

Applicant's Guide 2025

OULU. ALWAYS A GOOD IDEA!



UNIVERSITY
OF OULU

Finland

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**“Oulu is one of the
best places to see
the Northern lights
in Finland.”**



Welcome to the University of Oulu

University of Oulu ranks in the top 3 % of the world's universities. We educate future professionals and produce new scientific information to build a more sustainable, healthy, and intelligent world. Many innovations that have changed the world have their roots here in Oulu.

Founded in 1958, University of Oulu is one of the largest universities in Finland and one of the northernmost multidisciplinary universities in the world, with 8 faculties, 14,200 students, 3,800 employees and over 65,000 alumni.

We educate competent experts capable of creating successful, lifelong careers in the dynamic work market. Our degree programmes are inspiring and student-centered, and they encourage each student to achieve their full academic potential.

A warm welcome to study with us under the Northern lights!

University of Oulu - Science with Arctic Attitude

The University of Oulu offers a high-quality learning experience to its students (ISB Ranking 2023). Our educational mission is to provide higher education based on research, and to educate new generations to serve societies and the humanity. We seek solutions to the planet's ecological, social, economic, and cultural sustainability challenges.

Quality education in a global high-tech hub

University of Oulu is in the forefront of 6G development, and we offer world-class facilities for AI research and development. Our flexible and versatile use of information and communication technologies is one key competence in today's education. Also, Oulu Business School is one of the first Nordic business schools to earn AACSB International business accreditation. Only some 5 % of the world's business schools have fulfilled the AACSB quality standards.



University of Oulu facts

- › Founded in 1958
- › 14 200 students
- › Incoming exchange students 510 (in 2023)
- › 3 800 staff members
- › Two campuses: Linnanmaa and Kontinkangas
- › International degree students: 1503 (in 2023)

Two lively campuses with excellent study premises

The main campus in Linnanmaa is the home to the Faculties of Education and Psychology, Humanities, Information Technology and Electrical Engineering, Science, and Technology as well as Oulu Business School. Linnanmaa campus is known for its colourful architecture.

Kontinkangas Welfare Campus consists of the Faculties of Medicine and Biochemistry and Molecular Medicine and the University Hospital of Oulu.

Both campuses offer a well-equipped library, engaging study environments for both group work and self-study as well as restaurants and cafes with affordable prices for students.



Joy of learning for students

Education at the University of Oulu produces science-based academic competence relevant for future working life and takes advantage of the strengths and networks of the multidisciplinary university. One advantage of a multidisciplinary university is the vast selection of minor studies.

We educate competent experts capable of creating successful, lifelong careers in the dynamic work market. Contacts with working life are developed through the UniOulu Career Centre.

Our high-quality degree programmes enable a smooth studying process with clear goals and a high success rate at all levels. We encourage our students to take an active role in creating the

learning process. The assessment of students reflects this approach.

Our pedagogically skillful staff rely on the latest research knowledge in teaching to create an inspiring study atmosphere. Student services, learning support tools and facilities match the needs of a diverse student population.

Doctoral training is coordinated by the university-wide University of Oulu graduate school (UniOGS). It offers transferable skills courses, and field-specific training in doctoral programmes that embrace research excellence. Personal study plans, combined with skilled supervision, enable graduation in four years and aid doctorate students to demonstrate clear research impact during their thesis projects.



International students are particularly pleased with the guidance and counselling offered to them and the quality of accommodation.

UniOulu Experience

The University of Oulu welcomes hundreds of international students each year.

We support you from the very beginning of your student journey with our pre-orientation services and meet and greet all new students in the **Orientation** on campus. You also get to meet your fellow students, both international and Finnish.

UniOulu takes care of individuals. At your department you will have a **tutor teacher**, a personal academic contact, who can be addressed casually by their first name and who will help you with making your individual study plan. A well-prepared study plan is a valuable tool to make progress in your studies.

You also get to meet your **student tutor**, your first student colleague, online even before arriving. Tutors are senior students, trained to help you in the beginning to get accustomed to daily life in Oulu.

Student housing

The local student housing foundation PSOAS offers a wide range of accommodation possibilities, from shared apartments to studios, around the city area. No matter where you live in Oulu, services ranging from supermarkets to libraries and sport facilities are close to your home. PSOAS is ranked by students as one of the leading housing providers in the world.

Study and Career Support

The UniOulu Counselling Services and Career Centre offer a variety of study and career groups, workshops, and events to support you throughout your studies. Whether you wish to improve your time management, study together with other students on campus or need someone to help you polish your CV and prep you for an internship interview, we are here to support you! Through Counselling Services, you can also book an appointment with study psychologists for 1:1 counselling.

Health services

Student health services for all Bachelor and Master level students are located at the Linnanmaa campus. Health services include medical, psychological, and dental treatment. Most services are free of charge while some incur a nominal fee.

Student organisations

Student organisations are experts in organizing cultural activities, sporting events, parties, and trips. These study-field-specific organisations have internationally experienced members with first-hand knowledge to share. In addition, there are university-wide student organisations with special interest in issues in international education.

University sports

Get some exercise! It is a great way to balance your body and mind. UniMove sports services offer more than 100 hours of sports per week to our students and staff. Disciplines vary from yoga to ice hockey and different sports trials and workshops. If you don't quite know where to start and with what discipline, there is also sports counselling available.

Be a part of the Community

As a UniOulu student, you can have an active role in developing our university community. Students have the possibility to affect the university's decision-making as student representatives from Degree Programme Committees to the Board of Directors. You can also actively take part in events or create new ones. If you feel that something is missing from our community, be it an event or student society, you can make it happen.

Estimated Expenses for International Students

10,000–13,000 €

Tuition fee per academic year for non-EU/EEA students

9,600 €

Minimum sum required by the Finnish Immigration authorities for non-EU citizens' student residence permit

If your studies take one year or longer, you must have this sum in your bank account when you submit your residence permit application.

800–1000 €

Estimated living costs including accommodation per month

250–550 €

Accommodation per month

50 €

UniMove membership for students per academic year

By buying a UniMove membership, you get access to a wide range of services including instructed classes, team sports shifts, gym, exercise counselling, sports events and other member benefits.

57 €

Student Union Fee per academic year

Student Union membership entitles you to various benefits and discounts, both locally and nationally: the student lunch benefit, a discounted season ticket to Oulu public transport, train and bus tickets with student prices to name a few.

36,80 €

Student Health Service Fee per term (in 2024)



How to apply to study with us

Take these steps to ensure a successful application process to the University of Oulu. For full information on student selection guidelines, let the QR code take you to our website. We wish you the best of luck and hope to meet you in Oulu!

Step 1. Check your eligibility.

There are general admission requirements for all applicants depending on whether you are applying for a Bachelor's and Master's programme (3 + 2 years) or to a two-year master's programme.

- » To apply for a bachelor's degree programme at the University of Oulu you are required to hold a qualification that gives you the right to study in a bachelor's programme in your country of education. Normally this is an upper secondary/ high school education.
- » To apply for a master's degree programme at the University of Oulu you are required to hold a bachelor's degree or equivalent, from an institution of higher education, with good or excellent merits. The degree must be equivalent to at least three years of full-time studies (180 ECTS) and give you the right to study in a master's programme in your country of education.

Language requirements in short:

You must always prove your language skills when applying to our programmes. This can be done in a number of ways. Please check carefully our language requirements for Bachelor's and Master's programmes and make sure you have enough time to book and complete tests, and to apply for documents from institutions.

Step 2.

Collect and scan your application documents before making an online application. In the application stage you only need scanned copies of your documents. Remember to prepare all necessary documents: transcript of records, degree certificate, proof of language skills as well as programme-specific attachments (video, ACT, SAT, cv, motivation letter, research intent, etc.) and the copy of your passport.

Step 3.

For studies beginning in the autumn 2025, submit your online application at [Studyinfo.fi](https://studyinfo.fi) by January 22, 2025, at 15:00/3pm (GMT+2). Remember to scan all needed attachments to your application.

Step 4.

Follow your application process via [Studyinfo.fi](https://studyinfo.fi). The application process may include interviews depending on your programme of choice. You will be informed about admissions results in March 2025.

Step 5.

Once you receive a study offer, make sure you meet the deadlines for document verification, tuition fee payment (if applicable) and study place confirmation. Remember to verify your documents according to our requirements.

Read more about our guidelines to applicants
oulu.fi/en/apply/how-apply



Need help?

Contact our Admissions Team at admissions@oulu.fi



University of Oulu International Scholarship Scheme

Scholarships are available to academically talented international students studying for a bachelor's or master's degree at the University of Oulu.

Read more about scholarships



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Bachelor's Programmes

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Computing and Electronics 14

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Business Management 15

Bachelor's in Digitalisation, Computing and Electronics

Top reasons to study Digitalisation, Computing and Electronics

- › The programme is a steppingstone to a career in which you develop the future digital world. It provides not just theory but also practice through an internship, hands-on projects, and practical course work.
- › You may specialise in different layers of digital technology - from design of devices to design of large information or communication systems.
- › According to your study choice, you will learn the essential methods and technologies in either computer science and engineering, electronics and communications engineering, or information processing science.
- › The University of Oulu's research excellence in artificial intelligence, data analysis and communications technologies are indisputable.

