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Aalto University

Aalto University Schools of Technology

Fact sheet 2017

Shaping the future

Aalto University is a multidisciplinary community where science and art meet technology and business.

The mission of Aalto University is to shape the future. We aim to do so through our unique blend of knowledge and expertise that originates in science, art, technology and business. Through a variety of approaches, including multidisciplinary initiatives and strong basic research, we identify and solve complex challenges and educate future visionaries and experts.

Aalto University consists of six schools, four of which focus on science and technology. The schools of technology have roots in the Helsinki University of Technology, which in 2010 merged with the Helsinki School of Economics and the University of Art and Design Helsinki to create Aalto University. Today, Aalto University offers inspiring learning environments and educates game changers in the following fields and schools of science and technology:

School of Chemical Engineering (Aalto CHEM): Biomass Refining, Biotechnology, Chemical Engineering, Chemistry, Fibre and Polymer Engineering, Functional Materials, Sustainable Metals Processing

School of Electrical Engineering (Aalto ELEC): Automation, Bioinformatics, Communications Engineering, Electrical Engineering, Nano and Radio Sciences, Space Science

School of Engineering (Aalto ENG): Civil Engineering, Energy Technology, Geoinformatics, Mechanical Engineering, Real Estate Economics, Spatial Planning and Transportation Engineering, Water and Environmental Engineering

School of Science (Aalto SCI): Computer Science, Engineering Physics, Industrial Engineering and Management, Information Networks, Life Science Technologies, Mathematics and Operations Research



CESAER

conference of european schools
for advanced engineering education
and research



NORDIC FIVE TECH

The schools of Aalto University

School of Arts, Design and Architecture
School of Business
School of Chemical Engineering
School of Electrical Engineering
School of Engineering
School of Science

Figures, 2016

Professors: **386** (20% int'l)
Students: **17 600**
Int'l Master's students: **24%**
Bachelor's degrees: **1 970**
Master's degrees: **1 998**
Doctoral degrees: **260**
Incoming exchange students: **960**
Outgoing exchange students: **890**

Contact details for exchange studies

Aalto University

aalto.fi

ERASMUS code: SF ESPOO 12

PIC: 991256096

Erasmus Charter number (2014–2020):
257712-EPP-1-2014-1-FI-EPPKA3-ECHE

School of Chemical Engineering

chem.aalto.fi

Agreements:

Ms. **Raili Pönni**

Manager, Development

raili.ponni@aalto.fi

Student services:

international-chem@aalto.fi

School of Electrical Engineering

elec.aalto.fi

Agreements:

Ms. **Anita Bisi**

Manager, International Relations

anita.bisi@aalto.fi

Student services:

incoming-elec@aalto.fi

School of Engineering

eng.aalto.fi

Agreements:

Ms. **Saara Sokolnicki**

Manager, International Relations

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Student services:

exchanges-eng@aalto.fi

School of Science

sci.aalto.fi

Agreements:

Ms. **Eija Kujanpää**

Manager, International Relations

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Student services:

exchanges-sci@aalto.fi

Academic information

Studies

Aalto University offers studies compliant with the Bologna Process. Bachelor's degree studies are organised in three-year programmes (180 ECTS) and master's degree studies in two-year programmes (120 ECTS). **All master's degree programmes are taught in English.**

A full-time study programme is 1 600 hours per year, equal to 60 ECTS credits. Most courses are 5 ECTS credits. One ECTS credit stands for approximately 27 working hours. These include all the work required for completing a course (lectures, projects, cases, exercises, exams and independent study). A full-time workload per term for undergraduate and graduate students is 30 ECTS. Study attainments are graded on a scale of 1 to 5, with 5 being the highest grade.

Numerical Grade (Aalto University)	ECTS Grade	Definition
5	A	Excellent
4	B	Very Good
3	C	Good
2	D	Satisfactory
1	E	Sufficient

Academic schedule

- » **Autumn term, teaching and exams:** September–December, periods I and II
- » **Spring term, teaching and exams:** January–May, periods III, IV and V

Tuition fees

- » **Non-EU/EEA master's degree students:** 15 000 euro/year
- » **Exchange students:** No tuition fee

Multidisciplinary opportunities

The best way to experience Aalto University's student-centred teaching and encounter students from different disciplines is to participate in problem-based project courses, in which multidisciplinary teams tackle real-life problems. These project courses are present in nearly all of the university's education, but there are also entire programmes dedicated to multidisciplinary studies.

