

Aalto University Schools of Technology

Fact sheet 2018

Shaping the future

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

Aalto University is on a mission to shape the future using its 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 comprises six schools, four of which focus on science and technology. 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 and process engineering, chemistry, fibre and polymer engineering, functional materials, sustainable metals processing

School of Electrical Engineering (Aalto ELEC): automation, bioinformatics, communications engineering, electrical engineering, electronics and nanotechnology, 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, biomedical engineering and neuroscience, entrepreneurship and innovation studies







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 2017

Professors: 386 (22% int'l)

Students: 17 300

Int'l Master's students: 24% Bachelor's degrees: 1 178 Master's degrees: 1 927 Doctoral degrees: 256

Incoming exchange students: **991** Outgoing exchange students: **825**

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. Heidi Flinkman

Specialist, International Affairs heidi.flinkman@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 saara.sokolnicki@aalto.fi

Student services: exchanges-eng@aalto.fi

School of Science

sci.aalto.fi

Agreements:

Ms. Eija Kujanpää

Manager, International Relations

eija.kujanpaa@aalto.fi

Student services: exchanges-sci@aalto.fi



Admissions and services for students



Studies

Aalto University offers degree 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). English is the teaching medium for all master's degrees programmes.

Studying full-time means working 1600 hour per year, which corresponds to 60 ECTS credits (one ECTS credit represents approximately 27 working hours). A full-time workload per term for undergraduate and graduate students is 30 ECTS. Most courses carry 5 ECTS credits, which includes all the work required to complete a course: lectures, projects, cases, labs, exercises, exams and independent studies. Study achievements are graded on a scale of 1 to 5.

Numerical Grade (Aalto University)	ECTS Grade	Definition
5	Α	Excellent
4	В	Very Good
3	С	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 bachelor's degree students: 12 000 euro/year
- » Non-EU/EEA master's degree students: 15 000 euro/year
- » Exchange students: No tuition fee

Multidisciplinary opportunities

Aaltonaut is a BSc-level minor programme focused on product development. Aalto Ventures Program courses provide students with diverse steps into entrepreneurship and innovation, covering various aspects of entrepreneurship, design thinking, finance, innovation, startups, prototyping, storytelling and more. The goal of Aalto's Multi-Disciplinary Energy Studies minor is to educate multi-skilled students with both subject-specific know-how and integrative understanding across a range of energy issues. University-Wide Art Studies (UWAS) offers students an arts-oriented perspective to their field of study through discipline-neutral courses on creativity and culture.

Aalto Bachelor's Programme in Science and Technology (three years, 180 ECTS)

- » Data Science (study option)
- » Digital Systems and Design (study option)

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
- » Electronics and Nanotechnology
- » Real Estate Economics
- » Spatial Planning and Transportation Engineering
- » Urban Studies and Planning
- » 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 RawMaterials)
- » European Mining, Minerals and Environmental Program (EIT RawMaterials)
- » Environomical Pathways for Sustainable Energy Systems (SELECT) (EIT InnoEnergy)
- » 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
- » Security and Cloud Computing (SECCLO) (Erasmus Mundus)
- » 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. More on the programmes: aalto.fi/studies/doctoral_admissions/.

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

Application information for exchange student

After being nominated to Aalto University's exchange coordinator by the applicant's home university, the applicant will receive instructions to make the online application via email.

The applicant must provide an official transcript of records, a study plan or learning agreement, a CV, and either an English language proficiency certificate (CEFR B2, IELTS 6.5, TOEFL 92 or equivalent) or a statement by an English language teacher stating the student's acquired level of skills, which must be at least equivalent to B2 on the CEFR scale. On approval of the application, the applicant will receive a letter of admission to Aalto University.

Visa requirements

The student's nationality and length of stay determine the necessity of a visa or a residence permit. Visa/residence permit applications, when required, should be made immediately on receiving the letter of admission, and travel arrangements should begin only after the visa/residence permit is issued. Visa requirement details and application procedures are available at the Finnish Immigration Service website at migri.fi/studying_in_fin_land.

Student union

Exchange students may join the Aalto University Student Union, AYY. Membership is worthwhile since it translates into benefits like health-services, discounts in public transport, and student-priced meals at the student cafeterias. The student union organises many free-time activities from parties and field trips to sports and cultural activities. Visit the student union website ayy.fi/en/ for more information.

Health insurance and health services

Members of the Aalto University Student Union are entitled to the services provided by the Finnish Student Health Service (FSHS). Since the service does not cover all medical costs, international students are expected to have their own health insurance. For some international students, health insurance is a prerequisite for obtaining a residence permit. For details, visit the FSHS website at yths.fi/en.

Orientation and student tutoring

At the beginning of each term, new students participate in the orientation days where local student tutors guide new students in their first steps at Aalto University and help integrate them into the vibrant student culture at the Otaniemi campus.

Student culture

The student union is associated with around 200 clubs with something for everyone: sports, music, politics and brewing beer to mention few interests. Additionally, participating in the dozens of fun activities is an essential part of studying in Finland. Annual highlights include May Day (Wappu) festivities and the Shrove Tuesday sledding competition (Laskiaisrieha).

Each field of study has a student guild, which organises a multitude of social activities: sauna evenings, dinner parties (sitsit), events with prospective employers, student magazines, and sports teams that compete against each other. Participating in guild activities is one of the best ways to get to know Finnish students. Each guild's international officer is there to ensure that international students get the most out of the guilds.



The new renovated spaces provide a unique study environment.

Campus and housing

Aalto University's main campus is located next door to Helsinki in Otaniemi, Espoo. Aalto University's partners in housing in the capital region 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, a kitchen and bathroom. Students can apply for housing directly through HOAS and AAY.

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 Espacially

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?

Emphasis of multidisciplinary teaching and learning and introducing students to entrepreneurial skills together with a wide variety of inspirational spaces events in collaboration with external stakeholders, such as industrial partners, are the key ingredients of Aalto University's uniqueness.

Startup scene

Aalto University fosters a genuine, student-driven startup scene. **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. *Photo by:* Jussi Ratilainen.

Art and creativity

Art, design and creativity drive innovation and entrepreneurship. They also radically question and challenge the norm in our society and culture.

Aalto ranking in the field of tehnology

Ranking	Finland	Nordic countries	Europe	World
ARWU (Shanghai) - Engineering/ Technology and Computer Science 2016	1	7-9	35–56	151- 200
US News - Engineering 2017	1	7	32	116
US News - Computer Science 2017	1	2	11	47
NTU - Engineering 2017	1	4	24	128
QS - Engineering & Technology 2017	1	9	53	155
THE Engineering & Technology 2018	1	7	30	99

Industry collaboration

Ranking	Finland	Nordic countries	Europe	World
CWTS-Leiden – Industry Collaboration 2017	4	13	37	85



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 comprises the cities of Helsinki, Espoo, Vantaa and Kauniainen, having 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 to choose Finland

Finland, situated in Northern Europe, is neighbours with Sweden, Norway and Russia. A republic and a member of the European Union, it has about 5.5 million inhabitants. Its official languages are Finnish (89%) and Swedish (5.3%), and most Finns speak fluent English. Finland's currency is the euro.

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

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)
- » 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

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