LUND UNIVERSITY
Faculty of Science

Syllabus for the course Future-Oriented Methodologies (FOMs), NMV006
Swedish title: Framtidsorienterade metodologier (FOMs)

The course syllabus was confirmed by the Faculty board for graduate studies 23 June 2021. The course is in the third cycle and amounts to 5 credits.
The course syllabus is formally approved in Swedish. This is a translation.

Learning outcomes
On completion of the course, participants shall be able to:

Knowledge and understanding
- Describe different types of future-oriented methodologies (FOMs), their significance for sustainability and emerging challenges, and factors that affect their relevance and applicability
- Explain different types of uncertainty, their characteristics and how they can be identified and estimated
- Explain some principles for formulating research questions

Skills and abilities
- Search for relevant FOMs approaches for at least one actual research question
- Creatively apply a FOM to an aspect of own research
- Identify crucial underlying assumptions for that application, need for further knowledge, and estimate consequences for interpretation and communication of research results
- Communicate with researchers from other fields concerning application and development of FOMs

Judgement and approach
- Explain advantages and limitations with some FOMs tools and approaches
- Explain differences in exploratory and forecasting uses of FOMs
- Summarize consequences of a systemic approach for identifying risks and forecasting
- Show insight about ethical and sustainability consequences of methodological choices, their application and the technologies they are linked to

Course content
Broad introduction to some of the issues connected to FOMs, and of research fields where future-oriented tools and approaches have been developed; heuristic and exploratory approaches to issues with incompletely mapped causal mechanisms; simulation and forecasting; machine learning; scenarios, backcasting and vision work; blind spots and systematic bias; extreme values; systemic design; integration of expert knowledge and participatory methodologies in FOMs.

Teaching
Lectures, seminars, workshops and discussions with course participants.

Assessment
Assessment is based on attendance, oral exam and written assignment.

Grading scale
Possible grades are Pass and Fail. To pass the course, the student must attend all scheduled components, actively participate in seminars and workshops, pass the oral exam and the written assignment.

Language of instruction
English.

Entry requirements
-

Additional information
Basic knowledge of statistics is recommended.