Study plan

What, why and how?

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What is a study plan?

The study plan is an official document in which the courses included in the degree are confirmed in detail: course code, name and credits. The courses are also grouped by modules of the degree program. In the Doctoral Programme of Electrical Engineering the study modules are research field studies and scientific principles and practices. Structure of the degree is described separately.

Why to do and have a study plan?

Study plan is an important part of planning of your studies. It is important to discuss the courses included in the degree with your supervising professor and he/she needs to support the study plan in order it to be confirmed. The confirmed study plan ensures that there are no surprises with the studies required and you can graduate as planned.

If the plan should change, the new study plan can be confirmed by submitting a new one. The official study plan is always confirmed by the Chair of the doctoral programme committee.

How to choose courses and what can be included to the degree?

It is worth discussing the degree courses with the professor when the dissertation research is planned. In some of the doctoral programs the content of the degree is defined in more precisely but in all programs it is possible to choose the studies individually. In the Doctoral programme for Electrical Engineering there is only one compulsory course (for full-time candidates), Introduction to doctoral studies (ELEC-L0902). It is part of the scientific principles and practices module.

Studies in the field of research should support dissertation work and you can choose courses from your own university, other Aalto schools or other Finnish universities. If Aalto does not have the necessary courses or teaching, the student can, within the framework of flexible study right, conduct individual courses at other Finnish universities as well. In these cases, the studies must be validated in the study plan before applying for a flexible study right.

If you have already completed a courses suitable for PhD degree (in Finland or abroad), the credits need to be confirmed in the study plan and then transferred to Aalto study registry. Studies completed at Aalto are automatically displayed in the registry and they are sufficient for approval in the study plan. For studies completed in some other university, you need to apply for a credit transfer.

Individual study attainments in doctoral degree

You can have individual study attainments in the doctoral degree. You may participate summer/winter schools, complete individual assignments or do book exam for example.

These individual study attainments are registered by using the general code for the doctoral studies of the research field. The professor/teacher makes the announcement of the study attainments to the study office. These study attainments are registered with research field based general codes, so additional information should always be included such as topic and date for summer school, name of the conference, name of the book, topic of an assignment.

The general codes for the doctoral studies of the research field / Yleiset tutkimusalan jatko-opintokoodit

These codes are used to register individual study attainments such as summer/winter schools, conference presentations, book exam, individual assignments.

Specific information about the course should always be added to the course!

- ELEC002Z-LZ Postgraduate studies for Micro- and Nanoelectronic Circuit Design / Mikro- ja nanoelektroonikasuunnittelu
What kind of studies can be included to the degree?

Scientific principles and practices module can include variety of studies but it may not consist totally of presentations in scientific conferences of one’s own field.

For full-time doctoral candidates the only compulsory course is ELEC-L0902 Introduction to doctoral studies.

1 Suitable courses for this module

- Introduction to doctoral studies is compulsory to full-time doctoral candidates who have been admitted after August 1, 2015.
- Research Ethics Course (online course available)
- Pedagogical studies (University level)
- Kon-41.5167 / MEC-E9010 Patents
- History of Science
- Philosophy of Science
- Philosophy and Systems Thinking, varying content (can be approved once)
- History of Electrical Engineering
- Law in Digital Society CSE-E4680 / CS-E5370

Following courses by the Aalto Language Center (exact language courses cannot be included to the doctoral degree)

- Presenting Doctoral Research
- Writing Doctoral Research
- Tieteilijän kirjoittaminen tohtoriopiskelijoille L (V) (in Finnish)
- Debating Skills L
- Negotiating Skills L
- Informative Presentations L

For more detailed course information, please see the MyCourses and WebOodi.

2 Learning university practices (teaching and guidance), scientific preparatory tasks and pedagogic studies

- 1-3 credits for acting as the assistant for exercises or teaching.
  - Credits may be earned for assisting on a maximum of three different courses
  - the maximum number of credits is 3 x 3 credits
- Also at most 2 cr bachelor’s thesis advisor duties
  - when doctoral candidate is nominated officially as bachelor thesis advisor.
  - University lecturer Markus Turunen confirms these study attainments as responsible teacher for bachelor’s seminar at ELEC
- Master thesis advisor duties can be included to doctoral degree
  - professor confirms the study attainment
- The credits are assigned by the supervising professor case by case depending on the workload and requirements.
  - 1 cr = 27 hours of work
- The participation in pedagogic training (YOOP courses or Aalto University pedagogic education) grants a maximum of 15 cr.

The credits are recorded for the general codes reserved for the doctoral studies of the research field, see details.
3 Presentations in an international conference of the field

Please note that the study module may not consist totally of presentations in scientific conferences of one’s own field.

- Study attainment includes: **a rehearsal presentation in Finland, presenting a poster or giving an oral presentation** at a conference and a **active participation in the conference**: is worth 1-2 cr /conference.
- Credits may be earned for maximum of three different conferences, so the maximum number of credits is 3 x 2 credits

These credits are registered by using the general codes reserved for the doctoral studies of the research field.

- ELEC006Z-LZ Postgraduate studies (Automation, systems and control engineering)
- S016Z-LZ Postgraduate studies (Communications Engineering)

In the programme level there are no specific course requirements for this module. Courses should be post-graduate courses are marked letter L/P in the course name, with letter L in the course code or as “doctoral” in the course description.

- ELEC-E8101 - Digital and Optimal Control P
- ELEC-L0902 - Introduction to Doctoral Studies

Two master level courses can be included to the research field studies without any additional reasoning.

Bachelor level courses cannot be included to the doctoral degree but these are considered are prerequisite courses.

For more detailed course information, please see the MyCourses and WebOodi.

Study plan confirmation process

- Familiarize yourself with the degree structure and requirements for the studies.
- Discuss the studies and requirements with your supervising professor.
- Fulfill the study plan application:
  * Sign the form yourself and remember supervisor's signature.
- Submit the study plan to the doctoral programme study office
- If additional information is required, you will be contacted by email.
- You will be informed by email when the study plan is confirmed.