>; Slater, Michael <[slater.59@osu.edu](mailto:slater.59@osu.edu)>  
**Subject:** RE: Sci&Env Comm Certificate Program\_Pharm

Hello Erik,

Thanks for the message! I had a chance to speak to Nicole about your suggestion, and she's on board with adding both PHR 3410 and 5410 as electives for this certificate program with the caveat that 3410 is only open to students pursuing the Pharmaceutical Sciences major.

I realize that you'll need a formal letter providing permission/approval to use these courses and also to indicate the frequency with which these courses are offered, but could you give us a deadline?

Thanks,

-Cesar

**Cesar Seguil, M.A.**

*Pronouns: he, him, his*

Director, Academic Programs & Administration

**Academic Affairs | College of Pharmacy | The Ohio State University**

234 Parks Hall | 500 W. 12<sup>th</sup> Avenue

[pharmacy.osu.edu](http://pharmacy.osu.edu)

Phone: (614) 292-1321

Email: [seguil.1@osu.edu](mailto:seguil.1@osu.edu)

[Advocate for Equity](#)

[BuckIDream Ally](#)



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**From:** Nisbet, Erik <[nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)>  
**Sent:** Monday, November 4, 2019 11:46 AM  
**To:** Seguil, Cesar <[seguil.1@osu.edu](mailto:seguil.1@osu.edu)>; Kwiek, Nicole <[kwiek.1@osu.edu](mailto:kwiek.1@osu.edu)>  
**Cc:** Kline, Susan <[kline.48@osu.edu](mailto:kline.48@osu.edu)>; Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>; Slater, Michael <[slater.59@osu.edu](mailto:slater.59@osu.edu)>  
**Subject:** Fw: Sci&Env Comm Certificate Program\_Pharm

Dear Cesar and Nicole,

I am the faculty member in the School of Communication working on developing the Science and Environmental Communication certificate program that Michael Slater emailed you about.

First, thank you for the helpful feedback and suggestion for adding Pharmacy 5410 to the certificate electives - that is great option for students.

Also thank you for clarification about limited enrollment in Pharmacy 3410. On option we thought to get your feedback on is whether you wish us to have Pharmacy 3410 as an elective option within the certificate for only pharmacy program students. Our thought was that students who took that class, plus for example Pharmacy 5410, would only need to complete the certificate's two core classes to complete the certificate and have it on their transcript. Is that a viable option for you?

Thank you again for your support and input.

Sincerely,

Erik

Erik Nisbet, PhD Associate Professor  
School of Communication, Department of Political Science (by courtesy), & Environmental Policy and Decision Making (by courtesy)  
Co-Director, Eurasian Security & Governance Program ([www.eurasianprogram.org](http://www.eurasianprogram.org))  
Mershon Center for International Security Studies  
Affiliate Faculty, OSU Sustainability Institute  
Faculty Fellow, USC Center on Public Diplomacy  
3062 Derby Hall | 154 North Oval Mall Columbus, OH 43210-1234  
Mobile: 607-280-7030  
Email: [nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)

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**From:** Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>  
**Sent:** Wednesday, October 23, 2019 12:59 PM  
**To:** Nisbet, Erik <[nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)>  
**Cc:** Kline, Susan <[kline.48@osu.edu](mailto:kline.48@osu.edu)>; Slater, Michael <[slater.59@osu.edu](mailto:slater.59@osu.edu)>  
**Subject:** FW: Sci&Env Comm Certificate Program\_Pharm

FYI. Erik could you write back to him with the question you had on the first course? I'm not sure how to distinguish the limited enrollment type courses on the proposal. I'm sure other units would have similar courses that would not be for general students, but would be important to somehow note could be used for specific major populations to complete the certificate.



**Aaron Smith** Assistant to the Director  
School of Communication  
3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210  
614-292-0451 Office | 614-292-2055 Fax  
[smith.1543@osu.edu](mailto:smith.1543@osu.edu)

---

**From:** Seguil, Cesar <[seguil.1@osu.edu](mailto:seguil.1@osu.edu)>  
**Sent:** Wednesday, October 23, 2019 12:48 PM  
**To:** Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>  
**Subject:** RE: Sci&Env Comm Certificate Program\_Pharm

Hi Aaron,

My apologies for the follow up email, but Dr. Kwiek has a recommendation for alternate course offered by our college: PHR 5410, Understanding and Changing Vaccine Hesitancy Perspectives. In this course, students will be introduced to the most up-to-date evidence-based communication strategies for talking to vaccine hesitant individuals. They'll cover communication strategies for healthcare professionals, scientists, and communication through social media. At the end of the semester, students will demonstrate an evidence-based communication strategy through a creative video.

