

Term Information

Effective Term Spring 2023

General Information

Course Bulletin Listing/Subject Area Engineering
Fiscal Unit/Academic Org Engineering Administration - D1400
College/Academic Group Engineering
Level/Career Undergraduate
Course Number/Catalog 1300
Course Title Introduction to Writing for STEM
Transcript Abbreviation IntroWritingSTEM
Course Description ENGR 1300 will introduce students to college writing with an emphasis on information literacy and the technical writing style conventions common to STEM academic and professional fields. Students will examine STEM-related topics in their field and will identify how these involve professional ethics in professional/public communications.
Semester Credit Hours/Units Fixed: 3

Offering Information

Length Of Course 14 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Sometimes
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites
Exclusions
Electronically Enforced No

Cross-Listings

Cross-Listings n/a

Subject/CIP Code

Subject/CIP Code 14.0101
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

Writing and Information Literacy

Course Details

Course goals or learning objectives/outcomes

- demonstrate skills in effective reading and writing as well as in oral, digital and/or visual communication for a range of purposes, audiences and context
- develop the knowledge, skills and habits of mind needed for information literacy

Content Topic List

- Career writing
- Identifying issues in STEM
- Communicating to STEM audiences
- Communication to non-technical audiences

Sought Concurrence

Yes

Attachments

- Updated GE Foundations Course Submission Form for ENGR 1300.pdf
(Other Supporting Documentation. Owner: Casado,Ana Maria)
- ENGR 1300_ Introduction to Writing for STEM (3 Credit Hours) Detail Syllabus[1].pdf
(Syllabus. Owner: Casado,Ana Maria)
- RE_ Concurrence Request_ ENGR 1300.pdf
(Concurrence. Owner: Casado,Ana Maria)
- ENGR 1300 GE Foundations Submission Form.pdf
(GEC Model Curriculum Compliance Stmt. Owner: Casado,Ana Maria)
- ENGR 1300 Syllabus Intro to Writing for STEM Revised.pdf: revised syllabus Sept 2022
(Syllabus. Owner: Casado,Ana Maria)
- 1300 Concurrence Email from English Department.pdf: concurrence email
(Other Supporting Documentation. Owner: Casado,Ana Maria)

Comments

- Please see Panel feedback e-mail sent 06/10/22. *(by Cody,Emily Kathryn on 06/10/2022 03:19 PM)*
- Distance options have been removed. Updated concurrence from English attached. *(by Quinzon-Bonello,Rosario on 04/28/2022 01:23 PM)*
- - GE course should not be repeatable.
 - Please provide completed DL paperwork <https://asccas.osu.edu/curriculum/distance-courses>
 - Please remove current partial concurrence and upload final concurrence *(by Vankeerbergen,Bernadette Chantal on 04/26/2022 02:35 PM)*

COURSE REQUEST
1300 - Status: PENDING

Last Updated: Quinzon-Bonello,Rosario
09/29/2022

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Casado,Ana Maria	01/31/2022 02:35 PM	Submitted for Approval
Revision Requested	Quinzon-Bonello,Rosario	04/15/2022 03:28 PM	Unit Approval
Submitted	Casado,Ana Maria	04/19/2022 10:44 AM	Submitted for Approval
Approved	Quinzon-Bonello,Rosario	04/21/2022 09:47 AM	Unit Approval
Approved	Quinzon-Bonello,Rosario	04/21/2022 09:47 AM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	04/26/2022 02:41 PM	ASCCAO Approval
Submitted	Casado,Ana Maria	04/28/2022 10:18 AM	Submitted for Approval
Approved	Quinzon-Bonello,Rosario	04/28/2022 01:23 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	04/28/2022 01:23 PM	College Approval
Revision Requested	Cody,Emily Kathryn	06/10/2022 03:19 PM	ASCCAO Approval
Submitted	Casado,Ana Maria	09/29/2022 01:30 PM	Submitted for Approval
Approved	Quinzon-Bonello,Rosario	09/29/2022 01:50 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	09/29/2022 01:51 PM	College Approval
Pending Approval	Cody,Emily Kathryn Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	09/29/2022 01:51 PM	ASCCAO Approval



ENGR 1300: Introduction to Writing for STEM (3 Credit Hours)

Semester Year / Class Day/Time/Location

Instructor

Name _____ [Pronouns: _____ | Honorific: _____]

Email: _____

Office Hours: _____

Course Description / Overview

ENGR 1300 introduces students to college writing with an emphasis on information literacy and the writing style conventions common to STEM academic and professional fields. Students will learn about rhetorical and stylistic conventions of common STEM writing, such as reports, lightning talks, presentations, and posters. Students will also examine STEM-related topics in their field and will identify how these involve professional ethics in professional/public communications. This course will require students to conduct research using multiple search strategies and tools, and to communicate their position on the topic to multiple audiences with varying levels of technical knowledge using writing conventions of the field. Students will evaluate sources for bias and credibility, use multiple sources to create a logical argument, and engage with counter arguments. Students will practice multiple modes of communication, including written assignments and oral presentations combining text, data, and visuals.

Course Learning Goals & Outcomes

Students enrolled in ENGR 1300 will:

- Learn and produce features of common genres in science and engineering.
- Explore rhetorical functions and stylistic conventions of scientific and engineering writing.
- Create documents to communicate a professional persona as appropriate to their field.
- Identify a current controversy or issue in STEM that has an impact on their career.
- Read current literature by STEM writers and understand conventions of the field.
- Use research to identify a range of sources representing multiple perspectives.
- Give and receive peer review of writing and use feedback to revise their writing.
- Evaluate sources for credibility and authority.
- Identify arguments for and against their own position on the issue.
- Create an argument in favor of their position on the issues supported by research while engaging with counterarguments.
- Present the results of their research to their peers.
- Combine text, data, and visuals to present information.

This course meets The Ohio State University's Writing and Information Literacy General Education requirements as well as specific elements of ABET Criterion 3, detailed below.

OSU Writing & Information Literacy Foundation Goals

1. Successful students will demonstrate skills in effective reading and writing as well as in oral, digital and/or visual communication for a range of purposes, audiences and context.
2. Successful students will develop the knowledge, skills and habits of mind needed for information literacy.

OSU Writing & Information Literacy Foundation Expected Learning Outcomes

Successful students are able to:

- 1.1 Compose and interpret across a wide range of purposes and audiences using writing as well as oral, visual, digital and/or other methods appropriate to the context.
- 1.2 Use textual conventions, including proper attribution of ideas and/or sources, as appropriate to the communication situation.
- 1.3 Generate ideas and informed responses incorporating diverse perspectives and information from a range of sources, as appropriate to the communication situation.
- 1.4 Evaluate social and ethical implications in writing and information literacy practices.
- 2.1 Demonstrate responsible, civil and ethical practices when accessing, using, sharing or creating information.
- 2.2 Locate, identify and use information through context-appropriate search strategies.
- 2.3 Employ reflective and critical strategies to evaluate and select credible and relevant information sources.

ABET Criterion 3 Student Outcomes:

ENGR 1300 supports ABET's Criterion 3 Student Outcomes for Engineering programs including:

Outcome 3.1: an ability to communicate effectively with a range of audiences

Outcome 3.4: an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Outcome 3.7: an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Required Course Materials

This course uses open access/open education resources. All resources will be available to students on Carmen. Sample student reading selections/materials provided below (additional readings to be curated).

