

## 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)*
- 022323 Revised 2300 and 2301 Cover Letter.pdf: Revised Cover letter  
*(Cover Letter. Owner: Shepherd,Heather)*
- Rev Feb2023\_ENGR 2301 Syllabus\_ Exploring Diversity, Equity & Inclusion in Engineering Contexts - Integrative.pdf: Revised syllabus  
*(Syllabus. Owner: Shepherd,Heather)*
- ENGR 2301 Research and Creative Inquiry Designation Inventory.pdf: Research and Creative Inquiry Designation Inventor  
*(Other Supporting Documentation. Owner: Shepherd,Heather)*
- ENGR 2301 GE Citizenship Theme Submission Form.pdf: citizenship theme submission form  
*(Other Supporting Documentation. Owner: Shepherd,Heather)*
- 2301\_Research Assignment\_SEEC Grant RFP.pdf: Research Assignment RFP  
*(Other Supporting Documentation. Owner: Shepherd,Heather)*

## Comments

- Revised materials per 2/16/23 panel feedback *(by Shepherd,Heather on 02/24/2023 10:56 AM)*
- Please see Panel feedback email sent 02/16/2023. *(by Hilty,Michael on 02/16/2023 03:08 PM)*

**COURSE REQUEST**  
2301 - Status: PENDING

Last Updated: Quinzon-Bonello,Rosario  
02/24/2023

**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
Revision Requested	Hilty,Michael	02/16/2023 03:08 PM	ASCCAO Approval
Submitted	Shepherd,Heather	02/24/2023 10:56 AM	Submitted for Approval
Approved	Quinzon-Bonello,Rosario	02/24/2023 11:07 AM	Unit Approval
Approved	Quinzon-Bonello,Rosario	02/24/2023 11:08 AM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	02/24/2023 11:08 AM	ASCCAO Approval



February 23, 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)* based on feedback received from the committee on February 16, 2023. Again, we thank the committee for their feedback and hope you will find the below-explained changes to each course meets your requirements for approval.

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

Thank you for your positive feedback on ENGR 2300. We have addressed the contingency as outlined below.

**Contingency:** “The reviewing faculty ask that it be further clarified how the GE ELOs will be met and satisfied within the course syllabus. Currently, it is unclear how course assignments and readings will help students satisfy the GE ELOs. Additionally, it is a requirement of all GE syllabi to include an explanatory rationale within the course that explains to students how they will expect to meet the GE ELOs and they ask that this be added as well.”

**Revision:** We have added explanatory language after each of the CDJW Theme ELOs for clarification (pp 2-4). We have also tagged relevant assignments in the course schedule with their corresponding ELOs.

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

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

**Feedback:** Clarification was requested regarding how the course engages with the course themes throughout the entirety of the semester and how the primary research project engages with the course themes.

**Response & Revisions:** The Funding Proposal project is a long-term, research-based project that directly addresses the course themes and driving questions. In the previous syllabus, the

descriptions of the course content were less detailed after week 4 because students will be working through a guided process to analyze and apply the course themes in their projects. The experience is designed to be scaffolded and guided, intentionally building from the foundational reading and discussion into a personalized and creative exploration of a relevant, real-world topic related to the “citizen engineer” and society.

We hope the changes and documentation outlined here will clarify the intentional connections between the research project and the course themes, emphasizing the long-term, in-depth engagement with the course themes that we expect from students in this course:

1. Significant revisions were made to the syllabus front matter to emphasize the continuity of the course themes and assignments.
2. More detail and topical labels were added to the Course Schedule (pp. 13-19).
3. Explanatory language was added after each of the CDJW Theme ELOs (see content in the “boxes” on pp. 2 – 5 in the syllabus).
4. Assignment descriptions have been reorganized and expanded, particularly the assignments related to the Funding Proposal (see Syllabus pp. 9-11); an effort was made throughout to clarify how these assignments were designed to scaffold and build upon each other throughout the semester (in both the assignment descriptions and the supporting Theme ELO content).
5. The “Student Engagement in Engineering and Citizenship” grant funding Request for Proposals has been provided as supplemental documentation; it will be introduced in Week 2 and will guide the thematic focus of the major Funding Proposal assignment deliverables.

Thank you again for your consideration and careful review of our proposed course materials. We are more than happy to be available during the committee’s next review of these courses to answer any questions or provide further clarity.

Sincerely,



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

*“Citizen Engineers are the connection point between science and society—between pure knowledge and how it is used. Citizen Engineers are techno-responsible, environmentally responsible, economically responsible, socially responsible participants in the engineering community.” – The Citizen Engineer*

### 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. This course asks students to consider their role as a participant in larger communities through the lens of engineering and technology. Students will explore these dynamics in a variety of digital and social contexts, including workplace dynamics, urban planning and built environments, education systems, transportation, design, algorithms, and the internet.