Let me know if you have any questions. Thanks!

-Cesar

**Cesar Seguil, M.A.**

*Pronouns: he, him, his*

Director, Academic Programs & Administration

**Academic Affairs | College of Pharmacy | The Ohio State University**

136 Parks Hall | 500 W. 12<sup>th</sup> Avenue

[pharmacy.osu.edu](http://pharmacy.osu.edu)

Phone: (614) 292-1321

Email: [seguil.1@osu.edu](mailto:seguil.1@osu.edu)

[Advocate for Equity](#)

[BuckIDream Ally](#)



---

**From:** Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>  
**Sent:** Tuesday, October 22, 2019 2:27 PM  
**To:** Seguil, Cesar <[seguil.1@osu.edu](mailto:seguil.1@osu.edu)>  
**Subject:** RE: Sci&Env Comm Certificate Program\_Pharm

Thank you for the information, I've forwarded your note on to the faculty group here working on the certificate.

Thank you,



**Aaron Smith** Assistant to the Director  
School of Communication  
3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210  
614-292-0451 Office | 614-292-2055 Fax  
[smith.1543@osu.edu](mailto:smith.1543@osu.edu)

---

**From:** Seguil, Cesar <[seguil.1@osu.edu](mailto:seguil.1@osu.edu)>  
**Sent:** Tuesday, October 22, 2019 2:17 PM  
**To:** Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>  
**Subject:** FW: Sci&Env Comm Certificate Program\_Pharm

Good afternoon Aaron,

Dr. McAuley is out of the office this week but he and I had a chance to connect about this request before he left.

The letter for permission to include PHR 3410 as an elective option for the proposed certificate program in Science and Environmental Communication actually needs to come from Dr. Nicole Kwiek, Assistant Dean of Undergraduate Studies. After speaking to her, it is important to note the following challenges:

1. The course is currently only open to students pursuing our Bachelor of Science in Pharmaceutical Sciences (BSPS). The prerequisite that is set for the course indicates this information: "junior or senior standing, enrollment in BSPS."
2. Because the course is taught in the Generation Rx Lab at the Center of Science & Industry (COSI), there is limited space and thus only 6 to 9 students can be enrolled in Fall/Spring and 10 to 15 in the Summer.
3. Given the limitations of space/capacity, BSPS students interested in taking this course are required to first submit an application then complete an interview with the course instructor, Dr. Cynthia Canan. From there, Dr. Canan selects the students that will be enrolled in the course.

Can you please relay this information to Dr. Slater? You can refer him to me if he has any additional questions or he wants to chat about this over the phone.

Thanks,

-Cesar

**Cesar Seguil, M.A.**

*Pronouns: he, him, his*

Director, Academic Programs & Administration

**Academic Affairs | College of Pharmacy | The Ohio State University**

136 Parks Hall | 500 W. 12<sup>th</sup> Avenue

[pharmacy.osu.edu](http://pharmacy.osu.edu)

Phone: (614) 292-1321

Email: [seguil.1@osu.edu](mailto:seguil.1@osu.edu)

[Advocate for Equity](#)

[BuckIDream Ally](#)



---

**From:** McAuley, James <[mcauley.5@osu.edu](mailto:mcauley.5@osu.edu)>

**Sent:** Tuesday, October 15, 2019 3:33 PM

**To:** Seguil, Cesar <[seguil.1@osu.edu](mailto:seguil.1@osu.edu)>

**Subject:** FW: Sci&Env Comm Certificate Program\_Pharm

Cesar,

When you're back, can you please advise me on what I/we should do with this request?

Thanks.

Jim



**James W. McAuley, PhD, FAPhA**

Professor of Pharmacy Practice & Science and Neurology

Associate Dean for Academic Affairs

The Ohio State University College of Pharmacy

221 Parks Hall | 500 West 12th Ave Columbus, OH 43210

614-292-9713 Office

[McAuley.5@osu.edu](mailto:McAuley.5@osu.edu)

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**From:** Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>

**Sent:** Tuesday, October 15, 2019 1:26 PM

**To:** McAuley, James <[mcauley.5@osu.edu](mailto:mcauley.5@osu.edu)>

**Cc:** Slater, Michael <[slater.59@osu.edu](mailto:slater.59@osu.edu)>; Kline, Susan <[kline.48@osu.edu](mailto:kline.48@osu.edu)>; Nisbet, Erik <[nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)>

**Subject:** Sci&Env Comm Certificate Program\_Pharm

Dean McAuley,

Please find attached a letter from Dr. Michael Slater, Director of the School of Communication, with a request for support for a new Certificate Proposal in Science and Environmental Communication.