- Alley, M. (n.d.). Writing as an engineer or scientist. <https://www.craftofscientificwriting.com/>
- Boyle, J. & Ramsey, S. (2017) Working with data. In *Writing for Science Students*. pp. 87-110. Palgrave.
- Caulfield, M. (2020). *Check, please! Web fact checking for students*. <https://www.notion.so/checkpleasecc/Check-Please-Starter-Course-ae34d043575e42828dc2964437ea4eed>
- The Critical Engineering Working Group. (2021). *Critical engineering manifesto*. <https://criticalengineering.org/>

- Gopen, G.D. & Swan, J.A. (1990). The science of scientific writing. *American Scientist*. <https://www.americanscientist.org/blog/the-long-view/the-science-of-scientific-writing>
- Last, S. (2019). *Technical writing essentials*. <https://pressbooks.bccampus.ca/technicalwriting/>
- Moser, A., Ed. (2018) *Let's Get Writing*. <https://vwcceng111.pressbooks.com/>
- Purugganan, M. & Hewitt, J. How to read a scientific article. Cain Project in Engineering and Professional Communication. <https://www.owl.net.rice.edu/~cainproj/courses/HowToReadSciArticle.pdf>
- Reeves, C. (2005). Language. *The Language of Science*. Routledge.
- Reeves, C. (2005). The experimental report in science. *The Language of Science*. Routledge.
- Reeves, C. (2005). Translators of science and their motives. *The Language of Science*. Routledge.
- University Libraries. (2019). *Choosing and using sources*. <https://ohiostate.pressbooks.pub/choosingsources/front-matter/introduction/>
- Wahlin, L. (n.d.). Fundamentals of Engineering Technical Communications: A Resource & Writing Guide for the Fundamentals of Engineering Program. <https://ohiostate.pressbooks.pub/feptechcomm/>
- Wired. *Five levels video series*. <https://www.wired.com/video/series/5-levels>

Course Assignments Overview

This course consists of iterative, scaffolded assignments that focus on both the writing process and final products. Students will complete individual and team/collaborative assignments.

Topics & Assignments

General Class Assignments

- Discussion Board Posts/Replies: Each week students must compose a brief post in response to a reflective prompt and respond to their peers' posts. Posts will demonstrate comprehension of the weekly subject matter.
- Peer Review/Response (Process)
 - Draft Submission: All major assignments will require at least one draft version submitted for peer review. Students will learn the importance of revision in writing and use feedback to improve their work.
 - Peer Review of Writing: To increase collaboration and team learning, students will review peers' work using a guided process focused on sandwich approach for feedback (strengths, constructive criticisms, and strengths).
- Fact Checking Notebook: following the process outlined in Check, Please! Students will maintain a fact checking notebook for the semester's various activities and assignments.
- Scientific and Technical Communication Style Exercise Series: Students will practice analyzing scientific and technical writing and revising for effective technical communication style and scientific communication writing style.
- In-Class Activities: Time in class will be composed of lectures as needed and active learning. For example: polls, brainstorming for major assignments, writing-related exercises (focus on concision, coherence, and clarity, including prepositions, word location and choice, information patterns).

Understanding and Analyzing Scientific and Technical Communication Writing Style

- IMRAD Paper Analysis: Students will analyze rhetorical and linguistic structures and patterns of an IMRAD paper and produce a written summary of their analysis.
- IMRAD Paper Revision: Students will analyze an IMRAD report for rhetorical and linguistic structures and patterns conventional to effective scientific communication; students will produce a revision of one section and write an analysis of the rationale for their choices in the context of effective scientific communication
- Writing about Data Lab Memo: Students will analyze demographic and institutional data from the OSU College of Arts and Sciences and the OSU College of Engineering, to draw conclusions about trends in their disciplinary area. Students will produce a lab memo targeting high school science and math teachers from their high schools using two additional sources to support the discussion of their data analyses. Students will create and include a unique table or figure to support the written portion of the memo.

Identifying/Exploring Issues in STEM

- Topic Exploration: Students will identify current ethical issues or other challenges within a STEM field at the national or global level, using news and popular sources. Assigned reading will provide examples of current issues and sources, but these might be issues around Augmented Reality; Climate Change-Related Crises and Energy/Engineering Solutions; Big Data, Artificial Intelligence, Data Security and User Privacy. Students will use independent research and class discussion boards to develop a topic statement that reflects their personal interests and perspective and connects to current issues in STEM.
- Topic Development: Students will identify different perspectives on the issue using resources such as Google or similar general search engines and Google Scholar to identify issues, distinguish positions in a national or global STEM issue, and develop a thesis for their project. Students will analyze sources for bias and credibility. They will present their initial thesis along with supporting sources and counterarguments to the class.
- Topic Lightning Talk Presentation: Students will present a Lightning Talk (generally a timed presentation of 3-5 minutes with a set number of slides) to their peers that summarizes/synthesizes information from two sources (to be used in their annotated bibliography assignment).
- Topic Research: Annotated Bibliography: Building on the lightning talk assignment, students will produce an annotated bibliography of sources gathered from University Libraries, Google Scholar, Government publications, and similar databases. Students will analyze sources for bias and assess their credibility. They will use annotations to summarize sources and place them in the context of their research thesis to develop an argument.
- Topic Writing: Investigative Report: Synthesizing information from sources captured in the annotated bibliography, students will develop a research thesis and support an argument targeting a technical audience. The investigative report will use research to define the issue and characterize its nature, exploring and evaluating sources on the topic to support the description. The investigative report will evaluate the current situation surrounding the issue to identify and evaluate contextual factors influencing its specific causes. Supported by the analysis and evidence from sources, students will make recommendations to address the causes or further

understand the issue. Students will include at least one table or figure to support the written portion of the report.

Communicating to STEM Audiences at Various Levels of Technicality

This unit builds on the topic developed in the Investigative Report. Assignments in this unit will require students to consider vocabulary, visual information, formality, and writing complexity to communicate technical concepts appropriate for various audiences and purposes. Assignments in this unit will introduce students to the Five Levels of Technicality and require students to communicate to a “Least Technical” / “Slightly Technical” STEM audience.

- Students will develop research questions about a STEM issue in conversation with their peers and the course instructor.
- Communicating Technical Information for Fifth Grade Explainer: Students will use appropriate vocabulary and visuals to explain a technical concept to a “Least Technical” middle school audience using materials developed by the Alan Alda Center for their annual “Explain ___ to an 11-year-old” challenge.
- Poster or Infographic: Students will create a document (format assigned by instructor) that communicates the key findings of their topic research to a “Slightly Technical” audience defined as a university-level showcase or a student academic conference poster session.
- Individual Presentation for a general audience (inspired by TED Talks)/Podcast episode: This assignment will require students to communicate to a “Slightly Technical” audience. Format to be determined by the instructor.

Course Format

Attendance and Participation Overview: This course meets _____ times weekly in a face-to-face format. We will utilize the scheduled class times for lectures, class activities and scheduled work sessions for team projects. As with any class, you will also be expected to use out-of-class time to complete course readings, assignments, and engage with your project teams as required. You can anticipate participating in the following ways:

- **Participating in our scheduled class sessions. ___ WEEKLY**
You are expected to attend our scheduled class sessions and actively participate. You’ll find more details on participation below. Please note the attendance policy and communicate with me if you have questions/concerns or are experiencing illness.
- **Office Hours: OPTIONAL**
I hold regular office hours every week via Zoom as posted at the top of our syllabus. Please see our Carmen home page for the link to my Zoom office hours.
- **Discussion Boards, ICW, Homework Readings. FREQUENT ENGAGEMENT**
In addition to our work together during our scheduled class time, you are also expected to complete assigned homework readings, complete discussion board posts/replies, and the occasional reading quiz. The work in this course is scaffolded; this means that every smaller assignment is meant to help with the major assignments for each module. The course schedule is designed so background readings happen early in the module and then taper off as work is expected to shift to drafting the final assignment for the module. Many of these assignments will have their own point value assigned, as documented on Carmen; others will be factored into the overall participation grade for the course (see Course Policies).

