

Term Information

Effective Term Autumn 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 2301
Course Title Exploring Diversity, Equity & Inclusion in Engineering Contexts: Integrative Designation
Transcript Abbreviation DEInEngineering
Course Description students will use the engineering design and writing processes to define a meaningful problem within specific local or global communities and formulate and propose a solution to that problem. Students will explore themes of diversity and inclusion in engineering and citizenship in a just and diverse world through a comprehensive, semester-long proposal project
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? Yes
Is any section of the course offered Greater or equal to 50% at a distance
Less than 50% at a distance
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, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites Writing and Information Literacy Foundation
Exclusions Not open to students with credit for 2300
Electronically Enforced Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

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

Requirement/Elective Designation

Citizenship for a Diverse and Just World

Course Details

Course goals or learning objectives/outcomes

- Design and conduct semester-long research projects to develop a deep and interdisciplinary understanding of technical or social problems in-context and propose specific solutions to specific problems.
- Engage in an advanced, in-depth scholarly exploration of diversity, equity, and inclusion in engineering/STEM cultures, especially how race, ethnicity, gender, sexuality, age are experienced and intersect.
- Engage in critical and logical thinking about engineering and how engineers engage with and impact communities and society at the local, state, national, and global level, with a focus on equity and justice
- Identify, evaluate, use, and share credible and relevant sources of information, relying on the Frameworks for Information Literacy, to explore the course themes, define problems, and use evidence effectively to support the proposed solution
- Reflect critically on experiences, behaviors, processes, and learning (metacognition).
- Understand the importance of rhetorical communication and writing for technical and non-technical contexts and audiences.
- Understand processes for composing informative and persuasive documents, and plan and deliver presentations for a variety of audiences and purposes.
- Collaborate effectively in teams and develop collaborative composing, team management, and communication skills

Content Topic List

- Introduction to the RFP/Grant, individual exploration of main themes (what is citizenship, justice)
- Problem definition
- Refining the problem, understanding the community, and developing solutions
- Refining solutions, developing the proposal, and sharing out

Sought Concurrence

No

Attachments

- ENGR 2300 and 2301 Citizenship Readings Resource Database.xlsx: readings resource database
(Other Supporting Documentation. Owner: Casado,Ana Maria)
- ENGR 2301 GE Citizenship Theme Submission Form.pdf: citizenship theme submission form
(Other Supporting Documentation. Owner: Casado,Ana Maria)
- ENGR 2301 syllabus.pdf: syllabus
(Syllabus. Owner: Casado,Ana Maria)
- ENGR 2301 Research and Creative Inquiry Designation Inventory.pdf
(Other Supporting Documentation. Owner: Casado,Ana Maria)
- ENGR 2301 Research and Creative Inquiry Designation Inventory.pdf
(Other Supporting Documentation. Owner: Casado,Ana Maria)
- Revised 2300 and 2301 Cover Letter.pdf
(Cover Letter. Owner: Casado,Ana Maria)
- ENGR 2301 Syllabus_ Exploring Diversity Equity Inclusion in Engineering Contexts - Integrative.pdf
(Syllabus. Owner: Casado,Ana Maria)
- ENGR 2301 GE Citizenship Theme Submission Form.pdf: citizenship theme submission form
(Other Supporting Documentation. Owner: Casado,Ana Maria)

Comments

- Please see Panel feedback email sent 08/02/2022. *(by Hilty,Michael on 08/02/2022 08:09 AM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Casado,Ana Maria	01/31/2022 07:35 PM	Submitted for Approval
Approved	Quinzon-Bonello,Rosario	02/23/2022 05:20 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	02/23/2022 05:20 PM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	04/06/2022 10:51 AM	ASCCAO Approval
Submitted	Casado,Ana Maria	04/07/2022 01:15 PM	Submitted for Approval
Approved	Quinzon-Bonello,Rosario	04/07/2022 01:17 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	04/07/2022 01:17 PM	College Approval
Revision Requested	Hilty,Michael	08/02/2022 08:09 AM	ASCCAO Approval
Submitted	Casado,Ana Maria	01/23/2023 04:44 PM	Submitted for Approval
Approved	Quinzon-Bonello,Rosario	01/23/2023 10:43 PM	Unit Approval
Approved	Quinzon-Bonello,Rosario	01/23/2023 10:43 PM	College Approval
Pending Approval	Cody,Emily Kathryn Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	01/23/2023 10:43 PM	ASCCAO Approval



January 10, 2023

GE CDJW Theme Review Committee:

Please accept this re-submission for our proposed courses, *ENGR 2300: Exploring Diversity, Equity, & Inclusion in Engineering Contexts* (3 credit hours) **and** *ENGR 2301: Exploring Diversity, Equity, & Inclusion in Engineering Contexts, Integrative (Research & Creative Inquiry Designation – 4 Credit Hours)*. We thank the committee for their previous review and feedback. Our original submissions provided sample syllabi and focused more on the required forms for each course. Based on the feedback we received and our review of recently approved courses for the new GE themes, we have prepared our materials for resubmission. We hope you will find the expanded syllabi and supporting materials sufficiently address your questions and concerns.

ENGR 2300: Exploring Diversity, Equity, & Inclusion in Engineering Contexts
3 Credit Hours

Following is a summary of the primary changes made to the ENGR 2300 course syllabi in response to feedback received.

Front Matter & Policy Updates

The issue noted with the outdated “GEC” reference has been corrected and the Academic Misconduct and Disability Services statements were updated in alignment with the website provided. The erroneous reference to “ENGR 1300” was deleted, and there is a clarification about how the Advanced Writing Embedded Literacies apply to students in various majors under “Advanced Writing Goals.”

Course Calendar

The calendar has been expanded to provide an overview of class lecture topics, due dates, and required readings. This should also address the committee’s desire to see a more explicit connection to the theme.

