



Programme description

Reference number:
V-2023-0328

Doctoral Programme

Valid from: 2023-05-09

Revised as of: 2023-05-09

Programme description: Doctoral Programme in Applied Physics

Programme name in English

Applied Physics

Indicate the third-cycle subjects included in the programme.

Applied Physics and Biological Physics

Programme organisation

Describe the programme council (indicate which functions are included, not persons), the programme director and indicate in particular how student representation is ensured.

The programme's programme council consists of:

- Programme director (convenor) and vice programme director
- Representatives of teachers/supervisors in the Department of Applied Physics (2)
- Up to two (2) student representatives

The student representatives are appointed by THS Student Union at KTH, and the faculty, in consultation with the programme council, is responsible for choosing teacher representatives from the department's faculty.

In addition to the programme council, the student representatives on the programme council lead a student council.

Courses

Range of courses offered

Describe the range of courses in the programme in general and the subject areas to be covered. Current courses are listed on the programme website.

The programme offers third-cycle courses and educational activities in the various disciplines of the subject. The course component of the third-cycle programme is, for the most part, individually adapted to the knowledge needs of the third-cycle students and their specific research projects. Third-cycle courses are intended to provide both depth and breadth in areas central to the programme. These courses can be supplemented with courses at first-, second- and third-cycle level both within and outside KTH.

The programme offers courses and other educational activities aimed at fulfilling the qualitative targets.

An additional recommended educational activity for third-cycle students is active participation in scientific exchange with academia, companies and the surrounding society by presenting their own research results in various ways.

Further information on compulsory and recommended elements can be found in the general syllabus for the third-cycle subject area.

Quality assurance and monitoring of programme courses

State how the programme's courses are monitored and how quality assurance of the courses is carried out.

In accordance with KTH's regulations, the programme applies regular reviews of third-cycle courses, establishes new courses when necessary, and terminates courses that are no longer offered as well as communicating any information about regulatory changes to course coordinators.

Other programme content and support for the programme's doctoral students

Organised activities other than courses, such as seminar series and workshops.

Aphys (Applied Physics) seminars are regularly organised to offer broader insight into the department's research.

The individual study plan is an important tool for monitoring the progression of doctoral students towards goal attainment. All individual study plans are available where the PA/vice FA/FA has access to information for regular follow-up of the research students' activities and how these lead to progression towards attainment of the qualitative targets. The principal supervisor is responsible for ensuring that the individual study plan is updated as needed, but least annually, in consultation with the third-cycle student and co-supervisor.

Description of the continuous, systematic quality-enhancement activities of the programme

Describe the regular monitoring, analysis, evaluation and development activities. This can be done, e.g., through course analyses, programme analyses or the means for ensuring a relevant range of courses offered.

The third-cycle programme undergoes an annual quality assessment where its content and the monitoring of quality-assurance measures are evaluated and discussed. Within the framework of quality assurance, special consideration is given to the environment, resources, quality, design, implementation and results of the third-cycle programme, as well as how monitoring of proposed measures is carried out and how feedback to stakeholders is provided. Furthermore, the third-cycle programme places great emphasis on the perspective of its students, as well as issues related to sustainable development, equality, diversity, equal treatment and working life. Surveys are sent to all third-cycle students, and individual counselling is offered.

Examples of concrete quality-assurance measures:

- Qualitative targets for third-cycle education are clearly described in the subject's general syllabus and the student's individual study plan. Progression towards the qualitative targets is monitored regularly through, for example, monitoring of individual study plans. Compulsory educational activities are an important support for goal attainment.
- The doctoral programme council in Applied Physics meets regularly during the semester. The council is chaired by the PA and vice PA. Council members include representatives of teachers, supervisors and doctoral student councils. The programme council advises the PA and deals with issues related to programme implementation and quality development.
- The third-cycle quality council meets regularly during the semester. The council is school-wide and chaired by the FA. Council members include all vice FAs and PAs, as well as representatives of teachers, supervisors, doctoral student councils and University

Administration. The quality council is advisory to the FA and head of school and deals with issues related to all third-cycle programmes at the school.

- Requirements for appointment as principal supervisor or assistant supervisor are described in KTH's guidelines for third-cycle education.
- The school offers and monitors continuing professional development for supervisors.
- Third-cycle students and supervisors are encouraged to engage in interdisciplinary collaborations and to participate in international collaborations, including short-term stays abroad.
- Thesis quality is ensured by internal review, and by the summative assessment of the thesis component by an independent grading committee.
- Recruitment of new third-cycle students is preceded by the creation of a new student place. This process entails that all study resources are reviewed by the FA and head of department before an opening for employment as a doctoral student can be announced. The FA and head of department then make a recommendation for a decision to the head of school as to whether a training place can be established. The head of school decides on the establishment of a student place, after which a call for applications can be made. Anyone wishing to host a scholarship-funded third-cycle student also must apply for a student place.