Credit hours and work expectations: This is a **3-credit-hour course**. According to [Ohio State policy](#), students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Grading Policies

Course grades are determined by the quality of projects and level of class participation, as explained below. Each major module contains scaffolded smaller assignments that culminate in the major point assignments for the module. **Note: All project components must be turned in to receive a grade for the project and all modules must be completed to receive a passing grade for the course.**

ASSIGNMENT	Percentage
Module: Introduction to Technical Communication	10.0%
IMRAD Paper Analysis	25
Writing About Data Memo	50
IMRAD Paper Revision	25
Module: Topic Development	30.5%
Source Summary	10
Topic Statement with Sources	50
Fact Checking Notebook	25
Lightning Talk	75
Source Worksheets	10
Bibliography	25
Annotated Bibliography	50
Investigative Report	60
Module: Communicating to Technical Audiences	39.5%
Report Outline	10
Fifth Grade Explainer	50
Poster/Infographic	50
Draft Report	10
Final Report	150
Presentation/Podcast	125
Participation + Participation Assignments	20.0%
Course Participation	50
Introductory Note	10
Quizzes	40
Discussion Boards	50
Midterm Self-Evaluation	25
Final Course Self-Evaluation	25
TOTAL	100%

Project Assignments. Each project has a detailed assignment sheet and rubric outlining instructions, requirements, and grading criteria. All work is turned in via Carmen. Always check your work against the assignment sheet, rubric, and submission instructions prior to turning in your work for a grade.

Grading Criteria for Projects. As noted above, each project will have a detailed assignment sheet and rubric. In addition to meeting assignment criteria, I expect work that shows you put effort and care into preparing it. I also expect you to apply the concepts you've learned earlier in the term to each subsequent project, as appropriate. In addition to the specific project criteria, the following general criteria apply to all your projects:

- *Audience.* Your communication should be directed to a specific audience and should reflect a concern with the needs and potential responses of all who may read it.
- *Clarity.* Your writing should convey its message precisely and with immediate clarity to the reader. In style, it should be substantially free of wordiness, jargon, or other stylistic awkwardness.
- *Completeness.* Your communication should contain all of the information necessary for your audience to act or make a decision, but no irrelevant information.
- *Organization.* Your communication should be appropriately organized. The information should be conveyed usefully and persuasively. Your organization should be clear to your readers so they'll know what point you're making and how that point relates to the rest of your message.
- *Grammar and Mechanics.* Your writing should be free of grammatical and mechanical errors. Though I will point out and help you learn from mistakes, I am not an editor and I expect the work you turn in to be polished and proofread.
- *Promptness.* In this course, as in the workplace, you must turn in your work on time. All homework and projects are due at the beginning of class on the dates given in the syllabus. See the "Late Work" section for further details.
- *Appearance.* Whether a memo, proposal, or presentation, you should follow the appropriate conventions of that genre.

Grading rubrics are provided for each major unit, but below are the general criteria for evaluating work in this course:

90-100 / "A" level: Excellent writing or oral communication: the thesis or purpose statement is a (well-supported) clear assertion that demonstrates sophisticated original thinking and goes beyond "stating the obvious." The submission is effective and perfectly executed. The format may contain properly labeled, clever, unique, effective visuals, data, or other devices to carry the logic and create a targeted message for the intended audience; the organization is logical and easy to follow; paragraphs or segments begin with topic sentences and sentences are unified, developed, and effectively placed within the paragraph. Transitions between major elements of the message assist in developing the logic of the document's message. Sentence structure is logical and rhetorically effective with superior use of transitions between sentences and paragraphs with a minimal number of minor errors in grammar, style, or format, and with a standard use of language and punctuation. The different aspects of the message (voice, person, tone, rhetorical strategy, etc.) all contribute to and support the author's main purpose; research and references are incorporated smoothly and effectively into the overall argument and are cited thoroughly and correctly throughout.

80-89 / "B" level: Above average writing or oral communication: the thesis or purpose statement is an arguable assertion and is generally well supported. The organization is soundly

logical, contains effective transitions, effective visuals and other devices to convey the message to the audience, and is easy to follow; paragraphs or segments are generally unified and developed but may lack the maturity found in “A” quality writing. Sentence structure is thorough, complete, logical and rhetorically effective with good transitions between sentences and paragraphs or segments; the communication overall is strong with some very minor errors in usage, grammar or style that mildly affect comprehension. The message format is effective and perfectly executed. References are used effectively, cited properly and free of any errors of information or format.

70-79 / “C” level: Average writing or oral communication: the thesis may be overly broad and/or predictable. The organizational scheme has an overall logic but is not executed as effectively as it might be; paragraphs or segments have some problems with focus, unity, and development and may have minimal transitions. The message overall is acceptable, but contains assorted errors in grammar, vocabulary, minimal errors in citations, phrasing, transitions, or style that affect the quality of the message or comprehension; sentence structure is adequate but lacking in thematic focus and specificity. References to research contain some errors, are just adequate, and may be awkwardly introduced or contain incorrect parenthetical references. The reference list may have minor errors of form or submission.

60-69 / “D” level: Below average writing or oral communication: the thesis for the message is unclear. The organizational scheme is attempted but is not effective; paragraphs or segments lack transitions and logical placement within the document. Sentence structure is often substandard with underdeveloped or undeveloped focus; the message is generally inadequate with several severe errors that dramatically affect comprehension. References may be missing essential information, lacking clarity, and/or may not effectively support the document’s overall argument. The reference list may have minor errors of form or submission.

Below 60 / Failure: Unacceptable writing or oral communication: the message lacks a coherent thesis. Organization is unclear or lacking; paragraphs lack transitions, development, and logical placement within the submission. Sentence structure is generally substandard; major errors impede the reader’s comprehension and reflect a failure to grasp written English fundamentals. Research is missing or ineffective and there are significant errors in citation in parentheticals and/or a reference list with errors in form and/or submission.

With the above-noted criteria in mind, this course uses the following standard grading scale:

A	100-93 %	B-	82-80 %	D+	69-67 %
A-	92-90 %	C+	79-77 %	D	66-60 %
B+	89-87 %	C	76-73 %	F	Below 60%
B	86-83 %	C-	72-70 %		

Late Work. All assignments are to be turned in by their assigned due date/time. **I do not accept late work.** If you should have an emergency, contact me as soon as possible. Each student is entitled to one extension provided the extension is requested at least 24 hours in advance with adequate explanation.

Participation. The participation points for this class are **earned** through active engagement with your instructor, your peers, and the course content. The most successful students in this course:

- make effective use of all course resources: text/readings, instructor, assignment sheets, peer review opportunities, grading rubrics, informational handouts, Carmen site, videos, web links, etc.,
- are on time and are present at every class meeting,
- ask questions,
- participate meaningfully in discussions (via discussion boards; via Zoom audio or chat feature during class, etc.),
- treat others and their instructor with respect,
- keep track of their course progress and turn assignments in on time,
- are diligent in planning their time in advance by utilizing the course calendar and working ahead, and
- consider the ways that skills gained in this course will help them to be more successful in future classes, in searching for internships and jobs, and in their early experiences of professional life.

Unless designated as “suggested,” course readings are a required part of course participation. Over the course of the term, you are expected to read assigned reading carefully and thoughtfully engaging with the reading and spending time thinking about it in preparation for completing course projects and participating in class discussion. In class discussions will often draw on assigned readings and I will assume that you have read and applied the assigned readings to your project assignments when I grade.

