

Faculty Board's working committee

General syllabus for third-cycle studies for the Degree of Doctor in Cognitive Science

This syllabus was approved by the Board of the Joint Faculties of Humanities and Theology on 16 February 2022 through the working committee and is supplemented by the *Provisions for third-cycle studies within the Joint Faculties of Humanities and Theology*, where detailed information on admissions and selection is found.

1 Subject description

English name: Cognitive Science

Swedish name: Kognitionsvetenskap

Cognitive Science is an interdisciplinary subject dealing with different aspects of cognition in biological and artificial systems. Among the phenomena studied are perception, memory, learning, language, thought and problem-solving. Central disciplines involved are psychology, neuroscience, linguistics, philosophy and computer science.

2 Objective and outcomes of third-cycle studies

The aim of the third-cycle programmes at the Joint Faculties of Humanities and Theology at Lund University is to provide students with excellent research and communication skills that prepare them for work in academia and wider society, nationally and internationally.

The third-cycle programme in Cognitive Science leads to a Degree of Doctor of Philosophy.

Outcomes for a Degree of Doctor in accordance with the Higher Education Ordinance (hereafter HEO), Appendix 2, Qualifications Ordinance:

Knowledge and understanding

For the Degree of Doctor the doctoral student shall

- demonstrate broad knowledge and systematic understanding of the research field as well as advanced and up-to-date specialised knowledge in a limited area of this field, and
- demonstrate familiarity with research methodology in general and the methods of the specific field of research in particular.

Competence and skills

For the Degree of Doctor the doctoral student shall

- demonstrate the capacity for scholarly analysis and synthesis as well to review and assess new and complex phenomena, issues and situations autonomously and critically
- demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake research and other advanced tasks within predetermined time frames and to review and evaluate such work
- demonstrate through a thesis the ability to make a significant contribution to the formation of knowledge through their own research
- demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively orally and in writing and in dialogue with the academic community and society in general
- demonstrate the ability to identify the need for further knowledge, and
- demonstrate the capacity to contribute to social development and support the learning of others both through research and education and in some other advanced professional capacity.

Judgement and approach

For the Degree of Doctor the doctoral student shall

- demonstrate intellectual autonomy and disciplinary rectitude as well as the ability to make assessments of research ethics, and
- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.

Subject-specific outcomes for a Degree of Doctor in Cognitive Science:

Knowledge and understanding

For a Degree of Doctor in Cognitive Science the doctoral student shall have acquired

- specialised knowledge of the fundamental theories of Cognitive Science and their applications.

Competence and skills

For a Degree of Doctor in Cognitive Science the doctoral student shall have acquired

- the ability to communicate confidently in English in speech and writing within the field of Cognitive Science
- the ability to integrate skills in professional roles, both within and outside academia.

Judgement and approach

For a Degree of Doctor in Cognitive Science the doctoral student shall have acquired

- understanding of the possibilities and limitations of different methods and combinations of methods.

3 Admission requirements

Chapter 7 Section 35 HEO:

The requirements for admission to third-cycle courses and study programmes are that the applicant

1. meets the general and specific entry requirements that the higher education institution may have laid down, and
2. is considered in other respects to have the ability required to benefit from the course or study programme.

It is the applicant's responsibility to document their eligibility in the application by the deadline for applications.

3.1 General admission requirements

Chapter 7 Section 39 HEO:

A person meets the general entry requirements for third-cycle courses and study programmes if they

1. have been awarded a second-cycle qualification
2. have satisfied the requirements for courses comprising at least 240 credits, of which at least 60 credits were awarded in the second cycle, or
3. have acquired substantially equivalent knowledge in some other way in Sweden or abroad.

The higher education institution may permit an exemption from the general entry requirements for an individual applicant, if there are special grounds.

3.2 Specific admission requirements

Chapter 7 Section 40 HEO:

The specific entry requirements laid down shall be essential for students to be able to benefit from the course or study programme. These requirements may comprise:

1. knowledge from one or more higher education courses and study programmes or corresponding courses and study programmes
2. specific professional or vocational experience, and
3. requisite language skills or other conditions determined by the course or study programme.

A person meets the specific admission requirements for third-cycle courses and study programmes in Cognitive Science if they have

- passed at least 90 credits in one of the following subjects: general linguistics, biology, computer science, philosophy, informatics, cognitive science, neuroscience, education or psychology
- passed an independently written paper worth at least 15 second-cycle credits.

A person also meets the specific admission requirements if they have acquired equivalent knowledge in Sweden or abroad.

3.3 Credit transfer

Pursuant to Chapter 6 Sections 6-7 of the HEO, a student is entitled to transfer credits from previous studies or count knowledge and skills whose nature and extent correspond on the whole to the course or study programme for which the credits or knowledge and skills are to be recognised.

Students must apply for credit transfer. The application will only be considered if it is submitted together with an application for admission to third-cycle studies.

“However, the fact that an applicant is considered able to transfer credits from prior courses and study programmes or for professional or vocational experience may not alone give the applicant priority over other applicants” (Chapter 7 Section 41 HEO).

A decision on credit transfer is taken in conjunction with a decision on admission. Credit transfer normally affects the duration of the assigned period of employment. In its proposal for admission, the department will propose possible credit transfer and any resulting reduction in the period of employment.