In this course, students will engage with 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 concepts and then, through the extended research-based Funding Proposal Project, they will have the opportunity to examine the role of the professional engineer in the context of broader societal issues, propose a viable solution, and communicate their ideas to a variety of audiences.

### Course Philosophy & Driving Questions

As we 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 “Request for Proposals” prompting the research-based proposal project, and the students’ problem-solving process will all 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?

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.

## Course Goals & 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.

Below you'll find each of the CDJW goals and corresponding ELOs, as well as an explanation of how this course meets them. ELOs have also been "tagged" for each assignment description (see pp. 9 – 11).

### ***GE Theme: Citizenship for a Just & Diverse World Theme Course Goals and ELOs***

**GOAL 1:** Successful students will **analyze concepts** of citizenship, justice and diversity at a more advanced and in-depth level than in the Foundations component.

**ELOs:** 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.

*How will we achieve these Goals and Outcomes in this course?*

The course will begin by examining foundational definitions and commentary on citizenship through the readings and written responses (Weeks 1-2). Through the course readings (see the table under "Required Materials" on pp. 7 – 9) discussion, and research-based writing assignments, students in 2301 will be prompted to examine the intersection of citizenship and engineering in a range of social, political, and technological contexts.



The defining quote at the beginning of this syllabus: “Citizen Engineers are the connection point between science and society—between pure knowledge and how it is used. Citizen Engineers are techno-responsible, environmentally responsible, economically responsible, socially responsible participants in the engineering community” (Douglas et al., 2009) serves as the starting point for our conversations in this course that tie together notions about engineering and how the work of engineers affects society. Together, we will read, discuss, and write about a variety of texts encompassing a range of engineering fields to explore what it means to be a “responsible participant in the engineering community” or, in other words, a citizen engineer.

In considering “engineering” in relation to justice and diversity, we will examine issues of representation and equity in the engineering profession (Weeks 3, 4), considering the impact of engineering and engineering solutions on communities (Weeks 1, 4, 6)—who is included or excluded? Whose experiences are prioritized? What are the impacts? Students will deepen their exploration of the core terms and these question in their Research Journals (Weeks 2-6). These questions will also be paramount as students develop their proposal projects and will be reinforced via the RFP prompt and through instructor feedback and guidance during the research process.

The Collaborative Glossary assignment in particular (Weeks 2, 4, 8, and Finals) will ask students to analyze the concepts of citizenship, justice, and diversity by writing and editing contextualized research-based definitions that build on each other and expanding the glossary to include related terms as their knowledge develops. At the end of the term, they will refer back to the Glossary to reflect on their personal growth and understanding of the course themes.

To successfully complete the Funding Proposal Assignment (see details on pp. 10 –11 and in the supplemental RFP document), students will engage in an in-depth, scholarly exploration of these course themes to align with the goals of the *Student Engagement in Engineering and Citizenship* Grant. Work on this project will happen throughout the term, allowing time for an advanced, in-depth, and nuanced understanding of the topic along with developing their written and verbal communication skills.

**Goal 2:** Successful students will **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.

**ELOs:** 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.

*How will we achieve these Goals and Outcomes in this course?*

In the Research Journals, students will be prompted to respond to and expand upon the information in the course materials to explore aspects of the course themes that interest them, relate to their experiences, and help them consider the potential and impact of the

work they'll do in engineering or in other related fields. By connecting ideas about citizenship to a specific discipline, the course will provide a wide range of relevant and interesting examples of the ways that engineering, technology, and design affect our lives and intersect with issues of justice and equity in a diverse society.

The Funding Proposal project will provide an opportunity to research and define a particular area of need related to citizenship, justice, diversity, and equity in potential areas such as Education, Sustainability Literacy, STE(A)M integration, and Community Relations—giving students the opportunity to explore a topic or application that particularly relates to their own experiences and interests but connects back to the course themes in meaningful, relevant ways.

**Goal 3:** 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.

- ELOs:* 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.

*How will we achieve these Goals and Outcomes in this course?*

Foundations lectures will be *intentional* in framing the entire course as an exercise in developing intercultural competence as a global citizen. This course is built from an understanding of citizenship as participatory. Therefore, the readings in this course are designed to be a starting point for student engagement with the theme. Our class-discussions and discussion-based engagement assignments will ask students to engage with these perspectives and offer their own perspectives. Ample opportunities for personal reflection are given and students will be prompted to set their own professional goals and reflect on their professional ethics in the reflection activities.

The Collaborative Glossary assignment makes clear the ways that our understanding of key terms and concepts is a matter of perspective—the interactive and ongoing nature of that activity will reveal the range of interpretations and prompt negotiation and reflection.

Extending out of the Research Journal activities, the “Lightning Talk Presentation” (see p. 10) will ask students to research and bring additional perspectives (local, national and/or global) into our conversations as they identify an area of need or a problem related to the course themes—opportunities to develop deeper civic engagement or empathetically respond to a problem faced by a real community.

**Goal 4:** Successful students will **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.

- ELOs:* 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.

