COURSE SYLLABUS

Leading Advanced Socio-Technical System, 7.5 credits

Leading Advanced Socio-Technical System, 7,5 högskolepoäng

Course Code:	TATS22	**Education Cycle:**	Second-cycle level
Confirmed by:	Dean Mar 1, 2021	**Disciplinary domain:**	Technology
Revised by:	Director of Education Oct 25, 2023	**Subject group:**	IE1
Valid From:	Jan 1, 2025	**Specialised in:**	A1F
Version:	3	**Main field of study:**	Production Systems

Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding
- display knowledge and understanding of the characteristics of socio-technical systems in an operations management context
- display knowledge and understanding of different perspectives on leading daily work, change and innovation processes in socio-technical systems

Skills and abilities
- demonstrate the ability to design activity centered systems in operations.
- demonstrate skills in leading and participating in collaborative work including reflecting, reporting, and discussing the findings using contemporary presentation tools.

Judgement and approach
- demonstrate the ability to embrace interdisciplinary approaches, take different perspectives on socio-technical systems and critically reflect on the impact these have on economic, social and environmental sustainability
- demonstrate the ability to critically analyse how machines and humans interact and adapt in work processes
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for ongoing learning.

Contents

The course includes theories and methods for leadership using a socio-technical perspective. The following are examples of concepts and terms included in the course.

-leadership and complexity
-change and transformation
-learning in organizations
-dealing with uncertainty

-activity centered design
-introducing new advanced technology
-team effectiveness

Type of instruction

Lectures, joint and self-led seminars and project work.

The teaching is conducted in English.

Prerequisites

The applicant must hold the minimum of a bachelor's degree (i.e the equivalent of 180 ECTS credits at an accredited university) in engineering or technology. The bachelor's degree should comprise a minimum of 15 credits in mathematics, and taken course Leading Sustainable Operations, 7.5 credits or the equivalent.. Proof of English proficiency is required.

Examination and grades

The course is graded 5,4,3 or Fail.

The final grade for the course is based on a balanced set of assessments. The final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

Name of the Test	Value	Grading
Exercise	1 credit	U/G
Formative assessment	1 credit	U/G
Individual assignment	2 credits	5/4/3/U
Group project	3.5 credits	5/4/3/U

Course literature

The literature list for the course will be provided two months before the course starts.