



INTERNATIONAL MASTER'S DEGREE PROGRAMMES

FACULTY OF AGRICULTURE
AND FORESTRY

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THE FACULTY OF AGRICULTURE AND FORESTRY OFFERS SEVEN INTERNATIONAL MASTER'S DEGREE PROGRAMMES:

- › **BIOTECHNOLOGY (MBIOT)**
- › **ENVIRONMENT AND NATURAL RESOURCES (MENV)**
- › **FOOD SCIENCES (MSCFOOD)**
- › **FOREST SCIENCES AND BUSINESS (MSCFB)**
- › **PLANT PRODUCTION SCIENCE (MSCPPS)**
- › **FOOD OF LIFE – THE SCIENCE OF ANIMAL-DERIVED FOODS**
- › **FORESTRY AND ENVIRONMENTAL ENGINEERING**

The programmes are multidisciplinary, full-time, two-year programmes with instruction in English. There is no tuition fee, except for the Food of Life programme.

- › The university launched the spring term 2010 with a media art event Mobyspray by media artist Jürgen Scheible.



WELCOME TO OUR FACULTY

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Interested in the environment and natural resources? Aiming at an international career within business, industry, public organisations or research? This is for you!

The Faculty of Agriculture and Forestry is your choice if you are interested in the great challenges of the future, such as environmental problems and climate change, food quality and production, diversity and multiple uses of forests, or bringing together economics and sustainability. Read more about what we have to offer!

At our faculty you get to be among the first to hear about the latest scientific results and learn how to put them into practise. You will learn by doing and not just by sitting in the library. Our programmes also provide a truly international study environment, since there are students from about 20 countries every year.

There is a continuous demand for sustainability experts around the world. Come study with us and the future is yours!

www.helsinki.fi/af-faculty

SOME FACTS ABOUT THE UNIVERSITY OF HELSINKI

- › The biggest university in Finland with over 35 000 students
- › 11 faculties and 4 campuses within the Helsinki area
- › Ranked in the top 100 in the world and top 25 in Europe
- › A founding member of the League of European Research Universities (LERU)

www.helsinki.fi/research

www.helsinki.fi/university



STUDYING ON THE GREEN VIIKKI CAMPUS



MAJOR BIOSCIENCES CONCENTRATION IN EUROPE

The Faculty of Agriculture and Forestry is located on the Viikki Campus, which is often referred to as the green or the bioscience campus. Three other life sciences faculties of the University of Helsinki, several research institutes and a science library are also situated on the campus. Numerous international research groups work in the Viikki Campus, and the Helsinki Business and Science Park attracts an increasing number of businesses here, too.

CASE

I'm impressed!

"I'm especially interested in food safety and I applied to study here after having read that the University of Helsinki is among the top five in Europe in the field. I also received a scholarship for my studies, which was great.

Viikki is a pleasant place to study: the classmates, like all Finns to my experience, are friendly, the nature is beautiful, and the facilities are good.

My lecture courses have been interesting and really up to date, and studying in English has been made easy for us non-native speakers, too. I was surprised to notice that studying here includes a lot of independent work, such as studying for exams, group discussion and creating presentations.

After I graduate I hope to continue to PhD level or find a suitable job in the food safety field back home in Thailand, for example, supervising quality control in a factory."

Pimwalee Kamlang-Ek
Second-year student in MScFood



TRULY UNIQUE STUDY ENVIRONMENT

The Viikki Campus unites a science community of more than 6,500 students and 1,600 teachers as well as a residential area emphasising ecological values. In Viikki you can enjoy vast recreational areas and nature reserves only 8 kilometres from the city centre. However, it might not even be necessary to make the 20-minute bus ride to the centre, since most of the services a student needs can be found on the campus.

www.helsinki.fi/viikki/english



HOW TO APPLY

You can apply for an International Master's Degree Programme, if you have graduated with a Bachelor's degree – with good or very good grades – in the same or related field you are applying for. You should also have good English language skills. The general application period is every year from mid-November to the end of January. Deadlines to some programmes may differ.

www.helsinki.fi/admissions
admissions@helsinki.fi

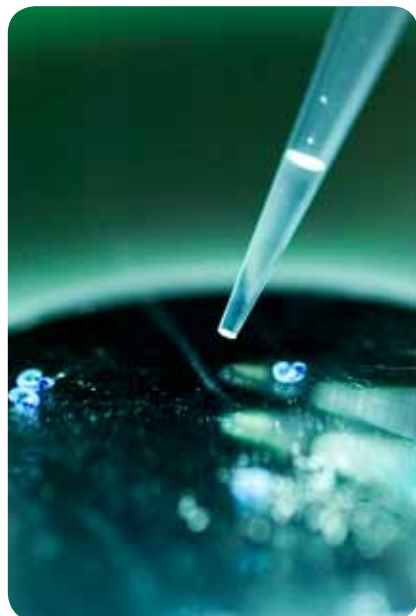
6 Biotechnology (MBIOT)

MBIOT supplies students with the expertise and skills they need for modern biotechnology research and related employment. Topics in instruction range from the latest developments in recombinant DNA technology to non-technical issues such as business and bioethics.

MBIOT is organised by the Faculty of Agriculture and Forestry and the Faculty of Biological and Environmental Sciences in close co-operation with the Institute of Biotechnology. The state-of-the-art scientific research conducted in these units offers exceptional opportunities to pursue studies in an inspiring research-oriented environment while benefiting from modern facilities.