Process Points (Peer Response + Self-Evaluation). This course follows the premise that writing is a process. To that end, we workshop our drafts in peer response writing group workshops and reflect on our finished products. In these workshops, you and your classmates will be given prompts to help guide you, and you’ll be able to see how others are approaching the same assignment. Peer response workshops require that you (1) upload a *complete* draft to the assignment’s draft folder on the day it is due and (2) review the work of others in your workshop group. To receive credit for peer response (10 points), you must meet both of those criteria.

Each project for this course also requires you to reflect in the form of a self-evaluation consisting of a rhetorical analysis of your work and an earnest reflection of your effort on the project. Process points are built into each assignment. **NOTE:** You cannot receive a grade for the major project/overall unit without completing each component part of the project. This includes process points. All major projects must be completed to receive a passing grade for the course.

Discussion Boards. The class has a “General Questions” discussion board where you can leave general questions for me or your classmates. I monitor this discussion board daily during the week (M-F). Additionally, this course has a topical discussion board forum covering related readings/themes and is an opportunity for you to discuss and interact with your classmates, me, and our UTAs. These discussion boards will have specific instructions/prompts and are worth 10 points each, earned through both creating posts and replying to your classmates. Missed discussion board posts/replies cannot be made up.

Quizzes. Occasional “self-check” reading and practice concision quizzes are part of the course. Quizzes are open note/open book and cover readings and lecture content. Missed quizzes cannot be made up.

Course Policies and Resources

The course policies below outline the expectations for this course. If you have any questions about a course policy or about the course in general, please see me. It also contains information about resources and services you may find helpful. The course has been carefully designed and each assignment created to build on the previous with the ultimate goal of meeting the goals and objectives noted in the learning outcomes expressed above.

Academic Integrity. I expect all work to be your own. When you use someone else's ideas or words as your own without proper attribution (such as citations), you are plagiarizing. Plagiarism is a form of academic dishonesty, as is cheating on a quiz or exam. Cheating and plagiarism are serious offenses that could result in a grade of F for the course. If at any time you are unclear about how to include others' ideas or words within your writing, please ask me. **Do not copy the writing of others.** Examples of documents given in class or on Carmen are to provide guidance and perspective, not an opportunity to copy someone else's work.

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's [Code of Student Conduct](#), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct. **If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct.** If COAM determines that you have violated the university's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Academic Support. I encourage you to take advantage of academic support services offered to students here at OSU. If you are having difficulty with this course or need help accessing resources available to you here at Ohio State, please contact me. I will do everything I can to help connect you with resources.

Attendance. Attendance will be taken at the beginning of every scheduled class period. For this class, I do not distinguish between excused and unexcused absences. You are allotted three (3) "no questions asked" absences. These get-out-of-class-free cards do not require explanation and are given in recognition that life happens. Missing four (4) classes will result in your final grade being reduced by 10 points. Missing five (5) will result in a failing grade for the course. This attendance policy is designed to encourage professionalism and attendance, not to add additional stress or penalize you for being ill. **Do**

not come to class ill. Should you, or a family member whose care you are responsible for become ill with COVID-19, please communicate with me ASAP.

If you need to miss class, please email your writing group for notes and review the posted slides on Carmen (homepage). If possible, turn in any assignments that are due (in the case of peer response, you will be required to complete peer response at another time).

Civility and Title IX. I am committed to making the classroom a comfortable space for all of us, and I ask that we all work toward this goal during our class sessions and in all of the course's online spaces. We will respect each other and practice civility at all times. Disrespectful language including, but not limited to, sexist, racist, homophobic, or anti-ethnic slurs, or bigotry will not be tolerated.

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources. If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability. For more information on OIE, visit equity.osu.edu or email equity@osu.edu.

Copyright Disclaimer. The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Disabilities. The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. You may also wish to register with Student Life Disability Services to establish reasonable accommodations. After registration, contact me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Health and Safety Requirements. All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>), which includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Non-compliance will be warned first and disciplinary actions will be taken for repeated offenses.

Instructor Contact and Grading/Feedback. I monitor and respond to email within 24 hours. If you send an email after normal business hours (M-F; 9-5 EST), I will respond the next day—please keep this in mind and plan accordingly since assignments are sometimes due at 11:59PM. I am also available during my posted office hours and by appointment.

Feedback/graded work for this class is returned via Carmen so be sure to familiarize yourself with how to use Carmen's gradebook and feedback viewing features. You should feel free to "stop by" my Zoom office hours or make an appointment to discuss feedback and/or grades. I do not discuss grades via email. Grades are non-negotiable and, absent a math error, will not be adjusted—no exceptions. Grades, whether on assignments or cumulative final course grades, are not curved or rounded—no exceptions.

Mental Health/Wellbeing. As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you find yourself feeling isolated, anxious or overwhelmed, please know that there are resources to help: ccs.osu.edu. You can reach an on-call counselor when CCS is closed at **(614) 292-5766** and 24-hour emergency help is also available through the 24/7 National Prevention Hotline at **1-(800)-273-TALK** or at suicidepreventionlifeline.org. The Ohio State Wellness app is also a great resource available at go.osu.edu/wellnessapp.

Syllabus. This syllabus and course schedule may be modified from time to time as appropriate in order to ensure course objectives are being met. All changes will be announced and posted to the course site on Canvas.

The Writing Center (Center for the Study and Teaching of Writing). We have a fantastic writing center! The trained writing consultants can help with individual or team projects at all stages of the writing process. Please visit <https://cstw.osu.edu/writing-center> to make an appointment and check out their resources.

Course Schedule (Tentative)

Lecture	Activities	Video	Readings
Week 01: Intro to Rhetorical Foundations & STEM Writing Conventions			
Class overview and Carmen layout	Icebreaker TBD		Hall and Wahlin, Rhetorical Foundations
Audience and Purpose in communication	Communication exercise w/Audience and Purpose		Gopen and Swan, The Science of Scientific Writing
Week 02: Reading and Analyzing Scientific Writing			
IMRAD conventions, document organization	Small group revision of sample papers		Purugganan and Hewitt, How to Read a Scientific Article
Responsible use of jargon and plain language	Scientific Communication Style Exercises		OWL Audience Analysis
Week 03: Reading and Analyzing Technical Communication			

Types of technical communications		Opening of WHO Global Conference on Communicating Science	Last, What is Technical Communication
	Technical Communications Style Exercises		Last, Professional Style
Week 04: Exploring STEM Disciplines and Careers / Finding, understanding, and evaluating Sources; Working with Data			
Finding and Using Sources; evaluating sources	Exercise with found data and visuals		Introduction to SIFT
STEM Disciplines	Scientific Communication Style Exercises		
Week 05: Using Tables and Graphics Effectively and Ethically / Presenting to peers, feedback discussion posts			
Presenting tables and graphs, visualizing data	Mucking about with Excel and Matlab		Last, Figures and Tables
Communicating with peers; presentation visuals	Technical Communication Style Exercises	Finkelstein, How to Create Slides	OWL, Writing with Statistics
Week 06: Using Library Research / Writing effective summaries			
Library presentation (guest lecture)	Topic selection and keywords	-	University Library, Search Tools/Precision Searches
Quotes, paraphrase, and summary	Peer Review groups		University Library, Writing Tips
Week 07: Identifying Evidence and Deriving Claims / Using a matrix to capture key points from sources			
Student Presentations	Matrix activity		Hall and Wahlin, Making a
Student Presentations			
Week 08: Evaluating Evidence and Comparing Sources Using a Synthesis Matrix			
Evaluating sources for bias and credibility			SIFT Lesson Two: Investigate the Source
Using sources in conversation			Last, Integrating Source Evidence Into Your Writing
Week 09: Integrating Secondary Source Material / Developing a supported argument			
Building an argument	Peer Review groups		University Library, Making an Argument

Creating an outline that incorporates an argument [OWI: Creating and Outline](#)