*How will we achieve these Goals and Outcomes in this course?*

Course readings about the “citizen engineer” and “engineering justice” directly address the importance of understanding the social impact of this profession (considering also that the lessons can also be extended to other majors and professional contexts), drawing explicit connections between technology-driven STEM fields and the real impact that engineering solutions have on various communities. In-class discussion about the readings and opportunities to reflect and apply these concepts in Research Journals, the Lightning Talk, and reflections will offer space for individual analysis and critique.

The extended Funding Proposal Project (responding to the SEEC RFP) intentionally situates the work of engineers in the context of social justice and equity, asking students to consider the social implications of technological applications. By examining the engineering design process as a mechanism for social justice and by emphasizing the importance of collaboration with and genuine understanding for (referring to human-centered design principles) the communities impacted by these problems, students will be guided to consider the lived experiences of a range of audiences in real contexts.

### ***Overarching Course Goals***

To satisfy Ohio State’s GE and thematic goals with a Research and Creative Inquiry (High-Impact Practices) designation, this course is an opportunity for students to meet these course-specific objectives:

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.

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

This course meets the goals and learning outcomes for Research & Creative Inquiry because it applies High Impact Practice (HIP) in the course design in the following ways (also see additional documentation for the “Research & Creative Inquiry Designation”):

- The proposal project will be grounded in a real-world problem or issue that students will have the time to gain a complex understanding of over the course of the semester. The course is designed to build up to the Funding Proposal Project in a variety of ways, requiring a significant investment of time and intellectual effort over an extended period of time.
- Students will have the freedom to explore applications of the course themes as they develop individual and team research projects. A successful proposal required intellectual and creative engagement at a high level, and the extended nature of this project makes that even more important.
- A culminating “showcase” event at the end of the semester provides an opportunity for students to share their work and communicate their ideas to a broader audience.
- Students can expect feedback and individual or small-group interactions with the instructor throughout the semester. The instructor will serve as a mentor during the group project phase.

***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.

***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 pp. 13 – 19 of this document):

TOPIC AREAS	READINGS & RESOURCES
<b>Citizenship</b>	<p>Excerpts from “Citizenship and Social Class” (T.H. Marshall, 1950)</p> <p>Excerpts from <a href="#">Citizen Engineer: A Handbook for Socially Responsible Engineering</a> (Douglas et al., 2009)</p> <p>Selections from <a href="#">The Good Citizen: How a younger generation is reshaping American politics</a> (R. Dalton, 2020):</p> <ul style="list-style-type: none"> <li>• “Chapter 1: Citizenship and the Transformation of American Society” (pp. 1 – 19)</li> <li>• “Chapter 2: The meaning and measurement of citizenship” (pp. 20 – 33)</li> </ul> <p>Selections from <a href="#">Digital Citizenship: The Internet, Society, and Participation</a> (Mossberger et al., 2007)</p> <ul style="list-style-type: none"> <li>• 1: Defining Digital Citizenship (pp. 1 – 19)</li> <li>• 3: The Benefits of Society Online: Civic Engagement (pp. 47 – 66)</li> <li>• 5: From the Digital Divide to Digital Citizenship (pp. 95 – 122)</li> </ul> <p>Excerpts from “What Kind of Citizen?: The Politics of Educating for Democracy” (Westheimer &amp; Kahne, 2004)</p>
<b>Diversity, equity, inclusion, justice</b>	<p>“Chapter 3: Forming citizenship norms” (pp. 34 – 52) in <i>The Good Citizen</i> (R. Dalton, 2020)</p> <p><a href="#">Diversity and Division in Advanced Economies</a> (Pew Research Center, 2021)</p> <p><a href="#">“Is it better to know?”</a> [podcast] – <i>Hidden Brain</i></p> <p><a href="#">“How they see us”</a> [podcast] – <i>Hidden Brain</i></p> <p><a href="#">“2023 Retrospective: The Story of Gender Equity from the Past Decade in 10 Trends”</a> (Roy, 2023)</p> <p><a href="#">“Why Should I Care About Diversity in Engineering”</a> (NSPE, 2020)</p>
<b>Role of engineers / engineering in society</b>	<p>Selections from <a href="#">Citizen Engineer</a> (Douglas et al., 2009)</p> <ul style="list-style-type: none"> <li>• “Part I. Advent of the Citizen Engineer”</li> <li>• “Part II. Environmental Responsibility” or “Part III. Intellectual Responsibility”</li> </ul>