In the Faculty of Agriculture and Forestry, the MBIOT programme offers four specialisation tracks under the major subject Biotechnology:

- › Animal Biotechnology
- › Food Biotechnology
- › Microbial and Environmental Biotechnology
- › Plant and Forest Biotechnology



Graduating with a Master's Degree from MBIOT offers scores of opportunities for a wide variety of careers, both within and outside of research and science. The programme will educate experts working at universities, research institutes, administrative bodies, as well as in the biotechnology industry and companies.

www.helsinki.fi/biotech

Environment and Natural Resources (MENVI)

The MENVI programme provides students with a holistic understanding of environmental issues. MENVI combines the aspects of the natural and social sciences and equips the students with skills necessary in implementing the results of scientific research in the environmental decision making process.

MENVI is organised by the Department of Food and Environmental Sciences and the Department of Agricultural Sciences. In addition, the Helsinki University Centre for Environment HENVI acts as a background organisation for MENVI. HENVI connects the MENVI students with researchers who carry out multidisciplinary environmental research at the University of Helsinki as well as at research institutes.

The MENVI programme offers four specialisation tracks:

- › Agroecology
- › Environmental Engineering in Agriculture
- › Environmental Soil Science
- › Microbiology

Environmental experts are increasingly sought after to meet the diverse challenges of the impact of agriculture and food production on the environment, polluted soils, water quality, biodiversity decline, and many other problems. MENVI provides students with an excellent basis for a career in environmental agencies, international development organisations, related industries, consultancy groups, nongovernmental organisations, and, naturally, in research.

www.helsinki.fi/menvi



8 Food Sciences (MScFood)

The objective of the Master's Degree Programme in Food Sciences is to educate international experts with outstanding scientific skills for research and development. The Department of Food and Environmental Sciences organises the programme.

Over the past decade, Science Watch Magazine, which monitors research trends and indicators, has placed food research at the University of Helsinki at the very top of its field. Finnish food research benefits from a long tradition of food development having resulted, for example, in the production of functional food ingredients such as stanol esters and probiotics.

The MScFood programme offers two elective specialisation tracks under the major subject Food Science:

- › Food Safety
- › Food Bioprocessing

The core Food Science studies cover the chemistry and microbiology of food, food technology as well as nutrition. The Food Safety track offers education regarding chemical and microbiological risks, administrative safety, and risk assessment. In the Food Bioprocessing track the key areas are fermentation, bio-separation, and enzyme technologies.

Teaching is carried out in collaboration with other national institutes of higher education and the food industry. In addition to further research, MScFood provides students with an excellent foundation for a career in the food industry and trade as well as with food safety authorities.

www.helsinki.fi/mscfood



9 Forest Sciences and Business (MScFB)

The goal of the Master's Degree Programme in Forest Sciences and Business is to promote the sustainable use and environmental services of forest resources and ecosystems. The MScFB programme is designed for motivated graduate students who want to gain expertise about the forestry cluster and work in multi-cultural environments. The programme is run by the Department of Forest Sciences with its internationally recognised strong teaching and research base.

The MScFB programme offers two major subjects:

- › Forest Ecology and Management
- › Forest Economics and Marketing

Within the specialised studies, the students can choose from two options: Science-based specialised studies consisting of theoretical and methodological studies in the major subject or theme-based multidisciplinary specialised studies.

Students acquire the essential scientific expertise and professional skills for working in the increasingly challenging and global forestry sector. In a world of climate change and mounting pressure on the environment, natural resources and society, an increasing need exists for qualified professionals to guide the sustainable use of forest resources.

MScFB graduates find employment opportunities across the forestry and natural resources sectors – within governmental and non-governmental organisations, forest industries, consulting companies, and in education and research.

www.helsinki.fi/mscxfb

Plant Production Science (MScPPS)

MScPPS provides students with an advanced understanding of the principles of sustainable plant production needed to face the rapidly changing challenges in the food and agricultural sector. The focus of MScPPS studies ranges from molecular and cell biology to agroecology and food production systems.

MScPPS is organised by the Department of Agricultural Sciences in close co-operation with the Nordic NOVA University Network, research institutes, and the related industry. The outstanding quality and international impact of the research guarantees an innovative studying environment and assures up-to-date, high-quality teaching.

The MScPPS programme offers five specialisation tracks under the major subject Plant Production Biology:

- › Agroecology
- › Crop Science
- › Horticulture
- › Plant Breeding
- › Plant Pathology

The acquired academic expertise in MScPPS qualifies students for a broad range of employment opportunities in the public and private sector – both in Finland and abroad. The goal of the programme is to educate experts capable of working as academic researchers, teachers, administrative officials as well as agricultural advisors.

www.helsinki.fi/mscpps



JOINT PROGRAMMES

Forestry and Environmental Engineering

The Master's Degree Programme in Forestry and Environmental Engineering is organised by the Finnish-Russian Cross-Border University CBU. The programme is recommended for students who are interested in managing and developing the utilisation of forest and bioenergy resources in a sustainable way. The program offers students high-quality and diversified training in forestry and bioenergy, with an emphasis on social and ecological sustainability.

The program provides the students with knowledge and skills that enable them to serve multinational organisations in creating rational strategies and operations especially for territories and forests of Finland and Russia. The programme is open to students beyond the borders of the two countries.

www.cbu.fi/en

Food of Life – the Science of Animal-Derived Foods

The Food of Life programme combines animal science, food science and technology, with a focus on social as well as cultural and scientific aspects of the food production chain. The programme is offered by four European partner universities and the students are able to study in two of them and gain a double degree. The students will also have the opportunity for a shorter study period in Canada, the United Kingdom, New Zealand, or Italy.

The programme prepares students for a career in the food production industries. The graduates will work on such topics as increased global demand for meat and milk products, product quality and proven health benefits for the consumer, and improvement of animal health and welfare with reduced environmental impact.

Food of Life is open to EU and third-country applicants qualified in animal, food, or biological science. EU scholarships are available.

www.emfoodoflife.eu




UNIVERSITY OF HELSINKI


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