Learning outcomes for sustainability

- **Establish the significance of SDGs in relation to engineering projects** and discover how they can be used in practice and analysis.
- Know and understand prevailing **definitions of sustainability** and the history of the concept of sustainability.
- Understand the importance of adopting a **life cycle/systems perspective** and considering a comprehensive range of impacts within each of the **three sustainability dimensions** - environment, society and economy.
- Identify how social values are embedded in scientific work and how scientific knowledge production can become a matter of public concern.
- Describe and evaluate the primary social processes of designing, implementing, adopting, and contesting innovation.
- Describe the role of ethics in engineering work within one's own engineering field and in collaboration with other fields and stakeholders.
- Discuss key dimensions of responsible research and innovation and apply them to evaluate engineering projects, especially anticipation, reflexivity, inclusion, and responsiveness.
- Recommend responsible strategies to foster absolute social and environmental sustainability of engineering projects.

Week 1 - Sustainability

- What is sustainability?
- What is the sustainability challenge?
- How do you assess sustainability of a technology?

- Sustainability assessment of technology case – two assignments

- Work form
  - Lectures
  - Sustainability assessment assignments in groups of 4-6 participants
  - Supervision on site or on Zoom

Course program week 1

Week	When	What	Hand-ins
1	January 5th	Introduction to course and to sustainability Group formation	
1	January 6th	Introduction to Phase 2 and 3 of SDG assessment method Case exploration and references SDGs and engineering Group work on cases	Case and references
1	January 7th	Presentation of Phase 2 and 3 results Group work on cases Introduction to Phase 4 and 5 of SDG assessment method	
1	January 8th	Group work on cases SDGs in a social context Group work on cases	
1	January 9th	Tips and tricks to Phase 5 Presentation of Phase 4 and 5 results Group work on cases	SDG report

Groups

- **4-6** students per group
- Join a group on **Learn**
- If you're not in a group, or your group has less than four members:

!!! **Group-match-making at 3PM** in the lobby of Building 116 (outside the grand lecture hall) or in the Group Forum on Learn!!!