GE Theme: Citizenship for a Diverse and Just World

Please see the accompanying required GE Theme Submission form for connections between course content and the GE Goals and ELOs, as well as the expanded course calendar.

ENGR 2301: Exploring Diversity, Equity, & Inclusion in Engineering Contexts
Integrative Designation, Research & Creative Inquiry
4 Credit Hours

Following is a summary of the primary changes made to the ENGR 2301 course syllabus in response to the feedback:

Front Matter & Policy Updates

The issue noted with the outdated “GEC” reference has been corrected and the Academic Misconduct and Disability Services statements were updated in alignment with the website provided. The erroneous reference to “ENGR 1300” was deleted, and there is a clarification about how the Advanced Writing Embedded Literacies apply to students in various majors under “Advanced Writing Goals.”

GE Theme: Citizenship for a Diverse and Just World

The syllabus content has been expanded to reflect in more detail how the course content and the major projects will intersect with and prompt students to engage with this theme through instructor-led content, shared readings, and individual exploration. See in particular the Course Description and the “driving questions” (pp. 1 – 2) and the table under “Required Course Materials” outlining the planned readings and resources related to major course topics, including “Citizenship” (pp. 3 – 4).

The course assignments are described in “Graded Assignments & Activities (pp. 7 – 8) and aligned with the ELOs in the supporting inventory documentation. The content re-labeled “How will ENGR 2301 achieve these ELOs?” heading describes in more detail how ENGR 2301’s course-specific objectives will satisfy the GE ELOs.

Instructor’s Role in the Course

More specific descriptions of the instructor-led course content and activities has been included in the syllabus with an explicit statement about the “Instructor’s Role” (p. 2) and lecture topics and course activities in the “Sample Course Schedule” (pp. 11 – 15), which provides a calendar of in-class content (lectures, activities, discussion, etc.), readings, and cadence of the scaffolded minor and major assignments.

Research & Creative Inquiry Designation

The instructor’s role in helping students develop the skills needed to engage in the individual and team research and problem-solving process is outlined in “Instructor’s role” (p. 2). An effort was made in the Course Description & Overview and throughout the syllabus to clarify that although the projects will be student-led (allowing them to pursue their personal and discipline-specific interests), the instructor will be responsible for introducing content, providing instruction in methods and best practices, and helping students build the skills needed to achieve the course objectives.

The expected outcomes of the students’ research and creative inquiry has been made explicit in the “Student Activities & Deliverables” section (p. 2) and in the “Course Assignments, Grading, and Schedule Overview” section (pp. 7 – 15).

Students will be instructed in methods for conducting research throughout the semester (see Weeks 4 and 5 in the schedule in particular) and writing about research (Weeks 5 and 7). They will engage in research and creative inquiry in individual and team-based projects and will be intentionally reflecting on these experiences at regular intervals throughout the semester.

Thank you again for your consideration and your careful review of our proposed course materials. We believe this course will provide value to our students in all engineering disciplines, encouraging them to explore problems and create innovative, compelling solutions to complex, human-centered problems—

we are eager to see how this addition to the General Education program can support the development of intellectually engaged, holistic, and humane engineers who are strong communicators and good citizens.

Sincerely,

A handwritten signature in blue ink, appearing to read 'LH', is positioned above the printed name.

Lynn Hall

Director, Engineering Technical Communications



SYLLABUS – ENGR 2301: Exploring Diversity, Equity & Inclusion in Engineering Contexts, Integrative (Research & Creative Inquiry Designation, 4 Credit Hours)

Semester Year / Class Days / Time / Location

Format: Lecture, X hours / week

Instructor

Name _____ [Pronouns: _____ | Honorific: _____]

Email: _____

Office Hours: _____

Course Coordinator: _____ Email: _____

Course Description & Overview

Engineers are problem solvers, and both engineers and the problems they solve exist in complex and diverse social worlds shaped by societal structures, identity, and human experience. In this course, students will explore these dynamics by using the engineering design and writing processes to first identify and define a problem related to the course themes and then formulate and propose an actionable solution to that problem.

As they seek to understand and define meaningful problems affecting local or global communities, students will be guided to consider and deepen their understanding of citizenship, what it means to be a citizen, and how concepts of citizenship and society intersect with the work of engineers. The course content, the themes of the proposal project, and the problem-solving process will center on these driving questions:

- What does it mean to be a citizen and how is “citizenship” defined in different contexts? How do our ideas about citizenship shape how we act and participate in society?
- How do academic and public conversations about diversity, equity, inclusion, and justice inform ideas about what it means to be a citizen in the US and globally?
- How does identifying accurate, credible information online allow us to function better as citizens? How do social media, search algorithms, and the internet make that easier or harder?
- What engineering problems or products affect society? How do our identities and experiences shape our interactions with engineering and the solutions engineers create?
- How do our experiences with citizenship, diversity, equity, inclusion, and justice impact how we define and solve problems? Or how we prioritize the needs of various audiences?

Students will engage with course readings, instructor-led activities, and guided discussions to explore perspectives on citizenship in different contexts, including political, economic, social, digital, and ecological. In written reflections, journals, and a collaborative class glossary, students will deepen their understanding of these questions and examine the role of the professional engineer in relation to broader societal issues.

Both individually and in collaboration with a project team, students will practice a range of written and verbal communication skills, and they will be asked to communicate information with multiple audiences who have differing needs and priorities. Students will focus on composing from a rhetorical perspective, which means considering the relationships between rhetorical elements (audience, subject, purpose) and their roles in the choices we make as communicators. In pursuit of these goals, the course will focus on honing information literacy skills, including all aspects of information discovery and creation and research processes. Major areas of focus for the course include explorations of meaningful inquiry and information literacy, engineering and general research writing conventions, community outreach models, team project management and communication, and effective communication strategies for a variety of audiences.

