



LUND
UNIVERSITY

Faculty of Engineering, LTH
Genombrottet

Course Syllabus GB_F11
2012-10-08

Subject Didactics in Science and Engineering (Ämnesdidaktik i naturvetenskap och teknik)

Subject Didactics in Science and Engineering is an elective specialisation course of the qualifying programme in teaching and learning in higher education at LTH and the Faculty of Science.

Aim: The aim of the course is to introduce the participants to scientific methods for improved analysis and interpretation of student learning and knowledge formation in the participants' own subjects.

Learning outcomes: Knowledge and understanding

For a Pass on the course, participants shall

- demonstrate knowledge of how different forms of teaching support student learning and knowledge formation in their own subjects and the ability to analyse the impact of different forms of teaching on their own teaching practice
- be able to relate the outcomes of their own teaching to a wider context of intended course learning outcomes at various levels of education and discuss the skills required in their own subject.

Competence and skills

For a Pass on the course, participants shall

- be able to propose adjustments to teaching in order to further reinforce student learning, based on acquired experience
- be able to apply fundamental skills of scientific methods for development work in teaching in their own subjects.

Judgement and approach

For a Pass on the course, participants shall

- demonstrate a research approach to their own teaching and student learning in their subjects, and an interest in disseminating their experience of subject didactics.

Content: The course deals with the meaning and function of didactics in the subjects taught at the two faculties. The topics included are conceptualisation, learning processes and the relationship of different student groups to different forms of teaching. The course is based on the teaching practice of the participants and introduces the analytical approaches and theories of subject didactics. Different methods for investigating issues in subject didactics are addressed and applied in the course.

Instruction: The course is based on the participants' active work and interaction in the different components of the course. The instruction consists of lectures, mapping of issues, group discussions and individual project work. The projects are reported at a final course conference and at a seminar at the participant's home department.

- Assessment:** For a Pass on the course, participants must have passed and reported the project work and attended 80 % of the scheduled course components.
- Scope:** The course corresponds to 3 weeks of full-time work.
A current timetable is available on the course homepage.
- Admission:** To be admitted to the course, participants must normally have a first-cycle degree. Furthermore, it is recommended that participants have completed a general course in teaching and learning in higher education or the equivalent
- Selection:** Priority is given to teaching staff employed at LTH.
- Language:** The course is mainly taught in Swedish but some components may be taught in English.
- Homepage:** <http://www.lth.se/genombrottet>
- Reading:** The required reading is determined on the basis of the participants' choice of project work.
- Course directors:** Senior lecturer **Thomas Olsson** (Thomas.Olsson@genombrottet.lth.se).
Educational developer **Susanne Pelger** (Susanne.Pelger@nfak.lu.se)
Information on current teachers on the course is available on the course homepage.
- Category:** The course belongs to the category of "Specialisation courses in teaching and learning in higher education" in accordance with the programme syllabus for the qualifying programme in teaching and learning in higher education at LTH.
- Other:** -