LT1047 Space and sustainable development 3.0 credits

Rymden och hållbar utveckling

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

The official course syllabus is valid from the autumn semester 2022 in accordance with the decision from the dean of school: M-2022-0046. Decision date: 02/02/2022

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology and Learning

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The course intends to develop the participants' skills in teaching and learning and didactics to teach about space and sustainable development in STEM (Science Technology, Engineering and Mathematics) subjects.

On completion of the course, the student should be able to:

- give an account of basic concepts and phenomena in the field of space and sustainable development
- discuss current society issues where space and sustainable development have large importance and how these can be introduced for pupils
- give an account of and problematise general didactic aspects in STEM subjects
- orientate oneself in current practices and didactic research in basic STEM teaching with space theme
- analyse relevant course syllabi and subject plans to identify items and contents where sustainable development and the space can be used
- plan and evaluate teaching for pupils, with a theme of sustainable development and space, in one or more STEM subjects.

Course contents

Space related science and technology that can be used for teaching for sustainable development, for example satellite data, earth observations, environmental technology. Technology and natural sciences that can be used in fields such as sustainable space cities or space stations; cultivation techniques, purification techniques and materials science. Didactic aspects for interdisciplinary teaching in space and sustainability, especially how one brings up society issues and one let pupils take position based on complex situations.

Examination

- INL1 - Assignment, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- SEM1 - Seminars, 1.0 credits, grading scale: P, F

Based on recommendation from KTH’s coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.

- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.