



Aalto University
School of Chemical
Engineering

Toolkit for Doctoral Studies

Lecture 1

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Agenda

- General information of doctoral studies
- Practical issues
- Student status, annual enrollment (weboodi)
- Study plan
- Studies at other Finnish universities
- Joo study right for course organised by another university
- Advisory board
- Annual study survey
- Incentive scholarships at Aalto
- Steps towards your doctoral dissertation and graduation
- Requirements for the doctoral degree
- Future with D.Sc. degree

Doctoral studies

Aalto Uni. total of 6 schools – of which 5 can grant D.Sc.(Tech.) degrees. Each school selects their students independently

Intake of new doc.students at CHEM on year 2020 was 44 (incl. 3 part-time students) and for 2021 this is expected to be higher than year 2020.

Registration after accepting the offered study right

Enrollment each year between May-early Sep. - do not forget!

Always check first <https://into.aalto.fi/display/endoctoralchem>
for more information

Requirements for the doctoral degree

1) Accepted doctoral dissertation

The main emphasis of doctoral studies is on research work

2) Theoretical studies: total of 40 study credits (ECTS)

- Research field studies 20-35 ECTS
- General res. studies 5-20 ECTS

<https://into.aalto.fi/display/endoctoralchem/Study+plan>

- If theoretical studies are completed in conjunction with the licentiate degree (Lic.Sc.(Tech.)), the doctoral dissertation is the only further requirement

Constant evaluation of the doc. studies

1) Supervision plan

The main emphasis of doctoral studies is on research work and publishing

2) Advisory group meetings and support

- Update your research and publishing plan. Present all your achievements this far and give timeline for the future work.
- Use eDuuni platform for the documentation of board meetings

3) Theoretical studies: SISU study plan

- Ask for update when needed

Research ethics is compulsory part – Incl. to Toolkit course

4) Academic CV and publications

5) Annual survey for doctoral students of CHEM - Dec.-Jan. each year.

Theoretical studies: total 40 ECTS

<https://into.aalto.fi/pages/viewpage.action?pageId=8426517>

Find doctoral level courses at <https://into.aalto.fi/display/endoctoralcourses/Homepage>

Doctoral level courses at CHEM <https://into.aalto.fi/display/endoctoralchem/Courses+offered>

Research field studies 20-35 ECTS.

- Doctoral level studies (doctoral level courses are typically organised by universities and national graduate schools)
- Literature exams, literature work and other individual studies.
 - 27 hours of active work gives 1 ECTS.

General res. studies 5-20 ECTS

- Incl. various topics and fields, also pedagogic studies designed for university teaching, instruction of thesis, patenting course etc.

Study right for another Finnish university

How to proceed if you want to accomplish a doctoral level course at another Finnish university

- Is similar course available at Aalto University?
- Ask study secretary to return the previous study plan (electronic eAge)
- Update your study plan and ask professor's acceptance for it
- Fill-in the electronic Joo-application before the end of year 2021
<https://haku.joopas.fi/litu/disp/en/kirjaudu/tab/tab/sea?page=0&menuid=1>
 - > Based on your official study plan, Joo request can be accepted and your request will be forwarded to the host university
- After the course and exam are done, ask for study transcript from the host university and submit the original document to your professor and study secretary

Theoretical studies: researcher with skill set

General studies 5-20 ECTS

<https://findocnet.fi/>

- Open Science for Doctoral Students, LC-L1011 (1 ECTS)
- Business Skills for Doctoral Students, LC-L1012 (1 ECTS)
- Career Course for Doctoral Students, LC-L1013 (1 ECTS)
- Interactive Leadership Skills for Doctoral Students, LC-L1014 (1 ECTS)
- Project Management for Doctoral Students, LC-L1015 (1 ECTS)
- Writing Research Grant Applications for Doctoral Students, LC-L1016 (1 ECTS)

Courses of English language and science writing

All doctoral students must learn to publish their research results in peer-reviewed journals and present their ideas & findings to research community.

