Admissions criteria and guidelines for doctoral student admissions of the School of Engineering in 2022

Applying to the doctoral programme

1. General eligibility criteria

The general eligibility criteria for higher education are defined in section 37 of the Universities Act (558/2009).

Eligible applicants for studies leading to an academic or artistic licentiate or doctoral degree have completed:

- a relevant master’s degree awarded by a university;
- a relevant master’s degree awarded by a university of applied sciences; or
- a relevant study programme abroad which in the awarding country gives eligibility for the corresponding level of higher education.

Eligibility for studies referred to in the above section may also apply to a person whom the university deems otherwise to have sufficient knowledge and skills for the studies.

The university may require a student admitted to study for an academic or artistic licentiate or doctoral degree to complete supplementary studies in order to acquire the knowledge and skills needed for the study programme.

In addition, the law requires that consistent admissions criteria be applied to all applicants.

2. Admission of doctoral candidates

The School of Engineering awards the doctoral degree of Doctor of Science (Technology). For special reasons, a Licentiate of Science (Technology) may be awarded.

The following applicants are eligible to pursue a doctoral degree in the field of science and technology:

- those with a Finnish master’s degree in science and technology
- those with a Finnish master’s degree providing them with the skills and knowledge required for doctoral studies in the field of research applied for;
- those who have earned a university degree abroad corresponding to a Master of Science (Technology), Master of Science (Architecture) or Master of Science (Landscape Architecture) and providing them with the skills and knowledge required for doctoral studies in the field of research applied for
- those who have completed a relevant study programme abroad, which in the awarding country gives eligibility for the corresponding level of higher education and provides them with the skills and knowledge required for doctoral studies in the School of Engineering research field applied for.
The prerequisite knowledge and skills for the doctoral studies are demonstrated through the completion of a relevant master’s degree in Finland or a relevant degree abroad, which in the awarding country gives eligibility for doctoral studies.

Students holding a degree earned abroad are eligible for doctoral studies provided their degree gives them eligibility for corresponding higher education in the awarding country. The precondition for the recognition of European degrees is that the degree is a university degree combination earned in accordance with the Bologna Process principles (3+2 years). Applicants with a previous degree not compliant with the principles of the Bologna Process are, as a rule, required to hold a Master of Science degree. The degree combination must include a thesis similar to a Finnish master’s thesis (pro gradu).

The aptitude for doctoral studies of applicants with a relevant Finnish master’s degree in the field of technology earned at a university of applied sciences is reviewed case by case by the school. If the school deems the applicant with an applicable master’s degree in technology from a university of applied sciences as having potential for completing the doctoral degree, the applicant will be assigned a sufficient amount of supplementary studies to allow him or her to start the doctoral studies. The scope of such supplementary studies may not, however, exceed 60 cr. If the scope of the supplementary studies exceeds this maximum, the applicant is advised to pursue the master’s degree before applying for a right to study towards a doctoral degree. When assessing the students’ potential for successful doctoral studies and determining their need for supplementary studies, the school will take into account that at universities of applied sciences, the scope of the master’s degree programmes in technology is 60 cr, corresponding to one year of studies, while at universities, the scope is 120 cr, corresponding to two years of studies. The scope of the master’s degree studies in other fields than technology is either 60 cr or 90 cr at universities of applied sciences.

Applicants with a previous relevant degree in technology earned abroad and corresponding to a degree from a Finnish university of applied sciences are treated equally to those with a master’s degree from a Finnish university of applied sciences.

3. Prerequisite knowledge

To be approved for doctoral studies, the applicant must have adequate knowledge in his or her confirmed research field, gained through, for example an advanced module towards basic studies or the equivalent knowledge gained otherwise. Also the completion of studies supporting the writing of the master’s thesis requires sufficient basic knowledge of the field. As necessary, the school may require that an admitted student complete supplementary studies; students may gain the prerequisite knowledge, for instance, by taking examinations associated with master’s-level courses.

Successful candidates for doctoral studies must meet the minimum average grade requirements of 3.0/5 for the master’s degree and 3/5 for the master’s thesis. Those with a master’s degree earned in accordance with the degree regulations of 1995 or at an earlier time when the bachelor’s and master’s degree were not pursued separately are required to have completed the courses towards their major, which form the basis of eligibility for doctoral studies, with an average grade of at least 3.0/5. The same requirements apply to degrees earned elsewhere than in the field of science and technology at Aalto University, in Finland or abroad. Students who fail to meet these minimum grade criteria but are otherwise suitable for doctoral studies may improve their grades or, in special cases, the school may require that they pursue supplementary studies.
In addition to courses taken in the field of science and technology at Aalto University, the school may also approve corresponding courses of other higher education institutions at the proposal of the supervising professor.

4. Application periods and study option

The School of Engineering arranges two application periods for doctoral admissions per year to the Doctoral Programme in Engineering.

