



## Course syllabus

Faculty of Technology

Department of Informatics

4IK524 Vetenskapsmetod och teori, 7,5 högskolepoäng

4IK524 Information Systems Methodology, 7.5 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 2014-10-03

The course syllabus is valid from autumn semester 2022

### **Prerequisites**

General entry requirements for second-cycle studies and specific entry requirements:

- English B/6 or the equivalent.

## Objectives

After completing the course students should be able to:

- use basic scientific methodologies and methods within informatics/information systems research area
- plan, formulate and reflect on a comprehensive methodological approach and understand the relationship between research paradigm, methodological approaches and methods
- use basic scientific methodologies and methods and justify and reflect on methodological choices
- thoroughly explain and reflect on advantages and disadvantages of different methodological research strategies for gathering qualitative and quantitative data
- describe, explain and reflect on how scientific problems are identified and formulated
- perform information- and literature search

## Content

The purpose of the course is to acquire basic knowledge about scientific paradigms, methodologies, and methods within informatics/information systems research area. With such introduction, the course also aims at providing students practical understanding about the relationship between research paradigms, research phenomena, research questions, methodological strategies for data gathering and analysis.

The course comprises:

- research paradigms, methodological approaches and methods within informatics/information systems research area
- use of methods in practice
- use of methodological strategies in practice
- analysis of methodological approaches advantages and disadvantages in relation to different areas of application
- motivated justification of choices with respect to methodological approaches and methods in an area of application
- perform information- and 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.

### 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 students' performance is made through:

- 1) oral and written presentations of mandatory assignments
- 2) a written research report
- 3) an oral examination

The different assessments are weighted as follows:

- 1) 20 % (written and oral presentations of mandatory assignments)
- 2) 50 % (a written research report)
- 3) 30 % (oral exam)

### 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 course/courses of which the content fully, or partly, corresponds to the content of this course: 4IK024 Information Systems Methodology, 7.5 credits

## 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**

Creswell, J. W. and Creswell, J. D., 2018. *Research design: Qualitative, quantitative, and mixed methods approaches*. 5th ed. London: Sage.

Crang, M. and Cook, I., 2007. *Doing Ethnographies*. Los Angeles: Sage.

Scott Jones, J. and Goldring, J., 2022. *Exploratory and Descriptive Statistics*. London: Sage.

Informatics compendium and digital material from Linnæus University, about 150 pages, chosen in consultation with the module leader and the examiner.