Student Activities

Students will work both individually and in small teams on activities and assignments that develop knowledge and support their explorations of the course themes, the research and writing processes, and the conventions of technical communication in different contexts. We will begin by defining the course's key themes—citizenship, diversity, equity, inclusion, justice—and in particular, we will consider these concepts within engineering and community contexts.

Throughout the semester, students will use **online discussion boards** and individual **Research Journals** to explore the course themes and identify topical areas of interest for the proposal project. Students will use a **Lightning Talk** to form small teams (2–3 students) around a common or related problem(s), further defining and developing their understanding of the problem or opportunity by creating **annotated bibliographies** and building toward a final **Funding Proposal** document. Teams will create **public-facing websites** and will present their proposed solutions in both a formal **in-class pitch presentations** and in a **public showcase**.

Instructor's Role

The instructor will actively support and guide students as they develop skills around research, communications, and information literacy. The instructor will engage with students through lecture and guided in-class activities, leading large group discussion and prompting small group discussions. All assignments and activities will be introduced and discussed, and the instructor will create an environment for students to analyze and practice their skills as they develop these knowledge areas. As is typical for writing pedagogy, the instructor will provide individual feedback and guidance throughout the writing process and other communications, such as presentations. Throughout the team project activities, the instructor will serve as an overseeing manager, requesting regular updates and providing feedback on the workflow and progress.

High-Impact Practice: Research & Creative Inquiry Integrative Practice Designation

This integrative, high impact 4-credit course meets the goals and learning outcomes for Research & Creative Inquiry by asking students to self-direct research into an area of interest (a real, meaningful problem they will identify and explore) and engage in a long term, multi-phased project that will evolve throughout the semester. This approach allows students to gain a complex and nuanced understanding of the course content that develops over time through synthesizing readings, self-reflection, instructor and peer interactions and feedback, and group planning and negotiation.

In addition to practicing effective communication in formal proposal documentation, presentations, and a public-facing website, students will also have the opportunity to share their projects with a broader audience in an end-of-semester showcase event.

Required Course Materials

Course material will consist of Open Educational Resources, public online resources, and materials provided by the instructor or available through University Libraries. This course does not require purchased materials. All readings, handouts, and resources will be provided via Carmen.

Below is an overview of the expected course readings and resources organized around major topic areas. Specific reading assignments and materials will be distributed throughout the semester on Carmen and communicated to students in a detailed course schedule (refer to the sample course schedule on pages 11 – 15 in this document):

TOPIC AREAS	READINGS & RESOURCES
Citizenship	<p>Excerpts from “Citizenship and Social Class” (T.H. Marshall, 1950)</p> <p>Selections from The Good Citizen: How a younger generation is reshaping American politics (R. Dalton, 2020):</p> <ul style="list-style-type: none"> • “Chapter 1: Citizenship and the Transformation of American Society” (pp. 1 – 19) • “Chapter 2: The meaning and measurement of citizenship” (pp. 20 – 33) <p>Selections from Digital Citizenship: The Internet, Society, and Participation (Mossberger et al., 2007)</p> <ul style="list-style-type: none"> • 1: Defining Digital Citizenship (pp. 1 – 19) • 3: The Benefits of Society Online: Civic Engagement (pp. 47 – 66) • 5: From the Digital Divide to Digital Citizenship (pp. 95 – 122) <p>Excerpts from “What Kind of Citizen?: The Politics of Educating for Democracy” (Westheimer & Kahne, 2004)</p>
Diversity, equity, inclusion, justice	<p>“Chapter 3: Forming citizenship norms” (pp. 34 – 52) in <i>The Good Citizen</i> (R. Dalton, 2020)</p> <p>Diversity and Division in Advanced Economies (Pew Research Center, 2021)</p> <p>“Is it better to know?” [podcast] – <i>Hidden Brain</i></p> <p>“How they see us” [podcast] – <i>Hidden Brain</i></p>
Role of engineers / engineering in society	<p>Selections from Citizen Engineer (Douglas et al., 2009)</p> <ul style="list-style-type: none"> • “Part I. Advent of the Citizen Engineer” • Choice of “Part II. Environmental Responsibility” or “Part III. Intellectual Responsibility” <p>Selections from “Engineering Design for Social Justice” in Engineering Justice: Transforming Engineering Education and Practice (Leydens & Lucena, 2017):</p> <ul style="list-style-type: none"> • “Introduction: 1 Pressing Issues for Engineering Education and the Engineering Profession” (pp. 3 – 11) • “Introduction: 4 Engineering for Social Justice” (pp. 14 – 18)

	<ul style="list-style-type: none"> • “Introduction: 5 Engineering for Social Justice Criteria” (pp. 19 – 30) • “Chapter 2: Engineering Design for Social Justice” (pp. 67 – 201)
<p>Society, identity & technology</p>	<p>“How to Put Out Democracy’s Dumpster Fire” in <i>The Atlantic</i> (Applebaum & Pomerantsev, 2021)</p> <p>Selections from The Oxford Handbook of Digital Technology and Society (Yates & Rice [Eds.], 2020)</p> <ul style="list-style-type: none"> • “Introduction to the Oxford Handbook of Digital Technology and Society: Terms, Domains, and Themes” (pp. 1 – 27 [pdf]) • “5: Communities, Identities, and Class” (pp. 1 – 19 [pdf]) • “6: Citizenship, Politics, and Participation” (pp. 1 – 18 [pdf]) <p>Race and Technology in America [interactive article series] – <i>Axios</i></p>
<p>Problem solving and designing solutions</p>	<p>“What is Design Thinking and Why is it so Popular?” (via Interaction Design Foundation, 2022)</p> <p>“Rethinking Design Thinking” (Norman, 2013)</p> <p>Design for All [documentary] (Target, 2020)</p> <p>Gendered Innovations [website and case studies] – Stanford</p>
<p>Writing & research / communication in an Engineering context</p>	<p>Choosing and Using Sources: A Guide to Academic Research (University Libraries)</p> <p>Technical Writing Essentials (Last, 2019)</p> <p>Planning and Organizing Proposals and Technical Reports (Johnson-Sheehan, n.d.)</p> <p>Engineered to Speak: Helping You Create and Deliver Engaging Technical Presentations (Chilcutt & Brooks, 2019)</p>

Course Goals & Expected Learning Outcomes

This course has been created in alignment with the General Education (GE) goals and expected learning outcomes (ELOs) and course-level goals described below. These goals and outcomes are created and assessed to ensure educational goals across programs and courses at Ohio State. This means that the content of this course—readings, lectures, and the various assignments—has been developed to help students practice and build the skillsets captured by these ELOs.