Main Courses

Studies will depend upon your decision on the study path: Computer Science and Engineering, Information Processing Science, or Electronics and Communications Engineering. According to your degree choice, there can be courses such as Elementary Programming, Artificial Intelligence, Electronics Design, or Business Process Management and Modelling. All three study options include Practical Training and Survival Finnish.

Degree Title: Bachelor of Science (Technology) and Master of Science (Technology) or Bachelor of Science and Master of Science

Duration of Studies:
3 + 2 years

Scope: 180 + 120 credits

Tuition Fee: 10 000 €

Scholarship: Available

Career Opportunities

A degree from the University of Oulu is regarded highly, which is evidenced by the continued and intense recruiting interest from the industry ie. corporations, small and medium-sized companies and start-ups.

This programme gives students excellent theoretical tools and a valuable practical skillset to continue their studies in the master's programme of their original choice or by applying to another master's programme available at the university.

Read more about this programme

www.oulu.fi/en/apply/bachelors-digitalisation-computing-and-electronics



Bachelor's in International Business Management



Top reasons to study International Business Management

- › Interested in the Nordic perspective to business? The University of Oulu offers you a unique study opportunity to learn to tackle global business challenges.
- › Our degree programme strongly builds upon the concepts of sustainable business management and creative entrepreneurship.
- › During the studies at our vibrant multiscience campus, you can collaborate with intercultural teams to resolve real-life business scenarios and build your professional network.
- › Join a thriving technology hub in the world. In Oulu, you will have the chance to work with and learn from global companies.
- › Obtain an internationally recognized degree in Economics and Business Administration from an AACSB accredited business school, opening doors to employment opportunities within the EU and beyond.

Main Courses

A comprehensive set of business courses such as Strategic Management, Principles of Marketing Entrepreneurship for Sustainability, Contemporary Issues in the Nordic Management, Internationalization, Nordic Perspectives on Global Megatrends, Managing Multinationals, Introduction to Business Analytics, and Company Project supported by Culture and Communication in the Nordic Countries and Finnish as foreign language.

Degree Title: Bachelor and Master of Science (Economics and Business Administration)

Duration of Studies:
3+2 years

Scope: 180+120 credits

Tuition Fee: 10 000 €

Scholarship: Available, 1st year full fee

Career Opportunities

The degree provides a qualification for master studies in the fields of management and business administration. For continuing their studies, students enroll in the English-taught master's programme in International Business Management offered by the Oulu Business School.

Master's graduates work in expert and management positions such as:

- Business Development Manager
- Management Consultant
- Director of Sales & Marketing
- Global Demand Analyst
- Key Account Manager
- Sales Manager
- Entrepreneur
- Team Leader.

Read more about this programme

www oulu.fi/en/apply/bachelors-international-business-management



Master's Programmes

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Master's in Architecture

Top reasons to study Architecture

- › Leads to an EU-notified professional architect's degree allowing graduates to practise their profession across Europe and in countries such as Canada and Australia.
- › Collaboration with architectural and construction firms, and possibilities to do projects with students from different fields, such as civil engineering.
- › Students can engage in new research fields, such as environmental health.
- › University of Oulu hosts the northernmost architect school in the world.
- › Design-oriented study programme that has educated internationally recognized architects.

Main Courses

The first year of studies, leading to professional architect's degree valid in the EU, consists of design-oriented courses, focusing on urban space and public buildings, from viewpoints of general design, structural systems, lighting, and detailing. On the second year, before diploma thesis, students immerse themselves in an architectural topic of their choice, through a research course and a design-oriented course.

Are you a great fit for our programme?

The ideal candidate is a design-driven individual with a passion for sustainable building. This person thrives in multicultural settings, values teamwork, and seeks practical experience through real-world projects. They are academically proficient, technologically adept, and eager to apply innovative tools in design and research. With a desire for international exposure and a commitment to community, the candidate is ready to embrace the unique opportunities offered by the northernmost architecture school in the world and become a sought-after professional in the European Union and beyond.

Degree Title:

Master of Science (Architecture)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 13 000 €

Scholarship: Available, 1st year full fee

Career Opportunities

After graduation the students are eligible to carry on to doctoral studies at the University of Oulu. Most architects work as build-ing designers and urban designers.

Additional career options for an architect may be:

- Entrepreneur
- Expert
- Teacher
- Researcher
- Concept Designer
- Visualizer.

Read more about this programme

www oulu.fi/en/apply/masters-architecture



Master's in Biochemistry

Top reasons to study Biochemistry

- › Chance to do internships in the university labs or in partner companies, as well as to do hands-on experimental work during your studies.
- › On top of hypoxia research, strong record in structural biochemistry, extra-cellular matrix.
- › In-depth training in understanding structure-function relationships of proteins and their characterisation.
- › Highly flexible degree, students may explore study options and specialize in protein biochemistry or molecular medicine, or various other branches.
- › Competitive and valued degree offers very good opportunities to apply for graduate programmes all over the world in prestigious institutions.

Main Courses

Courses are offered in two study lines: Molecular Medicine and Protein Science and Biotechnology and can be freely chosen by the student according to his/her career aspirations. In Molecular Medicine, a double degree programme with the Ulm University with limited seats is also available. Minors in Bioinformatics, Entrepreneurship or Product Development will complement the desired expertise.

Are you a great fit for our programme?

The ideal candidate is an academically accomplished individual with a B.Sc. or higher in Biochemistry or a related science field. They are deeply passionate about using scientific knowledge to address real-world problems and improve lives. With a strong foundation in laboratory skills, they are eager to expand their expertise through hands-on training and internships. Excellent communication skills and the drive for postgraduate research are essential. They are poised to join a global network of prestigious institutions and contribute significantly to the biomedical industry.

Degree Title:

Master of Science

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available

Career Opportunities

The skills gained in the programme offer you the academic training and expertise required to succeed in a research environment. Graduates of the programme have been able to get into very prestigious Ph.D. programmes in universities around the world, such as Harvard, Imperial College, Oxford, Karolinska, Zürich, Lausanne, Helsinki, Vienna, Copenhagen and so on. Many have also stayed at FBMM Oulu to continue in our Ph.D. Programme. The programme will also open many opportunities in biomedical and related industries.

Read more about this programme

www.oulu.fi/en/apply/masters-biochemistry



Master's in Biomedical Engineering

Top reasons to study Biomedical Engineering

- › Study a multidisciplinary degree combining medicine with modern information technology in state-of-the-art facilities, including a brand-new medical imaging laboratory.
- › Learn novel health technologies such as biomaterials, biomechanics, medical imaging, digital signal and image analysis, machine learning and big data. Learn also about Internet of Medical Things such as sensors, medical software, and wireless networks.
- › Flexibility to choose biomedical engineering courses, three modules tailored to provide depth to the degree.
- › Enjoy up-to-date teaching by qualified professionals and participate in research measurements and projects in real research teams.
- › Oulu is a tech hub with established companies, world leaders and start-ups in health care technology.

Main Courses

Available courses depend on the study path chosen by the student: Medical Data Analysis, Biomedical Materials and Imaging, or Internet of Medical Things. On top of that, ten study modules, up to 30 ECTS according to student's choice: Healthcare Communication Systems, Biomedical Instrumentation and Sensors, Cybersecurity, Signal and Image Processing, Machine Learning, Medical Imaging, Entrepreneurship and more.

Are you a great fit for our programme?

You are a visionary person with a robust background in science and engineering, eager to delve into the intersection of healthcare and technology. You are research-driven, with a passion for innovation in biomedical devices and eHealth solutions.

You are technically adept, with a keen interest in biomaterials, biomechanics, and medical imaging, and Internet of Medical Things, and possess strong analytical skills for tackling complex data through machine learning and big data analytics.

Degree Title:

Master of Science
(Technology)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available

Career Opportunities

A vast majority of graduates are likely to find their career paths within the industry. An academic career is also a great option.

- Research and Development Engineer in health technology and bioengineering companies.
- Researcher in university and researcher institutes.
- Doctoral Student aiming at professional researcher career.
- Lecturer in universities and professional consulting tasks.
- Medical Engineer or Physicist at hospitals.
- Medical Data Scientist.
- Public official tasks related to quality control, management, and establishment of safety standards.

Read more about this programme

www oulu.fi/en/apply/masters-biomedical-engineering



Master's in Business Analytics



Top reasons to study Business Analytics

- › Programme is provided by AACSB-accredited Oulu Business School.
- › The University of Oulu is world-renowned for its research excellence in AI, data analysis and communications technologies.
- › Learn to understand both business and technology via the unique and multidisciplinary approach of the programme.
- › Get exposed to real business analytics cases in technology-intensive realm.
- › Develop practical skills in analytics with real-life examples and hands-on training with the tools.

