



UPPSALA
UNIVERSITET

Translation of Subject Curriculum (Study Plan) for Third-cycle (PhD) Education

Computer Science

Swedish title: Datavetenskap

TNDAVE00

Swedish curriculum adopted by the Board of the Faculty of Science and Technology (Third-cycle Educational Board) on 2012-01-23, revision on 2017-08-30, 2017-11-08 and 2020-08-26. Translations approved 2012-01-23, 2017-08-30, 2017-11-08, and 2020-08-26.

The Study Plan for third-cycle studies consists of three parts: a general part, this subject specific study plan, and each doctoral student's individual study plan.

Objective

In relation to the first- and second-level education in the subject area, the graduate level education shall give additional insight into the central parts of Computer Science and deep knowledge in at least one subarea. This includes training in research methodology, along with good insight into the issues that exist in the research area and its applications. Through supervision and thesis writing, the doctoral student should become well prepared to critically and independently plan, execute, and present (orally as well as in writing) research and development projects of high international quality.

Subject description

Computer Science encompasses theory and experimental methodology for construction and programming of computers. Central to the subject is to develop and analyze - from both theoretical and practical points of view - concepts, methods, languages, and programs that aim to make the construction, programming, and utilisation of computers easier, more reliable, and more efficient.



UPPSALA
UNIVERSITET

Eligibility

Basic Eligibility

The basic eligibility for third-cycle studies is described in the general part of the study plan.

Special Eligibility

Special eligibility for third-level education in Computer Science is granted to persons who have passed courses in Computer Science or in areas relevant to Computer Science, corresponding to a minimum of 90 first- and second-cycle higher education credits.

Admission

Applicants to third level education in Computer Science must submit an application to the head of the Department of Information Technology. Positions within the third level education are normally appointed several times per year.

Upon admission to postgraduate education, the Swedish title of the degree is to be specified in the application. According to decision (TEKNAT 2012/215), postgraduate education in Computer Science shall lead to a *filosofie doktorsexamen* or *teknologie doktorsexamen*. The English rendering will in either case be a licentiate/doctorate degree of philosophy.

In connection with the admission, a plan for the financing of both the personal subsistence of the doctoral student, and her/his research, shall be supplied.

Program structure

In connection with the admission, each doctoral student and their supervisors shall prepare an individual study plan after consultation with the professor responsible for the third-cycle programme. The plan is to be approved by the Head of Department (by the delegation of the Faculty Board), in connection with the admission.

The individual study plan shall be reviewed annually, jointly by the doctoral student and her/his supervisors, and be provided with a summary of achieved results and plans for the coming year. Significant changes and possible disagreement concerning the



UPPSALA
UNIVERSITET

individual study plan shall be reported to the Head of Department or, if deemed necessary, to the Board for Third-level Education.

Courses

Courses in third level education may be of different kinds, such as lectures, literature studies, practical exercises, field studies, etc. The courses and literature studies are intended to provide wider insights into the subject as a complement to the specialist competence acquired through the research work.

A course in research ethics of at least 2 higher education credits is mandatory for licentiate and doctoral degree. A course in university educational theory is also mandatory for doctoral students who teach at basic and advanced level. A course on research introduction for new PhD students is compulsory and must be taken within the first year, unless an individually motivated exception is granted by the professor responsible for the third-cycle programme.

A doctoral degree should include courses corresponding to normally 60 to 90 higher education credits. The exact number of credits is specified in the individual study plan. A Licentiate degree should include courses corresponding to 30 to 50 higher education credits.

It is expected that most courses taken by a doctoral student are third-cycle courses. Some first- and second-cycle courses of importance for the education can be included, after approval by the main supervisor. At most 20 credits from such courses can be included in a doctoral degree, and at most 10 such credits can be included in a licentiate degree, unless an individually motivated exception is granted by the professor responsible for the third-cycle programme.

Requirements for doctoral degree

The requirements for doctoral degree include passed examinations in the courses included in the approved individual study plan of the doctoral student, and a passed public defense of the doctoral thesis. The programme leading to the doctoral degree amounts to 240 higher education credits (four years of full-time studies), of which the thesis part amounts to a minimum of 120 higher education credits and the course part to a minimum of 60 higher education credits.



UPPSALA
UNIVERSITET

Requirements for licentiate degree

A doctoral student who has acquired at least 120 higher education credits (two years of full-time studies) is eligible for a licentiate degree. The requirements consist of passing the examinations included in the programme stage and receiving a passing grade on an academic paper of at least 60 higher education credits. The part of the course amounts to a minimum of 30 higher education credits.

Other

Research in Computer Science is conducted in a wide international cooperation and requires a substantial international flow of information. The doctoral student should be able to fluently communicate in English, both orally and in writing.

If the doctoral student does not complete a licentiate degree, he/she shall instead give a half-time seminar, which is publicly announced within the department at least two weeks in advance. The half-time seminar shall consist of a 45-minute presentation, in which the doctoral student presents his/her scientific problem, an overview of his/her research, its methodology and achieved results, as well as planned research, in a manner that is accessible to an audience with a background in computer science. The course on research ethics that is mandatory for the licentiate and doctoral degrees must be completed before the half-time seminar.