Please let us know if you have any questions or feedback. It would be helpful if you could please respond by Tuesday October 29<sup>th</sup>.

Thank you for your potential support and participation in this initiative,



**Aaron Smith** Assistant to the Director

School of Communication

3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210

614-292-0451 Office | 614-292-2055 Fax

[smith.1543@osu.edu](mailto:smith.1543@osu.edu)



Michael S. Bisesi, PhD, REHS, CIH  
Senior Associate Dean and Director, Academic Affairs  
Professor and Chair (Interim), Environmental Health Sciences  
Fellow, AIHA  
(614) 247-8290 [bisesi.12@osu.edu](mailto:bisesi.12@osu.edu)

February 18, 2020

Dr. W. Randy Smith, Vice Provost for Academic Programs  
Office of Academic Affairs  
203 Bricker Hall  
190 N. Oval Mall  
Columbus, OH 43210

Dear Dr. Smith:

The College of Public Health supports the proposed undergraduate 12-semester credit certificate in *Science and Environmental Communication* to be offered by the School of Communication in the College of Arts and Sciences. This program has the potential to be somewhat universally appealing as a degree enhancement across many majors. The proposed program will not conflict with any programs presently offered by our College.

We noticed that the curriculum requires selection of two elective courses. We suggest adding to the list at least one applicable course from the College of Public Health:

- PUBHEHS 3310 *Concepts in Global Environmental Public Health* (3cr)

The College of Public Health is pleased to offer this course as an elective during both autumn and spring terms. We are considering also consistently offering during summer term.

Although we support the proposed certificate, we are curious why this is not a minor program instead. Having stated this, there is no need for the unit to reply. We will support either an undergraduate certificate or a minor in *Science and Environmental Communication* offered by the School of Communication.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael S. Bisesi', written over a white rectangular background.

Michael S. Bisesi, PhD  
Senior Associate Dean and Director, Academic Affairs

## Smith, Aaron

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**From:** Specht, Annie  
**Sent:** Monday, October 28, 2019 4:02 PM  
**To:** Smith, Aaron  
**Subject:** Re: Sci&Env Comm Certificate Program\_ACEL

Hi, Aaron,

Thank you for your patience. The AGRCOMM faculty support the proposed certificate. Let me know if you require any additional documentation.

Best,  
Annie

Annie R. Specht, PhD

Assistant Professor  
Undergraduate Program Coordinator, Agricultural Communication  
College of Food, Agricultural, and Environmental Sciences  
Department of Agricultural Communication, Education, and Leadership

200L Agricultural Administration Building,  
2120 Fyffe Rd, Columbus, OH 43210

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**From:** Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)>  
**Sent:** Monday, October 28, 2019 3:53 PM  
**To:** Specht, Annie  
**Subject:** FW: Sci&Env Comm Certificate Program\_ACEL

Dr. Specht,

Just wanted to check in on this request regarding the new Certificate Proposal in Science and Environmental Communication.

Please let us know if you have any questions.

Thank you,



**Aaron Smith** Assistant to the Director  
School of Communication  
3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210  
614-292-0451 Office | 614-292-2055 Fax  
[smith.1543@osu.edu](mailto:smith.1543@osu.edu)

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**From:** Smith, Aaron

**Sent:** Tuesday, October 15, 2019 1:26 PM

**To:** Specht, Annie <specht.21@osu.edu>

**Cc:** Slater, Michael <slater.59@osu.edu>; Kline, Susan <kline.48@osu.edu>; Nisbet, Erik <nisbet.5@osu.edu>

**Subject:** Sci&Env Comm Certificate Program\_ACEL

Dr. Specht,

Please find attached a letter from Dr. Michael Slater, Director of the School of Communication, with a request for support for a new Certificate Proposal in Science and Environmental Communication.

Please let us know if you have any questions or feedback. It would be helpful if you could please respond by Tuesday October 29<sup>th</sup>.