GE GOALS

1. **INTELLECTUAL and COGNITIVE SKILLS:** Successful students will demonstrate the intellectual and cognitive skills that prepare them to be engaged citizens and leaders for life.
2. **MODES OF INQUIRY:** Successful students will engage with and apply a range of important modes of thought, inquiry and expression.
3. **EDUCATED GLOBAL CITIZENSHIP:** Successful students will be interculturally competent global citizens who can engage with significant aspects of the human condition in local, state, national and global settings.
4. **EMOTIONAL, SOCIAL and PROFESSIONAL ABILITIES:** Successful students will demonstrate skills and abilities needed for engaged citizenship and personal and professional growth.

GE Theme: Citizenship for a Just & Diverse World Theme Course Goals

Successful students will:

1. **Analyze** concepts of citizenship, justice and diversity at a more advanced and in-depth level than in the Foundations component;
2. **Integrate** approaches to understanding citizenship for a just and diverse world by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future;
3. **Explore** and analyze a range of perspectives on local, national or global citizenship and apply the knowledge, skills and dispositions that constitute citizenship; and
4. **Examine** notions of justice amid difference and analyze and critique how these interact with historically and socially constructed ideas of citizenship and membership within society, both within the United States and around the world.

Citizenship for a Just & Diverse World Theme Course ELOs

Successful students are able to:

- 1.1 Engage in critical and logical thinking about the topic or idea of citizenship for a just and diverse world.
- 1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or idea of citizenship for a just and diverse world.
- 2.1 Identify, describe and synthesize approaches or experiences as they apply to citizenship for a just and diverse world.
- 2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment and creative work, building on prior experiences to respond to new and challenging contexts.

3.1 Describe and analyze a range of perspectives on what constitutes citizenship and how it differs across political, cultural, national, global and/or historical communities.

3.2 Identify, reflect on and apply the knowledge, skills and dispositions required for intercultural competence as a global citizen.

4.1 Examine, critique and evaluate various expressions and implications of diversity, equity and inclusion, and explore a variety of lived experiences.

4.2 Analyze and critique the intersection of concepts of justice, difference, citizenship, and how these interact with cultural traditions, structures of power and/or advocacy for social change.

Advanced Writing Goals

This course meets Advanced Writing Embedded Literacies for programs/majors within the College of Engineering. Students should review their major bingo sheet and discuss course selection with their academic advisors.

1. Successful students develop advanced skills in inquiry, critical thinking, composing and communicating for a specific purpose, context and audience using an appropriate genre and modality.
2. Successful students apply knowledge of writing and research to specific contexts.

Advanced Writing Course ELOs

Successful students are able to:

1.1 Investigate and integrate knowledge of the subject, context and audience with knowledge of genres, conventions and rhetorical choices to advance a particular writing objective.

1.2 Use credible and relevant sources of information, evaluate assumptions, and consider alternative viewpoints or hypotheses to express ideas and develop arguments.

2.1 Reflect on how they adapt rhetorical and research strategies they have learned to new contexts.

2.2 Develop scholarly, creative or professional products that are meaningful to them and their audience.

2.3 Evaluate social and ethical implications of writing and information literacy practices.

How will ENGR 2301 Achieve these ELOs?

To satisfy Ohio State's GE and thematic goals with a Research and Creative Inquiry (High-Impact Practices) designation, along with advanced writing embedded literacy skills and ABET Criterion 3 outcomes, work completed in this course will ask students to meet these course-specific objectives through the course assignments (see assignment details on pp. 7 – 9):

1. **Develop a deep and interdisciplinary understanding of citizenship**, society, and the ways technology intersects with human experience by identifying meaningful problems and proposing

specific solutions to those problems by researching and developing a funding proposal, pitch presentation, and other supporting documentation and communications.

2. **Engage in an advanced, in-depth scholarly exploration** of diversity, equity, and inclusion in engineering/STEM professional life and design processes, especially how race, ethnicity, gender, sexuality, age are experienced and intersect.
3. **Engage in critical and logical thinking** about engineering and how engineers engage with and impact communities and society at the local, state, national, and global level, with a focus on equity and justice.
4. **Identify, evaluate, use, and share credible and relevant sources of information**, relying on the Frameworks for Information Literacy, to explore the course themes, define problems in meaningful ways, and use evidence effectively to support the proposed solution.
5. **Reflect critically** on experiences, behaviors, processes, and learning (metacognition).
6. **Understand and apply rhetorical communication** in writing for technical and non-technical contexts and audiences.
7. **Understand processes for composing** informative and persuasive documents, and plan and deliver presentations for a variety of audiences and purposes.
8. **Collaborate effectively** in teams and develop collaborative composing, team management, and communication skills.

