



## Course syllabus

Faculty of Technology

Department of Physics and Electrical Engineering

4TE004 Yrkeskunnandets kunskapsteori, 7,5 högskolepoäng

Skill and Epistemology, 7.5 credits

### **Main field of study**

Skill and Technology

### **Subject Group**

Other Interdisciplinary Studies

### **Level of classification**

Second Level

### **Progression**

A1N

### **Date of Ratification**

Approved 2012-12-20

Revised 2013-06-15 by Faculty of Technology. Review of literature and the number of hits.

The course syllabus is valid from autumn semester 2013

### **Prerequisites**

General entry requirements for studies at second-cycle level.

## Objectives

After completing the course the student should:

- have acquired an understanding of his/her own professional skill informed by the history of ideas and the philosophy of knowledge
- be able to problemize and have a critical approach to trends of current interest concerning formalization of professional skill
- be able to conduct a critical discussion about the idea that the computer can be looked upon as a metaphor for the cognitive capacity of the human being
- show understanding of how his/her professional skill can be related to different traditions of knowledge

## Content

- concepts of case study, dialogue, tacit knowledge, the dream of the exact language
- the importance of the history of ideas and philosophical perspectives in connection to the understanding of the idea about the exact language and the computer as a metaphor for the brain and the cognitive capacity of the human being
- the paradoxical meeting between the theoretical and the practical tradition of

- knowledge
- the difference between human expertise and AI models based on rules and regulations
- the consequences of formalism in connection to professional skill

## Type of Instruction

The education is carried out through assemblies at campus on two occasions each semester, consisting of lectures and seminars. Each assembly last two days, another hit during a workday scheduled for examination. Further studies are carried out through reading of course literature and accounts, individually and in groups on the learning management system. Obligatory parts are stipulated in the beginning of the course.

## Examination

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

The course is assessed with the grades failed, passed or passed with distinction. The student is assessed individually both through written and oral examinations, individually and in groups. Assessment of the students' proficiency is carried out continuously.

## Course Evaluation

A course evaluation will be carried out and compiled after the course is completed. The compilation will be presented to the current board as well as to the students and filed by the coordinating department.

## Required Reading and Additional Study Material

### **Obligatory Literature**

Coverage of reading of mandatory literature are determined in consultation with the examiner.

- Berglund, Johan. (2011). Den nya taylorismen - om säkerhetskulturen inom kärnkraftsindustrin. Stockholm: Dialoger Förlag & Metod AB
- Friberg, Nils. (2012). Det ovägaras tyngd. Stockholm: Dialoger Förlag & Metod AB
- Göranzon, Bo. (2009). Det praktiska intellektet. Stockholm: Santérus förlag
- Göranzon, Bo., Hammarén, Maria. & Ennals, Richard. (eds.) (2006). Dialogue, Skill and Tacit Knowledge. London: John Wiley
- Hammarén, Maria. (2005). Skriva en metod för reflektion. Stockholm: Santérus förlag
- Mouwitz, Lars. (2006). Matematik och bildning berättelse,gräns, tystnad. Stockholm: Dialoger
- Ratkic, Adrian. (2006). Dialogseminariets forskningsmiljö. Stockholm: Dialoger
- Tillberg, Peter. (red) (2002). Dialoger om yrkeskunnande och teknologi. Stockholm: Dialoger
- Åberg, Sven. (2008). Spelrum – om paradoxer och överenskommelser i musikhögskolelärares praktik. Stockholm: Dialoger

Compendium containing the following articles:

- Dreyfus, Hubert. Is Socrates to Blame for Cognitivism. Ingår i Göranzon, B. and Florin, M. (eds.) (1990). Artificial Intelligence, Culture and Language: On Education and Work. Springer-Verlag
- Gyllensten, Lars. Intelligens och kreativitet. Dialoger 7-8/88
- Searle, John. Kognitiv vetenskap och datorn som metafor. Dialoger 7-8/ 88
- Toulmin, Stephen. The Dream of an Exact Language. Ingår i Göranzon, B. and Florin, M. (eds.) (1991). Dialogue and Technology: Art and Knowledge. Springer-Verlag
- von Wright, Georg Henrik. Intet är fördolt. Dialoger 22-23/92

Additional material supplied by the department might be added.