



Course syllabus

Faculty of Technology

Department of Physics and Electrical Engineering

1TG322 Teknik som företeelse och kunskapsfält, 7,5 högskolepoäng

Technology as Occurrence and Field of Knowledge, 7.5 credits

Subject Group

Other Subjects within Technology

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by Faculty of Technology 2017-12-18

The course syllabus is valid from autumn semester 2018

Prerequisites

7.5 credits Technology or the equivalent.

Objectives

Having completed the course the student is expected to be able:

- to analyse the attitude towards knowledge and the qualities of knowledge that are expressed in the local and national governing documents
- to be able to plan, carry out and evaluate a project that concerns teaching and learning within the field of technology
- to follow up and evaluate the quality and progression of the pupils' knowledge as well as use and evaluate different methods to judge the pupils' knowledge of technology with regard to the goals in the the local and national governing documents
- to describe how, in the teaching situation, it is possible to link the technological items to gender and sustainable development in current and historical contexts.

Content

The course is divided into four sections designed to examine the technology subject from different but complementary perspectives.

- The curriculum perspective: The development and history of the technology subject. Technology as a knowledge field in school education. The relationship between technology and other subjects. Syllabus and grading criteria. Local work plans in technology.
- The subject didactic perspective: In-depth studies in subject didactics, including planning, realisation and evaluation of teaching as well as various teaching models and methods, taking into consideration the differences between school pupils. Planning and analysis of different areas of technology and field studies.
- The society and business perspective: Field work/study visits designed to explain the role of technology in society and business. This section should stimulate the students to encourage and develop the initiative and entrepreneurial ability of pupils in their teaching.
- The research perspective: Methods for research in, and development of, the technology subject. Important elements are how to understand and evaluate how technology, man, society and nature influence each other and what the consequences of this relationship has been in the past and will be in the future.

Local and national governing documents are important sources used in the course. Technology Education Structure and processing of relevant policy documents is present throughout the course work.

Type of Instruction

The course is a distance tuition course via the Internet. The students are expected to work individually and in groups. At the start of the different modules of the course the course leader/teacher presents specific reading tasks, study assignments and presentation models. Work assignments may be presented collectively in the form of group conferences and commented on by the course leader/teacher. The work assignments may also be individually designed.

Attendance at examinations and seminars is obligatory.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

Assessment takes place through oral and/or written tests and/or presentations of compulsory assignments, as well as through participation in web-based seminars. The main form of examination is decided at the start of the course.

Students who do not pass the regular examinations are offered a new chance in close connection to time of the regular examination.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Credit Overlap

The course cannot be included in a degree along with the following courses of which the content fully, or partly, corresponds to the content of this course: 1TG321, 7.5 credits

Required Reading and Additional Study Material

Required reading

Hansson S O, Nordlander E, Skogh I-B, *Teknikutbildning för framtiden*, Liber, 2011, Uppaga: 1. Pages 224 (224). ISBN 978-91-47-10001-9

Johannisson, B, Madsén, T & Wallentin, C, *Aha! Företagsamt lärande – En skola för*

förnyelse, Utbildningsradion, 2006. Pages 109 (128). ISBN 9125070020

Ingerman, Åke. Wagner, Karin. Axelsson, Ann-Sofie. (Red) *På spaning efter teknisk bildning*, Liber, 2009. 250 pages.

Aktuella styrdokument avseende skolämnet teknik, <http://www.skolverket.se>

Copied material, Linnæus University, current year. Pages 50 (approx).

Teaching materials for compulsory schools and other relevant literature is chosen in consultation with the course examiner. Pages 400 (approx).