Week 10: Persuasive writing / Using format and text organization to create a credible argument

Strategies of persuasion

Titles, headings, and document design tools [Last, Document Design](#)

Week 11: Five Levels of Technicality / Adapting scientific and technical content for various audiences

Five Levels of Technicality	Simplify a text	Instructor selected video from 5 Levels	-
Identifying Audience and Purpose	Group activity identifying technicality of a source		Exerpt from The Manga Guide to Physics

Week 12: Challenges and Strategies for Communicating with the Public About STEM

Grade Level and Reading Ease	Revising technical prose for target reading level	Alley: Assertion-Evidence Presentations	Automatic Readability Checks
Creating appropriate background and visualizations for different audiences			Alley, Scientific Posters

Week 13: Visualizing Information in Public Communication

Types of visuals and their uses		Tableau: Data is Beautiful
Posters and infographics	Peer Feedback Analysis	Alley, Scientific Posters

Week 14: Final Presentations/Podcasts and Peer Review/Feedback

Student Presentations

Student Presentations

GE Foundation Courses

Overview

Courses that are accepted into the General Education (GE) Foundations provide introductory or foundational coverage of the subject of that category. Additionally, each course must meet a set of Expected Learning Outcomes (ELO). Courses may be accepted into more than one Foundation, but ELOs for each Foundation must be met. It may be helpful to consult your Director of Undergraduate Studies or appropriate support staff person as you develop and submit your course.

This form contains sections outlining the ELOs of each Foundation category. You can navigate between them using the Bookmarks function in Acrobat. Please enter text in the boxes to describe how your class meets the ELOs of the Foundation(s) to which it applies. Because this document will be used in the course review and approval process, you should use language that is clear and concise and that colleagues outside of your discipline will be able to follow. Please be as specific as possible, listing concrete activities, specific theories, names of scholars, titles of textbooks etc. Your answers will be evaluated in conjunction with the syllabus submitted for the course.

Accessibility

If you have a disability and have trouble accessing this document or need to receive the document in another format, please reach out to Meg Daly at daly.66@osu.edu or call 614-247-8412.

GE Rationale: Foundations: Race, Ethnicity, and Gender Diversity (3 credits)

Requesting a GE category for a course implies that the course fulfills **all** the expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Race, Ethnicity, and Gender Diversity, please answer the following questions for each ELO.

A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational for the study of Race, Ethnicity and Gender Diversity.

Course Subject & Number: _____

B. Specific Goals of Race, Ethnicity, and Gender Diversity

GOAL 1: Successful students will engage in a systematic assessment of how historically and socially constructed categories of race, ethnicity, and gender, and possibly others, shape perceptions, individual outcomes, and broader societal, political, economic, and cultural systems.

Expected Learning Outcome 1.1: Successful students are able to describe and evaluate the social positions and representations of categories including race, gender, and ethnicity, and possibly others. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.2: Successful students are able to explain how categories including race, gender, and ethnicity continue to function within complex systems of power to impact individual lived experiences and broader societal issues. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.3: Successful students are able to analyze how the intersection of categories including race, gender, and ethnicity combine to shape lived experiences. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.4: Successful students are able to evaluate social and ethical implications of studying race, gender, and ethnicity. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

GOAL 2: Successful students will recognize and compare a range of lived experiences of race, gender, and ethnicity.

Expected Learning Outcome 2.1: Successful students are able to demonstrate critical self- reflection and critique of their social positions and identities. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 2.2: Successful students are able to recognize how perceptions of difference shape one’s own attitudes, beliefs, or behaviors. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 2.3: Successful students are able to describe how the categories of race, gender, and ethnicity influence the lived experiences of others. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met.

GE Rationale: Foundations: Social and Behavioral Sciences (3 credits)

Requesting a GE category for a course implies that the course **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Social and Behavioral Sciences, please answer the following questions for each ELO.

A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Social and Behavioral Sciences.

Course Subject & Number: _____

B. Specific Goals of Social and Behavioral Sciences

GOAL 1: Successful students will critically analyze and apply theoretical and empirical approaches within the social and behavioral sciences, including modern principles, theories, methods, and modes of inquiry.

Expected Learning Outcome 1.1: Successful students are able to explain basic facts, principles, theories and methods of social and behavioral science. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.2: Successful students are able to explain and evaluate differences, similarities, and disparities among institutions, organizations, cultures, societies, and/or individuals using social and behavioral science. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

GOAL 2: Successful students will recognize the implications of social and behavioral scientific findings and their potential impacts.

Expected Learning Outcome 2.1: Successful students are able to analyze how political, economic, individual, or social factors and values impact social structures, policies, and/or decisions. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 2.2: Successful students are able to evaluate social and ethical implications of social scientific and behavioral research. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 2.3: Successful students are able to critically evaluate and responsibly use information from the social and behavioral sciences. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

GE Rationale: Foundations: Historical or Cultural Studies (3 credits)

Requesting a GE category for a course implies that the course fulfills the expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Historical and Cultural Studies, please answer the following questions for each ELO. Note that for this Foundation, a course need satisfy either the ELOs for Historical Studies or the ELOs for Cultural Studies.

A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational in the study of History **or** Cultures.

Course Subject & Number: _____

B. Specific Goals of Historical *or* Cultural Studies

Historical Studies (A) Goal: Successful students will critically investigate and analyze historical ideas, events, persons, material culture and artifacts to understand how they shape society and people.

Expected Learning Outcome 1.1A: Successful students are able to identify, differentiate, and analyze primary and secondary sources related to historical events, periods, or ideas. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.2A: Successful students are able to use methods and theories of historical inquiry to describe and analyze the origin of at least one selected contemporary issue. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.3A: Successful students are able to use historical sources and methods to construct an integrated perspective on at least one historical period, event or idea that influences human perceptions, beliefs, and behaviors. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.4A: Successful students are able to evaluate social and ethical implications in historical studies. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Cultural Studies (B) Goal: Successful students will evaluate significant cultural phenomena and ideas to develop capacities for aesthetic and cultural response, judgment, interpretation, and evaluation.

Expected Learning Outcome 1.1B: Successful students are able to analyze and interpret selected major forms of human thought, culture, ideas or expression. Please link this ELO to the course goals and topics and identify the *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.2B: Successful students are able to describe and analyze selected cultural phenomena and ideas across time using a diverse range of primary and secondary sources and an explicit focus on different theories and methodologies. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.3B: Successful students are able to use appropriate sources and methods to construct an integrated and comparative perspective of cultural periods, events or ideas that influence human perceptions, beliefs, and behaviors. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.4B: Successful students are able to evaluate social and ethical implications in cultural studies. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met.

GE Rationale: Foundations: Writing and Information Literacy (3 credits)

Requesting a GE category for a course implies that the course fulfills **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Writing and Information Literacy, please answer the following questions for each ELO.

Course Subject & Number: _____

A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Writing and Information Literacy.

B. Specific Goals of Writing and Information Literacy

GOAL 1: Successful students will demonstrate skills in effective reading, and writing, as well as oral, digital, and/or visual communication for a range of purposes, audiences, and context.

Expected Learning Outcome 1.1: Successful students are able to compose and interpret across a wide range of purposes and audiences using writing, as well as oral, visual, digital and/or other methods appropriate to the context. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. Explain how the course includes opportunities for feedback on writing and revision. Furthermore, please describe how you plan to insure sufficiently low instructor-student ratio to provide efficient instruction and feedback. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.2: Successful students are able to use textual conventions, including proper attribution of ideas and/or source, as appropriate to the communication situation. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. Is an appropriate text, writing manual, or other resource about the pedagogy of effective communication being used in the course? (50-700 words)

Expected Learning Outcome 1.3: Successful students are able to generate ideas and informed responses incorporating diverse perspectives and information from a range of sources, as appropriate to the communication situation. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.4: Successful students are able to evaluate social and ethical implications in writing and information literacy practices. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

GOAL 2: Successful students will develop the knowledge, skills, and habits of mind needed for information literacy.