Main Courses

Joint core courses, such as Enterprise Process Planning, Business Intelligence: Applications and Projects and Capstone Projects to all students in addition to degree-specific courses.

In business study option, courses such as Financial Risk Management. If opted for engineering, courses such as Deep Learning. In information processing science, courses such as Information Systems Modelling, Design and Development.

Are you a great fit for our programme?

The ideal candidate is data-driven innovator with a keen business sense. They possess a robust quantitative foundation, are adept with analytics tools, and have a flair for integrating business and technology insights. These aspirants are research-oriented, eager to tackle real-world problems through scientific inquiry and hands-on experience. They thrive in collaborative settings, bringing strong communication skills and a global mindset to the table. With an entrepreneurial spirit, they're ready to meet the demands of a data-intensive world and make a significant impact across industries.

Degree Title: Master of Science (Economics and Business Administration) or Master of Science (Technology) or Master of Science

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 12 000 €

Scholarship: Available

Career Opportunities

The graduates can work both as individual business analysis and development experts and act as competent members in analytics teams of small and medium-size companies, public organizations and global corporations.

Entrepreneurship is also a realistic opportunity for the graduates, based on the combined skills that they acquire in the program and the rapidly growing needs for data-driven business analytics services and solutions.

Analytics experts are in very high demand globally, and Business Analytics graduates can start building international careers, having both scientific knowledge and hands-on skills.

Read more about this programme

www oulu.fi/en/apply/masters-business-analytics



Master's in Chemistry of Sustainable Processes and Materials

Top reasons to study Chemistry of Sustainable Processes and Materials

- › A multidisciplinary curriculum which integrates strong chemistry know-how to engineering studies in a unique way.
- › Students get a skill set of high value with excellent employment prospects.
- › The University of Oulu offers excellent facilities and guidance for practical laboratory work - a huge reserve of infrastructure in student's use.
- › Collaboration with the chemical industry and research units is intense. Students typically complete master's theses for global companies and thus gain a smooth transfer to actual work-life.
- › High-quality and innovative research in sustainable chemistry in several disciplines of chemistry and chemical engineering is reflected in studies.

Main Courses

Project Work, Research Project and Master Thesis in Analytical, Applied, Inorganic, Organic or Physical Chemistry provide students close connections to both industry and latest research.

Optional advanced courses such as Advanced Water Treatment Chemistry, Chemistry of Hydrometallurgical Processes, Organometallic Chemistry, and Battery Chemistries and Components are available.

Are you a great fit for our programme?

You should have a bachelor's degree in chemistry or a closely related field like Chemical Technology or Chemical Engineering. A strong foundation in chemistry is highly desirable. You are hands-on and ready to take advantage of the University of Oulu's state-of-the-art facilities for practical laboratory work. You are curious and driven, ready to engage in high-quality, innovative research in sustainable chemistry. You aim to develop a skill set that is highly valued in the job market.

Degree: Master of science
Duration of Studies: 2 years
Scope: 120 credits
Tuition Fee: 12 000 €
Scholarship: Available, 1st year full fee

Career Opportunities

The graduates will have excellent theoretical knowledge and a solid base to continue their academic career, if they wish. The practical skills gained in the programme mean that they will be primed to respond to the needs of industry and make for valuable recruiting assets for private companies and the public sector alike.

Possible job titles include:

- Product Development Chemist
- Laboratory or Research Manager
- Researcher.

Read more about this programme

www.oulu.fi/en/apply/masters-chemistry-sustainable-processes-and-materials



Master's in Computer Science and Engineering

Top reasons to study Computer Science and Engineering

- › Choose your orientation or mix all four: Artificial Intelligence, Applied Computing, Computer Engineering and Cyber Security.
- › Studies are closely related to industry needs and students are well employed already during their studies.
- › Close collaboration with Oulu-based global ICT companies, such as Nokia, Oura, and Mediatek.
- › Study in a leading-edge research environment at the University of Oulu, highly ranked in the field of Computer Science.
- › An exciting opportunity to network with distinguished professors in computer vision, computer security, robotics, virtual reality, and AI.

Main Courses

The programme provides four orientations in the field of Computer Science and Engineering: Applied Computing, Artificial Intelligence, Computer Engineering, and Cybersecurity. All four study options include Advanced Practical Training, Finnish language, and versatile elective studies such as Deep Learning, VR Systems and Humans, Internet of Things, and Security Engineering. Studies can also be supplemented with other subjects.

Are you a great fit for our programme?

The ideal entrant is a visionary with a solid foundation in STEM, driven to innovate and solve complex problems. They are tech-savvy, with a passion for AI, applied computing, cyber security, or computer engineering, and a desire to work at the intersection of academia and industry. This candidate is a future leader, ready to advance human-centric, intelligent technology in a collaborative, cutting-edge research environment. They are not just seeking a degree but a transformative experience that positions them at the forefront of technological evolution.

Degree Title:

Master of Science
(Technology)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available

Career Opportunities

Oulu, Finland is recognised as a technology hub. The global companies operating in the city are actively recruiting new employees.

Occupational profiles of the graduates:

- Research Scientist
- Software Engineer
- System Designer
- Project Manager
- Specialist
- Data Analyst.

Read more about this programme

www.oulu.fi/en/apply/masters-computer-science-and-engineering



Master's in Responsible Economics and Finance



Top reasons to study Responsible Economics and Finance

- › An internationally comparable master's degree in Economics and Business Administration from an AACSB accredited business school that enables you to apply for work within the EU and globally.
- › Students are provided with the necessary knowledge and skills to navigate the complex economic and environmental challenges of the 21st century both at the global and regional levels.
- › Build your unique graduate profile with a master's thesis on responsibility issues – choose your topic from the Oulu Business School's wide range of research areas.
- › Get hands-on experience in developing economic models and using modern quantitative methods to perform economic and financial analysis for the requirements of present-day society and businesses.
- › Graduates from the programme have high employability and diverse career opportunities in domestic and international firms and organizations.

Main Courses

The core courses of the curriculum will cover foundations of economics and finance, responsibility/resilience issues, banking, environmental economics, energy and real estate markets, and macro-financial analysis. Elective economics, finance, and/or accounting studies allow students to tailor their degree towards their individual interests and career goals.

Are you a great fit for our programme?

The ideal applicant is intellectually curious, with a robust background in economics, keen analytical acumen, and a passion for sustainability. They are ethically driven, globally minded, and committed to addressing the pressing economic challenges of our times. Research-focused and articulate, you thrive in collaborative environments and aspire to lead in sectors where economic responsibility is paramount.

Degree Title:

Master of Science
(Economics and Business Administration)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 12 000 €

Scholarship: Available,
1st year full fee

Career Opportunities

The programme equips graduates with the skills they need as professional economists working in business, government, international organizations, and research centers. After graduation, they will be competent in analysing the role of responsibility in connection to financial, energy and real estate markets, emphasising sustainable development, climate change, and resource management.

Possible job titles for our newly graduates include:

- Economist
- Policy Advisor
- Industry Analyst
- Financial Analyst
- Data Analyst
- Economic Development Officer
- Economic Consultant
- Business Reporter.

Read more about this programme

www oulu.fi/en/apply/masters-responsible-economics-and-finance



Master's in Education for Global Futures

Top reasons to study Education for Global Futures

- › Engage in a truly transformative experience, working collaboratively in challenging and unlearning truths and beliefs we have taken for granted, re-imagining education together for more sustainable and peaceful futures.
- › Explore your passions and interests with similarly minded peers from all over the world, in our student-centered programme guided and supported by our diverse faculty team members.
- › Critically appraise education in a time of rapid change, by engaging in studies that are multidisciplinary and research based.
- › Participate in academic dialogues and publications, and expand your network with our partners, other students, scholars and practitioners from North-South-East-West.
- › Transform into an adaptable, independent and flexible educational expert within our community, which promotes the concept of Critical, Open, Active, Caring and Humble (COACH).

Main Courses

Courses develop an understanding of the complex nature of education in diverse societies. Studies are about global education, interculturalism, decoloniality, globalisation and their effects on various sectors of education. In a learning community, you train yourself to think critically about education, to advance it globally. Education in Transition as the minor subject is recommended for all students.

Are you a great fit for our programme?

The EdGlo master's candidate is a visionary, ready to re-imagine education with a commitment to social justice and decolonial perspectives. They aim for transformation, collaboration, and are driven by ethical reflection and critical thought. This individual thrives in diverse, research-intensive environments, actively engaging in global dialogues. They are adaptable, independent thinkers. With a focus on tackling global challenges and a passion for educational development, they aspire to impactful roles in education.

Degree Title: Master of Arts

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 12 000 €

Scholarship: Available

Careers of our alumni

The EdGlo master's degree programme educates very flexible and adaptive graduates with competencies for working in national and international contexts in the public, private and civil society sectors.

