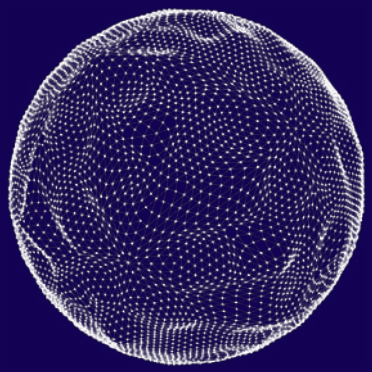


SPOT

Societal Perspectives to innovation Opportunities in Technology

PUBLIC SUMMARY

Mechanical Engineering in Society is a compulsory Master level course at Aalto University, Finland. The interdisciplinary engineering course brings together engineering students from seven different study paths: Marine Technology, Product Development, Arctic Technology, Mechatronics, Engineering Materials, Production Engineering, and Solid Mechanics.

Educating 120 students annually, the course raises students' awareness of the breadth and impact of engineering in academia and in industry. Students analyze and identify innovation opportunities using human-centered design methods and design novel solution concepts for real company cases.

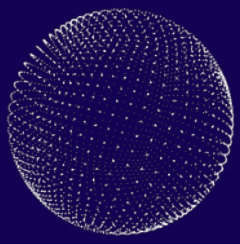
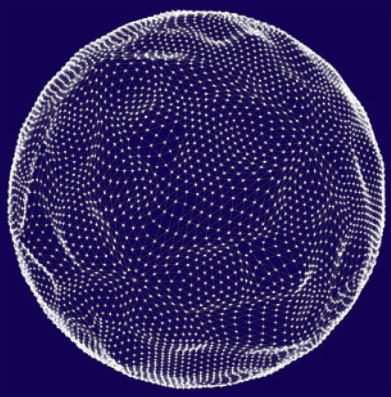
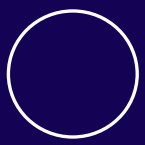
The main learning objectives of the course for students are:

1. Knowing how their field of study connects to a variety of economic, environmental, and societal issues,
1. Being able to articulate how their unique professional profile equips them to contribute productively, and
2. Valuing the importance of collaborating effectively and of communicating ideas clearly.

The teaching team of the course is interdisciplinary, including engineering, design and behavioral scientists. In addition, the course includes an integrated compulsory language course, focusing on effective communication, idea pitching and articulating one's own learnings with the help of communications experts. Additionally, methodology will be tested and iterated on a third course to ensure wide applicability.

Introducing creative, holistic, problem-solving skills into engineering education in a hands-on manner creates numerous advantages for supporting the understanding of systemic, innovative solutions that have a societal impact building on technological inventions.

However, engineering education has traditionally been heavily focused on domain specific expertise, and placed little weight on skills to take large scale societal challenges into account. This course integrates these considerations to the entire degree program, and the ATTRACT student program offers timely cases with international connections to create valuable learning opportunities to the students and ATTRACT partners alike.

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