

Forskningsplanering, 4.5 högskolepoäng

Research planning, 4.5 course credits

Course code:	FOID008
Third-cycle subject:	Computer Science
School:	IDT
Valid from:	VT25
Established by:	Dean of School
Decision date:	241024
Last modified:	241021
Level of education:	Third-cycle level

Course objective

The course is primarily intended to focus on the research work needed to be done to complete a licentiate or doctoral project.

Course content

The content of the course is twofold.

1. The student shall familiarize with her research area and gain an understanding of the research areas of the other participating students. This includes identifying:
 - a. Core literature and seminal articles
 - b. Key conferences/workshops/journals
 - c. Leading researchers and research groups
 - d. Current research issues
2. The student shall design a research plan for her licentiate or doctoral project based on the items identified in the point above

Intended learning outcomes

Upon completion of the course, the participants will be able to:

- Survey the literature and important research outlets within a specific field of study
- Devise specific research question(s) to address a selected research focus/area
- Select a sound research strategy appropriate to the research focus/area

- Develop a research design, including methodology, data collection and analysis, ethics considerations and actual plan to address the specific research questions to achieve a research goal

Knowledge and understanding

For the Degree of Doctor, the doctoral student must show

- familiarity with scientific methodology in general and with the specific research area's methods in particular.

Competence and skills

For the Degree of Doctor, the doctoral student must demonstrate the ability

- to scientifically analyse and synthesize as well as to independently critically review and assess new and complex phenomena, questions, and situations.
- to critically, independently, creatively and with scientific accuracy identify and formulate questions and to plan and with adequate methods conduct research and other qualified tasks within given time frames and to review and evaluate such work.
- to identify the need for additional knowledge.

Teaching formats

The course is given at MDU in Västerås and online.

The course is divided into three modules. Each module contains a joint workshop and an individual task. The workshops focus both on research planning elements, critically explained by the main lecturer of the course and discussed by all participants, and presentation of tasks by the students.

The tasks are intended to gradually and step by step lead the students to develop a sound research plan towards the nearest degree goal (Lic/PhD), which is based on the elements learned and discussed during the workshops. After each workshop, students submit a new draft of the research plan, which is a living document for the duration of the course. Reviewing each other's assignments are part of the course too.

Examination

OBN (compulsory attendance) 3hp

INL (term-papers) 1.5hp

Grade

Tests that are included in the course are assessed according to a two-point grading scale with the grades fail or pass.

Grades must be decided by a teacher specially appointed by the university.

Anyone who has not been approved in the regular exam must be given the opportunity to retake the exam.

Requirements

To participate in the course and the tests that are included in the course, the applicant must be admitted to graduate level education at Mälardalen University.

Selection criteria

A maximum of 10 students is enrolled per course instance. Selection of applicants is made in accordance with the ranking below.

1. Admitted doctoral students at Mälardalen University in computer science and in electronics
2. Admitted doctoral students at Mälardalen University in other subjects