Expected Learning Outcome 2.1: Successful students are able to demonstrate responsible, civil, and ethical practices when accessing, using, sharing, or creating information. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 2.2: Successful students are able to locate, identify and use information through context appropriate search strategies. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 2.3: Successful students are able to employ reflective and critical strategies to evaluate and select credible and relevant information sources. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

GE Rationale: Foundations: Literary, Visual, or Performing Arts (3 credits)

Requesting a GE category for a course implies that the course fulfills **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Literary, Visual, and Performing Arts, please answer the following questions for each ELO.

A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Literary, Visual, or Performing Arts.

B. Specific Goals

Goal 1: Successful students will analyze, interpret, and evaluate major forms of human thought, cultures, and expression; and demonstrate capacities for aesthetic and culturally informed understanding.

Expected Learning Outcome 1.1: Successful students are able to analyze and interpret significant works of design or visual, spatial, literary or performing arts. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.2: Successful students are able to describe and explain how cultures identify, evaluate, shape, and value works of literature, visual and performing art, and design. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.3: Successful students are able to evaluate how artistic ideas influence and shape human beliefs and the interactions between the arts and human perceptions and behavior. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.4: Successful students are able to evaluate social and ethical implications in literature, visual and performing arts, and design. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Goal 2: Successful students will experience the arts and reflect on that experience critically and creatively.

Expected Learning Outcome 2.1: Successful students are able to engage in informed observation and/or active participation within the visual, spatial, literary, or performing arts and design. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 2.2: Successful students are able to critically reflect on and share their own experience of observing or engaging in the visual, spatial, literary, or performing arts and design.

Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

GE Rationale: Foundations: Natural Science (4 credits)

Requesting a GE category for a course implies that the course fulfills **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Natural Sciences, please answer the following questions for each ELO.

A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Natural Science.

Course Subject & Number: _____

B. Specific Goals for Natural Sciences

GOAL 1: Successful students will engage in theoretical and empirical study within the natural sciences, gaining an appreciation of the modern principles, theories, methods, and modes of inquiry used generally across the natural sciences.

Expected Learning Outcome 1.1: Successful students are able to explain basic facts, principles, theories and methods of modern natural sciences; describe and analyze the process of scientific inquiry. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.2: Successful students are able to identify how key events in the development of science contribute to the ongoing and changing nature of scientific knowledge and methods. Please link this ELO to the course goals and topics and indicate specific activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.3: Successful students are able to employ the processes of science through exploration, discovery, and collaboration to interact directly with the natural world when feasible, using appropriate tools, models, and analysis of data. Please explain the 1-credit hour equivalent experiential component included in the course: e.g., traditional lab, course-based research experiences, directed observations, or simulations. Please note that students are expected to analyze data and report on outcomes as part of this experiential component. *(50-1000 words)*

Course Subject & Number: _____

GOAL 2: Successful students will discern the relationship between the theoretical and applied sciences, while appreciating the implications of scientific discoveries and the potential impacts of science and technology.

Expected Learning Outcome 2.1: Successful students are able to analyze the inter-dependence and potential impacts of scientific and technological developments. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 2.2: Successful students are able to evaluate social and ethical implications of natural scientific discoveries. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 2.3: Successful students are able to critically evaluate and responsibly use information from the natural sciences. Please link this ELO to the course goals and topics and indicate *specific* activities/ assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

GE Rationale: Foundations: Mathematical and Quantitative Reasoning (or Data Analysis) (3 credits)

Requesting a GE category for a course implies that the course fulfills **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Mathematical and Quantitative Reasoning (or Data Analysis), please answer the following questions for each ELO.

A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Mathematical & Quantitative Reasoning (or Data Analysis).

B. Specific Goals for Mathematical & Quantitative Reasoning/Data Analysis

Goal: Successful students will be able to apply quantitative or logical reasoning and/or mathematical/statistical analysis methodologies to understand and solve problems and to communicate results.

Expected Learning Outcome 1.1: Successful students are able to use logical, mathematical and/or statistical concepts and methods to represent real-world situations. Please link this ELO to the course goals and topics and indicate *specific* activities/ assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.2: Successful students are able to use diverse logical, mathematical and/or statistical approaches, technologies, and tools to communicate about data symbolically, visually, numerically, and verbally. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.3: Successful students are able to draw appropriate inferences from data based on quantitative analysis and/or logical reasoning. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: _____

Expected Learning Outcome 1.4: Successful students are able to make and evaluate important assumptions in estimation, modeling, logical argumentation, and/or data analysis. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Expected Learning Outcome 1.5: Successful students are able to evaluate social and ethical implications in mathematical and quantitative reasoning. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

From: [Casado, Ana](#)
To: [Quinzon-Bonello, Rosario](#)
Subject: RE: Concurrence Request: ENGR 1300
Date: Monday, April 25, 2022 1:36:00 PM

No, Lynn Hall asked me to update the concurrence information since English officially gave concurrence.

Ana M. Casado, Ph.D.

Graduate Program Coordinator & Grants Coordinator

Department of Engineering Education, College of Engineering

The Ohio State University

244 Hitchcock Hall (mailbox)

225 Hitchcock Hall (office)

2070 Neil Ave., Columbus, OH 43210

(614) 688-3166

eed.osu.edu

President, [Association of Graduate and Professional Administrators](#)

Cultural Committee Leader, [Organization of Latinx/Hispanic Employees](#)

From: Quinzon-Bonello, Rosario <quinzon-bonello.1@osu.edu>

Sent: Monday, April 25, 2022 1:35 PM

To: Casado, Ana <casado.1@osu.edu>

Subject: RE: Concurrence Request: ENGR 1300

Did they send it back for revision since the last time I approved it?

From: Casado, Ana <casado.1@osu.edu>

Sent: Monday, April 25, 2022 1:33 PM

To: Quinzon-Bonello, Rosario <quinzon-bonello.1@osu.edu>

Cc: Hall, Lynn <hall.1812@osu.edu>

Subject: RE: Concurrence Request: ENGR 1300

Hi Rosie,

ENGR 1300 is with Arts & Sciences and I don't see how I can edit it at this point. Do you know if I'm able to? Thanks!

Ana

Ana M. Casado, Ph.D.

Graduate Program Coordinator & Grants Coordinator

Department of Engineering Education, College of Engineering

The Ohio State University

244 Hitchcock Hall (mailbox)

225 Hitchcock Hall (office)

2070 Neil Ave., Columbus, OH 43210

(614) 688-3166

eed.osu.edu

President, [Association of Graduate and Professional Administrators](#)

Cultural Committee Leader, [Organization of Latinx/Hispanic Employees](#)

From: Hall, Lynn <hall.1812@osu.edu>
Sent: Sunday, April 24, 2022 2:22 PM
To: Casado, Ana <casado.1@osu.edu>
Cc: Abrams, Lisa <abrams.34@osu.edu>; Tomasko, David <tomasko.1@osu.edu>; Quinzon-Bonello, Rosario <quinzon-bonello.1@osu.edu>
Subject: Fwd: Concurrence Request: ENGR 1300

Ana,

Can you please update the 1300 submission to note concurrence has been received? We can replace the previously attached email thread with this one.