Our alumni work as professionals in various capacities including project leaders, coordinators, and educational consultants. EdGlo graduates are able to do tasks related to research, planning, administration, teaching, consultation and guidance. EdGlo alumni are employed in various fields such as education, development work, policy, or academia.

Read more about this programme

www oulu.fi/en/apply/masters-education-for-global-futures



Master's in Electronics



Top reasons to study Electronics

- › Learn both theoretical and practical aspects of electronics, giving you tools for research and development work.
- › Teaching is based on state-of-the-art research by distinguished professors with years of experience in the field.
- › Close connection to world-renowned technology hub in Oulu with lots of job opportunities.
- › Wide variety of specialisation options in Electronics Design, Electronics Materials and Components, and Future Electronics and Measurement Techniques.
- › The programme is ranked the global top 42nd in Electrical & Electronic Engineering in the Shanghai Ranking's Global Ranking of Academic Subjects 2023.

Main Courses

The programme provides a wide range of skills and knowledge in three areas of expertise: Electronics Design, Electronics Materials and Components, and Future Electronics and Measurement Techniques. All three study options include Advanced Practical Training and versatile elective studies such as Printed Electronics, Optoelectronics, Radio Engineering, Energy Harvesting Technologies, and EMC Design.

Are you a great fit for our programme?

The ideal applicant for the University of Oulu's Master's in Electronics is a forward-thinking innovator with a bachelor's in a related field, eager to explore cutting-edge electronics design, materials, and measurement techniques. They are research-driven, practically skilled, and ready to immerse themselves in Oulu's tech ecosystem. Aspiring to be top-tier electronics professionals, they are motivated by the programme's global acclaim and the opportunity to contribute to industry giants. This candidate is a future Electronics Designer or Research Scientist, poised to excel in a collaborative, high-impact academic environment.

Degree Title: Master of Science (Technology)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available

Career Opportunities

University of Oulu has educated generations of electronics designers, testing engineers, project leaders, development managers, sales managers and researchers for companies such as Nokia, Polar Electro, Elektrobit, Keysight, Bittium, Nordic Semiconductor, and Mediatek.

Occupational profiles of the graduates:

- Electronics Designer
- System Designer
- Testing Engineer
- Project Manager
- Specialist
- Research Scientist.

Read more about this programme

www.oulu.fi/en/apply/masters-electronics



Master's in Environmental Engineering

Top reasons to study Environmental Engineering

- › The Finnish society, University of Oulu and the industry share the common goal of sustainable development as a part of EU's ambitious climate policy and rapid green transition.
- › Environmental engineering studies are linked to our university's collaborative research projects with strategic partners in the green transition.
- › The main study options cover all important fields of technology for the green transition: Hydrology and Water Management, Industrial Environmental Engineering and Sustainable Energy Systems.
- › You have the advantage of studying in a multidisciplinary university. You may widen your degree with courses in natural sciences, business and human sciences.
- › We support work-life skills of students of Environmental Engineering by offering a course on job search and employment in Finland.

Main Courses

Studies address and provide solutions to critical environmental challenges. In the energy orientation you will learn about smart grids and carbon neutral energy solutions. The cleantech option tackles the prevention of environmental damage. In the hydrology programme you will learn about planning and management of water resources. The courses provide both theory knowledge and practical tools to use in work life.

Degree Title:

Master of Science
(Technology)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available,
1st year full fee

Career Opportunities

The industry-branch-independent, phenomena-based approach of the master's programme in Environmental Engineering provides its students with excellent talents to apply their learned skills into the different areas of environmental engineering.

- Researcher
- Specialist
- Hydrologist
- Chemical Process Designer
- Environmental Engineer
- Water Plant Engineer
- Development Manager
- Energy Specialist
- Environmental Specialist
- Energy Production Engineer
- Production Manager.

Read more about this programme

www.oulu.fi/en/apply/masters-environmental-engineering



Master's in Epidemiology and Biomedical Data Science

Top reasons to study Epidemiology and Biomedical Data Science

- › A unique study programme that combines epidemiology with data analysis – a global interest and demand for expertise exists. The curriculum is balanced to focus on both Epidemiology and Biomedical Data Science.
- › Research-oriented programme provides meaningful thesis topics with an intention to educate new researchers to the field.
- › The University of Oulu has an impressive history in studying longitudinal factors affecting the population on a large-scale using birth cohorts.
- › Courses are participatory by nature and encourage discussion, taught by friendly teaching staff.
- › Programme offers an international classroom - a mix of students with diverse backgrounds, some beginning their career, others already having gained experience in the medical sector.

Main Courses

Compulsory study modules in General Epidemiology, Statistical Methods in Epidemiology, Clinical Epidemiology, Public Health and Population Epidemiology, Molecular Epidemiology, and Data Management and Ethics.

Students get to practice with some of the largest longitudinal cohorts in Europe and with state-of-the-art Genomics, Epigenomics, and Metabolomics data.

Are you a great fit for our programme?

The ideal candidate is academically grounded in health or quantitative sciences, with a Bachelor's degree in fields like public health or biology. They are intellectually curious, research-driven, and eager to harness extensive life-course data for public health advancements. This individual is a collaborative communicator, capable of articulating complex data insights and translating them into actionable health solutions. They are ready to contribute to the understanding of diseases and to innovate in the face of global health challenges.

Degree Title:

Master of Health Sciences

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarships: Available

Career Opportunities

The ability to collect, manage and analyse data from different sources and translate the research into solutions for public health needs is going to be very useful in the future and will lead to many exciting and varied career opportunities, both in academia and in the public and private sectors.

- Community Health Worker
- Environmental Scientists and Specialists
- Field Investigator
- Health Department Administrator
- Health Education Specialist
- Health Services Manager
- Data Scientist
- Minority Health Administrator
- Research Coordinator.

Read more about this programme

www.oulu.fi/en/apply/

masters-epidemiology-and-biomedical-data-science



Master's in Finance



Top reasons to study Finance

- › Students can widen their Finance degree with studies in Economics or Accounting, and other courses offered by the Oulu Business School.
- › Get an in-depth understanding of finance theory and financial markets.
- › Opportunity for exchange studies abroad - you may choose from several exchange programmes and hundreds of business schools.
- › An internationally comparable degree in Economics and Business Administration from an AACSB accredited business school enables you to apply for work within the EU and globally.
- › Students will get a diversified perspective on current issues from their own professors, guest professors from other business schools worldwide and high-profile businesspeople.

Main Courses

Advanced core courses in modern Finance provide analytical and methodical skills in areas such as Asset Pricing, Corporate Finance, Corporate Governance, Financial Risk Management, Portfolio Management, and Globally Responsible Business. Optional studies in Economics and Management, including an internship of 6 ECTS.

Are you a great fit for our programme?

A visionary with a flair for numbers, the ideal candidate is globally minded, research-oriented, and ethically conscious. They thrive on analyzing financial markets and aspire to lead in roles like Asset Manager or Financial Analyst. With a zest for innovative finance solutions and sustainable investing, they are ready to leverage the AACSB-accredited education to address global challenges and excel in academia or industry.

Degree Title:

Master of Sciences
(Economics and Business Administration)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarships: Available,
1st year full fee

Career Opportunities

The programme gives students the abilities and knowledge to pursue their academic careers further, if they so choose. Whether students aim at pursuing an academic career or working in the industry after finishing their studies, they will be well-prepared for both options.

- Asset Manager
- Financial / Market Analyst
- Investment Banker
- Corporate Financial Manager.

Read more about this programme

www.oulu.fi/en/apply/masters-finance



Master's in Financial and Management Accounting



Top reasons to study Financial and Management Accounting

- › Close connection to working life - visiting lecturers bring real-life insight, and students get hands-on experience and diversified perspective with company projects.
- › Opportunity to choose from various optional studies or add exchange studies to broaden your degree.
- › Vast career opportunities in Finland as well as internationally. Great salary prospects await graduates in the area.
- › Excellent learning environment, where lecturers as experts in the field and where peer-help from fellow students is available for you.
- › An internationally comparable degree in Economics and Business Administration from an AACSB accredited business school that enables you to apply for work within the EU and globally.

Main Courses

Courses provide a solid foundation for accounting areas such as Advanced Financial Statement Analysis, Corporate Governance, Advanced Cost Accounting, Advanced Auditing and Assurance, Advanced Management Control, and Advanced International Accounting. Students may choose to opt for Financial or Management Accounting. Optional courses of 36 ECTS further enlarge the freedom of choice for desired expertise.

Are you a great fit for our programme?

The ideal candidate is analytically sharp, with a flair for interpreting financial data for high-stakes decision-making. They are globally minded, ready to embrace a multicultural business world, and have a strong ethical compass guiding their understanding of corporate governance. They are proactive, seeking hands-on experience through real-life projects. Leadership ambitions are a must. Bold, ethical, and globally attuned, these candidates are future financial leaders, ready to innovate and excel in a dynamic economic landscape.