Aaltonaut is a BSc level minor programme focused on product development. **Aalto Ventures Program** courses provide students with diverse steps into entrepreneurship and innovation. The courses cover various aspects of entrepreneurship, leadership, design thinking, finance, innovation, start-ups, prototyping, storytelling and much more. **Creative Sustainability** is a full master's programme that offers a multidisciplinary learning platform in the fields of architecture, built environment, business, design and real estate. The **Master's Programme in International Design Business Management** includes an eight-month-long learning-by-doing industry project in a real-life enterprise setting.

Master's degree programmes (two years, 120 ECTS)

- » Advanced Energy Solutions
- » Automation and Electrical Engineering
- » Building Technology
- » Chemical, Biochemical and Materials Engineering
- » Computer, Communication and Information Sciences
- » Creative Sustainability
- » Engineering Physics
- » Industrial Engineering and Management
- » Information Networks
- » International Design Business Management
- » Geoengineering
- » Geoinformatics
- » Life Science Technologies
- » Mathematics and Operations Research
- » Mechanical Engineering
- » Nano and Radio Sciences
- » Real Estate Economics
- » Spatial Planning and Transportation Engineering
- » Water and Environmental Engineering



Aalto Festival is the university's spring highlight

International joint master's programmes (double degree, two years, 120 ECTS)

- » Advanced Materials for Innovation and Sustainability (EIT Raw Materials)
- » European Mining, Minerals and Environmental Program
- » Environmental Pathways for Sustainable Energy Systems
- » ICT Innovation (EIT Digital)
- » Nordic Master in Cold Climate Engineering
- » Nordic Master in Environmental Engineering
- » Nordic Master in Innovative Sustainable Energy Engineering
- » Nordic Master in Maritime Engineering
- » Nordic Master in Polymer Technology
- » Space Science and Technology (Erasmus Mundus)

Doctoral education

Aalto University has four four-year doctoral programmes in the field of technology: Doctoral Programme in Chemical Engineering, Doctoral Programme in Electrical Engineering, Doctoral Programme in Engineering, and Doctoral Programme in Science. For more information, visit the doctoral programmes at aalto.fi/en/studies/doctoral_admissions/.

Admissions and services for students



Application deadlines for incoming exchange students

30 April for studies in the autumn term or the full year
15 October for studies in the spring term

Exchange student application information

After the home university has nominated an applicant to Aalto University's exchange coordinator, the nominated student will receive application instructions and a link to the online application via email.

For the application, the student is to provide an official transcript of records, a study plan or learning agreement, a CV and an English language certificate. The applicant must submit either an official language test certificate (CEFR B2, IELTS 6.5, TOEFL 92 or equivalent) or a statement by an English language teacher stating the required level of English skills (equivalent to at least B2 on the CEFR scale). Once the application is approved, the student will receive an official letter of admission.

Visa requirements

Depending on their nationality and length of stay, students may need a visa or a student's residence permit. Students should immediately proceed with a visa/residence permit application after receiving the letter of admission. Travel arrangements should only be made once a visa/residence permit has been issued. For more information, visit the Finnish Immigration Service at migri.fi/studying_in_finland.

Student union

Exchange students may join the Aalto University Student Union, **AYY**. Membership is worthwhile, as it translates into benefits (eg. student health services), discounts in transportation and student-priced meals at student cafeterias. The student union organises many leisure time activities from parties and field trips to sports and cultural activities. Visit the student union at ayy.fi/en/.

Health insurance and health services

By joining the Aalto University Student Union, students are entitled to the services provided by the Finnish Student Health Service (FSHS). The service does not cover all medical costs, so international students are expected to have their own health insurance. For some international students, health insurance is a prerequisite for a residence permit. Visit the FSHS at yths.fi/en.

Orientation and student tutoring

Orientation days for new students are held in the beginning of each term. Local student tutors guide the new students with their first steps and help them get integrated into the vibrant student culture at the Otaniemi campus.

Campus services include affordable, healthy meals at campus cafeterias, library services, IT services, sport activities by UniSport, health care services by the Finnish Student Health Service and student housing by the student union.

Student culture

Finns are big fans of associations, and there are around 200 clubs connected to the student union. There is something for everyone, including sports, music, politics and brewing beer. In addition to clubs, taking part in dozens of fun activities every year is an essential part of studying in Finland. Annual highlights include May Day festivities (*Wappu*), the Shrove Tuesday sledging competition (*Laskiaisrieha*) and many others.

Attached to each field of study there is a guild. Guilds have a multitude of social activities: sauna evenings, dinner parties (*sitsit*), events with prospective employers, student magazines and sports teams. Joining the activities of a guild is one of the best ways to get to know Finns. Each guild has an international officer to make sure students get the most out of the guild.



