Faculty of Social Sciences

MEST06, Transformational Approaches to Climate Change, 7.5 credits

Klimatförändring och samhällsomvandling, 7,5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The Board of the Lund University Centre for Sustainability Studies on 2024-05-31 (STYR2024/1440). The syllabus comes into effect 2024-10-14 and is valid from the spring semester 2026.

General information

The course is a second term compulsory course within Lund University Master's Programme in Climate Change and Society (LUCAS), 120 credits.

Language of instruction: English

Main field of study	*Specialisation*
Environmental Studies and Sustainability Science	A1F, Second cycle, has second-cycle course/s as entry requirements

Learning outcomes

Upon the completion of the course, the student shall

Knowledge and understanding

- Understand and actively work with different perspectives on societal transformation in relation to climate change
- Demonstrate an in-depth understanding of how measures designed to mitigate, or adapt society to, climate change can be combined to create more far-reaching social change
- Understand and explain the role of algorithmic practices in climate change challenges and knowledge formation.

Competence and skills

- Demonstrate the ability to find examples and analyse different approaches to transformational adaption to climate change
- Demonstrate the benefits and risks of using algorithmic practices in processes of societal transformation, including their impact on the production and dissemination of scientific knowledge
- Develop skills to live with, through and beyond a state of climate crisis.

Judgement and approach

- Evaluate different approaches and measures for societal transformation and their relative advantages and limitations
- Demonstrate the ability to propose alternative pathways towards transformation by applying approaches and measures presented in the course.

Course content

The course deals with societal transformation as a concept and as action in relation to climate change. It links to previous programme courses on mitigation and adaptation and introduces processes and potential for more fundamental changes that question or challenge the limits of current systems. Topics covered include the question of what constitutes societal transformation as well as approaches to achieving it. Transformation is explored in different areas, from the social to the individual. The course also covers one of the biggest changes of our time – algorithmic methods – and their impact on our ability to understand and manage climate change.

The course is structured around four parts that build on each other:

1. Approaches to transformation that present and discuss different frameworks for transformation in relation to climate change
2. Stakeholders and methods of transformation that address profound change at different levels from the social to the individual
3. Current transformation processes that focus on the impact of algorithmic processes – artificial intelligence and machine learning – on knowledge about and understanding of climate change, including their role in the dissemination of climate science
4. Pathways forward in which the student explores possibilities of engaging actively in transformation processes in practice.

Course design

The course consists of lectures, seminars and practical exercises. Group assignments and exercises are combined with individual assignments to develop the students' understanding of transformation processes involved in trying to tackle the challenges of climate change.

Assessment

Course assessment is based on three examinations:

- Written group take-home exam (2,5 credits)
- Written individual take-home exam (5 credits)
- Oral presentation of written group take-home exam (0 credit)

The course includes opportunities for assessment at a first examination, a re-sit close to the first examination and a second re-sit for courses that have ended during that school year. Two further re-examinations on the same course content are offered within a year of the end of the course. After this, further re-examination opportunities are offered but in accordance with the current course syllabus. A student who has taken two examinations in a course or a part of a course without obtaining a pass grade is entitled to the nomination of another examiner unless there are special reasons to the contrary.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Grades

Grading scale includes the grades: Fail, Three, Four, Five
The oral presentation of the written group take-home exam is excluded from the grading scale above. The grade for this component is Fail - Pass.

At the start of the course, students are informed about the learning outcomes stated in the syllabus and the grading scale and how it is applied on the course.

Overall course grade:

The grade for the entire course consists of the average grade of the two exams that are assessed according to the Fail-5-4-3 grading scale. The written group take-home exam is worth 30% of the final grade. The written individual take-home exam is worth 70% of the final grade. For a grade of 3 on the entire course the student must have been awarded at least 3 on all graded exams and a Pass on the oral presentation of the written group take-home exam.

Exam	Credits	Grades	Part of the final grade for the course
Written group take-home exam	2,5	Fail-3-4-5	30%
Written individual take-home exam	5	Fail-3-4-5	70%
Oral presentation of written group take-home exam	0	Fail-Pass	0%
	7,5		100%

Example: The student got the grade of 3 on the written group take-home exam, the grade of 5 on the written individual take-home exam, and the grade of Pass on the oral presentation of the written group take-home exam. The final grade is 4 ((3*30)+(5*70)+(G*0))/100=4,4 < 4.5 is rounded down and 4.5 > is rounded up.

Entry requirements

To be admitted to the course, the student must have fulfilled course requirements of at least 30 higher education credits in the Master's Programme in Climate Change and Society (LUCAS).

A good command of spoken and written English, equivalent to English 6/B (advanced) proficiency in the Swedish secondary system, is required. Equivalent assessments will be made according to national guidelines.