Applied Cognitive Science

Single subject and programme course

15 credits

Tillämpad kognitionsvetenskap

729G81

Valid from: 2020 Spring semester

Determined by
Course and Programme Syllabus Board
at the Faculty of Arts and Sciences

Date determined
2019-10-10

Main field of study
Cognitive Science

Course level
First cycle

Advancement level
G1F

Course offered for
- Bachelor´s Programme in Cognitive Science

Entry requirements
General entry requirements for undergraduate studies
and
English corresponding to the level of English in Swedish upper secondary education (Engelska B/6)
and
Social Studies corresponding to the level of Social Studies in Swedish upper secondary education
and
Mathematics corresponding to the level of Mathematics in Swedish upper secondary education
and
40 ECTS credits from semester 1 and 2 of the programme, including Cognitive Science Introductory Course 9 ECTS credits and at least one of the courses Information Technology and Programming 12 ECTS credits, Research Methodology and Statistics 9 ECTS credits, or Qualitative Research Methods 6 ECTS credits, or equivalent.
Exemption for Swedish

Intended learning outcomes

On completion of the course, the student shall be able to:

• apply methods for planning, structuring and evaluating applied research and development projects in cognitive science
• account for and compare different project models and project methods in research and development.
• account for central concepts and traditions in philosophy of science in relation to cognitive science
• use relevant search tools to plan and conduct efficient information search, and evaluate and choose relevant information sources for cognitive science projects
• use cognitive science theories and methods in applied research and development work
• account for relevant aspects of sustainable development and ethical considerations in applied cognitive science
• cooperate and communicate in a project group in dialogue with various stakeholders (e.g. task initiators in companies and organizations), to manage a delimited research and development project within given time and resource constraints
• present an applied research and development project in a written report and at an oral presentation.

Course content

Within the course, students undertake a project work that integrates engineering, behavioral and humanistic knowledge from the base block of the cognitive science programme. The work is performed in groups that formulate a scientific problem for a project specification that contains scheduling, time budgeting, risk analysis, roles, and division of labor. The focus of the projects varies and includes both empirical studies, technical system implementations, and evaluations of technical systems. The course also encompasses cognitive science research methodology, philosophy of science, and methods for efficient information search and evaluation of relevant information sources.

Teaching and working methods

Teaching takes the form of lectures, seminars and a larger project work under supervision. A project work is carried out in small groups. The student is expected to study independently, individually or in groups.

Examination

The course is examined by

- written project plan, grades: UG
- project work with mandatory parts, grades: UV
- written report on philosophy of science, grades: UG

Final course grades are based on the project work.

Detailed information can be found in the study guidelines.

If special circumstances prevail, and if it is possible with consideration of the nature of the compulsory component, the examiner may decide to replace the compulsory component with another equivalent component.

If the LiU coordinator for students with disabilities has granted a student the right to an adapted examination for a written examination in an examination hall, the student has the right to it. If the coordinator has instead recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

Grades

Three-grade scale, U, G, VG

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus.

The course is carried out in such a way that both men´s and women´s experience and knowledge is made visible and developed.

Department

Institutionen för datavetenskap