Opportunities to improve your skills in English

- Writing clinic <https://into.aalto.fi/display/fiopinnot/Writing+Clinic>
- LC-1330 Presenting Doctoral Research (o), 3-5 ECTS
- LC-1340 Writing Doctoral Research (w), 3-5 ECTS
- LC-1335 Preparing for the Doctoral Defence, 1 ECTS
- <https://into.aalto.fi/display/enopinnot/Language+and+communication+studies>
- CHEM-E2165 Computer Aided Visualization and Scientific Presentation, 3-5 ECTS
- Seminar presentations for various audience
- Research conference presentations (oral or poster)
- If applicable, Aalto University offers various staff training. However, no ECTS can be accomplished from these short courses and training events.

Incentive scholarships for the doctoral students (until Dec 31, 2021)

- **500 euro scholarship**

for the first scientific article, in which the doctoral candidate is one of the main authors, published on a publication forum specified by the Aalto school*

- **500 euro scholarship**

for doctoral candidate who has, within one year and 6 months of the date of admission to pursue doctoral studies, completed the theoretical studies (40 ECTS) in accordance with his/her individual study plan approved for the postgraduate degree.

Incentive scholarships for the doctoral students (from Jan 1, 2022)

<https://into.aalto.fi/display/endoctoralchem/Incentive+scholarships>

- **500 euro scholarship**

for the first two scientific articles, in which the doctoral candidate is one of the main authors, published on a publication forum specified by the Aalto school*

After completing the doctoral degree 2000 euro scholarship

If these conditions are met **within four years of being admitted to doctoral programme:**

- Theory studies have been completed according the study plan
- Pre-examiners were appointed to the thesis manuscript

Advisory group

- Supervising professor, 1-3 Thesis instructors, 1-2 outside members (no direct link to the doc. thesis research), administrative member. Doc. Programme Committee members have right to attend the board meetings.
- Each student's achievements and targets must be considered separately. Active support and feedback.
- Aalto CHEM's instructions for advisory group
<https://into.aalto.fi/display/endoctoralchem/Supervision%2C+research+and+dissertation>
- Advisory group meetings
 - 1st meeting (10-12 months) presentation of plans
 - 2nd meeting (17-19 months) evaluation of progress and update of a finalizing plan
 - 3rd meeting (25-30 months) revision of the finalizing plan, plans for pre-examination, career planning, etc.
 - 4th meeting (36-40 months)

Study service for doctoral students

Sannamari Hörkkö (Study Secretary) Room C202b
Sirje Liukko (Planning Officer) tel.+358 50 577 3736
Kemistintie 1, rooms C222 and C202b

E-mail doctoral-chem@aalto.fi

<https://into.aalto.fi/display/endofdoctoralchem/Homepage>

Being a doctoral student -pages

<https://www.aalto.fi/en/study-at-aalto/being-a-doctoral-student-at-aalto>

Rules for Doctoral Education

- Aalto University: academic research ethics and handling of violations
<https://into.aalto.fi/display/ensaannot/Aalto+University+Code+of+Academic+Integrity+and+Handling+Violations+Thereof>
- Degree regulations for doctoral studies
- <https://into.aalto.fi/display/ensaannot/Degree+Regulations+on+Doctoral+Education>

Aalto's quality requirements for doctoral dissertations

https://into.aalto.fi/download/attachments/1200399/decision_AAK_2015_12_01_dissertation.docx?version=1&modificationDate=1519844812794&api=v2

- Electronic doctoral dissertations are published at
<https://aaltodoc.aalto.fi/handle/123456789/51>

Support&Practical advice for doctoral students

- LES – Learning services for transcript of study register, enrollment records
- LES – Sannamari helps with registering your ECTS credits, study rights, degree certificates etc.
- Advisory group -Support and advice for career, ideas for publishing, support for research
- Peer- support Doc. Students at department, department presentatives, Aallon Huiput, Extended committee student members
- Publishing information – ACRIS
- Publishing Aalto thesis –library services

Support & Practical advice for doctoral students

- HR- for employment matters
- Terveystalo – healthcare for Aalto employees
- Advisory group -Support and advice for career, ideas for publishing, support for research
- Ombudspersons – each school of Aalto University has now nominated ombudsperson

<https://www.aalto.fi/en/study-at-aalto/support-for-challenges-during-your-doctoral-studies#2-ombudsperson-for-doctoral-students>

- Doctoral student wellbeing <https://www.aalto.fi/en/study-at-aalto/doctoral-student-well-being-and-welfare>
- Planning your new steps career-wise