	<p>Selections from “Engineering Design for Social Justice” in <a href="#"><i>Engineering Justice: Transforming Engineering Education and Practice</i></a> (Leydens &amp; Lucena, 2017):</p> <ul style="list-style-type: none"> <li>• “Introduction: 1 Pressing Issues for Engineering Education and the Engineering Profession” (pp. 3 – 11)</li> <li>• “Introduction: 4 Engineering for Social Justice” (pp. 14 – 18)</li> <li>• “Introduction: 5 Engineering for Social Justice Criteria” (pp. 19 – 30)</li> <li>• “Chapter 2: Engineering Design for Social Justice” (pp. 67 – 201)</li> </ul>
<p><b>Society, identity &amp; technology</b></p>	<p><a href="#">“How to Put Out Democracy’s Dumpster Fire”</a> in <i>The Atlantic</i> (Applebaum &amp; Pomerantsev, 2021)</p> <p>Selections from <a href="#"><i>The Oxford Handbook of Digital Technology and Society</i></a> (Yates &amp; Rice [Eds.], 2020)</p> <ul style="list-style-type: none"> <li>• “Introduction to the Oxford Handbook of Digital Technology and Society: Terms, Domains, and Themes” (pp. 1 – 27 [pdf])</li> <li>• “5: Communities, Identities, and Class” (pp. 1 – 19 [pdf])</li> <li>• “6: Citizenship, Politics, and Participation” (pp. 1 – 18 [pdf])</li> </ul> <p><a href="#">Race and Technology in America</a> [interactive article series] – <i>Axios</i></p> <p><i>Automating Inequality</i> (Eubanks, 2017)</p> <ul style="list-style-type: none"> <li>• “Introduction” (pp. 1-13)</li> <li>• “High-Tech Homelessness in the City of Angels” (pp. 84-126)</li> </ul> <p><i>Technically Wrong: Sexist Apps, Biased Algorithms, and Other Threats of Toxic Tech</i> (Wachter-Boettcher, 2017)</p> <ul style="list-style-type: none"> <li>• “Welcome to the Machine” (pp. 1-12)</li> <li>• “Algorithmic Inequity” (pp. 119-146)</li> </ul> <p><i>Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy</i> (O, Neil, 2017)</p> <ul style="list-style-type: none"> <li>• “Introduction” (pp. 1-13)</li> <li>• “Civilian Casualties: Justice in the Age of Big Data” (pp. 84-122)</li> </ul>
<p><b>Problem solving and designing solutions</b></p>	<p><a href="#">“What is Design Thinking and Why is it so Popular?”</a> (via Interaction Design Foundation, 2022)</p> <p><a href="#">“Rethinking Design Thinking”</a> (Norman, 2013)</p> <p><a href="#">Design for All</a> [documentary] (Target, 2020)</p> <p><a href="#">Gendered Innovations</a> [website and case studies] – Stanford</p> <p>Selections from <i>Defined by Design: The Surprising Power of Hidden Gender, Age, and Body Bias in Everyday Products and Places</i> (Anthony, 2017)</p> <ul style="list-style-type: none"> <li>• “Introduction” (pp. 17-24)</li> </ul>

	<ul style="list-style-type: none"> <li>“Helpful or Harmful to Your Health?: The Design of Your Home or Neighborhood” (pp. 159-172)</li> </ul>
Writing & research / communication in an Engineering context	<p><a href="#">Choosing and Using Sources: A Guide to Academic Research</a> (University Libraries)</p> <p><a href="#">Technical Writing Essentials</a> (Last, 2019)</p> <p><a href="#">Planning and Organizing Proposals and Technical Reports</a> (Johnson-Sheehan, n.d.)</p> <p><a href="#">Engineered to Speak: Helping You Create and Deliver Engaging Technical Presentations</a> (Chilcutt &amp; Brooks, 2019)</p>

## 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.*

### Course Assignments Descriptions

#### Course Theme Engagement & Early-stage Research Process Assignments:

- **Readings and In-class Discussion (individual and team):** In-depth, critical engagement with assigned and student-identified readings and participation in instructor-led guided discussions and in large and small group settings; may also include individual reflection and written responses during class time. [See schedule for reading assignments; some materials will be read and discussed in class]
- **Discussion Boards (individual and team) [ELOs 1.1, 2.1, 3.1, 3.2, 4.1, 4.2]:** Responding to prompts to explore course themes, synthesize readings, find and analyze sources, and examine project-related questions in teams.
- **Collaborative glossary of terms (individual/class) [ELOs 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 4.1, 4.2]:** As a large group, students will contribute to a class-composed glossary of terms at intervals throughout the semester (where each student helps build both the concepts and the contextualized definitions with cited sources). The goal of this activity is to recognize that definitions change over time, that our identities and political/cultural/national differences shape our understanding of these concepts, and that language is a powerful force that shapes how we understand the world. Starting with definitions of the core course themes (i.e., *citizenship, justice, diversity, equity, inclusion, engineering*), students will add words and concepts to be defined as their understanding of the topics grows through the course readings and individual exploration. [2-3 pages of writing total in multiple submissions]
- **Research Journal (individual) [ELOs 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 4.1, 4.2]:** Responding to prompts about course readings and discussion during Week 1-6), the Research Journal is an opportunity to explore and build on the student’s developing understanding of the course content and themes. They will use the journal prompts to identify and deepen their understanding of the course themes beyond the assigned course materials and discussion. These entries will provide opportunities 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]

- **Lightning talk/pitch (individual)** [ELOs 1.2, 2.1, 2.2, 4.1, 4.2]: Based on research and reflection on course themes, students will identify a specific situation or problem related to citizenship and society (aligning with the RFP themes and goals). 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]
- **Annotated Bibliographies (individual/team)** [ELOs 1.2, 3.1, 4.1]: Formal documentation of research findings in the following contexts:
  - individual exploration during the early problem definition phase, *1-2 written pages*
  - combined/refined bibliography to document that will also be presented as a public-facing “Resources & Information” page on the Public Website, *1-2 written pages*.