Degree Title:

Master of Science
(Economics and Business Administration)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 12 000 €

Scholarship: Available,
1st year full fee

Career Opportunities

The FMA programme gives students the abilities and knowledge to pursue their academic careers further, if they choose. Whether students aim at pursuing an academic career or working in the industry after finishing their studies, they will be well-prepared for both options.

- Chief Financial Officer
- Controller
- Auditor
- Financial Analyst
- Consultant.

Read more about this programme

[www oulu.fi/en/apply/
masters-financial-and-management-accounting](http://www oulu.fi/en/apply/masters-financial-and-management-accounting)



Master's in International Business Management



Top reasons to study International Business Management

- › Global outlook, inspiring international environment and close ties with industry make a platform for professional growth and personal development.
- › Respond to global challenges by becoming a change agent capable of responsible management and growth-oriented entrepreneurship.
- › Programme offers courses that are flexible and can be taken remotely, which allows you to work alongside studies.
- › Programme provides opportunities for students to explore business especially from a strategy and organizational change point of view. You get to work in multicultural groups to implement real-life business scenarios.
- › An internationally comparable degree in Economics and Business Administration from an AACSB accredited business school that enables you to apply for work within the EU and globally.

Main Courses

Managing and developing an international business organization is a multidimensional phenomenon covered comprehensively in the main courses. These include International Business Theory, Organizational Change and Development, Entrepreneurial Leadership, Introduction to Strategizing Practices, and Venture Growth Strategies. Diverse optional courses to choose based on student's interest.

Degree Title:

Master of Science
(Economics and Business Administration)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 12 000 €

Scholarship: Available,
1st year full fee

Career Opportunities

Graduates of the programme work in many professional fields and develop to hold expert and management positions in Finland and internationally. They cover the whole spectrum of companies from start-ups to multinational corporations with titles such as:

- Business Development Manager
- Management Consultant
- Director of Sales & Marketing
- Global Demand Analyst
- Key Account Manager
- Sales Manager
- Entrepreneur
- Team Leader.

Read more about this programme

www oulu.fi/en/apply/masters-international-business-management



Master's in Learning, Education and Technology

Top reasons to study Learning, Education and Technology

- › Become an expert in collaborative, self-regulated and technology-enhanced learning in a multicultural learning environment.
- › Programme is built on internationally recognized research in learning sciences and education technologies.
- › Students come from different backgrounds and have room to explore their own interests and customize their studies accordingly.
- › Studies provide strong theoretical knowledge combined with practical hands-on experience in using technology and tools for supporting learning and the learning environment, visualising learning, multimedia learning, and learning analytics.
- › An education programme taught in Finland, the world-renowned country for quality education.

Main Courses

Courses develop an understanding of the complex processes of how people learn. They are grounded in research in learning sciences, emphasizing cognitive, motivational, emotional, and social aspects contributing to effective learning. They also explore the integration of advanced technologies to analyse and support both individual and collaborative learning. Digital Technologies in Teaching and Learning as the minor subject.

Are you a great fit for our programme?

An ideal LET programme applicant is a collaborative educator with a passion for enhancing learning through technology. They are self-motivated, adaptable, and possess strong communication skills, enabling them to thrive in a multicultural and research-intensive environment. Their academic background and career aspirations align with the programme's focus on creating technology-enhanced learning experiences, positioning them to excel as future educators, researchers, or learning design experts.

Degree Title:

Master of Arts

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 12 000 €

Scholarship: Available

Career opportunities

During the LET studies, students become competent learners and will be able to adapt to many fields and work contexts after graduating.

- Educator
- Researcher
- Educational Consultant
- Human Resources Developer
- Project Leader
- Coordinator
- Learning Designer
- Online Learning Expert
- Designer of technology-enhanced learning.

Read more about this programme

[www oulu.fi/en/apply/
masters-learning-education-and-technology](http://www oulu.fi/en/apply/masters-learning-education-and-technology)



Master's in Sustainable Marketing



Top reasons to study Sustainable Marketing

- › Sustainability and responsibility are cross-cutting themes in all courses, and teaching is based on high-quality research.
- › Studies offer a comprehensive understanding of the role of marketing in advancing environmental, social, and economic aspects of sustainable development in the renewing and fast changing business environment.
- › You get to widely develop your marketing expertise in its key areas such as branding, digital marketing, business-to-business marketing, and service management in close collaboration with companies, especially startups.
- › Programme prepares you well for diverse marketing positions that require creativity, understanding of people and development of more responsible business practices.
- › An internationally comparable degree in Economics and Business Administration from an AACSB accredited business school enables you to apply for work within the EU and globally.

Main Courses

Courses cover the fundamentals of marketing, including Brand Management, Business Marketing, Digital Marketing, Service Management, Selling and Sales Management and Consumer Behavior, all emphasizing sustainability perspective in marketing. Versatile optional courses of 24 ECTS by student's choice include Technology and Data Analytics, Service Design, Venture Growth Strategies and more.

Are you a great fit for our programme?

The ideal master's candidate is academically adept, ethically driven, and sustainability focused. The candidate is innovative, with a strong business or marketing background, ready to tackle challenges in growth ventures and startups. This individual excels in communication, leadership, and teamwork within international settings. His/ Her education and experience align with the AACSB standards of excellence.

Degree Title:

Master of Science
(Economics and Business Administration)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 12 000 €

Scholarship: Available,
1st year full fee

Career Opportunities

Graduates are well-equipped in applying scientific knowledge to the practice of marketing. They can continue their academic careers or find positions in the industry under titles such as:

- Marketing Manager
- Brand Manager
- Key Account Manager
- Customer Service Manager
- Marketing Planner
- Sales Manager
- Project Manager
- Head of Supply Chain Management
- Content Creator
- Growth Hacker
- Customer Experience Manager.

Read more about this programme

www oulu.fi/en/apply/masters-sustainable-marketing



Master's in Mineral Resources and Sustainable Mining

Top reasons to study Mineral Resources and Sustainable Mining

- › A rare opportunity to study high level education covering the whole mining value chain.
- › University of Oulu is ranked within the global top 76-100 universities in Mining & Mineral Engineering in Shanghai Ranking's Global Ranking of Academic Subjects 2023.
- › Excellent, cutting-edge infrastructure available for research and education - the latest software and machinery.
- › Shared courses in geosciences and engineering, including both theory and practice.
- › Work-life related studies in close cooperation with the mining industry. Internship and thesis opportunities offered to students.

Main Courses

Students get a deep understanding of the sustainable use of mineral resources and principles of sustainable mining and beneficiation. They learn about the latest modelling and simulation techniques in mining. They get hands-on practice in a research center or in the field, and instrumental skills needed in mineral analytics.

Are you a great fit for our programme?

An ideal candidate is passionate about the field of geology and mining related disciplines. He/She aims to contribute positively to the mining value chain with technological advancements. For Geosciences: A sound background in geology, with at least 60 ECTS credits in geology and mineralogy related courses. For Mining Engineering and Mineral Processing: A degree in mining related engineering or natural sciences with completed courses in mathematics and physics.

Degree Title:

Master of Science or
Master of Science
(Technology)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available,
1st year full fee

Career Opportunities

The programme is committed to fighting climate change and providing students with social skills and cultural awareness in different cultural and socioeconomic contexts related to mining in addition to technical engineering expertise. Job opportunities exist in all fields related to the mining cycle including:

- Mineral Exploration
- Mining
- Mineral Processing
- Rock Engineering in both industry and research.

Read more about this programme

[www.oulu.fi/en/apply/
masters-mineral-resources-and-sustainable-mining](http://www.oulu.fi/en/apply/masters-mineral-resources-and-sustainable-mining)



Master's in Interdisciplinary Product Innovation and Creation



Top reasons to study Interdisciplinary Product Innovation and Creation

- › Our ASIIN and EUR-ACE accredited programme fosters collaboration across diverse fields to equip you with a holistic understanding of product innovation.
- › You will study a project-based curriculum where projects are integrated with the subjects taught.
- › Our instructors inspire collaborative learning and bring a wealth of industry and academic expertise into your learning methods combining theory and learning by doing.
- › Dive into real-world product innovation cases to develop practical skills and problem-solving abilities in small, medium and large enterprise contexts.
- › Study in a close-knit community in a design studio-like learning environment.

Main Courses

In the project-based curriculum, individual courses are integrated with innovation assignments originating from real needs. During the first year of studies, three projects concentrate on new product ideas, product concepts and product sustainability. The second study year includes a larger project spanning over two semesters.

Key courses in the curriculum include International Cross-disciplinary Product Development Project, Management, Human Resource Management, Product Portfolio Management, and Change Project and Programme Management.

Are you a great fit for our programme?

This master's programme fits best for ambitious creative tinkerers who are passionate about innovation and problem-solving, who have an outstanding track record of their previous studies to show and who already have experience in industrial engineering and management, either from previous studies or work experience. You can commit to project-based learning and enjoy working in interdisciplinary teams. Your bachelor's or master's degree must be in engineering or relevant natural sciences.