The Harald Herlin Learning Centre provides a unique study environment

Campus and housing

Aalto University's main campus is located next door to Helsinki in Otaniemi, Espoo. The campus's history spans more than half a century, which has made Otaniemi synonymous with technology and engineering studies. With the founding of Aalto University, Otaniemi was put on a path to becoming a home for students of arts and business as well.

In the Capital Region, Aalto University's partners in housing are HOAS (Foundation for Student Housing in the Helsinki Region) and the student union. Student apartments typically consist of 3–5 bedrooms, a shared living room, kitchen and bathroom. Students apply for housing directly through HOAS and AYY.

Living expenses

Rent in student housing: 350–600 euro/month

Rent in private market: 600+ euro/month

Public transportation: Travel card season tickets cost 53.30 euro/month for the Capital Region and 27.40 euro/month for Espoo only

Food and daily consumer goods: 150–200+ euro/month

Student lunches at campus cafeterias: Around 3 euro/meal

Choose Aalto University, Helsinki and Finland



What makes Aalto University unique?

The university emphasises the importance of multidisciplinary teaching and learning and introduces students to entrepreneurial skills regardless of their field of study. A wide variety of spaces and events enhance collaboration with external stakeholders, such as industry partners.

Startup scene

There is a genuine, student-driven startup scene at Aalto University. **Startup Sauna**, **Aalto Entrepreneurship Society**, the **Slush** community and the **Summer of Startups** programme attract an international audience to the Aalto University ecosystem, from which 70–100 new companies spring up every year.



Slush has grown from a small gathering to a global startup event

Factories and platforms

Aalto University's factories and platforms in design, health, media, energy, digitalisation, materials and living environments are designed to facilitate and bring together competences in selected multidisciplinary areas in a bottom-up manner. They provide seed funding, arrange matchmaking events and act as collaboration platforms within the community and offer industrial and academic partners possibilities for co-operation and networking.

Art and creativity

Art, design and creativity drive innovation and entrepreneurship. These concepts radically question and challenge our society and culture. University Wide Art Studies (UWAS) offer students an arts-oriented perspective to their field of study through discipline-neutral courses on creativity and culture.

Helsinki and the Capital Region

Aalto University's main campus is located in Otaniemi, Espoo – right next to Helsinki on the southern coast of Finland. Helsinki is the capital of Finland and its largest city with a population of over 600 000. The Capital Region consists of the cities of Helsinki, Espoo, Vantaa and Kauniainen, a total population of 1.4 million. Helsinki is rich in culture and offers beautiful outdoor environments: islands, forests and lakes are a stone's throw from the city.



Reasons for choosing Finland

Finland is situated in northern Europe, bordering Sweden, Norway and Russia. It is a republic and – since 1995 – a member of the European Union. Finland has approximately 5.5 million inhabitants. Official languages are Finnish (89%) and Swedish (5.3%), but most Finns also speak fluent English. The currency of Finland is the euro.

Finland has one of the most advanced education systems in the world and both a high standard of living and quality of life. The Finnish population is by international comparison well educated, and education is highly valued in the society.

In 2017, Finland was named as one of ten destinations you cannot afford to miss by Lonely Planet. The Travel & Tourism Competitiveness Report 2017 of the World Economic Forum ranked Finland first in terms of safety and security. The country is also home to the Moomins, Santa Claus, the boldest design, the greatest metal bands and the angriest birds.

Finland, ranked

- » First in the World Press Freedom Index (Reporters Without Borders, 2016)
- » Third in the Corruption Perceptions Index (Transparency International, 2016)
- » Second in the Global Gender Gap Index (World Economic Forum, 2016)
- » Ranked fifth in happiness 2014–2016 (World Happiness Report 2017)
- » First in the Environmental Performance Index (Yale University, 2016)

Further details

- » Aalto University student portal **Into**: into.aalto.fi
- » Learn more about Finland at **This is Finland**: finland.fi
- » More on education at **Study in Finland**: studyinfinland.fi
- » **City of Helsinki**: hel.fi/en | **City of Espoo**: espoo.fi/en-US
- » **My Helsinki**: myhelsinki.fi | **Visit Espoo**: visitespoo.fi/en
- » Newspaper **Helsingin Sanomat**: hs.fi/english

- » For public transportation in the Capital Region, visit **Helsinki Region Transport**: hsl.fi/en
- » For long-distance train service, visit **VR**: vr.fi/en

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