Linnæus University

Dnr: 2014/4084-3.1.2

Course syllabus

Faculty of Technology

Department of Informatics

4IK502 Epistemologier och Ontologier: teorier, metodologier och metoder inom informatik, 15 högskolepoäng

4IK502 Epistemologies and Ontologies: Theories, Methodologies, and Methods within Informatics, 15 credits

Main field of study
Informatics

Subject Group
Informatics/Computer and Systems Sciences

Level of classification
Second Level

Progression
A1N

Date of Ratification
Approved by Faculty of Technology 2014-12-02
The course syllabus is valid from autumn semester 2015

Objectives

After completing the course the student should:

- be able to in detaile explain the meaning of the basic theories and concepts used in the field of Informatics / Information Systems
- be able to describe, analyze and evaluate scientific theories and their applicability in research-related issues and/or subject area
- be able to use scientific theories and concepts in a practice context, e.g. analysis
- be able to use basic scientific methods in informatics/information systems area
- be able to plan and formulate a comprehensive theoretical and methodological approach and understand the relationship between research paradigm, methodological approaches and theories
- be able to use basic scientific methods and evaluate methodological and theoretical choices
- be able to explain the advantages and disadvantages of various scientific methodological strategies for data collection
- be able to describe how scientific problems are identified and formulated
- be able to carry out information and literature search

Content

The purpose of the course is to acquire basic knowledge about and experiences with philosophies of science and scientific methodological research approaches within the area of Informatics/Information Systems. With such introduction, the course also aims at providing students practical understanding about the relationship between research paradigm, problem area, research questions, philosophical theories, and methodological strategies for data gathering and analysis.
The course comprises:

- philosophies of science and methodological strategies within the area of Informatics/Information Systems
- use of philosophies of science and/or their concepts in practice
- use of methodological strategies in practice
- analysis of methodological advantages and disadvantages in relation to different areas of application
- motivated justifications of choices with respect to philosophies of science and methodologies in an area of application
- presentation of scientific articles
- scientific literature search
- planning and formulating theoretical and methodological proposals, e.g. design of a research proposal

Type of Instruction

Teaching consists of lectures, seminars, and practice based group work. For group work, each student should inform about their individual effort. 80% of the seminars are obligatory.

Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student’s performance is assessed as fail (i.e. received the grade F).

Assessment of student performance is made through written test and oral examinations and presentation of mandatory assignments.

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.

Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Required Reading and Additional Study Material

Required reading

Informatic Compendium and digital material, Linnaeus University, 500 pages