#### Funding Proposal Project Assignments:

The scenario for this group of assignments is prompted by an RFP for an imagined grant funding opportunity titled *Student Engagement with Engineering and Citizenship* (SEEC) that outlines a set of goals to fund projects that “examine the relationship between science and technology and its impact on broader social and cultural issues” and builds on the driving questions outlined in the syllabus. This RFP will be introduced in Week 2 and will be regularly integrated into the discussion of the course themes to prepare students to engage with the topics at a deep level.

To respond to this grant funding opportunity scenario, students will form groups around similar areas of interest based on their individual explorations of problems related to our discussions of citizenship, engineering, and society from Course Foundations (Weeks 1-3), Applications & Extensions (Weeks 4-5), and the Lightning Talk (Week 7) outlined above. Following a model of the engineering design process with a focus on “design thinking” and human-centered design principles, they will conduct in-depth scholarly and primary research (e.g., stakeholder interviews) to define a problem or need area and develop a proposed project plan—requesting funding for a specific action that addresses the need and advances the goals stated in the RFP (scaffolded assignments planned Weeks 7 – 14).

The following deliverables will present the group’s proposed solution to several different audiences for varying purposes:

- **Funding Proposal** [ELOs 1.1, 1.2, 2.1, 2.2, 4.1, 4.2]: Comprehensive written documentation of the group’s research-based response to the grant funding opportunity outlined in the *Student Engagement in Engineering and Citizenship* RFP, including graphics and adhering to a set of standard requirements (modeled after NSF proposals). Must define a specific problem related to the RFP goals, explain who is impacted and who the stakeholders are, propose an appropriate social and/or technological solution and expected short- and long-term impacts. The document will demonstrate thorough scholarly research, critical thinking, and creativity given the long-term, multi-phased nature of the project. [8-10 page document, including graphics and figures.]
- **Formal Pitch Presentation** [2.1]: Group presentation supported with meaningful, impactful 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 slide deck.]
- **Public Website** [2.1, 3.2]: Design and development of a public-facing website that raises awareness of the issue and educates a specifically 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 an informative website; estimated 3-4 pages of writing total.*

- **Public Showcase [2.1, 2.2, 4.1, 4.2]:** Attendance at a hosted end-of-semester event where students will describe and discuss their projects with guests (invited from within the university community), showcasing their pitch decks and websites. *Informal presentations and event attendance.*

Reflections, Check-ins & Project Management Assignments:

- **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]
- **Meta-cognitive Reflections (individual) [1.2, 2.2, 3.2, 4.2]:** 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]

**Attendance & Participation Expectations**

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:

## ENGR 2301: Exploring Diversity, Equity & Inclusion in Engineering Contexts: Integrative Designation

- 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.

<b>Major &amp; Minor Assignments</b>	<b>Points</b>
Problem Introduction Lightning Talk (individual)	50
<b>Funding Proposal (group)</b>	<b>200</b>
<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 &amp; presentation for review)</i>	10
<i>Drafts and Peer Reviews</i>	25
Pitch Presentation (group)	80
<b>Project Website (group)</b>	<b>50</b>
<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
<b>TOTAL</b>	<b>1000</b>

**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.

<b>Week 1: Course Foundations</b>	
Theme Concepts and Theoretical Foundations; Research and Technical Writing Style	
<b>CLASS</b>	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)
<b>CLASS</b>	Introduction to Research Journal and Discussion Board—skills and requirements (APA style review, information literacy concepts)
<b>READINGS &amp; RESOURCES</b>	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”
<b>ASSIGNMENTS</b>	Intro Note
<b>Week 2: Course Foundations</b>	
Citizenship, Social Diversity and Identity; Introduction to Funding Proposal Project Themes and Goals	
<b>CLASS</b>	Review and discuss the Student Engagement in Engineering and Citizenship (SEEC) Grant 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
<b>CLASS</b>	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
<b>READINGS &amp; RESOURCES</b>	“Chapter 3: Forming citizenship norms” (pp. 34 – 52) in <i>The Good Citizen</i> (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
<b>ASSIGNMENTS</b>	Research Journal #1 – initial themes exploration
	Collaborative Class Glossary – Contribution #1
<b>Week 3: Course Foundations</b>	
Information Literacy and Research Fundamentals; Diversity, Equity, and Inclusion in Engineering and the Role of Engineering in Society	
<b>CLASS</b>	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
<b>CLASS</b>	Lecture and discussion about the role of engineering and engineers in society; problem solving processes and design (review case studies); watch and discuss <i>Design for All</i> documentary

