



LUND UNIVERSITY

Joint Faculties of Humanities and Theology

Department of Philosophy

Cognitive Science

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 7 December 2017 through the board for research studies and is complemented with the *Provisions for research studies within the Faculties of Humanities and Theology* where detailed information on admissions and selection is to be 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. The disciplines involved are psychology, neuroscience, linguistics, philosophy and computer science.

2 Objectives

The aim of the third cycle programmes at the Faculties of Humanities and Theology is to provide students with research and communication skills that prepare them for work in academia and wider society, nationally and internationally. PhD graduates from the Faculties of Humanities and Theology shall be nationally and internationally competitive in terms of publications, project applications and positions. The programme is to provide sufficient breadth and specialisation and appropriate teacher training to equip students for teaching posts in higher education.

The completion of the third cycle programme in Cognitive Science results in a degree of Doctor of Philosophy.

Outcomes for a degree of Doctor in accordance with the Higher Education Ordinance, Annex 2, Qualifications Ordinance:

Knowledge and understanding

For the degree of Doctor the third-cycle 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 third-cycle 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 qualified tasks within predetermined time frames and to review and evaluate such work
- demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research
- demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and 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 qualified professional capacity.

Judgement and approach

For the degree of Doctor the third-cycle 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.

Outcomes for a degree of Doctor in Cognitive Science:

Knowledge and understanding

For the degree of Doctor in Cognitive Science, the third-cycle student shall have acquired

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

Competence and skills

For the degree of Doctor in Cognitive Science, the third-cycle student shall have acquired

- the ability to communicate confidently in English in speech and writing within the field of Cognitive Science
- the ability to work professionally in integrated teams, both within and outside academia

Judgement and approach

For the degree of Doctor in Cognitive Science, the third-cycle student shall have acquired

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

3 Admission requirements

Pursuant to the Higher Education Ordinance, Chapter 7 Section 35, the requirements for admission to third-cycle studies are as follows:

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.

For admission to third-cycle studies at the Faculties of Humanities and Theology, it is always the applicant's responsibility to document his or her eligibility at the deadline for applications.

3.1 General admission requirements

Pursuant to the Higher Education Ordinance, Chapter 7 Section 39, the general requirements for admission to third-cycle studies are as follows:

A person meets the general entry requirements for third-cycle courses and study programmes if he or she:

1. has been awarded a second-cycle qualification
2. has satisfied the requirements for courses comprising at least 240 credits of which at least 60 credits were awarded in the second-cycle, or
3. has 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.

Second-cycle courses and papers (see Specific admission requirements below) must be categorised as such in the relevant course syllabus.

At the Faculties of Humanities and Theology, the second cycle is defined in accordance with the Higher Education Act Chapter 1 Section 9:

Second-cycle courses and study programmes shall be based fundamentally on the knowledge acquired by students during first-cycle courses and study programmes, or its equivalent.

Second-cycle courses and study programmes shall involve the acquisition of specialist knowledge, competence and skills in relation to first-cycle courses and study programmes, and in addition to the requirements for first-cycle courses and study programmes shall:

- further develop the ability of students to integrate and make autonomous use of their knowledge
- develop the students' ability to deal with complex phenomena, issues and situations, and
- develop the students' potential for professional activities that demand considerable autonomy, or for research and development work. Ordinance (2006:173).

Assessment of equivalent knowledge (point 3) will normally only be made when the applicant's qualifications are from an educational system in which the above definition of 'second cycle' is not applicable.

Transitional provision to Ordinance 2006:1053:

Those who meet the general admission requirements for doctoral programmes before 1 July 2007 will also be considered to meet the general admission requirements for third-cycle courses and study programmes until the end of June 2015.

3.2 Specific admission requirements

A person meets the specific admission requirements for third-cycle courses and study programmes in Cognitive Science if he or she

- has passed at least 90 credits in one of the subjects Biology, Cognitive Science, Computer Science, Education, General Linguistics, Informatics, Neuroscience, Philosophy or Psychology
- has passed an independently written paper of at least 15 second-cycle credits

A person who by virtue of education in Sweden or abroad has acquired equivalent knowledge also meets the specific admission requirements.

Transitional provision in the Faculties' provisions for research studies:

Those who meet the specific admission requirements for doctoral programmes before 1 July 2007 will also be considered to meet the specific admission requirements for third-cycle courses and study programmes until the end of June 2015.

3.3. Credit transfer

The Higher Education Ordinance, Chapter 6:

Credit transfer

Section 6 If a student at a higher education institution in Sweden has successfully completed a higher education course or study programme, she or he is entitled to transfer the credits awarded for a course or study programme at another higher education institution. This does not apply, however, if there is a substantial difference between these courses or study programmes.

The same applies for students who have successfully completed a course or study programme:

1. at a university or higher education institution in Denmark, Finland, Iceland or Norway or a signatory to the Council of Europe's Convention of 11 April 1997 on the Recognition of Qualifications concerning Higher Education in the European Region (Swedish Treaty Series 2001:46), or

2. at Nordiska högskolan för folkhälsovetenskap (NHV – The Nordic School of Public Health). Ordinance (2006:1053).

