Courses offered

Search for courses
- Courses at Aalto
- Courses as ELEC
- Courses by Nordic Five Tech

New doctoral students
- Aalto Orientation Days
- Introduction to doctoral studies

All doctoral students
- Entrepreneurship and business skills
- Information security and data protection
- Leadership
- Open science
- Pedagogical studies
- Project management
- Research ethics
- Scientific writing and communication
- Writing grant applications
- Writing the doctoral thesis

Courses and lectures
- Courses at Aalto University - MyCourses (all courses) and School of Electrical Engineering courses in MyCourses
- Search for current courses - the Aalto University course catalogue
- Summer schools, courses and researcher meeting organized by the doctoral education networks

Courses for School of Electrical Engineering by departments at MyCourses
- Communications and Networking
- Electrical Engineering and Automation
- Electronics and Nanoeengineering
- Signal Processing and Acoustics
- Metsähovi Radio Observatory
- Common courses for the school (ELEC)

Courses offered by The Nordic Five Tech (N5T)
Courses offered in the joint data base by Chalmers University of Technology, Technical University of Denmark (DTU), Royal Institute of Technology (KTH), Norwegian University of Science and Technology (NTNU) are free of charge for doctoral students of Aalto. For more information on this collaboration: Studies in international university networks#NordicFiveTechandPhD-studies. To search for courses in the data base: https://phdcourses.nordicfivetech.org/.

Doctoral Orientation Days
- Joint orientation for all new Aalto doctoral candidates
- Aallonhuiput, the student association for doctoral candidates at Aalto University

Introduction to Doctoral Studies ELEC-L0902
- This course is highly recommended for all doctoral candidates of ELEC
- Organized next time 24.8-15.10.2021
Research Ethics for doctoral candidates

- Open Learning course on research ethics: [https://findocnet.fi/course/view.php?id=137](https://findocnet.fi/course/view.php?id=137). To access this course, you need a password which you can obtain from the university's doctoral education services staff (minna.soderqvist[at]aalto.fi and katri.eeva[at]aalto.fi).
- A online course including two compulsory workshops for doctoral candidates at Aalto University. Recommended for first or second year doctoral candidates, 2 credits.

The course is organized two times during the academic year 2021-2022, 4-29.10.2021 (workshops on 11.10 at 14-18 and 18.10 at 14-18) and 7.3-4.4.2022 (workshops on 10.3. at 14-18 and 17.3 at 14-18).

**Schedule**

The course is organized two times a year, once in the autumn term and once in the spring term.

**Level**

Doctoral studies, recommended for first or second year of study. The course is 2 ECTS and comprises of 54 hours of study.

**Learning outcomes**

At the completion of this course a doctoral candidate is able to:

1. recognise and analyse key research ethical questions
2. formulate ethical research plans and responses to ethical challenges by applying key ethical theories and approaches
3. recognise and understand key ethical principles guiding research and how they apply to research work
4. understand the Finnish Responsible Conduct of Research guidelines, processes for dealing with research misconduct, and processes for applying research license or ethical review
5. identify rights and responsibilities as a researcher
6. understand how ethical decisions and choices influence society and research community

**Mode of study**

- The course will be taught online in Moodle. You will receive the enrolment key form the course coordinator after your enrolment to the course has been confirmed.
- All course correspondence will be sent to your Aalto email, so please check your email at the start of the course for more details on assessment tasks and course content.
- The course language is English. However, on the Moodle site materials are available also in Finnish and most assessment tasks can be completed either in English or in Finnish.
- Most of the course is self-directed and allows for great flexibility with when and where it is done. However, assessments have strict deadlines.
- **Please note:** attendance at two workshops is compulsory

**Evaluation criteria**

Pass/Fail

The course completion requires:

- active engagement with the course material,
- completing compulsory assessment tasks detailed above

The course evaluation is based on adequately achieving learning outcomes as evidenced in the assessment tasks.

**Lecturer**

Dr. Henriikka Mustajoki

Open Science

- Open learning course on Open science: [https://findocnet.fi/course/index.php?categoryid=47](https://findocnet.fi/course/index.php?categoryid=47). To access this course, you need a password which you can obtain from the university's doctoral education services staff (minna.soderqvist[at]aalto.fi and katri.eeva[at]aalto.fi).