Thank you for your potential support and participation in this initiative,



**Aaron Smith** Assistant to the Director

**School of Communication**

3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210

614-292-0451 Office | 614-292-2055 Fax

[smith.1543@osu.edu](mailto:smith.1543@osu.edu)



## Smith, Aaron

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**From:** Nisbet, Erik  
**Sent:** Friday, November 1, 2019 10:47 AM  
**To:** Kline, Susan; Smith, Aaron  
**Subject:** Fw: Science Communication Student Projects

See this email below from Haab - he notes in first line that he full supports the concurrence request for the certificate - is that sufficient?

thanks

erik

Erik Nisbet, PhD Associate Professor  
School of Communication, Department of Political Science (by courtesy), & Environmental Policy and Decision Making (by courtesy)  
Co-Director, Eurasian Security & Governance Program ([www.eurasianprogram.org](http://www.eurasianprogram.org))  
Mershon Center for International Security Studies  
Affiliate Faculty, OSU Sustainability Institute  
Faculty Fellow, USC Center on Public Diplomacy  
3062 Derby Hall | 154 North Oval Mall Columbus, OH 43210-1234  
Mobile: 607-280-7030  
Email: nisbet.5@osu.edu

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**From:** Haab, Timothy <haab.1@osu.edu>  
**Sent:** Tuesday, October 15, 2019 3:51 PM  
**To:** Nisbet, Erik <nisbet.5@osu.edu>  
**Subject:** Science Communication Student Projects

Erik,

Not sure if you are the right contact for this, but I just received a concurrence request for the Science and Environmental Communications Certificate (which I fully support) and it reminded me of a question I had for you.

I've recently taken the helm of a new CFAES initiative called the Knowledge Exchange (KX). The KX is a new effort from the college to better integrate our research and extension missions. In short, the KX is designed to support research-based, data-driven, science communication (basically a unit to translate the academic research around Food, Ag, and Environmental Sciences for extension educators and outside audiences).

Anyway, a question my team has had is whether you (meaning the School of Communications) have a need for student-based projects or possibly internships around science communications. Our thinking is that this would be an opportunity for students to get hands on experience working with researchers and extension educators to develop practical science communications products for broader impact. We envision a wide array of science-based communications products from written stories to interactive infographics to videos, webinars, music, VR experiences, art, podcasts,...

If this is something that might be of interest/use, I'd be glad to put you in touch with our team for a more detailed discussion of what we have in mind.

Hope all is well,

Tim Haab



**Tim Haab, PhD**

Professor and Chair, **CFAES** Department of Agricultural, Environmental, and Development Economics  
Director, **CFAES** Knowledge Exchange  
Dean's Chair for Transformative Initiatives

250P Agricultural Administration Bldg, 2120 Fyffe Rd., Columbus, OH 43210  
614-292-6237 Office / 614-354-3386 Mobile  
[haab.1@osu.edu](mailto:haab.1@osu.edu) / [osu.edu](http://osu.edu)



**THE OHIO STATE UNIVERSITY**

College of Medicine

Department of Biomedical Education and Anatomy

260 Meiling Hall  
Columbus, OH 43210

614-688-3104 Office  
614-292-4499 Fax

Medicine.osu.edu

October 17, 2019

Michael D. Slater, Ph.D.  
Director, School of Communication  
The Ohio State University  
3022 Derby Hall, 154 North Oval Mall  
Columbus, OH 43210

Dear Dr. Slater:

I have reviewed and fully support the proposed interdisciplinary certificate program in Science and Environmental Communication.

The Department of Biomedical Education and Anatomy approves the course, Biomedical Education and Anatomy 5881: Sustainable Health Care in the Current Climate Crisis, be included as an elective for the proposed certificate program. This course is taught once per year in spring semester.

Please do not hesitate to contact me if I can provide further information.

Sincerely,

Daniel M. Clinchot, M.D.  
Chair, Department of Biomedical Education and Anatomy  
Vice Dean for Education  
Associate Vice President for Health Sciences Education  
Professor of Physical Medicine and Rehabilitation

DMC:sl

## Smith, Aaron

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**From:** Shank, Barry  
**Sent:** Wednesday, October 16, 2019 1:45 PM  
**To:** Nisbet, Erik; Smith, Aaron  
**Cc:** Slater, Michael; Kline, Susan; Horn, David  
**Subject:** Re: Sci&Env Comm Certificate Program\_CS

Dear Erik,

Thanks for your prompt response. The department appreciates your adding our courses. I certainly understand the difficulty of effectively searching through all of the university's offerings to find relevant courses.

