

Workshop series to integrate sustainability into MNT education, spring 2024

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Overordnet målsetting (hensikt)/goals: Develop participants' ability to integrate sustainability perspectives in engineering, technology and natural science education, including the ability to develop specific teaching and learning activities and to ensure progression throughout courses and programs.

Målgrupper/target audience: Educators, students, study programme heads, members of study programme advisory boards, and leaders in education at the faculty and department level. The primary focus of examples used in the workshops will come from engineering education, but participants from all SEED-faculties (IE, IV, NV, ØK) with backgrounds in technology and the natural sciences are also very welcome to attend!

Kompetansemål/Competency goals: At the end of the workshop series, participants should be able to:

1. Role model the use of sustainability key competencies in discussions about wicked sustainability problems.
2. Develop and implement teaching and learning activities that foster students' ability to address wicked sustainability problems.
3. Leverage opportunities and overcome barriers to integrating sustainability in engineering education.

Kunnskaper og ferdigheter som understøtter kompetansemålene/Knowledge and skills that support the competency goals: Participants should be able to:

- A. Explain and apply the basic principles of education for sustainability in the context of engineering education.
- B. Formulate intended learning outcomes, develop teaching and learning activities, and apply principles of progression in education for sustainability.
- C. Critically engage with their own and students' knowledge, values, and emotions related to wicked sustainability problems.
- D. Critically and creatively engage with structural opportunities and barriers to integrating sustainability into engineering education.

Læringsaktiviteter/Learning activities: The series consists of six interactive workshops, each lasting two hours. The workshops will be flexibly adapted to participants' needs, allowing participants to develop ideas and materials that they can use in their own teaching and/or educational development. Participants are expected to dedicate up to two hours per workshop for individual preparation (e.g., reading literature or drafting learning outcomes).

Praktisk informasjon/Practical information: All workshops will be held in English. Two workshops will be held entirely virtually, and the other four will be held on-site at NTNU in Trondheim, at Campus Gløshaugen. Participants from Ålesund and Gjøvik are invited to participate by arranging local groups that can collectively log on together via Zoom and participate in group-work.

Participants are strongly encouraged to attend all six workshops. Each workshop will be offered twice, and participants can freely choose which of the two offerings they wish to attend. [Participants](#)

are asked to sign up via [Nettskjema](#), but they can change their preferred sessions (or cancel) at a later date via Nettskjema (a link will be sent upon signing up).

Workshop schedule with preliminary session titles:

Maks. 40 fysiske deltakere / Max. 40 physical participants at each meeting

Workshop 1: Introduction to Education for Sustainable Development (ESD)	Digitalt	<ul style="list-style-type: none"> • 8. februar, 13-15 (Zoom – lenke blir sendt til alle påmeldte) • 9. februar, 13-15 (Zoom)
Workshop 2: There's no perfect solution to real-world problems: Teaching sustainability with wicked problems	Trondheim	<ul style="list-style-type: none"> • 29. februar, 10-12 (Realfagbygget D1-185) • 29. februar, 13-15 (D1-185)
Workshop 3: Engineers are human beings too: Dealing with values, emotions and morality	Trondheim	<ul style="list-style-type: none"> • 1. mars, 10-12 (D1-185) • 1. mars, 13-15 (D1-185)
Workshop 4: I'm not an expert in sustainability!	Digitalt	<ul style="list-style-type: none"> • 18. mars, 13-15 (Zoom) • 19. mars, 13-15 (Zoom)
Workshop 5: How to integrate sustainability into already crammed courses	Trondheim	<ul style="list-style-type: none"> • 29. mai, 9:30-11:30 (Realfagbygget D3-114) • 29. mai, 13-15 (D3-114)
Workshop 6: Meeting students' expectations and leveraging their engagement	Trondheim	<ul style="list-style-type: none"> • 30. mai, 9:30-11:30 (D3-114) • 30. mai, 13-15 (D3-114)