UNIVERSITY OF BORÅS

Research Methods in Informatics
Forskningsmetoder i informatik
7.5 credits
7.5 högskolepoäng

Ladok Code: C2FM1D
Version: 4.0
Established by: Committee for Education in Librarianship, Information, and IT 2020-05-26
Valid from: Autumn 2020

Education Cycle: Second cycle
Main Field of Study (Progressive Specialisation): Informatics (A1N)
Disciplinary Domain: Natural sciences
Prerequisites: Degree of Bachelor in Informatics or Degree of Bachelor in Business administration including or complemented by 60 credits in Informatics.
Subject Area: Informatics/Computer and Systems Sciences
Grading Scale: Seven-degree grading scale (A-F)

Content
The course contains planning, performing and documenting scientific empirical studies according to the following:
- Advanced research strategies and designs in informatics
- Searching for sources and reference literature including source criticism
- The ethics of research in informatics
- Advanced research methods such as design science and action design research
- Advanced methods for the analysis of quantitative and qualitative data
- Scientific considerations concerning data collection, reliability, validity and trustworthiness

In the beginning, the students will choose a research theme as the starting point for the work in the course. In addition, they should search for scientific literature, relevant to the chosen topic.

Learning Outcomes
After course completion, the student should be able to,

Knowledge and understanding
1.1. Understand and account for advanced method-related terms and their relations,
1.2. Understand and account for in-depth methodological knowledge related to qualitative and quantitative studies,

Competence and skills
2.1. Identify and compile research in line with the chosen topic,
2.2. Based on previous research, thoroughly problematize and formulate objectives and research questions,
2.3. Make suitable method choices based on well-founded arguments,
2.4. Analyze data with the help of established analysis methods in informatics,
2.5. Present and discuss critically informatics research at master level,

Judgement and approach
3.1. Clearly relate to and assess different scientific perspectives to motivate the scientific work,
3.2. Thoroughly analyze and evaluate research results, and
3.3. Reflect on ethical values that have an impact on informatics research in a well-founded way.

Forms of Teaching

Instruction is based on lectures, tutoring and seminars.

The language of instruction is English.

Forms of Examination

The course will be examined through the following examinations:

Written assignment 1: individual planning report
Learning outcomes: 2.1, 2.2, 2.3, 2.5, 3.1, 3.2, 3.3
Credits: 3,0
Grading scale: A-F

Written assignment 2: analysis report, group work
Learning outcomes: 2.4, 2,5
Credits: 2,5
Grading scale: U-G

Written assignment 3: report on research strategies, design and methods, group work
Learning outcomes: 1.1, 1.2
Credits: 1,5
Grading scale: U-G

Seminar: individual presentation of planning report and discussion
Learning outcomes: 2.1, 2.2, 2.3, 2.5, 3.1, 3.2, 3.3
Credits: 0,5
Grading scale: U-G

For a passing grade (A-E) on the entire course, at least grade E is required on Written assignment 1: individual planning report togther with G on all the other examinations. A higher grade on the entire course is thereafter determined by the grade on Written assignment 1: individual planning report.

If the student has received a decision/recommendation regarding special pedagogical support from the University of Borås due to disability or special needs, the examiner has the right to make accommodations when it comes to examination. The examiner must, based on the objectives of the course syllabus, determine whether the examination can be adapted in accordance with the decision/recommendation.

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

Literature and Other Teaching Materials

The course literature is in English.

Recker, J. (2013). Scientific Research in Information Systems (Progress in IS). Berlin, Heidelberg: Springer.

Additional literature will be added during the course – max. 100 pages.

Student Influence and Evaluation

The course is evaluated in accordance with current guidelines for course evaluations at the University of Borås in which students' views are to be gathered. The course evaluation report is published and returned to participating and prospective students in accordance with the above-mentioned guidelines, and will be taken into consideration in the future development of courses and education programmes. Course coordinators are responsible for ensuring that the evaluations are conducted as described above.

Miscellaneous

The course is offered within Master Programme (One Year) in Informatics - Data-driven IT Management.

This syllabus is a translation from the Swedish original.