I still need to note a few things. First, I'm sure you know that the fact that an OAA report says something does not make it true. In addition to our minor, we offer our concentration (mentioned in my first email), which is part of our major. The concentration has been in existence for decades and not only allows but encourages our undergraduates to take courses outside our department. In fact, if you look here:

<https://comparativestudies.osu.edu/undergrad/comparative-studies/about-science-and-technology/requirements> you'll see the list of possible electives includes courses from your department among other offerings from across the university.

Finally, there is an interdisciplinary group of faculty interested in Science and Technology Studies that has been operating for a number of years, most recently with Discovery Theme funding.

Given the breadth of interest in this area—among faculty and students, it is smart that concentrations are being developed. This one focusing on Environmental Communication, is a good step. We offer our support.

Yours,  
Barry

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**From:** "Nisbet, Erik" <nisbet.5@osu.edu>  
**Date:** Tuesday, October 15, 2019 at 4:38 PM  
**To:** "Shank, Barry" <shank.46@osu.edu>, "Smith, Aaron" <smith.1543@osu.edu>  
**Cc:** "Slater, Michael" <slater.59@osu.edu>, "Kline, Susan" <kline.48@osu.edu>, "Horn, David" <horn.5@osu.edu>  
**Subject:** Re: Sci&Env Comm Certificate Program\_CS

Hi Barry

Thank you for your email and feedback. First, thank you for bringing those courses to our attention. In developing our initial roster we searched the OSU course listings plus department websites - I am sorry those courses did not come up our search but OSU is unfortunately so large and compartmentalized that it can be difficult sometimes to cover all the bases. Those additional courses you reference would be excellent additions as electives to the certificate and thank you for bringing them to our attention. I myself have a background in Science & Technology Studies as they were our sister program at Cornell University and appreciate very much the importance of the field.

In terms of our discussion of interdisciplinary weakness, we are actually quoting/referring to the official OAA report on Sustainability Education at OSU that was released earlier this year that highlighted the great need for more interdisciplinary/cross-disciplinary programs in this area at OSU. Though units such as Comparative Studies offers a minor like Science & Technology Studies there is lack of interdisciplinary programs that cut across across departments and colleges.

We ourselves offer a minor in Health, Environmental, Risk, and Science Communication for example. The major difference between the certificate from our minor is the opportunity for students to combine courses across units, fields, contexts, disciplines, and epistemological/ontological perspectives that they would not otherwise have access to by taking a minor within one field or unit. In our estimation, this breadth, as opposed to the depth of a minor, will be attractive to a large number of students. I think the four courses you highlight would be very attractive to students from SENR and CFAES as part of the certificate electives for example.

I hope this answers your questions - please let us know if you have any other feedback , comments or concerns, and with your permission, we look forward to including all those four classes you specify in the proposal. Thank you!

Sincerely,

Erik

Erik Nisbet, PhD Associate Professor  
School of Communication, Department of Political Science (by courtesy), & Environmental Policy and Decision Making (by courtesy)  
Co-Director, Eurasian Security & Governance Program ([www.eurasianprogram.org](http://www.eurasianprogram.org))  
Mershon Center for International Security Studies  
Affiliate Faculty, OSU Sustainability Institute  
Faculty Fellow, USC Center on Public Diplomacy  
3062 Derby Hall | 154 North Oval Mall Columbus, OH 43210-1234  
Mobile: 607-280-7030  
Email: nisbet.5@osu.edu

---

**From:** Shank, Barry <shank.46@osu.edu>

**Sent:** Tuesday, October 15, 2019 3:30 PM

**To:** Smith, Aaron <smith.1543@osu.edu>

**Cc:** Slater, Michael <slater.59@osu.edu>; Kline, Susan <kline.48@osu.edu>; Nisbet, Erik <nisbet.5@osu.edu>; Horn, David <horn.5@osu.edu>

**Subject:** Re: Sci&Env Comm Certificate Program\_CS

Hi,

I just started reading the proposal and came across this phrase: “a core weakness at OSU is a lack of interdisciplinary programs that integrate science, environmental, and sustainability fields with social sciences and humanities - such as science and technology studies (STS) or environmental humanities programs.”

I have to point out that the Department of Comparative Studies offers a concentration in Science and Technology Studies. Courses central to that portion of our curriculum, such as CS 2340 Introduction to Cultures of Science and Technology, CS 2341 Technology, Science and Society, and CS 3646 Cultures, Natures, Technologies, do not appear in the course offerings included in this proposal. (CS 2104 Literature, Science, and Technology does appear.)