Scientific writing and communication

- Courses for doctoral candidates offered by the Language Centre
- Need help with academic writing in English? Check out the Aalto University Writing Clinic.
- Nervous about a conference presentation or a speech? Check out the Aalto University Speech Clinic.
- 21E72500 - Finding Joy and Productivity in Academic Writing
- Co-writing - creating shared experiences and supportive environments - PhD Pathfinder (mariatornroos.fi)
Writing scientific journal articles

- 4-hour lecture for doctoral candidates
- Organized 1-2 times a year in the end of the spring and autumn terms. Follow your e-mail for more information.
- The lecture provides new doctoral candidates with basic understanding of how to write scientific journal articles. The lecture will motivate doctoral candidates to start writing sooner. After the lecture the doctoral candidates will understand what is required from a scientific article and what the related publishing processes entail. The doctoral candidate will know how to approach and write a scientific journal article effectively.

Contents

- Practical tips for writing scientific articles
- Improving chances for acceptance
- Article logic, beginning and end
- Editor’s viewpoints
- Group dynamics for writing articles
- Discussion

Lecturer

Dr. Pekka Belt

Pedagogical studies

- Pedagogical training in Aalto (requires Aalto password).
- Pedagogical studies can be included in the Scientific practices and principles -module.
- Take a look at https://unips.fi/: It is a digital learning solution for university teachers and doctoral candidates to study university pedagogy. The pages contain e.g. modules for self-study on all kinds of topics related to teaching.

Project management


Entrepreneurship and business skills

- Aalto Ventures Program (AVP) offers courses in entrepreneurship. Doctoral candidates are welcome to join the courses.
- Entrepreneurship and startups
- Aalto Business Skills for Doctoral Students D, LC-L1012 (1ECTS). To access this course, you need a password which you can obtain from the university's doctoral education services staff (minna.soderqvist[at]aalto.fi and katri.eeva[at]aalto.fi).

Career planning and competence development

- HR offers support for career planning and competence development through workshops and other events (requires Aalto login)
- Aalto Career Course for Doctoral Students D, LC-L1013 (1ects). To access this course, you need a password which you can obtain from the university's doctoral education services staff (minna.soderqvist[at]aalto.fi and katri.eeva[at]aalto.fi).

Information security and data protection training

- Online training on Information Security and Data Protection

Writing the doctoral thesis

Theses and Tomatoes every Thursday at 10-12 until 24 June

Are you feeling stuck in your research work? Come and join a co-writing space in Zoom on Thursdays at 10-12. The event contains a 15-minute introduction by the psychologist for doctoral students, Maria Törnroos, and two 40-minute Pomodoros with a 15-minute break in between. There is no enrolment needed, just join us and get your thesis moving. The event is intended for doctoral students (although other academic staff is also welcomed) at Aalto University.

More information and the zoom-link here: https://into.aalto.fi/display/enopisk/Courses+and+workshops+for+students
Writing the compiling part of an article based doctoral thesis

- Organized 1-2 times a year. Follow your e-mail for more information.

A 4-hour lecture for doctoral candidates at Aalto University.

The lecture provides doctoral candidates with an understanding of writing an article based doctoral thesis effectively once the related articles have been written. The lecture will help doctoral candidates in understanding the role of the separate articles and the thesis as a whole. After the lecture doctoral candidates will know what is required from an article based doctoral thesis and how to reach the goal as efficiently as possible while maintaining high standards. Doctoral candidates will have a good perception of the thesis requirements and structure.

Contents

- Structure of an article based doctoral thesis
- Perceiving the whole created by the articles
- General quality requirements and forms of article based doctoral theses
- Publication process
- Optimal order of writing
- Schedule for writing the compilation

Lecturer

Dr. Pekka Belt.

Leadership


Writing grant applications

- Aalto Writing Research Grant Applications for Doctoral Students D, LC-L1016 (1ects). To access this course, you need a password which you can obtain from the university’s doctoral education services staff (minna.soderqvist[at]aalto.fi and katri.eeva[at]aalto.fi).