Philosophy of Natural Science

Vetenskapsteori för naturvetare
7.5 credits

Single subject course

737G01

Valid from: 2010 Autumn semester

Determined by	**Main field of study**	
The Quality Board at the Faculty of Arts and Sciences	Theoretical Philosophy	
Date determined	**Course level**	**Progressive specialisation**
2007-03-16	First cycle	G2F
Revised by	**Disciplinary domain**	
	Social sciences	
Revision date	**Subject group**	
	Philosophy	
Offered first time	**Offered for the last time**	
Autumn semester 2007		
Department	**Replaced by**	
Institutionen för kultur och samhälle		

Entry requirements

- 60 ECTS credits in a scientific subject (technology, natural sciences or medicine) or the equivalent.

Intended learning outcomes

On completion of the course, the student should be able to
- demonstrate familiarity with problems and methods in theory of knowledge, and account for important theories in the philosophies of science and technology,
- demonstrate an advanced understanding of scientific and technical research,
- account for basic science theoretical problems and methods,
- account for central philosophic problems in technology, and independently and critically discuss these problems and solution proposals.

Course content

The course contains:
- Science-historical orientation
- Methodological directions, such as rationalism, empiricism, positivism and falsificationism
- Central science theoretical concepts
- Problems concerning observation, induction, scientific explanations and methods
- Issues within philosophy of technology concerning the aims and methods of technical research and its connection to basic research
- The rationality of technology; technological autonomy versus technological pluralism and user control
- Research-ethical orientation.

Teaching and working methods

The course is entirely web-based and takes place by means of slides, audio files, study questions, and discussion forum in an electronic educational platform.

Examination

The course is examined through a home assignment and a written take-home examination.

If special circumstances prevail, and if it is possible with consideration of the nature of the compulsory component, the examiner may decide to replace the compulsory component with another equivalent component.

If the LiU coordinator for students with disabilities has granted a student the right to an adapted examination for a written examination in an examination hall, the student has the right to it.

If the coordinator has recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.

An examiner may also decide that an adapted examination or alternative form of examination if the examiner assessed that special circumstances prevail, and the examiner assesses that it is possible while maintaining the objectives of the course.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

Grades

Three-grade scale, U, G, VG

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus.

The course is conducted in such a way that there are equal opportunities with regard to sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.

If special circumstances prevail, the vice-chancellor may in a special decision specify the preconditions for temporary deviations from this course syllabus, and delegate the right to take such decisions.

About teaching and examination language

The teaching language is presented in the Overview tab for each course. The examination language relates to the teaching language as follows:

- If teaching language is “Swedish”, the course as a whole could be given in Swedish, or partly, or as a whole, in English. Examination language is Swedish, but parts of the examination can be in English.
- If teaching language is “English”, the course as a whole is taught in English. Examination language is English.
- If teaching language is “Swedish/English”, the course as a whole will be taught in English if students without prior knowledge of the Swedish language participate. Examination language is Swedish or English depending on teaching language.