I would like you to consider adding these courses to your proposal. A bit of explanation about the “weakness” comment would be appreciated as well.

Yours,  
Barry

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**From:** "Smith, Aaron" <smith.1543@osu.edu>

**Date:** Tuesday, October 15, 2019 at 1:26 PM

**To:** "Shank, Barry" <shank.46@osu.edu>

**Cc:** "Slater, Michael" <slater.59@osu.edu>, "Kline, Susan" <kline.48@osu.edu>, "Nisbet, Erik" <nisbet.5@osu.edu>

**Subject:** Sci&Env Comm Certificate Program\_CS

Dr. Shank,

Please find attached a letter from Dr. Michael Slater, Director of the School of Communication, with a request for support for a new Certificate Proposal in Science and Environmental Communication.

Please let us know if you have any questions or feedback. It would be helpful if you could you please respond by Tuesday October 29<sup>th</sup>.

Thank you for your potential support and participation in this initiative,



**Aaron Smith** Assistant to the Director

School of Communication

3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210

614-292-0451 Office | 614-292-2055 Fax

[smith.1543@osu.edu](mailto:smith.1543@osu.edu)





THE OHIO STATE UNIVERSITY

**Ian M. Hamilton, Ph.D**

Department of Evolution, Ecology and Organismal Biology

300 Aronoff Laboratory

318 W. 12th Ave.

Columbus, OH 43210

614-292-1547 Phone

614-292-2030 Fax

eeob.osu.edu

October 29, 2019

Michael D. Slater  
Director  
Ohio State School of Communication

Dear Dr. Slater,

We are pleased to offer the Department of Evolution, Ecology and Organismal Biology's support for the proposed certificate in Science and Environmental Communication, administered by the School of Communication. In addition, we give permission for EEOB 5610, Translating Evolution to be included as an elective for this certificate. EEOB 5610 is planned to be offered every 2 years, in odd-numbered Spring Semesters.

Please feel free to contact me if you have any questions or would like any additional information about EEOB 5610.

Sincerely,

Dr. Ian M Hamilton  
Professor & Vice Chair of Undergraduate Studies  
Department of Evolution, Ecology and Organismal Biology  
Department of Mathematics  
The Ohio State University



## Smith, Aaron

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**From:** Brown, Trevor  
**Sent:** Friday, October 18, 2019 7:07 PM  
**To:** Smith, Aaron  
**Cc:** Slater, Michael; Kline, Susan; Nisbet, Erik; Greenbaum, Robert  
**Subject:** RE: Sci&Env Comm Certificate Program\_JGSPA

Hi Aaron and Dr. Slater,

The Glenn College is happy to support the proposed new Certificate in Science and Environmental Communication.

We have one course suggestion to recommend:

PUBAFRS 5770: Risk & Decision Analysis in Public Affairs

We have a syllabus under an old course number at <http://glenn.osu.edu/syllabi/syllabi-attributes/5881%20Risk%20Analysis%20Dormady%20and%20Morgan%20SP16.pdf>

Sincerely,

Trevor Brown

---

**From:** Smith, Aaron <smith.1543@osu.edu>  
**Sent:** Tuesday, October 15, 2019 1:26 PM  
**To:** Brown, Trevor <brown.2296@osu.edu>  
**Cc:** Slater, Michael <slater.59@osu.edu>; Kline, Susan <kline.48@osu.edu>; Nisbet, Erik <nisbet.5@osu.edu>  
**Subject:** Sci&Env Comm Certificate Program\_JGSPA

Dean Brown,

Please find attached a letter from Dr. Michael Slater, Director of the School of Communication, with a request for support for a new Certificate Proposal in Science and Environmental Communication.

Please let us know if you have any questions or feedback. It would be helpful if you could you please respond by Tuesday October 29<sup>th</sup>.

Thank you for your potential support and participation in this initiative,



**Aaron Smith** Assistant to the Director

**School of Communication**

3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210

614-292-0451 Office | 614-292-2055 Fax

[smith.1543@osu.edu](mailto:smith.1543@osu.edu)





November 1, 2019

Michael D. Slater  
Director  
Ohio State School of Communication  
Social and Behavioral Sciences Distinguished Professor

Dear Director Slater;

My apologies for my late response to your request for support for the interdisciplinary certificate program in Science and Environmental Communication administered by the School of Communication in the College of Arts & Sciences. You have the support of the Knowlton School to include the following course as electives: City & Regional Planning 3550: Environmental Planning and Policy for a Sustainable Future. This course is presently scheduled to be offered once every year in the spring semester.