Section 7 A student is entitled to transfer credits from a course or study programme other than that laid down in Section 6 if the nature and extent of the knowledge and skills cited by the student are such that they correspond on the whole to the course or study programme for which the credits are to be recognised. A student may also be given credit for corresponding knowledge and skills acquired in a vocational or professional capacity. Ordinance (2006:1053).

Section 8 The higher education institution shall assess whether credits can be awarded for the prior course or study programme or professional or vocational experience.

Credits may only be awarded to those who are students unless otherwise provided by statute or ordinance. Ordinance (2010:1064).

At the Faculties of Humanities and Theology, 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. A decision on credit transfer is taken in conjunction with a decision on admission. Credit transfer normally affects the length of the doctoral studentship awarded in the decision on admission. In conjunction with a proposed decision, the relevant department is to propose the length of the doctoral studentship and any credit transfer.

3.4. Selection

The Higher Education Ordinance, Chapter 7 Section 41:

In selecting between applicants who meet the requirements laid down in Sections 35 & 36 their ability to benefit from the course of study programmes shall be taken into account.

The higher education institution determines which assessment criteria shall be used in determining the ability to benefit from the courses and study programmes.

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. Ordinance (2010:1064).

The Faculties of Humanities and Theology will assess the applicant's ability to benefit from the programme against the criteria of quality, quantity, development and relevance.

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 comprises 240 credits, made up of courses comprising 60 credits and an academic thesis (PhD thesis) comprising 180 credits. Teaching is in the form of courses and seminars, and supervision of the thesis work.

For a degree of Doctor the research student must have successfully completed all examinations in the programme and the PhD thesis.

4.2 Supervision

At least two supervisors shall be appointed for each doctoral student. One of them shall be nominated as the principal supervisor. The principal supervisor must have the qualifications of a reader and be employed at Lund University. The assistant supervisor must have a PhD degree. The supervisors must have completed supervisor training or be judged by the faculty board to have corresponding qualifications.

The individual study plan must specify the duties and responsibilities of each of the supervisors. Supervision comprises both help with the orientation of studies and thesis work and support throughout the studies. Doctoral students are entitled to supervision comprising 200 working hours distributed across the four-year study period. The hours are to include the supervisor's preparation for supervision (such as reading of 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 to be detailed in the individual study plan and specified in the supervisors' duties plans.

The Higher Education Ordinance, Chapter 6 Section 28:

A doctoral student who so requests shall be allowed to change supervisor.

4.3 Individual study plan

The Higher Education Ordinance, Chapter 6 Section 29:

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 his or her 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 his or her 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 Faculties of Humanities and Theology have decided to adopt a digital tool for individual study plans. Annually, 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 instructions appended to the tool.

The obligations of the doctoral student are specified in the Higher Education Ordinance, Chapter 6 Section 30.

4.4 Courses and seminars

The courses that can be included in the programme may be courses offered by the home department or by other departments at or outside Lund University. The Faculties of Humanities and Theology provide a compulsory introduction course of 7.5 credits.

Regulations for third-cycle education at Lund University, section 9:

All doctoral students shall be offered training in teaching and learning in higher education of at least two weeks. Doctoral students who teach in the first or second cycle shall have completed introductory training of at least two weeks or acquired equivalent knowledge in another way.

The faculty board shall decide whether training in higher education teaching and learning shall take the form of an examined component of the programme or form part of the doctoral student's departmental duties.

At the Faculties of Humanities and Theology, the training in higher education teaching and learning is included as a compulsory two-week component of the programme, amounting to 3 credits.

Core course in Cognitive Science comprising 52.5 credits and consisting of modules selected by the student in consultation with the supervisor/examiner.

The individual study plan is to specify the courses that can be credited towards the degree, including compulsory courses and previous courses for which credit transfer has been granted at the admission of the student (see section 3.3 above). For courses at other faculties, the number of credits available for transfer will be determined by the examiner when the courses are to be entered in the individual study plan.

The examiner on the doctoral programme is appointed by the department on behalf of the faculty board and must normally be employed by Lund University and have

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

Active participation in seminars is an essential component of the doctoral programme at the Faculties of Humanities and Theology. The seminar participation of the doctoral student is to be included in the planning in the individual study plan. A preliminary draft of the entire thesis must 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. The thesis is to be based on an independently pursued research project.

The PhD thesis is to be designed as a unified research study (monograph thesis) or as a number of research articles accompanied by a summary (compilation thesis). Both types of thesis require detailed planning of the thesis work. The doctoral student will be informed about the specific requirements and traditions of the relevant subject at an early stage.

A work by two or more authors may be approved as a PhD thesis if the contributions of the different authors are so clearly specified that they can be assessed individually.

The thesis is to be defended orally at a public defence. It is awarded one of the grades Pass or Fail. The grade is to reflect both the contents of the thesis and the public defence.

For further information, please see the faculties' instructions for the public defence of a doctoral thesis.