ABET Criterion 3 Student Outcomes

ENGR 2301 supports ABET's Student Outcomes for Engineering programs including:

Outcome 3: an ability to communicate effectively with a range of audiences

Outcome 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 7: an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Course Assignments, Grading, and Schedule Overview

Students will engage in a variety of individual and team assignments to support a significant investigation of the course themes, practice critical inquiry and literacy skills, and progress towards the comprehensive funding proposal and other communication-based project deliverables. *This is a project-based course and there are no formal, scheduled examinations.*

Graded Assignments & Activities

1. **Readings and In-class Discussion (individual and team):** In-depth, critical engagement with assigned and student-identified readings and participation in guided discussions, in large and small group settings; may also include individual reflection and written responses. [See schedule for reading assignments; some materials will be read and discussed during class time]
2. **Discussion Boards (individual and team):** Responding to prompts to explore course themes, synthesize readings, find and analyze sources, and examine project-related questions in teams.
3. **Class-built glossary of terms (individual/class):** Students will contribute to a class-composed glossary of terms throughout the semester (where each student helps build both the concepts and words to be included and the contextualized definitions with cited sources). [2-3 pages of writing total in multiple submissions]

4. **Research Journal (individual):** Students will compose brief summaries and analyses and practice composing citations of sources relevant to the course themes and final project. The instructor will provide prompts to guide inquiry and the progression of ideas, but the sources are identified by the student and may take various forms (news, journal articles, videos, podcasts, professional publications, and so on). [3-5 pages total, multiple submissions]
5. **Annotated Bibliographies (individual/team):** Formal documentation of research findings in the following contexts:
 - a. individual exploration during the early problem definition phase [1-2 pages]
 - b. combined/refined bibliography to document that will also be presented as a public-facing “Resources & Information” page on the Public Website [1-2 pages]
6. **Progress Reports and Meetings with Instructor (individual/team):** Brief written reports and small group meetings at regular intervals throughout the semester [1-2 pages total, multiple submissions]
7. **Meta-cognitive Reflections (individual):** Shared with the instructor; prompted at key points in the project and in various formats, including mid-term and end-of-semester self-assessments and reflections. [3-5 pages total, multiple submissions]
8. **Lightning talk/pitch (individual):** Sharing problem and desired outcomes for a potential solution with classmates with the goal of forming groups based on research intersections and shared interests [3-5 minute individual presentation with slides]
9. **Culminating Proposal Communications (team):** The following deliverables will present the group’s proposed solution to several different audiences for varying purposes
 - a. *Formal Presentation:* Formal group pitch presentation supported with visuals in which the group defines the need/opportunity and pitches their solution to an audience of potential funding grantors. [7-10 minute group presentation with slides]
 - b. *Funding Proposal:* Comprehensive documentation of the group’s research-based solution, including graphics and adhering to a set of standard requirements (modeled after NSF proposals). [8-10 page document, including graphics and figures]
 - c. *Public Website:* Designed and developed public-facing website to raise awareness of the issue and educate a public audience about the problem and potential solution (will meet a list of content requirements and include written, visual, and video communications appropriate for a public audience). [Content and structure for a informative website; estimated 3-4 pages of writing total]
 - d. *Public Showcase:* Hosted event where students can informally share and discuss their projects with guests (invited from within the university community). [Informal presentation and event attendance]

Attendance & Participation

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. [Two 1 hour, 40 min. classes PER WEEK]**
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**
Regular office hours every week as noted at the top of this syllabus and on Carmen. If you are unavailable during office hours, email for an appointment.

- **Assigned Readings and Research. FREQUENT ENGAGEMENT**

In addition to our work together during our scheduled class time, you are also expected to complete assigned homework readings, and complete any prompted reading engagements/discussion board posts/replies. The work in this course is scaffolded; this means that every smaller assignment is meant to help with the major, building towards the final proposal deliverables. The course schedule is designed so more background readings happen earlier and then taper off as work is expected to shift to focus on the major proposal communications. These assignments will have their own point value assigned, as documented on Carmen. 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 it will be assumed that you have read and applied the assigned readings to your project assignments when your work is graded.

The participation points for this class are **earned**, not automatically awarded. They are earned through your 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 available to them (including readings and resources, the instructor, assignment description pages, peer review opportunities, grading rubrics, informational handouts, videos, web links, etc.),
- are on time and are present at every class meeting,
- are proactive in asking questions and addressing issues,
- participate meaningfully in discussions,
- treat others and their instructor with respect,
- communicate and work well with group and team members,
- keep track of course progress and turn assignments in on time, and
- manage their workload by utilizing the course calendar and planning ahead.

Grading

Grades in this course are calculated based on both individual and team-based assignments as listed. The assignments in this course are scaffolded, with smaller assignments geared toward topical exploration and building foundations for the major assignments. The point distributions outlined here are intended to show the expected “weight” of various assignments and may be subject to change.

Major & Minor Assignments	Points
Problem Introduction Lightning Talk (individual)	50
Funding Proposal (group)	200
<i>Annotated Bibliography (individual)</i>	25
<i>Problem Definition Documentation (includes collective Annotated Bib)</i>	30
<i>Solution Evaluation Documentation</i>	20
<i>Graphics and Figures (draft & presentation for review)</i>	10
<i>Drafts and Peer Reviews</i>	25
Pitch Presentation (group)	80

Project Website (group)	50
<i>Sitemap, Content Outline, and Audience Analysis</i>	25
<i>Project Overview and Intro Video</i>	50
<i>Community Interaction and Engagement Plan</i>	15
Public Showcase Event Participation & Roundtable Discussion	25
Research Journal (5 prompted entries)	50
Collaborative Class Glossary (4 contributions and reflection)	50
Discussion Board (3 discussions)	30
Progress Reports and Instructor Meetings (2)	20
Mid-term Self-Assessment and Reflection	25
Team Performance Assessment and Reflection	20
Final Course Reflection	100
Attendance & Participation, other in-class writing assignments	100
TOTAL	1000

Grading Scale: Your final grade is calculated out of 1000 points (shown in the table above). At the end of the semester, the points will be converted to the OSU Standard A – E grading system. Shaded grades (A-, B+, etc.) *are* used in this system.