I also offer that there are many courses in the school that may be appropriate to your certificate program. Let me know if you would to discuss these opportunities further.

Sincerely,

Michael B. Cadwell  
Walter H. Kidd Professor  
Director Knowlton School

## Smith, Aaron

---

**From:** Brooks, Jeremy S.  
**Sent:** Friday, November 1, 2019 12:26 PM  
**To:** Smith, Aaron  
**Subject:** Re: Sci&Env Comm Certificate Program\_SENR

Hi Aaron,

I just wanted to follow up to formally offer concurrence for the certificate program - with two pieces of feedback.

1. ENR 4611 is listed twice. The second listing for ENR 4611 (for Interventions to Promote Pro-Environmental Behavior) should be ENR 5400.

2. There was some question about whether packaging "environmental" and "sustainability" comm with science comm will serve students in the ways intended. One faculty member suggested that it makes sense that knowledge about science comm would serve as a backbone for domain-specific types of science comm, but it seems like the proposed certificate is aiming to cover a fair bit of heterogeneous student/learning outcomes. In other words, this faculty member thinks that a science comm certificate would make sense, and sustainability/environmental comm certificate (with some required coursework in more basic science comm) could also make sense, but was not sure how all these topics would work together as a cohesive bundle - especially given the small number of courses required to earn the certificate.

Thank you,

- Jeremy

On Oct 28, 2019, at 3:58 PM, Brooks, Jeremy S. <[brooks.719@osu.edu](mailto:brooks.719@osu.edu)> wrote:

Hi Aaron,

Our Academic Affairs Committee just reviewed it today. I'm just waiting for some additional feedback from two more faculty members, but I don't suspect there will be any issues. The one thing I did note is that the course number is wrong for one of the proposed courses. Interventions to Promote Pro-Environmental Behavior should be ENR 5400.

best

Jeremy

On Oct 28, 2019, at 3:52 PM, Smith, Aaron <[smith.1543@osu.edu](mailto:smith.1543@osu.edu)> wrote:

Dr. Brooks,

Just wanted to check in on this request regarding the new Certificate Proposal in Science and Environmental Communication.

Please let us know if you have any questions.

Thank you,

<image001.png>

**Aaron Smith** Assistant to the Director  
School of Communication  
3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210  
614-292-0451 Office | 614-292-2055 Fax  
[smith.1543@osu.edu](mailto:smith.1543@osu.edu)

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**From:** Smith, Aaron  
**Sent:** Tuesday, October 15, 2019 1:36 PM  
**To:** Brooks, Jeremy S. <[brooks.719@osu.edu](mailto:brooks.719@osu.edu)>  
**Cc:** Slater, Michael <[slater.59@osu.edu](mailto:slater.59@osu.edu)>; Kline, Susan <[kline.48@osu.edu](mailto:kline.48@osu.edu)>; Nisbet, Erik <[nisbet.5@osu.edu](mailto:nisbet.5@osu.edu)>  
**Subject:** Sci&Env Comm Certificate Program\_SENR

Dr. Brooks,

Please find attached a letter from Dr. Michael Slater, Director of the School of Communication, with a request for support for a new Certificate Proposal in Science and Environmental Communication.

Please let us know if you have any questions or feedback. It would be helpful if you could please respond by Tuesday October 29<sup>th</sup>.

Thank you for your potential support and participation in this initiative,

<image001.png>

**Aaron Smith** Assistant to the Director  
School of Communication  
3016 Derby Hall | 154 N. Oval Mall Columbus, OH 43210  
614-292-0451 Office | 614-292-2055 Fax  
[smith.1543@osu.edu](mailto:smith.1543@osu.edu)

<science\_and\_environmental\_communication\_certificate\_program.pdf><COMM  
SECCP\_SENR\_Brooks.pdf>

The Ohio State University  
College of Arts and Sciences

Science and Environmental Communication Certificate Program (SEC-CP)

School of Communication  
Advising Office, Kylie Butte  
3033 Derby Hall, 154 North Oval Mall  
Columbus, OH 43210-1339  
614-292-8444; <http://www.comm.osu.edu>

The certificate program educates students on the theory and practice of communicating about scientific, environmental, and/or sustainability topics and issues, provides an opportunity for developing lifelong professional communication skills, and highlights the interdisciplinary social-behavioral, educational, and psychological dimensions of science and environmental communication.