3.4 Selection

The Joint Faculties of Humanities and Theology will assess the applicant’s ability to benefit from the programme against the following criteria:

- quality
- quantity
- progress
- relevance.

When recruiting and selecting students for third-cycle education, diversity and an even gender distribution must always be taken into account in accordance with Lund University’s gender equality policy, equal opportunities policy and diversity plan. The under-represented gender is to be given priority among equally qualified candidates, unless special reasons dictate otherwise.

There must be coherence between the student’s research interests and the department’s ability to provide competent supervision.

4 The programme for a Degree of Doctor

Third-cycle studies comprise four years of full-time study (240 credits). Part-time studies (at least 50%) may be pursued but must be completed within eight years.

4.1 Programme design

The programme’s 240 credits are made up of an academic thesis (PhD thesis) comprising 180 credits and courses and other credit-earning components

comprising 60 credits. Teaching is in the form of courses, seminars and supervision.

For a Degree of Doctor the doctoral student must have earned a grade of Pass in all examinations in the programme, including the PhD thesis.

4.2 Supervision

At least two supervisors are to be appointed for each doctoral student. One of them is to be nominated as the principal supervisor. The principal supervisor must have at least reader/associate professor (“docent”) qualifications or equivalent competence, and all the supervisors must have completed supervisor training.

Supervision comprises help with the orientation of studies and thesis work as well as support throughout the studies.

Doctoral students are entitled to supervision comprising 300 working hours distributed across the four-year study period. The hours are to include the supervisor’s preparation for supervision (such as reading thesis drafts), the supervision sessions and the overall planning of the programme, for example with regard to the individual study plan. However, tuition and assessment of the student in the context of third-cycle courses are not to be included in the hours for supervision.

The extent of supervision will vary throughout the programme and is detailed in the individual study plan as well as specified in the supervisors’ duties plans.

An individual doctoral student who so requests shall be allowed to change supervisor (Chapter 6 Section 28 HEO).

4.3 Individual study plan

Chapter 6 Section 29 HEO:

An individual study plan shall be drawn up for each doctoral student. This plan shall contain the undertakings made by the doctoral student and the higher education institution and a timetable for the doctoral student's study programme. The plan shall be adopted after consultation with the doctoral student and their supervisors.

The individual study plan shall be reviewed regularly and amended by the higher education institution to the extent required after consultation with the doctoral student and their supervisors. The period of study may only be extended if there are special grounds for doing so. Such grounds may comprise leave of absence because of illness, leave of absence for service in the defence forces or an elected position in a trade union or student organisation, or parental leave.

The Joint Faculties of Humanities and Theology have decided to adopt a digital tool for individual study plans. The study plan is to be printed and signed once a year by the doctoral student, principal supervisor, Head of Department and Pro Dean. Please see the instructions appended to the tool.

The obligations of the doctoral student are specified in Chapter 6 Section 30 HEO:

If a doctoral student substantially neglects their undertakings in the individual study plan, the Vice-Chancellor shall decide that the doctoral student is no longer entitled to supervision and other study resources.

4.4 Courses, other credit-earning components and seminars

In addition to the PhD thesis, the programme consists of courses and other credit-earning components completed at the home department or at other departments at or outside Lund University.

At the Joint Faculties of Humanities and Theology, the following courses are compulsory for all doctoral students:

- an introductory course comprising 5 credits
- a course in research ethics comprising 3 credits
- a course in higher education teaching and learning comprising 3 credits

Other courses and credit-earning components are decided by the student in consultation with the supervisors. To ensure fulfilment of the degree outcome (*demonstrate broad knowledge and systematic understanding of the research field*), a significant portion of the credits earned should be in sub-areas of cognitive science other than the area addressed in the thesis.

The individual study plan specifies the courses and other credit-earning components that the doctoral student is to complete and that can be credited towards the degree, including compulsory components and previous courses for which credit transfer was granted upon admission of the student (see section 3.3 above). If courses and other credit-earning components during the programme are completed somewhere other than at the Joint Faculties of Humanities and Theology, the number of credits available for transfer will be determined by the examiner when the components are to be entered in the individual study plan.

One of the grades of Pass or Fail will be awarded for all examinations within the programme.

Seminars are a central and characteristic part of the third-cycle programmes at the Joint Faculties of Humanities and Theology. Active participation in the research seminars is included as part of the individual study plan.

A preliminary draft of the thesis is to be presented and discussed at a compulsory final seminar.

4.5 Thesis

The PhD thesis is the most important component of the third-cycle programme. It is to be based on an independently pursued research project completed under supervision.

The thesis is to be designed either as a monograph thesis or as a compilation thesis, which is a number of related research articles accompanied by a summary (“kappa”). Each of the publication formats requires specific planning for the thesis work. The doctoral student is to be informed about the specific requirements and traditions regarding the publication formats at an early stage of the programme.

A project completed by two or more authors can be approved as a PhD thesis or be included in a PhD thesis, provided that the contributions of the authors are so clearly specified that they can be assessed individually.

The thesis is to be defended orally at a public defence.

The thesis is awarded one of the grades of Pass or Fail. The grading is to take into account the defence of the thesis.

For further information, see the *Provisions for third-cycle studies within the Joint Faculties of Humanities and Theology* and the faculties' instructions for the public defence of a PhD thesis.