<b>READINGS &amp; RESOURCES</b>	<p>“Engineering Design for Social Justice” in <i>Engineering Justice: Transforming Engineering Education and Practice</i> (Leydens &amp; 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);</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>“2023 Retrospective: The Story of Gender Equity from the Past Decade in 10 Trends” (Roy, 2023)</p> <p>“Why Should I Care About Diversity in Engineering” (NSPE, 2020)</p>
<b>ASSIGNMENTS</b>	Research Journal #2 – topic area focus and questions
	Discussion Board – Engineering and citizenship
<b>Week 4: Applications, Extensions &amp; Intersections</b>	
Proposal Writing; Identifying Individual Topic Areas and Research Questions; Information Literacy Skills; Engineering Design for Social Justice Discussion	
<b>CLASS</b>	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)
<b>CLASS</b>	Info literacy concepts (searching as strategic exploration, scholarship as conversations); practicing putting texts/sources in conversation (synthesizing and analyzing source material using “Engineering Design for Social Justice” readings)
<b>READINGS &amp; RESOURCES</b>	<p>Technical Writing Essentials: “7.2 Proposals”;</p> <p>“Engineering Design for Social Justice” (Leydens &amp; Lucena, 2017): “Chapter 2: Engineering Design for Social Justice” (pp. 67 – 201);</p> <p><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”</p>
<b>ASSIGNMENTS</b>	Research Journal #3 – examining discourse and debate
	Collaborative Class Glossary – Contribution #2
<b>Week 5: Applications, Extensions &amp; Intersections</b>	
Citizenship, Democracy, and Technology—Importance of Defining Problems and Solutions; Public Speaking Skills and Synthesizing Individual Research on Engineering, Citizenship, and Society into Short Presentations	
<b>CLASS</b>	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)
<b>CLASS</b>	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)

<b>READINGS &amp; RESOURCES</b>	<p>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 &amp; Pomerantsev, 2021);</p> <p><i>Automating Inequality</i> (Eubanks, 2017)</p> <ul style="list-style-type: none"> <li>• "Introduction" (pp. 1-13)</li> <li>• "High-Tech Homelessness in the City of Angels" (pp. 84-126)</li> </ul> <p>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"</p>
<b>ASSIGNMENTS</b>	Research Journal #4 – deepening understanding of the problem
	Individual Progress Check-in: Self-reflection and questions (focused on individual progress, problems of interest)
<b>Week 6: Presentations &amp; Forming Project Teams</b>	
Assess and Respond to Individual Research Lightning Talks; Develop Annotated Bibliographies and Form Teams to work on Proposals (Responding to the <i>Student Engagement in Engineering and Citizenship</i> RFP)	
<b>CLASS</b>	Lightning Talks – delivered in class; class discussion
<b>CLASS</b>	Lightning Talks – delivered in class; class discussion and forming teams
<b>READINGS &amp; RESOURCES</b>	<p>"Engineering Design for Social Justice" in <i>Engineering Justice: Transforming Engineering Education and Practice</i> (Leydens &amp; Lucena, 2017): "Introduction: 5 Engineering for Social Justice Criteria" (pp. 19 – 30);</p> <p>Technical Writing Essentials: "4. Teamwork and Communication"</p>
<b>ASSIGNMENTS</b>	Research Journal #5 – building on the lightning talks, further exploration
	Annotated bibliography (individual WIP)
<b>Week 7: Proposal Project – Team Building &amp; Defining the Problem</b>	
Digital Citizenship and Civic Engagement; Problem Definition and Research Writing (Responding to the SEEC RFP / Funding Proposal Assignment)	
<b>CLASS</b>	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
<b>CLASS</b>	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