A	100%	to 93.0%
A-	< 93.0%	90.0%
B+	< 90.0%	to 87.0%
B	< 87.0%	83.0%
B-	< 83.0%	80.0%
C+	< 80.0%	77.0%
C	< 77.0%	73.0%
C-	< 73.0%	70.0%
D+	< 70.0%	67.0%
D	< 67.0%	60.0%
E	< 60.0%	0.0%

Sample Course Schedule

The schedule below represents an outline of expected readings, activities, and assignments for this course. Exact due dates, assignment descriptions, and links to all assigned readings and course materials are provided in Carmen Modules.

Week 1	
CLASS	Introductions, course overview and goals, Thinking – Writing – Thinking model and course themes discussion (initial responses to "citizenship for a just and diverse world theme" in-class writing)
CLASS	Introduction to Research Journal and Discussion Board—skills and requirements (APA style review, information literacy concepts)
READINGS & RESOURCES	Course Syllabus and Course Project Overview Page (on Carmen); Excerpts from "Citizenship and Social Class" (T.H. Marshall, 1950); "Chapter 1: Citizenship and the Transformation of American Society" (pp. 1 – 19) and "Chapter 2: The meaning and measurement of citizenship" (pp. 20 – 33) in The Good Citizen (R. Dalton, 2020); Excerpts from "What Kind of Citizen?: The Politics of Educating for Democracy" (Westheimer & Kahne, 2004); Citizen Engineer (Douglas et al., 2009): "Part I. Advent of the Citizen Engineer"; choose either "Part II. Environmental Responsibility" or "Part III. Intellectual Responsibility"
ASSIGNMENTS	Intro Note
Week 2	
CLASS	Review and discuss the RFP prompt and the proposal project components; focus on exploring problems, need areas, context (society); initial brainstorming and in-class writing about citizenship and the connotations of the term
CLASS	Introduce and discuss theme concepts (citizenship, justice, diversity, equity, inclusion) and Collaborative Glossary assignment – consider how terms are defined in context; review library tools and resources
READINGS & RESOURCES	"Chapter 3: Forming citizenship norms" (pp. 34 – 52) in The Good Citizen (R. Dalton, 2020); Diversity and Division in Advanced Economies (Pew Research Center, 2021); "Is it better to know?" and "How they see us" [podcast] – Hidden Brain; Race and Technology in America [interactive article series] – Axios
ASSIGNMENTS	Research Journal #1 – initial themes exploration
	Collaborative Class Glossary – Contribution #1
Week 3	

CLASS	Research skills—asking and evaluating questions; writing about research (APA guidelines and writing skills); in-class exploration and discussion about diversity, equity, and inclusion in engineering contexts (working with Gendered Innovations [website and case studies] in class); reading strategies lecture and exercises
CLASS	Lecture and discussion about the role of engineering in society; problem solving processes and design (review case studies); watch and discuss <i>Design for All</i> documentary
READINGS & RESOURCES	“Engineering Design for Social Justice” in <i>Engineering Justice: Transforming Engineering Education and Practice</i> (Leydens & Lucena, 2017): “Introduction: 1 Pressing Issues for Engineering Education and the Engineering Profession” (pp. 3 – 11), “Introduction: 4 Engineering for Social Justice” (pp. 14 – 18), “Introduction: 5 Engineering for Social Justice Criteria” (pp. 19 – 30); “What is Design Thinking and Why is it so Popular?” (via Interaction Design Foundation, 2022); “Rethinking Design Thinking” (Norman, 2013)
ASSIGNMENTS	Research Journal #2 – topic area focus and questions
	Discussion Board – Engineering and citizenship
Week 4	
CLASS	Introduction to writing proposals – genre expectations and norms, structure/format, rhetorical strategies; writing style exercises; informal project progress check-ins and discussion (individual topic area exploration)
CLASS	Info literacy concepts (searching as strategic exploration, scholarship as conversations); practicing putting texts/sources in conversation (synthesizing and analyzing source material)
READINGS & RESOURCES	Technical Writing Essentials: "7.2 Proposals"; “Engineering Design for Social Justice” (Leydens & Lucena, 2017): “Chapter 2: Engineering Design for Social Justice” (pp. 67 – 201); <i>Choosing and Using Sources: A Guide to Academic Research</i> (University Libraries): "2-Types of Sources," "3-Sources and Information Needs," "4-Precision Searching," and "5-Search Tools"
ASSIGNMENTS	Research Journal #3 – examining discourse and debate
	Collaborative Class Glossary – Contribution #2
Week 5	
CLASS	Research strategies – refining keywords and asking questions, narrowing the focus and defining problems (cause and effect mapping exercise); planning for the lightning talk (review requirements, presentation strategies and skills)

CLASS	Team communication and teamwork skills; what makes an effective team? Communication strategies for project management; writing annotated bibliographies; Analyzing arguments, evidence, and claims by examining digital citizenship and technology in society (using <i>The Oxford Handbook of Digital Technology and Society</i> for in-class activities and discussion)
READINGS & RESOURCES	Choosing and Using Sources: A Guide to Academic Research (University Libraries): "1-Research Questions"; "How to Put Out Democracy's Dumpster Fire" in <i>The Atlantic</i> (Applebaum & Pomerantsev, 2021); Technical Writing Essentials: "8.1 Building Confidence as a Presenter" and "8.2 Developing Presentation Skills"; Engineered to Speak: "Ch. 4 Asking the Questions" and "Ch. 5 Organizing and Outlining Your Presentation"
ASSIGNMENTS	Research Journal #4 – deepening understanding of the problem
	Individual Progress Check-in: Self-reflection and questions (focused on individual progress, problems of interest)
Week 6	
CLASS	Lightning Talks – delivered in class; class discussion
CLASS	Lightning Talks – delivered in class; class discussion and forming teams
READINGS & RESOURCES	Technical Writing Essentials: "4. Teamwork and Communication"
ASSIGNMENTS	Research Journal #5 – building on the lightning talks, further exploration
	Annotated bibliography (individual WIP)
Week 7	
CLASS	Synthesizing information; Team meetings and discussion – focused on negotiating and defining the problem as a group; preparation for collaborative problem definition documentation; in-class activities using <i>Digital Citizenship</i> excerpts to practice and demonstrate annotations, research writing, and citation
CLASS	Share and peer review individual annotated bibliographies; lecture and activities on effective problem definition; review and begin work on Problem Definition documentation and consolidated annotated bibliography
READINGS & RESOURCES	Technical Writing Essentials: "Appendix B: Writing a Summary" and "Appendix C: Integrating Source Evidence into Your Writing"; Selections from <i>Digital Citizenship: The Internet, Society, and Participation</i> (Mossberger et al., 2007): 1: Defining Digital Citizenship (pp. 1 – 19); 3: The Benefits of Society Online: Civic Engagement (pp. 47 – 66); 5: From the Digital Divide to Digital Citizenship (pp. 95 – 122)
ASSIGNMENTS	Problem Definition Documentation

