TEP1601: Equity, Diversity & Inclusivity within Engineering Contexts

# Tentative Course Outline[[1]](#footnote-2)

## Course Instructors

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Course Instructor

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## Class Schedule

Lectures: Tuesdays, 1 to 3 pm EST in MY350

Tutorials: Thursdays, 4 to 5 pm EST in MY350

## Course Description

This course will provide students the chance to build capacity in understanding equity, diversity, inclusivity (EDI) concepts and to consider opportunities to integrate these concepts into their work/practice. The course will facilitate an introduction to several social and equity-centric concepts while exploring various contexts for how EDI integration can be considered within engineering education, research and workspaces. It facilitates the development of personal reflections and actions which situates engineering design, research and education as sociotechnical processes influenced by social concepts operating at various scales (from individual to global).

## Learning Outcomes

Upon course completion, students will be able to:

* Identify, describe, discuss, and use key EDI concepts/terminology in various engineering contexts.
* Examine and describe intersectional EDI issues facing different communities or populations
* Recognize and justify the value of EDI consideration within industry, research and educational spaces
* Apply course content to develop a personal philosophy on EDI integration
* Develop, explain, and recommend strategies for creating an environment conducive for the engagement of others within various operational contexts

## Course Design

This course is designed to introduce key EDI concepts within a variety of engineering contexts and provide opportunities for students to practice applying this knowledge to their personal and professional contexts. A goal of this course is to support students in taking their knowledge an applying it critically to real life situations and promote actions towards equity and inclusion. We approach inclusion as a process grounded in ongoing reflection and actions that is working towards equity.

The weekly 2-hour lecture sessions will be set up as group discussions based on materials drawn from readings, videos and case studies. The weekly 1-hour tutorial sessions will primarily consist of student-facilitated learning opportunities and discussions based on topics of interest.

Assessed deliverables in the course include:

* **Course Participation (10%)** – incorporates attendance and engagement in all lectures and tutorials
* **Personal Reflections (20% = 2x10%)** – short assignments providing student the opportunity to reflect on course materials and readings from their own positionality and their stance on how the values of equity, diversity and inclusion influence their professional practice
* **Tutorial Discussion Facilitation (20%)** – students will lead a discussion or other active learning exercise on a topic of their choice related to EDI in engineering contexts.
* **EDI Tool Development (50%)** - this assignment (which will be worked on throughout the course) provides students with an opportunity to develop a proposal, tool or resource which they can use to address EDI and social considerations within the context in which they currently (or aspire to) work in.

## Course Topics

Topics areas to covered during the duration of the course:

Knowledge Building

* What is EDI?
* Identity + Power = Positionality
* Social Justice // Truth & Reconciliation

Positioning Engineering as a Socio-technical Process

* Engineering & Social Influence
* Paradigms & Bias in Engineering Design
* Engineering Ethics & Equity

EDI Considerations + Skill-building

* EDI + Engineering Education
* EDI + Leadership
* EDI + Community Outreach
* EDI + Industry
* EDI + Research
* EDI + You

1. This is a tentative course document for TEP1601 a final syllabus will be provided to enrolled students before the first day of class. [↑](#footnote-ref-2)