The Science and Environmental Certificate Program requires the completion of at least four courses for 12 credits, including two foundation courses. To declare the certificate program, students should meet with their assigned academic advisor or any advisor in the School of Communication. Any variation from the program described below needs the approval of the Director of Undergraduate Studies. Students may request approval of a certificate variation by filing a petition through the School of Communication Advising Office.

**Required foundation courses (6 credit hours)**

COMM 2596: An Introduction to Health, Environment, Risk, & Science Communication (3)

One of following two courses:

COMM 4240(H): Science Communication (3)  
COMM 3340: Principles of Environmental Campaigns (3)

**Choose at least two from these electives (6 credit hours)**

COMM 2131: Business & Professional Speaking (3)  
COMM 2511: Visual Communication Design (3)  
COMM 3325: Intr. to Org Communication (3)  
COMM 3330: Communication and Conflict Management (3)  
COMM 3332: Risk Communication (3)  
COMM 3333: Crisis Communication (3)  
COMM 3340: Principles of Environmental Campaigns (3) (if not selected above)  
COMM 3628: Contemporary Persuasion Theory (3)  
COMM 4240(H): Science Communication (3) (if not selected above)

**Choose at least two from these electives (6 credit hours) continued**

ENR 2367: Communicating Environmental and Natural Resources Information (3)  
ENR 3400: Psychology of Environmental Problems (3)  
ENR 3611: Foundations for Environmental Communications, Education and Interpretation (3)  
ENR 4611: Environmental Interpretation and Visitor Services (3)  
ENR 5400: Interventions to Promote Pro-environmental Behavior (3)  
AGCOMM 2130: Visual Media in Agriculture and Natural Resources (3)  
AGCOMM 4130: Publication Design and Production (3)  
AGCOMM 4530: Communicating Agricultural Issues (3)  
AGCOMM 5535: Data Visualization and Scientific Storytelling (3)  
COMPSTD 2104: Literature, Science, and Technology (3)  
COMPSTD 2340: Introduction to Cultures of Science and Technology (3)  
COMPSTD 2341 Technology, Science and Society: (3)  
COMPSTD 3646: Cultures, Natures, Technologies (3)  
AEDECN 3102: Principles of Agribusiness Marketing (3)  
PHR 3410: Science Communication & Engagement (3)\*\*  
PHR 5410: Understanding and Changing Vaccine Hesitancy Perspectives (3)  
CRPLAN 3550: Environmental Planning and Policy for a Sustainable Future (3)  
EEOB 5610: Translating Evolution (3)  
PHR 3410: Science Communication & Engagement (3)  
PUBAFRS / ENVENG 5600: Science, Engineering and Public Policy (3)  
PUBAFRS 5770: Risk & Decision Analysis in Public Affairs (3)  
BIOETHC 5881: Sustainable Health Care in the Current Climate Crisis (3)

Approved Elective in Student's Major: To maximize flexibility and recognize the wide-range of relevant science and sustainability focused coursework at Ohio State University, students may petition to have one course from within their major count toward fulfilling the elective coursework for the certificate program. Course content must meet one or more of the certificate ELOs as determined by the School of Communication. The petition would be reviewed by the administering unit (School of Communication).

\*the Honors (H) version of any of the above courses can be used to meet the requirements for the certificate program

\*\* limited to PHR BSPS students only

**Science and Environmental Communication  
certificate program guidelines**

Required for graduation: No

Credit hours required: A minimum of 12.

Overlap with the GE: A student is permitted to overlap up to 6 credit hours between the GE and the certificate program.

Overlap with degree program

• A student is permitted to overlap up to 50% of credit hours between other degree program (major, minor, other certificate, or general education) and the certificate program.

Grades required

- Minimum C- for a course to be listed on the certificate
- Minimum 2.00 cumulative point-hour ratio required for the certificate.

Certificate approval: The certificate may be approved by the student's assigned academic advisor via the Degree Audit Report (DAR). If the certificate is not complete on the DAR, the student must consult with a School of Communication advisor.

Filing the certificate program form: The certificate form must be filed at least by the time the graduation application is submitted to a college/school counselor.

Changing the certificate: Once the certificate program is filed in the college office, any changes must be approved by the School of Communication Advising Office.