<b>READINGS &amp; RESOURCES</b>	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)
<b>ASSIGNMENTS</b>	Problem Definition Documentation
	Mid-term Self Assessment and Reflection
<b>Week 8: Proposal Project – Evaluating Solutions</b> Describing and Evaluating Potential Solutions (Responding to the SEEC RFP / Funding Proposal Assignment); Collaborative Writing Strategies and Exploring Connections Between Course Themes Key Terms	
<b>CLASS</b>	Developing, refining, and assessing possible solutions; Information visualizations (uses, rhetorical strategies) – preparation for pitch presentation slides, graphics in the proposal, website content
<b>CLASS</b>	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
<b>READINGS &amp; RESOURCES</b>	Technical Writing Essentials: "3.4 Figures and Tables";
<b>ASSIGNMENTS</b>	Collaborative Glossary Contribution #3 (team entry – exploring the overlap and interactions between terms; practicing collaborative writing skills)
<b>Week 9: Proposal Project – Audience Analysis &amp; Planning for Proposal Communications</b> User-Centered Communication and Audience Awareness; Evaluating and Refining Solutions (Responding to the SEEC RFP / Funding Proposal Assignment); Bias in Design	
<b>CLASS</b>	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)
<b>CLASS</b>	Planning to draft the proposal; assessing audiences for the various project communications
<b>READINGS &amp; RESOURCES</b>	usability.gov "Content Strategy" and "Visual Design" sections in particular; <i>Planning and Organizing Proposals and Technical Reports</i> (Johnson-Sheehan, n.d.)  Selections from <i>Defined by Design: The Surprising Power of Hidden Gender, Age, and Body Bias in Everyday Products and Places</i> (Anthony, 2017) <ul style="list-style-type: none"> <li>• "Introduction" (pp. 17-24)</li> <li>• "Helpful or Harmful to Your Health?: The Design of Your Home or Neighborhood" (pp. 159-172)</li> </ul>
<b>DUE</b>	Solution Evaluation Documentation
	Group Progress Report (including documentation of collaborative writing plan)
<b>Week 10: Proposal Project – Refining the Solution &amp; Developing the Proposal and Pitch Presentation</b>	

Refining the Solution for the SEEC Grant Funding Proposal; Visual Communication Strategies and Discussion; Bias in Technology and its Impact on Society (Citizenship, Justice, Equity)	
<b>CLASS</b>	Refining the solution; developing proposal draft—group work time and conferences
<b>CLASS</b>	Peer review skills; time for internal peer review and group meetings; presenting graphics and figures to the class for review and feedback
<b>READINGS &amp; RESOURCES</b>	<p><i>Engineered to Speak</i>: "Ch. 6 Perfecting Your Pitch" (pp. 63 – 69) and "Visualizing Your Message" (pp. 71 – 85)</p> <p><i>Technically Wrong: Sexist Apps, Biased Algorithms, and Other Threats of Toxic Tech</i> (Wachter-Boettcher, 2017)</p> <ul style="list-style-type: none"> <li>• "Welcome to the Machine" (pp. 1-12)</li> <li>• "Algorithmic Inequity" (pp. 119-146)</li> </ul> <p><i>Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy</i> (O, Neil, 2017)</p> <ul style="list-style-type: none"> <li>• "Introduction" (pp. 1-13)</li> <li>• "Civilian Casualties: Justice in the Age of Big Data" (pp. 84-122)</li> </ul>
<b>DUE</b>	Proposal Draft (Current Situation and Project Plan sections for internal review)
	Graphics and Figures (in draft document and presented in class for discussion)
<b>Week 11: Proposal Project – Pitch Presentations</b>	
Planning, Delivering, and Reflecting on Pitch Presentations (Responding to the SEEC RFP / Funding Proposal Assignment)	
<b>CLASS</b>	Pitch Presentation preparation and workshop time (w/ guided team and instructor check-ins)
<b>CLASS</b>	Pitch Presentations and discussion/feedback; large group discussion and individual evaluation and response to how the teams address the RFP goals and themes of citizenship, diversity, and justice in engineering
<b>READINGS &amp; RESOURCES</b>	Technical Writing Essentials: "8.3 Presenting as a Team"
<b>DUE</b>	Pitch Presentation outline and slides draft
	Pitch Presentation (delivered in class; final slide deck submitted on Carmen)
<b>Week 12: Proposal Project – Funding Proposal Documentation &amp; Website Content Development</b>	
Document Revision Strategies and Cross-Team Peer Reviews; Audience Analysis and Communicating on the Web	
<b>CLASS</b>	Refining the proposal document and preparing for external reviews; website content planning and audience analysis
<b>CLASS</b>	External proposal peer review; processing feedback and revising the proposal document
<b>READINGS &amp; RESOURCES</b>	Technical Writing Essentials: "Appendix H: Peer Review Essentials"
<b>DUE</b>	Complete Proposal draft for peer review



	Website: Sitemap, Content Outline, and Audience Analysis
<b>Week 13: Proposal Project – Funding Proposal Documentation &amp; Website Content Development</b> Refining Content and Communications for Funding Proposal Project (Responding to the SEEC RFP)	
<b>CLASS</b>	Proposal & Website in-class work time
<b>CLASS</b>	Proposal & Website in-class work time; progress update meeting w/ instructor
<b>DUE</b>	Website draft for instructor review meeting
<b>Week 14: Proposal Project – Showcase</b> Public Demonstration and Engagement of the Funding Proposal Project	
<b>CLASS</b>	Showcase Preparation and in-class work time
<b>CLASS</b>	Showcase Preparation and in-class work time
<b>DUE</b>	Showcase Participation & Post-event roundtable discussion (recorded)
	Final Proposal Document
	Final Website
<b>Finals Week: Final Reflections &amp; Course Wrap-up</b> Connections to Course Foundations and Reflection on Individual Learning and Team Performance	
<b>DUE</b>	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](mailto: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](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12<sup>th</sup> 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](https://ccs.osu.edu) or calling [614-292-5766](tel:6142925766). 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:6142925766) 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.