<https://www.aalto.fi/en/aalto-university/career-design-lab>

Instructions for the article-based and monograph dissertation at School of Chemical Technology (Aalto CHEM) dissertations

See link

https://into.aalto.fi/download/attachments/12356737/A%20memo%20Instructions_dissertation%20march12_2019_SiL.doc?version=1&modificationDate=1554994937540&api=v2

Aalto CHEM's quality requirements for doctoral dissertations

Answer to these four points by selecting one of choices (Top 20%, Pass or Fail)

| General quality requirements for doctoral thesis manuscripts | Your evaluation of this thesis: | | |
|--|---------------------------------|------|------|
| Opponent _____ | Mark only one box on each row | | |
| Doctoral candidate _____ | Top20% (Excellent) | Pass | Fail |
| 1. Does this dissertation contain new scientific findings in its area of research? | | | |
| 1. Consider the methods, experimental setups, measurements, and the data presented in this dissertation and defence. Do they withstand the scrutiny appropriate for scientific research? | | | |
| 1. Does the doctoral candidate present his/her achievements and assertions clearly and scientifically? | | | |
| Compared to other recent dissertations accepted by your university or within similar areas of research, is this manuscript in your opinion Top20% OR Pass OR Fail ? | | | |

Pre-examination of doctoral thesis

For an average case (i.e. only minor corrections) a total of 3 Doctoral Progr. Committee meetings are needed before the defence

- **1st meeting** for the acceptance of the two pre-examiners (this starts the pre-examination process)
The next 5-6 weeks are reserved for the pre-examination
- **2nd meeting** for evaluation of the pre-examination statements. Decision: how much revision of manuscript is needed.
- **3rd meeting** for the evaluation of the response report (corrections and comments).
Decisions: permission to publish the dissertation (the end of the pre-examination process) AND decision of defence (date, opponent(s), custos and language) -
 - At latest 4-6 weeks before the defence day

Doctoral defence

Printed dissertations are published at Aalto's publication series

<https://www.aalto.fi/en/services/publishing-dissertations>

Electronic dissertations are public and accessible for all

<https://aaltodoc.aalto.fi/handle/123456789/51>

Opponent, custos, date and place for the defence

Defence press release for the media use

<https://www.aalto.fi/fi/listing/137421>

Lectio Praecursoria

Instructions for the defence

<https://into.aalto.fi/display/enddoctoralchem/Guidelines+for+opponents>

Post-doctoral party

Steps for the graduation

After the defence, one Doctoral Progr. Committee meeting is needed before the graduation

At Doctoral Progr. Committee meeting: the acceptance of the doctoral dissertation and grading (pass or fail).

Around 20% of theses will be granted with “Award *for Excellence*”

Dean’s decision for graduation. Graduation day appr. once per month

Total time needed for graduation after defence is typically 1-4 weeks

The Dean of the School presents the diploma (degree certificate) at a ceremonious graduation ceremony (March, June, September and Dec.).

Ceremonial Conferment of Doctoral Degrees

Aalto Ceremony week and conferment on 17 June 2022.

