Doctoral Programme in Computer Science: Doctoral Studies Progression Steps

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The salaries of doctoral students employed at KTH are currently organized in four levels, or progression steps (*doktorandstegen*). These steps are formulated in terms of percentages of the total graduation requirements. The exact interpretation of these percentages, however, is left to the individual schools and doctoral programmes. This document specifies the progression steps for the Doctoral Programme in Computer Science in terms of a number of **performance indicators**. The purpose of introducing such indicators is to make explicit to students and supervisors the learning and research outcomes expected at each step.

A specific requirement formulated in the present policy is the introduction of obligatory **departmental seminars** in conjunction with each advancement, with the purpose of informing all members of the respective department of the conducted and planned research work.

Planning for progression up the ladder is the joint responsibility of students and their supervisors. The plans for advancement to the next step are to be made explicit in the yearly **individual study plans**, and are to be discussed at the yearly meetings with the *supervisory groups*. Such an advancement needs to be approved by the student's main supervisor and the programme coordinator (*programansvarig*). In principle, advancement can be authorized without all requirements having been met, if there are corresponding over-achievements in other requirements, or if the reasons for a specific delay are beyond the control of the student.

The described policy is in effect since **March 1, 2014**. Students who enroll in the programme or progress to the next step on or after this date must adhere to the described rules for the *next* progression step. (For example, if a student entered the 30% step on March 10, 2014, he/she has to hold the 50% seminar or a licentiate defense to advance to the next step.)

Performance Indicators

The progression steps and their corresponding performance indicators are summarized in the table below, excluding submissions and thesis work.

Step	Month	Credits	Presentations
30%	15 (18)	20	seminar (scientific plan)
50%	24 (30)	30	Lic defense or equivalent
80%	38 (48)	50	seminar (thesis disposition)
100%	48 (60)	60	PhD defense

The performance indicators are now explained.

Step The progression steps in this column are given as completion percentages, as in the Doctoral Ladder.

Month This column indicates the projected time in months for advancement to the respective step. The figure in parentheses takes into account normal departmental duties of 20% (while research is conducted for 80% of the total work time).

Credits At least the specified number of course ECTS credits need to have been obtained and reported in LADOK to advance to the respective step. In the final step, at least 60% of the credits need to be at the research level in accordance with the general KTH requirements for doctoral students. This need not be the case for previous steps.

Presentations Every advancement to the next step has to be preceded by a departmental seminar that is to be required and documented by the HR administrator in charge of doctoral students. At each seminar, the results obtained have to be presented, as well as plans for continuation of the work towards the final degree. The 30% seminar should outline a *scientific plan*. The 50% seminar can be either a licentiate thesis defense, or a seminar with a *discussion leader* (an external one is recommended but not mandatory), proposed by the student's main supervisor. The 80% seminar should contain a *thesis disposition*. All seminars must be announced in *Numero* at least four weeks in advance, following the rules for licentiate and PhD defenses.

The seminars are to be planned for and documented in the individual study plans, and are to be discussed at the yearly meetings with the supervisory groups. They are convenient checkpoints for evaluating the *learning outcomes* specified by Högskoleförordningen and KTH.

Submissions   It is a critical requirement for doctoral students to subject their research results to the scrutiny of the experts in the field by means of submissions to recognized peer-reviewed forums. One of the learning outcomes of doctoral studies is the development of the skill of writing up the obtained results in a publishable form. This process is gradual, and it is the responsibility of both supervisor and student to properly set up the activity. It is recommended that the student be involved early on in joint submissions with the supervisor, that collaboration with the supervisor be on an equal basis towards the middle of the doctoral studies, and that most of the writing should be delegated to the student towards the end.

This policy does not specify exact numbers of publications as a performance indicator, since the publication style varies in the different fields in terms of quantity, content type, and size. Still, workshop, conference and journal submissions in a suitable proportion and order are to be planned for with the main supervisor and specified in the individual study plans. In addition, the departments may formulate *publication guidelines* describing typical numbers of publications.

Theses   The research items that will form the body of results of the final thesis need to be carefully planned and monitored. Advancement on the ladder is contingent on corresponding progress in terms of these results. Planning may happen in one or more stages, depending on the funding structure, which is often based on projects spanning a fixed number of years.

In cases where the doctoral student is funded from projects, a potential exists for conflict of research interests. It is the responsibility of both supervisor and student to make sure that the work required by the funding projects is not carried out to the detriment of the student's thesis work. Discussion with the project leader (if other than the main supervisor) and documentation of project deliverables separate from thesis work should be included in the individual study plans.