## REQUEST FOR PROPOSALS:

# Student Engagement in Engineering and Citizenship Grant

*ENGR 2301 centers on a long-term, multi-phased proposal project with multiple key deliverables—the RFP is the foundation for the project. The information and themes found here will guide your search for a specific, relevant problem, help you evaluate potential solutions, and develop a compelling project plan that you will communicate to multiple audiences. Read it carefully and refer to it to ensure you are aligned with the goals and themes outlined here at each step of the process.*

For use in this course, portions of this RFP are adapted from the [Battelle Engineering, Technology, and Human Affairs \(BETHA\) endowment grant](#).

## Grant Funding Opportunity Overview

The mission of the Student Engagement in Engineering and Citizenship (SEEC) Grant is to support and promote the innovative ideas of students at The Ohio State University as they engage with communities to solve challenging problems related to diversity, justice, and citizenship. SEEC seeks projects that examine the relationship between science and technology and its impact on broader social and cultural issues. Our goal is to inspire future leaders and encourage current leaders in engineering or related fields to explore connections between their work and citizenship, diversity, and justice on a local, national, or global level, following the model of the “citizen engineer”:

*“Citizen Engineers are the connection point between science and society—between pure knowledge and how it is used. Citizen Engineers are techno-responsible, environmentally responsible, economically responsible, socially responsible participants in the engineering community.” – from The Citizen Engineer*

The SEEC grant program wants to support projects from student leaders who are committed to examining these intersections of engineering, technology, society, and citizenship. Questions you may consider:

- What engineering problems or products affect society and how? How do our identities and experiences—including citizenship and our understandings of it—shape our interactions with engineering and the solutions engineers create?
- How do our experiences with citizenship, diversity, equity, inclusion, and justice (all things that shape how we see our role in society) impact how we define and solve problems? Or how we prioritize the needs of various users and audiences?
- How does technology shape our experience and understanding of society or our experience as citizens?
- What ethical and moral responsibilities do engineers have to consider issues of access and social justice in their work? What knowledge and skills are needed to do this successfully?

Many problems may be “solved” with technology, but in the end, the technologies may not be enough to solve most problems because technologies do not exist in vacuum. John Shook (2009), CEO of the Lean Enterprise Institute, argues that “Behind the technical problem there is almost always a social problem and accompanying our technical solution we have to give equal consideration to the social solution.” As a result, SEEC seeks proposals that clearly articulate the technical and social aspects of a problem and identify social and technological solutions to that problem.

*“Given the power of engineering, we need an engineering education that is tailored to the great responsibility engineers will assume in transforming life in the rest of the 21st century and beyond. Engineers design, build and operate complex and imposing systems, capable of influencing the lives of millions of people, as well as the allocation of resources (e.g., water, energy), opportunities (e.g., access to work and commerce), risks and harms (e.g., flooding, nuclear disasters, groundwater contamination), and how different social groups receive these differently.”* – from Engineering Justice: Transforming Engineering Education and Practice

## Proposal Categories & Desired Outcomes

Requests may be made for a one-time award of up to \$200,000 with a clear plan to achieve the primary project objectives within 12 months of receiving funding. Proposals must fall into one of the following categories, broadly interpreted:

- Education (e.g., formal and informal, accessibility and equity)
- Sustainability (e.g., food security, renewable energies)
- Literacy (e.g., scientific, information, technological, basic)
- STEAM (science, technology, engineering, arts, mathematics) integration
- Community relations (e.g., outreach programs, community service)

Funding requests will be considered for a wide variety of projects and programs, including tools, resources, initiatives, workshops, events, educational or promotional materials, or outreach.

NB: “Proposals that involve pure research or seek only to acquire or use technology (e.g., to purchase computers or other equipment) rather than explore its impact on broader social issues, are not generally competitive” (Office of Research, 2019).

## Selection Criteria

Below are the broad selection criteria applicants must consider as they develop their funding proposal project idea. (NB: Many of these questions are adapted from Office of Research, 2019.)

### **Broad View and Fit**

Does the project consider opportunities for (student) engineers and scientists to address and understand the social and cultural impacts of technology/engineering/science, or help further understandings about the limitations and possibilities of technology/engineering/science?

Does the project provide:

- definition of the specific problem and need(s);

- definition of precisely who is impacted by the problem;
- definition of precisely who the major stakeholders are;
- appropriate social or technological solutions (including an assessment of feasibility);
- expected short-term and long-term impact of the proposed activities?

**Feasibility**

Is the problem/solution realistic in goals and timeline?

How likely is it that these goals will be achieved?

What specific experts and expertise will be needed and why?

**Organization**

Is the document well organized to accomplish the project goals?

*NB: Students will also be given detailed instructions, guidance, and requirements for each of the assignment components in ENGR 2301.*

# 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](mailto: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)