	Mid-term Self Assessment and Reflection
Week 8	
CLASS	Developing, refining, and assessing possible solutions; Information visualizations (uses, rhetorical strategies) – preparation for pitch presentation slides, graphics in the proposal, website content
CLASS	Progress check-in meetings w/ instructor to discuss potential solutions; Group glossary assignment review; skills for collaborative writing; time to work on team Collaborative Glossary entry
READINGS & RESOURCES	Technical Writing Essentials: "3.4 Figures and Tables";
ASSIGNMENTS	Collaborative Glossary Contribution #3 (team entry)
Week 9	
CLASS	Public communication and designing information for online delivery; process for planning the project website (lecture and activities on best practices for writing content for a website)
CLASS	Planning to draft the proposal; assessing audiences for the various project communications
READINGS & RESOURCES	usability.gov "Content Strategy" and "Visual Design" sections in particular; <i>Planning and Organizing Proposals and Technical Reports</i> (Johnson-Sheehan, n.d.)
DUE	Solution Evaluation Documentation
	Group Progress Report (including documentation of collaborative writing plan)
Week 10	
CLASS	Refining the solution; developing proposal draft—group work time and conferences
CLASS	Peer review skills; time for internal peer review and group meetings; presenting graphics and figures to the class for review and feedback
READINGS & RESOURCES	Engineered to Speak: "Ch. 6 Perfecting Your Pitch" (pp. 63 – 69) and "Visualizing Your Message" (pp. 71 – 85)
DUE	Proposal Draft (Current Situation and Project Plan sections for internal review)
	Graphics and Figures (in draft document and presented in class for discussion)
Week 11	
CLASS	Pitch Presentation preparation and workshop time (w/ guided team and instructor check-ins)
CLASS	Pitch Presentations and discussion/feedback
READINGS & RESOURCES	Technical Writing Essentials: "8.3 Presenting as a Team"
DUE	Pitch Presentation outline and slides draft
	Pitch Presentation (delivered in class; final slide deck submitted on Carmen)
Week 12	

CLASS	Refining the proposal document and preparing for external reviews; website content planning and audience analysis
CLASS	External proposal peer review; processing feedback and revising the proposal document
READINGS & RESOURCES	Technical Writing Essentials: "Appendix H: Peer Review Essentials"
DUE	Complete Proposal draft for peer review
	Website: Sitemap, Content Outline, and Audience Analysis
Week 13	
CLASS	Proposal & Website in-class work time
CLASS	Proposal & Website in-class work time; progress update meeting w/ instructor
DUE	Website draft for instructor review meeting
Week 14	
CLASS	Showcase Preparation and in-class work time
CLASS	Showcase Preparation and in-class work time
DUE	Showcase Participation & Post-event roundtable discussion (recorded)
	Final Proposal
	Final Website
Finals Week	
DUE	Team Assessment and Reflection
	Final Course Reflection

Policies, Procedures, 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.

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact the instructor.

Academic Support. I encourage you to take advantage of academic support services offered to students here at OSU—I have included a list of resources at the bottom of the Carmen home page. If you are having difficulty with this course or need help accessing resources available to you here at Ohio State, please contact me and I will be happy to assist you.

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.

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.

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu

Diversity, Equity, Inclusion Statement. The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

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.

Disability Services. The University strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. 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. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with 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>).

Instructor Contact and Grading/Feedback. I monitor and typically respond to email within a work day. 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 meet with me during office hours or by 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 or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life’s Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling [614-292-5766](tel:614-292-5766). CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at [614-292-5766](tel:614-292-5766) and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

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 Carmen.

GE THEME COURSES

Overview

Courses that are accepted into the General Education (GE) Themes must meet two sets of Expected Learning Outcomes (ELOs): those common for all GE Themes and one set specific to the content of the Theme. This form begins with the criteria common to all themes and has expandable sections relating to each specific theme.

A course may be accepted into more than one Theme if the ELOs for each theme are met. Courses seeking approval for multiple Themes will complete a submission document for each theme. Courses seeking approval as a 4-credit, Integrative Practices course need to complete a similar submission form for the chosen practice. It may be helpful to consult your Director of Undergraduate Studies or appropriate support staff person as you develop and submit your course.

Please enter text in the boxes to describe how your class will meet the ELOs of the Theme to which it applies. Please use language that is clear and concise and that colleagues outside of your discipline will be able to follow. You are encouraged to refer specifically to the syllabus submitted for the course, since the reviewers will also have that document. Because this document will be used in the course review and approval process, you should be *as specific as possible*, listing concrete activities, specific theories, names of scholars, titles of textbooks etc.

Course subject & number

General Expectations of All Themes

GOAL 1: Successful students will analyze an important topic or idea at a more advanced and in-depth level than the foundations.

Please briefly identify the ways in which this course represents an advanced study of the focal theme. In this context, “advanced” refers to courses that are e.g., synthetic, rely on research or cutting-edge findings, or deeply engage with the subject matter, among other possibilities. *(50-500 words)*

Course subject & number

ELO 1.1 Engage in critical and logical thinking about the topic or idea of the theme. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

ELO 1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or idea of the theme. 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 integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.