Degree Title:

Master of Science
(Technology)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available,
1st year full fee

Career Opportunities

After graduation you will have hands-on expertise in new product design and development, rapid development, productisation and management of both people and projects.

This experience allows you to work in challenging product development or project management positions. You can lead and manage interdisciplinary product development projects and other business development tasks.

Occupational profiles of the graduates include:

- Innovation Manager
- Product Manager
- Product Owner
- Product Development Engineer
- Product Data Manager
- Project Manager
- Programme Manager.

Read more about this programme

[www.oulu.fi/en/apply/
masters-interdisciplinary-product-innovation-and-creation](http://www.oulu.fi/en/apply/masters-interdisciplinary-product-innovation-and-creation)



Master's in Software Engineering and Information Systems

Top reasons to study Software Engineering and Information Systems

- › Unique learning outcomes that focus on either software engineering or information systems - or a combination of both.
- › Choose courses according to your interests and enjoy a flexible range of courses from study fields such as business and humanities.
- › Get relevant skills and capabilities for a successful career in the ICT companies or the public sector.
- › The quality of content and pedagogical design that combines diverse teaching and assessment methods ensures the highest learning outcomes. Courses are provided by pedagogically highly trained teachers who are experts in their fields.
- › Provides the latest and future trends in the industry supported by a dedicated advisory board and by active research collaboration with local and global partners.

Main Courses

Students can choose their study path to be Software Engineering or Information Systems. 30 ECTS of courses follow the chosen study path. 60 ECTS are common studies, such as Research and Development Project (10 ECTS) and the master's thesis (30 ECTS). Studies include at least one specialization subject of 10 ECTS (software engineering, user experience, persuasive design and gamification), and 20 ECTS of elective university courses.

Are you a great fit for our programme?

The ideal candidate has a keen interest in current ICT research and is adept in applying his/her knowledge in software development or user-centric design. This individual is an analytical problem-solver, eager to lead and collaborate in diverse teams, and committed to lifelong learning to stay at the forefront of technological trends. They aspire to roles that blend technology with strategic business development. They are ready to thrive in the dynamic high-tech ecosystem of Oulu contributing to the ICT sector with fresh ideas and a user-focused approach to digital transformation.

Degree Title:

Master of Science

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available

Career Opportunities

Graduates have the capability to act as independent experts in goal-oriented projects and manage professionally projects in global ICT companies.

Possible titles include:

- Chief Technology Officer
- Chief Information Officer
- Software Designer/ Developer
- User Experience Designer
- Lead Developer
- Senior Software Engineering
- Full-Stack Developer
- Product Owner, Product Manager
- Business Analyst
- Digital Consultant
- Digital Transformation Leader
- Solution Designer
- Data Scientist.

Read more about this programme

www.oulu.fi/en/apply/masters-software-engineering-and-information-systems



Master's in Sustainable and Autonomous Systems

Top reasons to study Sustainable and Autonomous Systems

- › Be at the forefront of enabling a world of sustainable living and more autonomous systems.
- › Widen your expertise with complementary and advanced studies, such as electronics, AI, and machine learning.
- › Graduates can build robotised solutions for various industries such as production, energy, transportation, and logistics.
- › Broaden your opportunities for practical training and employment by utilizing the business networks of both the University of Oulu and University of Vaasa.
- › The programme is based on the strengths of the two universities. The University of Vaasa has the knowledge for building sustainable energy systems and the University of Oulu has the expertise in smart and autonomous systems.

Main Courses

A course collection in Autonomous Systems, Environmental Monitoring, and Sustainable Development according to the programme focus. Supplementary advanced studies in areas such as Software for Intelligent Systems and Artificial Intelligence, Towards Data Mining, and Electronic System Design.

Added value from courses offered by the University of Vaasa, among others Smart Cities and Communities.

Are you a great fit for our programme?

The ideal applicant for the Sustainable and Autonomous Systems master's is an innovative engineer with a passion for sustainability and technology. Skilled in AI, machine learning, and electronics, they excel in analytical thinking and ethical problem-solving. They are committed to lifelong learning, adept in research, and poised for roles like Project Manager or R&D Engineer. This candidate thrives in international collaboration, eager to harness the dual expertise of the University of Oulu and University of Vaasa to drive advancements in energy, transportation, and logistics through cutting-edge, sustainable, autonomous solutions.

Degree Title:

Master of Science
(Technology)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available

Career Opportunities

Graduates can build robotised solutions for various industries such as production, energy, transportation, and logistics.

Possible titles include:

- Project Manager
- Research Scientist
- Product Developer
- R&D Engineer.

Read more about this programme

www.oulu.fi/en/apply/masters-sustainable-autonomous-systems



Master's in Wireless Communications Engineering



Top reasons to study Wireless Communications Engineering

- › Become an expert in wireless communications by learning state-of-the-art technologies.
- › Programme is ranked top 29th in Telecommunication Engineering in Shanghai Ranking's Global Ranking of Academic Subjects 2023.
- › Teaching is based on state-of-the-art research that is leading in 6G wireless communications technology.
- › Close connection to world-renowned technology hub in Oulu with lots of job opportunities, even in 6G research.
- › Widen your expertise with complementary computer engineering techniques, such as AI and machine learning.

Main Courses

Students can major in Radio Access and Networks or RF Engineering. Studies include Advanced Practical Training, Mathematics, Advanced Wireless Communications Systems, Communications Networks, Stochastic Signal Processing Methods, Radio Channel Modeling, Radio and Antenna Engineering, Information Theory, Coding Methods, and Finnish language. Supplementary courses in natural sciences and business are possible.

Are you a great fit for our programme?

The ideal applicant holds a bachelor's degree in communications engineering, electronics & electrical engineering, or computer engineering. They are passionate about cutting-edge technologies and have a strong foundation in mathematics, physics, and programming. With a keen interest in research, they aspire to contribute to the 2030 wireless era. Their technical skills include proficiency in digital signal processing, radio engineering, and communication networks. They are adaptable, proactive learners with excellent communication and teamwork abilities. Ultimately, they envision becoming a leader in the field, driving advancements in wireless communications.

Degree Title:

Master of Science
(Technology)

Duration of Studies: 2 years

Scope: 120 credits

Tuition Fee: 10 000 €

Scholarship: Available

Career Opportunities

An exciting opportunity to get cutting-edge knowledge in wireless communications both at physical and network layers. As a master's degree holder, you can design, implement and develop 5G and beyond 5G systems, enabling hardware and applications.

- Chief Engineer
- Design Engineer
- Development Engineer
- Maintenance Engineer
- Patent Engineer
- Program Manager
- Project Manager
- Radio Network Designer
- RF Engineer
- Sales Engineer
- System Engineer.

Read more about this programme

[www.oulu.fi/en/apply/
masters-wireless-communications-engineering](http://www.oulu.fi/en/apply/masters-wireless-communications-engineering)





“Here in Oulu I met some of the best people I’ve ever met. I’m beyond thankful for that and I always will be.”





Working with cool things to solve real-world problems

A native of Iran, **Samad Ali** came to study wireless communications engineering at the University of Oulu in 2012. Ten years later, he is working in the industry to improve the standards in current and next-generation telecommunication networks.

Samad Ali had gained his bachelor's degree in Telecommunications Engineering in Iran, and he wanted to continue his studies abroad. He had specific criteria in making his decision: the education had to be top-notch and there had to be great connections to industry which meant opportunities in studying, working and getting internships.

"I really wanted to have the best education possible and that was the most important thing. I looked at places in Europe and in North America and applied to many. The University of Oulu is very well known in my field, and it is one of the very best places to study wireless communications. I chose Oulu as the place to do my master's, and I really got what I wanted", Ali says.

Ali came to Finland prepared to study hard and make the most of his time here. When he arrived in Oulu, he was pleasantly surprised by how smooth everything was.

"I remember my orientation with the faculty and the first thing the coordinator said was, 'Don't stress'. This is a different place!", Ali says with a laugh.

Of course, he did study as hard as anywhere else, but he appreciated the level of freedom in the studies.

"As a student you have time and several chances to take tests, the

professors are available to help you, and the course content is always up to date. The University has a lot of freedom to put away outdated content and bring in visiting professors to teach the latest topics. You get to study and learn and that was so important to me, and the reason why I stayed here for my doctoral studies", Ali says.

Machine learning is the future

Ali's passion for technology has translated into a career that has him working at Nokia on standards research and at the University as a postdoctoral researcher. At Nokia, he is tasked with supporting the work of standards development. His work is a combination of coding, inventing, solving problems and writing and presenting his findings.

Easy adjustment to the weather

Ali is from the Northwestern part of Iran, which is mountainous and can have temperatures of -15 degrees Celsius easily in the winter. So, he was not too fazed by his surroundings in that respect.

"For me, the big surprises were other things. I remember meeting the head of my research unit for the first time. He said that "I am not Sir, Professor, or Doctor. I have a name, it is Jari, you call me that." This is unique to me and says something about Finnish society in general", Ali chuckles.

