



Aalto University

Aalto University Schools of Technology

Fact sheet 2019-2020

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**

Facts and figures 2018

Professors: **389** (24% int'l)
Students: **17 451**
Int'l Master's students: **24%**
Int'l Doctoral students: **31%**
Incoming exchange students: **998**
Outgoing exchange students: **842**

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 Relations

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. Niina Huovinen

Specialist, International Relations

niina.huovinen@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

Academic information

Studies

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 programmes are taught in English.

Studying full-time means working 1600 hours 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 or pass/fail.

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 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 offers concrete product development projects in multidisciplinary teams. **Aalto Ventures Program** courses provide students with diverse steps into entrepreneurship and innovation. University-wide art and business studies offer students a chance to meet students and teachers from different fields.

Aalto Bachelor's Programme in Science and Technology in English

- » Data Science
- » Digital Systems and Design
- » Chemical Engineering
- » Computational Engineering
- » Quantum Technology

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

- » Advanced Materials for Innovation and Sustainability (EIT RawMaterials)
- » European Mining, Minerals and Environmental Program (EIT RawMaterials)
- » Environmental 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 (SECULO) (Erasmus Mundus)
- » Space Science and Technology

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 and Admission

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, the applicant will receive instructions to make the online application.

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.

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. Finnish Immigration Service: migri.fi/studying_in_finland

Student union

Exchange students may join the Aalto University Student Union, AYY. With the membership students can get several benefits like health-services, discounts and student-priced meals. The student union organises many free-time activities from parties and field trips to sports and cultural activities. Aalto University Student Union: aayy.fi/en/

Health insurance and health services

International students are expected to have their own health insurance. Health insurance is also a prerequisite for obtaining a residence permit. In addition to private insurance, European students are advised to obtain the European Health Insurance Card from their home country.

Orientation and student tutoring

At the beginning of each term, new students participate in the orientation days where local student tutors ("buddies") 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 a 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.

Campus and housing

Aalto University's Otaniemi campus is located a short metro-ride from downtown Helsinki (12 minutes). The main student housing providers are HOAS (Foundation for Student Housing in the Helsinki Region) and AYY the student union. Student apartments typically consist of 3–5 bedrooms, a shared living room, a kitchen and bathroom. Students apply for housing directly through HOAS and AAY.



The new renovated spaces provide a unique study environment.

Living expenses

- Rent in student housing:** 350–600 euro/month
- Rent in private market:** 600+ euro/month
- Public transportation:** Monthly travel card for students from about 33 Eur to 60 Eur
- Food and daily consumer goods:** 150–200+ euro/month
- Student lunches at campus cafeterias:** Around 3-5 euro/meal

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Aalto University

Choose Aalto University, Helsinki and Finland

What makes Aalto University unique?

Emphasis on multidisciplinary teaching and learning and introducing students to entrepreneurial skills together with a wide variety of inspirational spaces as well as 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. Autumn term exchange students can experience the world-class start-up event SLUSH by volunteering.



Slush has grown from a small gathering to a global startup event. Photo by: Mikko Raskinen.

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 technology

Ranking	Finland	Nordic countries	Europe	World
ARWU (Shanghai)	2-3	-	-	301-400
ARWU (Shanghai) – Engineering/Technology and Computer Science 2018	1	2-3	10-14	51-75
US News – Computer Science 2018	1	1	7	43
NTU – Engineering 2018	1	4	25	135
QS – Engineering & Technology 2019	1	7	50	163
THE Engineering & Technology 2018	1	5-6	27-35	101-125

Young universities (under 50 years)

Ranking	Finland	Nordic countries	Europe	World
QS- Top 50 under 50 years 2018	1	1	3	9



Helsinki and the Capital Region

Aalto University 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 650 000. The capital region has a total population of 1.5 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

- » Finland is the happiest country in the world. *Sustainable Development Solutions Network, World Happiness Report 2019*
- » Finland is the most stable country in the world. *The Fund for Peace, Fragile States Index 2018*
- » Finland is the safest country in the world. *World Economic Forum, The Travel & Tourism Competitiveness Report 2017*
- » Finland has the third least corruption in the world. *Transparency International, Corruption Perceptions Index 2017*
- » Finland is the best country in the world in a comparison of human wellbeing. *Sustainable Society Index, Main results 2016*
- » Finland is the best country in protecting fundamental human rights in the world. *The World Justice Project, Rule of Law Index 2017–2018*

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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