ELO 2.1 Identify, describe, and synthesize approaches or experiences as they apply to the theme.

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

ELO 2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts. 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

Specific Expectations of Courses in Citizenship

GOAL 1: Successful students will explore and analyze a range of perspectives on local, national, or global citizenship, and apply the knowledge, skills, and dispositions that constitute citizenship.

ELO 1.1 Describe and analyze a range of perspectives on what constitutes citizenship and how it differs across political, cultural, national, global, and/or historical communities. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

ELO 1.2 Identify, reflect on, and apply the knowledge, skills and dispositions required for intercultural competence as a global citizen. 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 examine notions of justice amidst difference and analyze and critique how these interact with historically and socially constructed ideas of citizenship and membership within societies, both within the US and/or around the world.

ELO 2.1 Examine, critique, and evaluate various expressions and implications of diversity, equity, inclusion, and explore a variety of 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)

2.2 Analyze and critique the intersection of concepts of justice, difference, citizenship, and how these interact with cultural traditions, structures of power and/or advocacy for social change. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Research & Creative Inquiry Course Inventory

Overview

The GE allows students to take a single, 4+ credit course to satisfy a particular GE Theme requirement if that course includes key practices that are recognized as integrative and high impact. Courses seeking one of these designations need to provide a completed Integrative Practices Inventory at the time of course submission. This will be evaluated with the rest of the course materials (syllabus, Theme Course submission document, etc). Approved Integrative Practices courses will need to participate in assessment both for their Theme category and for their integrative practice.

Please enter text in the boxes below to describe how your class will meet the expectations of Research & Creative Inquiry Courses. It may be helpful to consult the Description & Expectations document for this pedagogical practice or to consult with the OSU Office of Undergraduate Research and Creative Inquiry. You may also want to consult the Director of Undergraduate Studies or appropriate support staff person as you complete this Inventory and submit your course.

Please use language that is clear and concise and that colleagues outside of your discipline will be able to follow. You are encouraged to refer specifically to the syllabus submitted for the course, since the reviewers will also have that document. Because this document will be used in the course review and approval process, you should be *as specific as possible*, listing concrete activities, specific theories, names of scholars, titles of textbooks etc.

Accessibility

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

Pedagogical Practices for Research & Creative Inquiry

Course subject & number

Performance expectations set at appropriately high levels (e.g. students investigate their own questions or develop their own creative projects). Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Research & Creative Inquiry Inventory

Significant investment of time and effort by students over an extended period of time (e.g., scaffolded scientific or creative processes building across the term, including, e.g., reviewing literature, developing methods, collecting data, interpreting or developing a concept or idea into a full-fledged production or artistic work) Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Interactions with faculty and peers about substantive matters including regular, meaningful faculty mentoring and peer support. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Research & Creative Inquiry Inventory

Students will get frequent, timely, and constructive feedback on their work, iteratively scaffolding research or creative skills in curriculum to build over time. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Periodic, structured opportunities to reflect and integrate learning in which students interpret findings or reflect on creative work. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Research & Creative Inquiry Inventory

Opportunities to discover relevance of learning through real-world applications (e.g., mechanism for allowing students to see their focused research question or creative project as part of a larger conceptual framework). Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Public Demonstration of competence, such as a significant public communication of research or display of creative work, or a community scholarship celebration. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Research & Creative Inquiry Inventory

Experiences with diversity wherein students demonstrate intercultural competence and empathy with people and worldview frameworks that may differ from their own. Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Explicit and intentional efforts to promote inclusivity and a sense of belonging and safety for students, (e.g. universal design principles, culturally responsible pedagogy). Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Research & Creative Inquiry Inventory

Clear plan to market this course to get a wider enrollment of typically underserved populations.

Please link this expectation to the course goals, topics and activities and indicate *specific* activities/assignments through which it will be met. (50-500 words)

Title	Publisher	Author	Date Published
The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies	Princeton University Press	Scott Page	2007
Invisible Women: Data Bias in a World Designed for Men	Abrams Press	Caroline Cri	12-Mar-19
Algorithms of Oppression	NYU Press	Safiya Umo	Feb-18
Technically Wrong	Norton Books	Sara Wacht	Oct-18
Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy	Crown	Cathy O'Ne	6-Sep-16
Defined by Design: The Surprising Power of Hidden Gender, Age, and Body Bias in Everyday Products and Places	Prometheus Books	Kathryn H. /	2017
On Being Included	Duke Press	Sara Ahmed	Mar-12
Data Feminism	MIT Press	Catherine D	Mar-20
Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor	St. Martin's Press	Virginia Eub	2018
Engineering Justice: Transforming Engineering Education and Practice	Wiley-IEEE Press	Jon A. Leyd	Dec-17
Inclusion and Democracy	Oxford University Press	Iris Marion	Jun-05

Resource Type	Link	Academia	Age	Bias	Citizenship	Coding	Data	Discrimination	Diversity	Engineering	Equity	Gender	Governance	Inclusion	Lifestyle	LGBTQ	Medicine
Book	https://www.oxford.com/	X			X				X				X		X		
Book	https://www.oxford.com/			X			X	X				X	X				X
Book	https://nyupress.org/			X		X					X	X					
Book	https://www.oxford.com/			X								X			X		
Book	https://www.oxford.com/	X					X				X		X		X		X
Book	https://books.google.com/	X	X	X					X			X		X	X		X
Book	https://www.oxford.com/	X							X					X			
Book	https://mit.edu/						X				X	X					
Book	https://us.oxford.com/			X			X	X					X		X		
Book	https://www.oxford.com/	X							X	X			X				
Book	https://oxford.com/			X				X				X	X	X			

Workplace	Technology	Stereotypes	Science	Race
X	X	X	X	X
	X	X		
	X	X		
	X			
			X	
			X	
				X