Read
the full
story:





“I have to say that for a person who is focused on studying and getting a great education, Oulu is a wonderful place. Nature in Oulu is beautiful, in summer, everywhere is green, and the winter is beautiful. Moreover, you can walk and bike everywhere, so it is easy to get around which makes life much more pleasant.”

“Oulu is one of the best places to see the Northern lights in Finland.”



Winter is enjoyable when you have hobbies

Located in the center of Finland, Oulu has a long winter that usually starts with the first snowfall in late October and ends in May when the snow melts. **Ha Pham Thi Ngoc** shares some of her favorite hobbies.

Coming from a tropical country with four seasons full of sunlight, I saw Finnish winter as something very exciting and scary at the same time. However, after a few months of living in the winter, I have learnt from the Finns that this season could be uniquely interesting and enjoyable if you have some hobbies.

Walking outdoors

Walking is good for our health. In winter, it helps to warm our body and release energy which induces good sleep at night. As you may know, many people often face sleep disorders in winter due to lack of daylight. Walking is recommended as a therapy to regulate our sleep circle to avoid the consequences of this disorder.

Moreover, I love to breathe in the fresh air when I walk. It is always worth reminding ourselves that we live in a country with the cleanest air in the world. While walking, I can also notice the unique beauty of the season. As a result, I feel more connected to nature. For me, it is a healing experience.

That's why I always find excuses to leave home for a short walk every day, either to shop, to the library, or to work.

About the author

Ha Pham Thi Ngoc from Vietnam is pursuing her master's in Learning, Education and Technology at the University of Oulu. She is enjoying her student life in Oulu so much.

Sightseeing in Oulu

There is no reason to stop exploring the city despite the cold weather. Oulu has been loved because of many beautiful attractions, and when winter colors them in white, they are still gorgeous.

You can, for example, go to see the bobby statue (Toripolliisi), market hall, outdoor sculptures, Nallikari beach or the Oulu Botanical Garden, you name it. You will be surprised by how different they are compared to their summer versions while still looking very nice and attractive.

Aurora hunting

Aurora is such a powerful and unique natural phenomenon that my friends and I could not stop screaming when we saw it. I have been lucky enough to see the aurora dancing overhead in Oulu a few times. Despite the sub-zero cold, I was eager for the hunts that usually lasted for hours.

In the silence and cold of winter, hunting the aurora will make your winter more dynamic and fuller of excitement.

Read the full story:



Touring Finland by bike

Rishikesh Raut, graduate of Environmental Engineering, found his inspiration in Oulu and consequently decided to stay. This summer he cycled around Finland.

Rishikesh Raut has been enjoying his life in Oulu and it has enabled him to unleash his potential in discovering nature in ways he would not have imagined a few years ago.

“It has been such an enriching experience for my life”, Rishikesh says.

Rishikesh is always amused by how nature works in wondrous ways to make the entire living experience a worthy one here in Finland. For him, the four seasons are “like nature changing a dress every now and then”. This is quite a different experience for him, coming from a tropical country.

“On the darkest days, some stars are playing music and purple lights are dancing in the sky. We cannot hear the music, but we can see the dance. So, it's a completely amazing place to be.”

During his free time, Rishikesh engages in various types of leisure activities but for him, cycling stands out among the rest.

“I have enjoyed everything I do like going on walks by the sea and the frozen sea. Everything

is blissful and quiet. But cycling has been a special thing for me because before coming to Finland there was not so much freedom to go anywhere by bicycle. But here, with the cycling infrastructure, I learned to ride a lot.”

This new habit of Rishikesh led him to do the impossible during the summer. It was Rishikesh's dream to cycle around Finland and finally, he was able to achieve his dream in the summer of 2022.

“Oulu and Finland have allowed me to do this something so wild and crazy. I rode about 3,600 kilometers and it took me about 65 days to do that. I started on the 12th of July and came back home on the 15th of September.”

Rishikesh says this adventure of cycling around Finland has given him a new perspective on life and nature. He has met amazing people, heard amazing stories, and seen breathtaking views of nature during

his road trip. “It was an opportunity to empty myself and be full again with something fresh and memorable experiences”, he explains.

“On the darkest days, some stars are playing music and purple lights are dancing in the sky. We cannot hear the music, but we can see the dance. So, it's a completely amazing place to be.”



NAPAPIIRI
ARCTIC CIRCLE



TUOMAN TUPA



AVOINNA
OPEN



Exciting study opportunities and snow intrigued Khalil Chakal about Oulu

Algerian **Khalil Chakal** says he didn't really have to think long about his decision to come to study Computer Science and Engineering at the University of Oulu.

“**My friend's cousin** had been studying in Oulu and he was able to give me lots of information about life and studies here. I also had a very inspiring online interview with the staff at the University during the application process and receiving the scholarship was another thing that made this a no-brainer for me”, Chakal says.

Chakal has a background in computer engineering and so he enrolled in the Computer Science Engineering Master's programme in Oulu and he is on the Applied Computing Engineering track.

He says he was impressed by the University's focus on the Arctic and by the research that is going on in his field.

Making friends with Oulu

Naturally an extroverted person, Chakal has made a number of friends already in his few months in Oulu.

“I am very happy with the track I chose, and I have already made some close friends with the international students

here. When I was researching Finnish culture, I kept hearing that Finnish people are reserved and like to keep to themselves, but that hasn't been my experience. I am outgoing and I like to make eye contact and say hello and I find that Finns are just as eager to have a conversation”, Chakal says.

Read
the full
story:



“I am very happy with the track I chose, and I have already made some close friends with the international students here.”



Kummi Family may turn into a lifelong friendship

A Canadian exchange student didn't know in 1997 that he'd host his Kummi Family at his wedding in France many years later, much less that he'd visit their shared 70th birthday in Oulu, 25 years down the road. Indeed, The Kummi Family Programme has the potential for creating lifelong relationships.

Matthew Sawatzky came to Oulu in the fall of 1997 as an exchange student for a year. He was in his early 20's and didn't really have any preconceived notions about Finland beforehand.

"I wanted to experience something really different from North America and I thought I would go to Europe, but as far north as possible. So, I chose Oulu. I remember flying from Calgary to Minneapolis to Amsterdam to Helsinki, and seeing this big sign at the airport that said 'Tervetuloa' ['welcome']. I had absolutely no idea what that meant," Sawatzky chuckles.

After only a couple of weeks of studying in Oulu, a University staff member walked into a classroom and asked foreign exchange students if they would be interested in meeting a Finnish family for casual conversation, maybe over a meal. Sawatzky perked his ears.

"I heard 'free meal' and, being a student, I was all in! I thought it was going to be a one-time thing, but I ended up spending so much time with them," Sawatzky says.

Sawatzky had been paired with **Timo** and **Seija Mattila**, a local family with three children. The Mattilas had had a positive experience with an American exchange student previously, and they were willing to meet a new person, mostly to improve their language skills.

"Improving conversational English was really my motivation, as I had been studying German before," says Seija Mattila. "It turned out that Matthew learned Finnish really quickly, but I still got to practice with him."

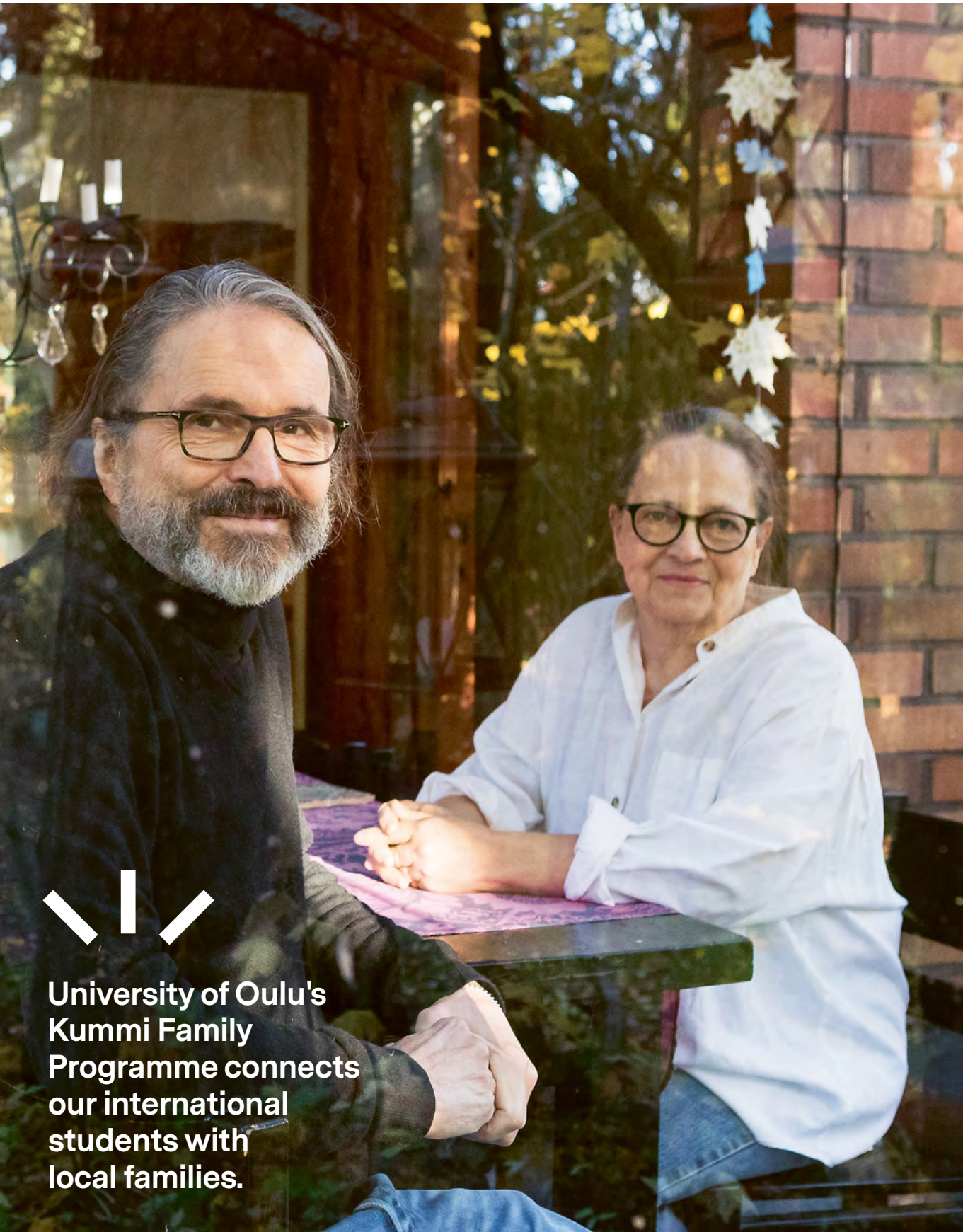
Timo Mattila says that they felt an instant connection with Sawatzky, that 'click' that sometimes happens in life.