Thanks much!
Lynn

Lynn Hall, Ph.D.
Senior Lecturer | Director, Engineering Technical Communications
Department of Engineering Education
The Ohio State University | College of Engineering
244 Hitchcock Hall | [2070 Neil Avenue](https://www.osu.edu/campus-map/2070-neil-avenue) | [Columbus, OH 43210](https://www.osu.edu/campus-map/columbus)
hall.1812@osu.edu
Pronouns: she/her/hers |Honorific: Dr.

From: Hewitt, Elizabeth <hewitt.33@osu.edu>
Sent: Sunday, April 24, 2022 2:08:46 PM
To: Hall, Lynn <hall.1812@osu.edu>; Lang, Susan M. <lang.543@osu.edu>; Casado, Ana <casado.1@osu.edu>
Cc: Williams, Susan S. <williams.488@osu.edu>; Vankeerbergen, Bernadette <vankeerbergen.1@osu.edu>; Teston, Christa B. <teston.2@osu.edu>; DeWitt, Scott <dewitt.18@osu.edu>; Abrams, Lisa <abrams.34@osu.edu>; Froyd, Jeffrey E. <froyd.1@osu.edu>; Tomasko, David <tomasko.1@osu.edu>; Herman, Jennifer <herman.125@osu.edu>; Williams, Susan S. <williams.488@osu.edu>
Subject: Re: Concurrence Request: ENGR 1300

Dear Lynn,

Thank you for your kind patience and for your detailed explanation of the proposed ENGR 1300. While there is some overlap between your course and English 1110, your course's STEM focus is sufficiently different that we have no objections to the course. And, as you explain, because your course is at the introductory level, there is no substantial overlap with our 3304/5 courses.

Once your course works through the approval process, and is on the books, we will look forward to working with you and CAA to make sure that we can coordinate the assessment of all the WIL courses.

Please feel free to get in touch with me if you have any questions. I'll be around all summer.

Best,
beth

Professor Elizabeth Hewitt
Department of English
OSU

From: Hall, Lynn <hall.1812@osu.edu>

Date: Friday, March 25, 2022 at 2:05 PM

To: Hewitt, Elizabeth <hewitt.33@osu.edu>, Lang, Susan M. <lang.543@osu.edu>, Casado, Ana <casado.1@osu.edu>

Cc: Williams, Susan S. <williams.488@osu.edu>, Vankeerbergen, Bernadette <vankeerbergen.1@osu.edu>, Teston, Christa B. <teston.2@osu.edu>, DeWitt, Scott <dewitt.18@osu.edu>, Abrams, Lisa <abrams.34@osu.edu>, Froyd, Jeffrey E. <froyd.1@osu.edu>, Tomasko, David <tomasko.1@osu.edu>, Herman, Jennifer <herman.125@osu.edu>

Subject: Re: Concurrence Request: ENGR 1300

Hi, Beth and everyone. Thank you for your continued review of ENGR 1300—it's much appreciated. I've made comments to your points below.

Point 1: Potential Course Overlap

Given that this is a 1000-level/intro course for the WIL GenEd, we do not foresee any overlap with the English Department's 3000-level courses given that those higher-level courses were developed for more advanced students/students who are interested in the technical writing minor.

Both English 3304 and 3305 list a 1110/WIL Foundations course as a pre-requisite so we see those as much more advanced courses attracting students with a more advanced understanding/aptitude in writing. Given that more advanced approach to technical writing/communication, we imagine English's 3000 courses are substantially different in terms of the level of content, assessment, and pacing than ENGR 1300 which, as a 1000-level course, is focused more on introductory writing/researching at the college level with the STEM/technical writing focus. We don't see this as "substantial curricular duplication" given that difference in level. It could, perhaps, be a pre-requisite/preparatory course if English is interested. We are happy to discuss this further if you'd like.

Point 2: Target Student Audience & Course Function

We imagine the student audience for the course to be mainly COE students and perhaps some students from sciences. ENGR 1300 is a WIL GE Foundations course, which means it would fulfill the WIL Foundations requirement and would be open to any student who wants to take it.

Our guess is that students taking this course are unlikely to be the same as the target student audience for English's 3000-level technical writing courses or the professional writing minor.

The GE curriculum committee would evaluate this, but we designed this course and are developing it specifically to meet GE Foundations WIL outcomes and expectations.

Point 3: ELO 1.3

ELO 1.3 is “Generate ideas and informed responses incorporating diverse perspectives and information from a range of sources, as appropriate to the communication situation.” We will be working with/guiding students through finding, evaluating, analyzing, synthesizing, and incorporating appropriate sources and will have lectures, readings, activities, and assignments specifically dedicated to this. This particular section of our syllabus under *Identifying/Exploring Issues in STEM* (Page 4) might be what you are looking for:

Topic Exploration: Students will identify current ethical issues or other challenges within a STEM field at the national or global level, using news and popular sources. Assigned reading will provide examples of current issues and sources, but these might be issues around Augmented Reality; Climate Change-Related Crises and Energy/Engineering Solutions; Big Data, Artificial Intelligence, Data Security and User Privacy. Students will use independent research and class discussion boards to develop a topic statement that reflects their personal interests and perspective and connects to current issues in STEM.

Topic Development: Students will identify different perspectives on the issue using resources such as Google or similar general search engines and Google Scholar to identify issues, distinguish positions in a national or global STEM issue, and develop a thesis for their project. Students will analyze sources for bias and credibility. They will present their initial thesis along with supporting sources and counterarguments to the class.

Students will engage with a range of sources, including IMRAD reports, demographic and institutional reports, writing and information literacy related readings, podcasts and popular sources, and academic sources and will be completing assignments for a range of audiences. Students will be exploring a range of perspectives on topics outlined above and we believe these topics can't be fully discussed without including diverse perspectives (who is developing/deploying technology, who is impacted and how, etc.).

As an FYI, the reading list included in the syllabus draft is in progress and we plan to work more on this list and related in-class lectures/activities as part of curricular development for the course. Students will engage with a diverse range of readings (both topical and writing-related).

Point 4: OT36

Thank you for this information. This is certainly something to keep in mind/evaluate once the course is through approvals and in the catalog.

I hope this adds clarity and addresses your concerns.

I have added our EED leadership, Lisa Abrams and Jeff Froyd and our curricular dean, David Tomasko to the list of CCs. I'm also adding Jennifer Herman, who did extensive work in revising the ENGR 1300 syllabus to address your initial concerns from February 24th.

Please let me know what additional information you need to continue your evaluation for concurrence. Jennifer and I would be happy to meet with any/all of you if it helps with your review.

Lynn

From: Hewitt, Elizabeth <hewitt.33@osu.edu>
Date: Monday, March 14, 2022 at 2:41 PM
To: Hall, Lynn <hall.1812@osu.edu>, Lang, Susan M. <lang.543@osu.edu>, Casado, Ana <casado.1@osu.edu>
Cc: Williams, Susan S. <williams.488@osu.edu>, Vankeerbergen, Bernadette <vankeerbergen.1@osu.edu>, Teston, Christa B. <teston.2@osu.edu>, DeWitt, Scott <dewitt.18@osu.edu>
Subject: Re: Concurrence Request: ENGR 1300

Dear Lynn,

Thank you very much for sending on further information about the proposed course, and I also want to apologize for taking so long to get back to you. Because so many things are changing with writing instruction under the new GE, I wanted to consult with a range of people—especially faculty in the English department who regularly teach and administrate our writing courses and programs. I have shared the new material you provided with a number of my colleagues to get their feedback. Here are some of our thoughts and concerns.

