

## Applied Cognitive Science

Tillämpad kognitionsvetenskap  
15 credits

729G81

Valid from: 2022 Spring semester

|  |                                  |                                       |
|--|----------------------------------|---------------------------------------|
| <b>Determined by</b>   | <b>Main field of study</b>       |                                       |
| Course and Programme Syllabus Board<br>at the Faculty of Arts and Sciences | Cognitive Science                |                                       |
| <b>Date determined</b>   | <b>Course level</b>              | <b>Progressive<br/>specialisation</b> |
| 2019-10-10   | First cycle                      | G1N                                   |
| <b>Revised by</b>  | <b>Disciplinary domain</b>       |                                       |
| Course and Programme Syllabus Board<br>at the Faculty of Arts and Sciences | Technology                       |                                       |
| <b>Revision date</b>   | <b>Subject group</b>             |                                       |
| 2021-12-14   | Other Interdisciplinary Studies  |                                       |
| <b>Offered first time</b>  | <b>Offered for the last time</b> |                                       |
| Autumn semester 2019   |                                  |                                       |
| <b>Department</b>  | <b>Replaced by</b>               |                                       |
| Institutionen för datavetenskap  |                                  |                                       |

## Course offered for

- Bachelor´s Programme in Cognitive Science

## Entry requirements

General entry requirements for undergraduate studies  
and

Social Studies, English and Mathematics corresponding to the level in Swedish upper secondary education (Samhällskunskap 1b or 1a1 and 1a2, Engelska 6, Matematik 3b/3c or Matematik C)

## 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, 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 that is foundational in cognitive science. 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

For a passing grade, the student must receive at least a passing grade in all course components. The final course grade is determined by 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 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.

An examiner may also decide that an adapted examination or alternative form of examination if the examiner assessed that special circumstances prevail, and the examiner assesses that it is possible while maintaining the objectives of the course.

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 conducted in such a way that there are equal opportunities with regard to sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.

If special circumstances prevail, the vice-chancellor may in a special decision specify the preconditions for temporary deviations from this course syllabus, and delegate the right to take such decisions.