"He is a great guy, very curious and interested in other cultures. We were really on the same page with him as a family right from the start. We started spending time with him every couple of weeks or so, having him over for family dinners, going to the summer cabin or the theatre. Just normal life stuff," Timo Mattila says.

Sawatzky and the Mattilas became fast friends, and today they call each other family. When Sawatzky got married, he seated the Mattilas, his own parents and his bride's parents at the same table. For their part, the Mattilas call Sawatzky their fourth son and enjoy keeping in touch with his children, their honorary grandchildren.

"Not every Kummi Family connection is going to be like this," Sawatzky says. "But, it will be a chance for you to see another culture from the inside. You're going to see and experience things you wouldn't otherwise and it will make you look at your own culture in a different light."





**University of Oulu's
Kummi Family
Programme connects
our international
students with
local families.**

Finland – the happiest country in the world

One of the world's most peaceful countries

The country of thousands of lakes, Lapland wilderness, and high technology cities, Finland has been recently ranked as one of the most peaceful, competitive, and happiest countries in the world. Finland has a diversified modern industrial economy and the income per capita is among the highest in Western Europe.

Modern welfare state

A member of the European Union since 1995, Finland was the only Nordic state to join the Euro system at its initiation in January 1999. Today, the key features of Finland's modern welfare state are a high standard of education, equality promotion, and national social security system.

Easy access

From Finland you have easy access to other Nordic countries, especially Sweden and Norway, and Continental Europe. The two official languages, Finnish and Swedish, are complemented with English as many Finns speak fluent English.

Finland

- › has 5.5 million inhabitants, 17.9 inhabitants per square kilometre
- › is one of the leading countries in internet and mobile phone use
- › has ca. 2 000 000 saunas
- › has exactly 187 888 lakes
- › is the home of sauna, sisu, Moomins, Supercell, Marimekko, Nokia, Polar Electro, Oura Ring, Alvar Aalto and Santa Claus
- › has one of the highest educational participation rates in the world

Finns

- › are among the biggest coffee drinkers
- › are among the biggest ice-cream eaters
- › claim sports as their favourite leisure time activity

Read more about Finland
www.visitfinland.com/en





10 Reasons for Choosing Oulu

1. Location.

How cool is north? Oulu has a perfect location in the north with close distances to all Arctic destinations and good connections to the rest of Finland. Despite its northern location, Oulu still isn't remote; the city is vibrant and has an active student life!

2. Excellent university rankings.

The University of Oulu is one of the world's leading universities ranked in the top 3 percent of all the 17,000 universities of the world. Here you will get world class education.

3. High-quality research.

Studying here puts you in the center of ground-breaking research: all our eight faculties and award-winning research units provide our students an exceptional environment for learning and innovating.

4. Safety and Reliability.

Finland is a very safe country. Students here feel safe riding a bike, walking or travelling by bus during day and night, but it's always good to remember general cautiousness.

5. Finnish people.

Typically, Finnish people are known to be honest, punctual, hard-working, and reliable, but they sure know how to relax also! At first, Finns might seem shy or introverted but when you get to know them, you will gain a true friend for a lifetime.

6. The Nature, Peace and Cleanliness.

Finland is known for its pure nature and space. The environment here is stress-free and calm. The transfer from urban spaces to nature in Oulu is amazingly short. You can get from your home to and from the University to the forests and by the waters in 5–15 minutes and relax after a busy day!

7. Bullying and Harassment free university.

University of Oulu does not tolerate bullying or harassment. Study in an environment that supports equality and non-discrimination.

8. Ecological commuting.

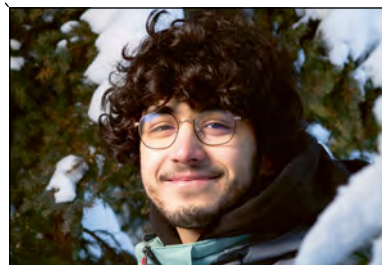
Oulu has the widest biking network in Finland. Around 20 percent of all trips in Oulu are made by bicycle. It's eco-friendly, cost-effective, and good for your health. Many of our students even bike throughout the year!

9. Get a good-looking mark on your CV.

Not everyone has been here and not everyone knows what life is like in the north. Being a fore-runner makes you interesting! Use your experience here as an asset to set you apart from others in the international competition.

10. Arctic Attitude.

Our northern location requires Arctic Attitude - a state of mind for never giving up and working together. Here you will learn to seize opportunities and go through challenges with positive and determined mind! Are you up for the challenge?



Read more
about the Arctic Attitude in
[Khalil's story on page 46.](#)



Oulu – a higher grade of living



**Oulu2026
European
Capital of
Culture**

You are welcome to live in Oulu, comfortably and more inexpensively than in other big cities in Finland. Oulu is located just a two-hour drive from the Arctic circle and Finnish Lapland.

The nature is close, but the city is bustling with urban life. The Oulu region offers the best latitude and conditions for sustainable experiences and activities. Northern lights can be spotted in wintertime in Oulu, and the four seasons make a distinction to leisure activities to enjoy from.

Getting around in Oulu and coming here is easy both by car and public transport. The 20-minute city means that nothing is far away. Two wheels are quite enough for swift mobility, too, for Oulu is one of the self-evident cycling capitals in the world.

Living the arctic attitude

A youthful student city, Oulu is of comfortable size, it has tranquil surroundings and a Scandinavian ambience. Living in Oulu means easy access to both high technology and wild nature. Museums, architecture, cinemas, clubs, festivals, concerts, theatres, libraries – the arts and culture of Oulu have many venues. Air Guitar World Championships, Polar Bear Pitching and Lumo Light Festival are just a few examples of the creatively innovative northern attitude.

120 different nationalities

In Oulu, you can live in a safe and active environment. Already 120 different nationalities call Oulu their home. Collaboration between the University of Oulu, the city, research institutes, and businesses has been remarkably productive. For many companies, Oulu has been a favorable environment for their R&D and the region has played a vital role in Finland's technological lead.

Oulu

- › 65°01 N, 25°48 E
- › is a global tech hub and a future European Capital of Culture
- › has the youngest population in Finland
- › has 23 000 higher education students
- › has the population of ca. 200 000
- › one third of the people have an academic degree
- › is located on the shore of the Bay of Bothnia, along the Oulu River
- › is the Winter Cycling Capital of the World
- › was founded in 1605 by King Carl IX of Sweden



Harri Tarvainen / Oulu2026



Iceland

Arctic Circle

Oulu

FINLAND

Norway

Sweden

Denmark

Great Britain

Ireland

Poland

Germany

EUROPE

France

Italy

Spain

DID YOU KNOW?
We have snow on the ground
160–175 days a year.

I would like to think
everything is possible.

I would like to swim in the sea
whether it is summer or winter.

I would like to see opportunities
everywhere, adventures here and there.

I would like to think I can find my own
path. Be a part of something unique,
find my own crew at the University
of Oulu, where future pioneers are
educated to build a more sustainable,
intelligent, and humane world.

Oulu, always a good idea.



**UNIVERSITY
OF OULU**

Finland