

All submissions to CEE must discuss the impact of the work through the lens of diversity, equity, inclusion, and justice (either in the cover letter for the submission or in the manuscript itself). Below is an outline of common themes that may describe the impact of your work, along with linked examples of CEE papers that exemplify the theme. If, after consulting this document, you are still finding it challenging to determine how to integrate discussion of impact into your manuscript, you can contact the CEE Assistant Editor for DEIJ Impact, Laura Hirshfield (laura.hirshfield@berkeley.edu).

Theme	Description	Exemplar CEE Paper	How the Exemplar Paper Integrates the Theme
Implications	Describe how the paper can impact change in the chemical engineering field.	Abdulsalam A, McGowan B, Schaefer K, Wawire J and Henderson JA (2024) Photovoice: visualizing the experiences and assets of engineering students. 58(2): 109 – 119.	Discusses impact of using photovoice as a method to empower students to contribute to the chemical engineering community
Teamwork	Present how teams were formed for learning activities considering equity, inclusion, access, and/or identity.	Heshmati M and Purvis, WD (2024) Three real-world oil and gas datasets for petroleum engineering capstone design with applications for chemical engineering design. 58(2):140 – 149.	Describes how changing from students picking their own teams to forming teams based on GPA served students more equitably
Workforce development	Describe how the work can impact equitable access to skills training and career advancement opportunities, fostering a more diverse and inclusive talent pipeline.	Patanker, SS (2024) Practical design of experiments for the next generation of semiconductor process engineers. 58(4): 240-246	Contextualizes development of semiconductor processing lab modules within context of preparing students for the semiconductor industry
Context	Contextualize the paper topic within a relevant scenario that has cultural, societal or global impact.	Antoine KCA, Martin LL, and Gabitto JF (2024) Mixed reality in chemical engineering education – a proof of concept. 58(2):92 – 100.	Studies the impact of using of mixed reality technology in educational instruction on African American representation in STEM within the setting of a Historically Black College and University
Diverse examples	Reference applications that impact to different populations.	Prado GHC (2023) Teaching food processing to chemical engineering students with Native American food. 58(1):46 – 53.	Prompts students to propose a new shelf-stable food product based on food in Ohlone culture
Inclusive teaching or mentoring	Address how a learning activity was designed to impact students of different ability, experience, or background.	Pluger CA, Weiser JA and Horvat K (2023) Incorporating hands-on, inquiry-based learning modules into the chemical engineering classroom. 58(1):12 – 21.	Notes how inquiry-based pedagogies have positive impact specifically for neurodiverse learners
Environmental justice	Discuss environmental impact of the paper topic and how that affects different populations.	My Quyen Lê K, Butterfield A, Kelly K, Gaillardon P, Tingey K and Becnel T (2018) Building air quality sensors & inspiring citizen scientists. 52(3):193 – 201.	Discusses how PM2.5 pollution affects racial and ethnic populations differently
Sampling	Present findings within context of demographic details of the participants, reflecting on how well the sample represents the range of student experiences across engineering.	Miskiöglu EE, Bodnar CA, Butler B, Stransky J and Ritz C (2023) Faculty perceptions of process safety judgment criteria. 58(1): 37 – 45.	Includes several statistics describing representation of women faculty in chemical engineering
Equity	Explain how the learning activity considers equitable learning opportunities for learners of different identities or backgrounds.	Funkenbusch LT and Rivera-Jiménez S (2023) Combining experimentation and simulation in a unit operations lab course. 57(2):70 – 75.	Presents a unit operations lab experiment that could be used to increase accessibility for students who have physical disabilities or illness
Wellness	Speak to how the learning activity positively impacts student wellbeing and mental and physical health.	Wilson SA and Jensen K (2023) Strategies to integrate wellness into the engineering classroom. 57(4): 201 – 205.	Presents the impact of mental health and stress on students' motivation and competence and discusses how mental health can impact students differently based on their intersection of personal identities
Social justice	Discuss how the topic progresses equality or fairness with regards to rights or societal privileges.	Prybutok AN, Abegunde A, Sanroman Gutierrez K, Simitz L, Archuleta C and Cole, J. Creating and implementing course content contextualized with anti-racism and social justice in chemical engineering: How faculty and students engaged in the process. 58(3):1	Acknowledges how the use of a social justice lens in class can reform how graduating engineers define and solve problems