

P000134, Soil systems: integrating chemical and biophysical interfaces in soils, 3.0 Hp

Syllabus

Finalized by: Finalized by: FUN, 2025-03-26, 2025-03-26

Level within study regulation:

Third cycle

Grading scale:

Pass / Failed

Course language:

Swedish

Entry requirements:

This course is primarily intended for PhD students participating in the Focus on Soils & Water graduate school, but is also open to other PhD students working in related research areas. Researchers are also very welcome to participate in lectures and discussions, if places are available. There are no specific requirements concerning prior knowledge.

Objectives:

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

- define the soil as an adaptive, complex, and structured system
- describe modern techniques for the visualization and quantification of chemical and biophysical interfaces in soil as well as their application to the study of soil functions and processes
- discuss some opportunities and challenges in using the micro-analytical methods presented in the course

Content:

The course consists of two parts:

1. Literature group meetings: selected research and review papers will be discussed as well as student oral or poster presentations (three meetings prior to, and one meeting after, the workshop).
2. A workshop (see below) will be held at Ultuna with participation of international leading scientists in this research area.

Modes of assessment:

- Read the literature provided and attend the literature group meetings
- Final literature group meeting: give an oral (10-15 minutes) or poster presentation on your own research assessing in what way(s) a soil system view is critical to your work
- Active participation in group meetings and workshop discussion
- If a student has failed an examination, the examiner has the right to issue supplementary assignments. This applies if it is possible and there are grounds to do so.
- The examiner can provide an adapted assessment to students entitled to study support for students with disabilities following a decision by the university. Examiners may also issue an adapted examination or provide an alternative way for the students to take the exam.
- If this syllabus is withdrawn, SLU may introduce transitional provisions for examining students admitted based on this syllabus and who have not yet passed the course.
- For the assessment of an independent project (degree project), the examiner may also allow a student to add supplemental information after the deadline for submission. Read more in the Education Planning and Administration Handbook.

Organisation:

Department of Soil and Environment

Supplementary information

Other information:

- The right to participate in teaching and/or supervision only applies for the course instance the student was admitted to and registered on.
- If there are special reasons, students are entitled to participate in components with compulsory attendance when the course is given again. Read more in the Education Planning and Administration Handbook.