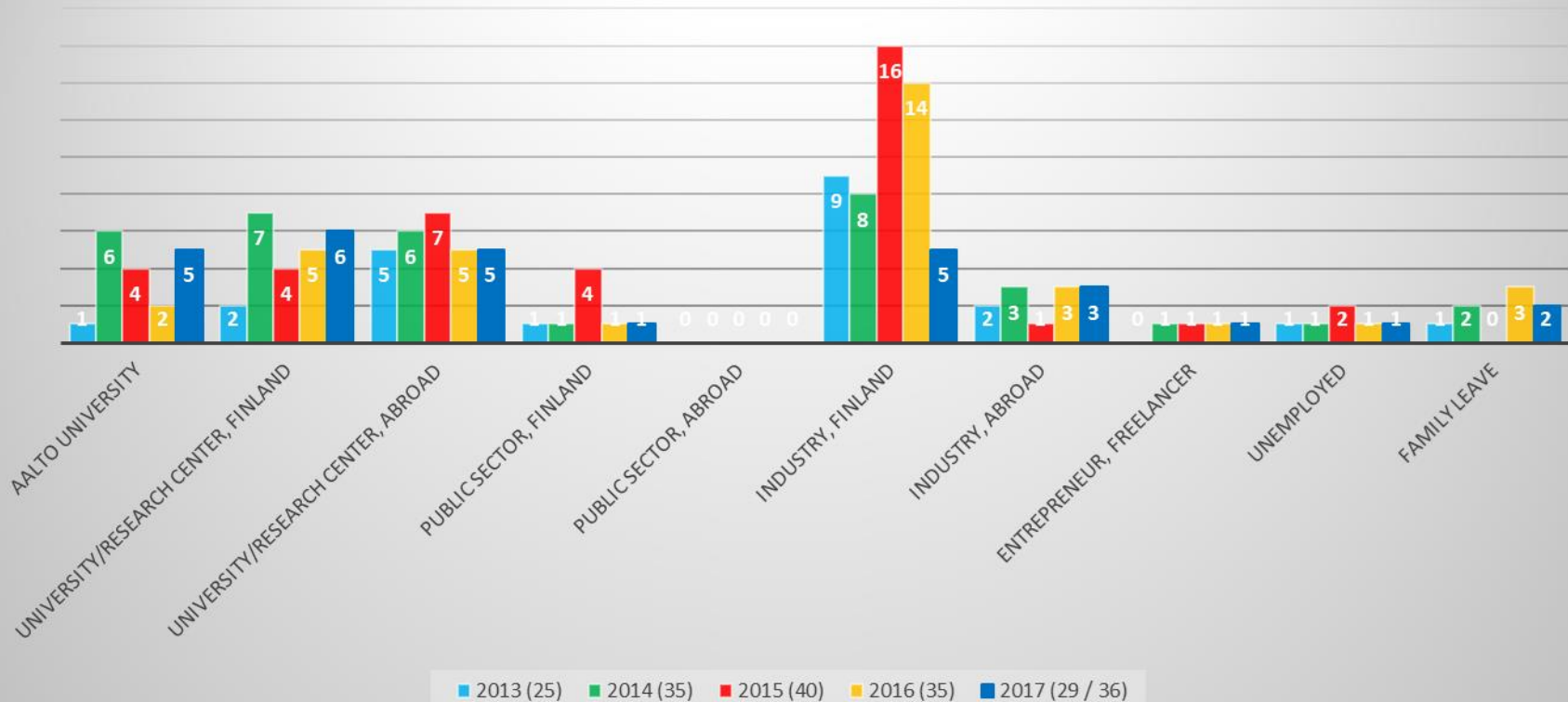
The Aalto University schools celebrate the ceremonial conferment of doctoral degrees on June 17th, 2022

The right to participate is a one-time possibility. Only the doctors having completed their doctoral degree between 1 May 2019 and 30 April 2022 are entitled to participate in the 2022 Ceremonial Conferment of Doctoral Degrees in Technology



Post-doctoral follow-up: Employment status of graduated CHEM doctors after one year from graduation - years 2013-2017

Employer of graduated doctor, one year after graduation year



Authorship and authors' contributions

Authorship can include all of the following:

- 1) Conception and design or analysis and interpretation of data, or both;
 - 2) Drafting of the manuscript or revising it critically for important intellectual content; and
 - 3) Final approval of the manuscript submitted.
- Participation solely in the collection of data does not justify authorship.
 - All co-authors are accountable for what is published.

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- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
 - Drafting the work or revising it critically for important intellectual content; AND
 - Final approval of the version to be published; AND
 - Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
 - <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>

Authorship and Authors' contributions (2)

Authors' contributions

- Describe each author's individual contributions to the work
- Committee expects that all authors have reviewed, discussed, and agreed to their individual contributions ahead of the submission
- Contributions will be used as part of evaluation by pre-examiners and published with the final thesis, and they should accurately reflect contributions to the work.
- The worst scenario:

“NN states in the authors contribution that for all manuscripts (I-IV) he wrote the manuscripts. Examining the quality of writing and language in the compendium compared to the manuscripts makes this however questionable, and it is more probable that NN wrote the manuscript as drafts that were significantly modified/improved by the co-authors/supervisors. This is also in line with paper IV (the only manuscript which is in a draft format, being submitted to YYY) which has a style and quality which is more similar to the compendium.”

- <http://journals.plos.org/plosone/s/authorship>

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