The application periods are in the following months (specific dates are given later by the doctoral programme committee):
March 2022
September 2022

5. Application for doctoral studies

Before submitting the application, each applicant must contact the professor in charge of his/her doctoral research field (supervising professor).

Applicants with a master's degree earned at Aalto University in the field of science and technology are required to provide:

- a completed application form (available on the Aalto University website)
- transcript of records
- a curriculum vitae (CV) including a list of scientific activity (publications, etc.)
- a preliminary study plan
- a preliminary research proposal and schedule for its completion. The proposal must include the signatures of the applicant and supervising professor.
- a preliminary funding plan
- a supervision plan for doctoral studies
- a motivation letter
- a copy of the applicant's passport or other proof of identity

Applicants with a master's degree in the field of science and technology earned elsewhere than at Aalto University are also required to provide:

- a certified copy of their master’s degree certificate as well as transcript of records; the documents must be translated to Finnish, Swedish or English, if not already in one of those languages
- their master’s thesis abstract in English
- a demonstration of language proficiency. The required language skills are specified under item 8.

Those applying for the right to study towards a doctoral degree should present a personal study plan that supports their academic goals and allows the doctoral degree to be earned in four years of full-time study. The plan must include a list of the studies to be completed and a research proposal. The proposal must be signed by both the applicant and the supervising professor.

6. Assessment of applicants
The supervising professor in charge of the research field selected by the applicant goes through the study plan with the applicant. At this stage, the professor also establishes whether the applicant has sufficient and up-to-date basic knowledge of the research field. As necessary, the professor may set prerequisites for admission to the doctoral programme. The funding plan for the doctoral studies is also gone through during the application stage. The supervising professor assesses the aptitude of the applicant for doctoral studies, the suitability of the thesis topic for the research field, reviews the adequacy of the supervising resources and puts forth a proposal to the doctoral programme committee regarding the admission of the student to the programme.

Upon signing the student’s research proposal, the professor agrees to act as the supervising professor of the student.

The admission of doctoral candidates is based primarily on the following criteria:

- prior academic performance
- the contents of the candidate’s completed degrees
- the candidate’s potential as a researcher, previous research experience: research-related work experience, conference presentations, journal articles, etc.
- research applicability: the relevance of the candidate’s research topic for the focus area of the department
- the research proposal: the theoretical and practical novelty value of the topic; the feasibility of the proposal (its quality, workability, organisation, etc.);
- Time management and resourcing (incl. finance) for doctoral studies: the feasibility of the study plan and the time available for the doctoral studies in the next four (4) years
- the supervising resources of the university in the particular topic areas of the research
- other grounds presented by the applicant

7. Granting the right to study towards a doctoral degree

The doctoral programme committee of the school puts forth a proposal to the dean regarding the admission of the doctoral candidates on the basis of proposals made by the supervising professors.

All applicants will be sent their respective admission decisions in writing. Those admitted to doctoral studies are primarily granted a right to study towards a Doctor of Science (Technology) degree. A secondary right to pursue a Licentiate of Science (Technology) degree will be entered into the student register of those whose applications expressed a clear intent to complete the licentiate degree. Information on whether the candidate’s studies are part-time or full-time is also entered into the student register.

8. Language Requirements

Proficiency in the native language will be demonstrated in accordance with the selection criteria recommendation.

The University Academic Affairs Committee recommends the following English language tests and minimum score requirements for doctoral admissions:
- IELTS (Academic): 6.5, and 5.5 for Writing;
- TOEFL:
● iBT (Internet-based Test): 92, and 22 for the Writing section or
● PDT (Paper-Delivered Test): Reading 22, Listening 22, and Writing 24
● C1-Advanced (Cambridge English) test: grade A, B or C
● C2-Proficiency (Cambridge English) test: grade A, B, C or Level C1
● Pearson Test of English Academic (PTE Academic): 62, and 54 for writing
Also following online language tests are approved: TOEFL iBT® Special Home Edition and
IELTS Indicator (Academic).

An English language test is not required in doctoral admissions of applicants who have:
● earned a degree taught in Finnish, Swedish or English in a higher education institution in Fin-
land.
● earned a degree in an English-medium programme at a higher education institution in an
EU/EEA country. The language of the degree must be stated unambiguously in the degree cer-
tificate or its appendix, or in the transcript of records or other official document issued by the
awarding higher education institution.
● earned an English-medium higher education degree requiring a physical on-site presence at a
higher education institution in the United States, Canada, United Kingdom, Switzerland, South
Africa, Australia or New Zealand.
● earned his / her education in English in an EU / EEA country, Australia, South Africa, Canada,
Switzerland, New Zealand, the United Kingdom or the United States.
● earned a degree Aalto Executive Education MBA, EMBA or DBA
● Applicants to doctoral studies who have academic duties in the field of science and technology
at Aalto University (statement needed from the professor of the research field on the adequacy
of the student’s language proficiency).

A minimum of one half of the degree must be completed in a country and higher education insti-
tution that meets the requirements for exempting the student from taking an English test.