1. We do not think that this course replicates our own WIL Foundation course (English 1110), but it does have overlap with our higher-level courses in Professional & Business and Technical Writing (English 3304 and 3305). These courses are more advanced than your proposed ENGR 1300, but because there is substantial curricular duplication, we wonder if it makes sense to discuss the relationship between these courses.
1. Is ENGR 1300 targeted specifically at students in the College of Engineering? Or, since it is a GE class, can any undergraduate across the university take the course? If the former, then is it a class that fulfills the function of a general education curriculum?
2. The English department no longer has any supervisory role in GE foundational classes in WIL, but we are concerned that the syllabus does not address ELO 1.3.
3. This course will not be approved as a first writing course with the OT36, which means that its credit will not be automatically transferred to other Ohio universities. This may be an issue

that you will want to consider.

Because of these questions and concerns, we do not yet feel ready to offer concurrence to the proposed course. But we would welcome an opportunity to talk with you and Susan Lang about the proposal. I've also cc'ed two of our faculty specialists in writing and composition (Christa Teston and Scott DeWitt), the chair of English (Susan Williams), and the Assistant Dean for Curriculum at the College of Arts and Sciences (Bernadette Vankeerbergen) with whom I've been in consultation, since they will be useful to this broader conversation about writing instruction in the new GE.

I will look forward to speaking with you more,
beth

Elizabeth Hewitt

Professor of English & Director of Undergraduate Studies
530 Denney Hall
Ohio State University
164 Annie & John Glenn Avenue
Columbus, OH 43210

From: Hall, Lynn <hall.1812@osu.edu>

Date: Monday, March 7, 2022 at 3:40 PM

To: Lang, Susan M. <lang.543@osu.edu>, Casado, Ana <casado.1@osu.edu>, Hewitt, Elizabeth <hewitt.33@osu.edu>

Subject: Re: Concurrence Request: ENGR 1300

Hello, Beth and Susan.

As requested, I'm attaching a more detailed version of the syllabus. I hope this gives you a better sense of the topics, assignments, readings, and writing pedagogy practices for the course. We are approaching this course as a foundations WIL course focused on STEM topics and writing style.

With respect to the instructors teaching the course, the Engineering Technical Communications program faculty would be teaching. We have a range of teaching and professional backgrounds and all of us are current instructors of ENGR 2367 (which we approach as a writing course, not as a content course with writing—I know that's been a concern with some versions of 2367s in the past). Three of us have been with OSU in our current teaching roles (and have been teaching ENGR 2367) since 2012. Two of our faculty hold PhDs from OSU's English Department. My PhD is in English from Miami University (Ohio). Aside from degrees, all of us have training in, among other areas: rhetoric, composition, and the teaching of writing. We regularly participate in professional development in these areas. Any new hires to our programmatic area in the Engineering Education Department would be expected to have similar combinations of educational degrees, backgrounds, and or experiences.

Please let me know if I can provide any additional information. Thank you for your time and review of the course.

Lynn



Lynn Hall, Ph.D.

Senior Lecturer | Director, Engineering Technical Communications

Department of Engineering Education

The Ohio State University | College of Engineering

244 Hitchcock Hall | 2070 Neil Avenue | Columbus, OH 43210

hall.1812@osu.edu

Pronouns: she/her/hers | Honorific: Dr.

From: Lang, Susan M. <lang.543@osu.edu>

Date: Friday, March 4, 2022 at 10:30 AM

To: Hall, Lynn <hall.1812@osu.edu>, Casado, Ana <casado.1@osu.edu>, Hewitt, Elizabeth <hewitt.33@osu.edu>

Subject: RE: Concurrence Request: ENGR 1300

Thanks, Lynn!

Susan

From: Hall, Lynn <hall.1812@osu.edu>

Sent: Friday, March 4, 2022 10:29 AM

To: Casado, Ana <casado.1@osu.edu>; Lang, Susan M. <lang.543@osu.edu>; Hewitt, Elizabeth <hewitt.33@osu.edu>

Subject: Re: Concurrence Request: ENGR 1300

Good morning, all. I should have the more detailed syllabus and additional requested information about credentials to you by end of day Monday (at latest).

Lynn

From: Casado, Ana <casado.1@osu.edu>

Date: Friday, March 4, 2022 at 10:22 AM

To: Lang, Susan M. <lang.543@osu.edu>, Hewitt, Elizabeth <hewitt.33@osu.edu>

Cc: Hall, Lynn <hall.1812@osu.edu>

Subject: RE: Concurrence Request: ENGR 1300

Good morning,

I've copied the course director here, who said she would be able to send what you need.

Ana M. Casado, Ph.D.

Graduate Program Coordinator & Grants Coordinator

Department of Engineering Education, College of Engineering

The Ohio State University

244 Hitchcock Hall (mailbox)

225 Hitchcock Hall (office)

2070 Neil Ave., Columbus, OH 43210

(614) 688-3166

eed.osu.edu

President, [Association of Graduate and Professional Administrators](#)

Cultural Committee Leader, [Organization of Latinx/Hispanic Employees](#)

From: Lang, Susan M. <lang.543@osu.edu>

Sent: Friday, March 4, 2022 10:18 AM

To: Casado, Ana <casado.1@osu.edu>; Hewitt, Elizabeth <hewitt.33@osu.edu>

Subject: RE: Concurrence Request: ENGR 1300

Have you sent a full syllabus and other information, Ana? I don't seem to have anything else.

Susan



Susan M. Lang, Ph.D.

Director, Center for the Study and Teaching of Writing

Professor of English

4132C Smith Lab

174 W. 18th Ave.

Columbus Ohio 43210

From: Casado, Ana <casado.1@osu.edu>

Sent: Thursday, February 24, 2022 10:20 AM

To: Hewitt, Elizabeth <hewitt.33@osu.edu>; Lang, Susan M. <lang.543@osu.edu>

Subject: RE: Concurrence Request: ENGR 1300

Hi Elizabeth,

Thanks so much for getting back to me. I've spoken to the instructor, who suggested I attach this form here that may provide more information. If your department would like more detail, we can amend the syllabus again. I'll get back in touch with you soon regarding training of instructors.

Best,

Ana

Ana M. Casado, Ph.D.

Graduate Program Coordinator & Grants Coordinator

Department of Engineering Education, College of Engineering

The Ohio State University

244 Hitchcock Hall (mailbox)

225 Hitchcock Hall (office)

2070 Neil Ave., Columbus, OH 43210

(614) 688-3166

eed.osu.edu

President, [Association of Graduate and Professional Administrators](#)

Cultural Committee Leader, [Organization of Latinx/Hispanic Employees](#)

From: Hewitt, Elizabeth <hewitt.33@osu.edu>

Sent: Thursday, February 24, 2022 9:21 AM

To: Casado, Ana <casado.1@osu.edu>

Cc: Lang, Susan M. <lang.543@osu.edu>

Subject: Concurrence Request: ENGR 1300

dear Ana,

Your email requesting concurrence for the course ENGR 1300, Introduction to Writing for STEM was directed to me. It took a little bit of time, because the person who used to handle all concurrence requests has recently retired and I'm relatively new to my position as director of undergraduate studies. But thank you for reaching out to the department.

Right now, the syllabus is a bit too undetailed for us to determine whether the course duplicates our own offerings and if it meets the requirements and standards of writing instruction at OSU. Could you provide a more robust syllabus that includes details of a) classroom assignments; b) readings; and c) writing assignments. We would also like to know plans for training of instructors to teach this dedicated writing course.

I am cc'ing Susan Lang, director of the Center for the Study and Teaching of Writing, on this email, since CSTW has been working with other departments in designing writing courses. I'm certain they will be helpful to your course development.

Please send a new syllabus back to me once you have developed it, as I can be the contact person in English for concurrence requests from now on. And, of course, please reach out if you have any questions.

Sincerely,
beth

Elizabeth Hewitt

Professor of English & Director of Undergraduate Studies

530 Denney Hall

Ohio State University
164 Annie & John Glenn Avenue
Columbus, OH 43210