MOVING FORWARD WITH THE POWER OF THOUGHT

UNIVERSITY OF HELSINKI
WHAT MAKES HELSINKI SUCH A COOL PLACE?

In 2011, Monocle Magazine declared that Helsinki was the world’s most liveable city and Newsweek ranked Finland as the world’s best country.
CENTRE FOR THOUGHT

UNIVERSITY

In the capital of Finland, Helsinki, lies a different kind of centre for innovative thought: one of the leading research universities in Europe, the University of Helsinki. The university is more than a landmark: every fifth resident is affiliated with the University of Helsinki.

CAPITAL OF THE NORTH

HELSINKI

South of the Arctic Circle, on the 60th parallel north, lies the world’s northernmost urban area of over one million people. The capital of Finland is an exciting place, which offers its residents a spectacular milieu in the middle of the archipelago, a high quality of life and exciting events throughout the year. Public amenities are abundant; from beautiful parks dotting the city to the efficiency of public transport, Helsinki is an enjoyable city for all.

HELSINKI BY BIKE

Hop on a bike saddle and explore the pocket-sized metropolis.
It is no coincidence that Helsinki was chosen as the World Design Capital for 2012. From Aalto to Marimekko, good, durable and beautiful design is everywhere and it is even affordable.

At the university, the concept of design is expanded to encompass social innovations based on academic research and science. Design is all about solving problems, and through research the university contributes to the creation of a better and more liveable city.

The motto of the University of Helsinki is to be a responsible social force, put into practice through sustainable development of all activities and research throughout the world. For example, university researchers delve into the use of environmental innovations to create more sustainable living in urban areas. Behavioural scientists develop new learning techniques to make sure Finns continue to do well in international school evaluations and active students contribute by trying to make Helsinki the world’s best student capital.
You haven’t experienced four seasons until you’ve lived a year in Helsinki. Sure, Finland is a bit low on sunlight in the winter months, but all that white, dazzling snow compensates for the darkness.

When spring arrives the snow melts and plants and animals spring to life after hibernation, making those first spring mornings so much sweeter.

The summer, in turn, is somewhat magical: can you imagine what 20 hours of sunlight feels like? After the short but intensive summer, autumn graces the streets with a sea of colours from the thousands of trees in the many parks of Helsinki.
UNIVERSITY IN THE HEART OF THE CITY

FROM KENYA TO LAPLAND, THE UNIVERSITY OF HELSINKI IS PRESENT IN MANY CORNERS OF THE WORLD. WITH ITS FOUR CAMPUSES, THE UNIVERSITY MARKS ITS PRESENCE IN THE CAPITAL OF FINLAND.

MEILAHTI CAMPUS
3,000 STUDENTS

Known as a centre of top-level research in medicine. The strongest field of study is cancer research, in which Finland is a global leader. The University of Helsinki was ranked 46th in the world in the field of medicine in 2011.
The largest concentration of faculties lies in the historical city centre. Set amidst ministries and important public institutions, the focus lies in education, law, social sciences, arts and theology.

VIikki Campus
6,500 Students
Surrounded by wide green fields, the biosciences campus works towards the sustainable use of natural resources, the well-being of both humans and animals and preserving diversity in nature.

Kumpula Campus
6,000 Students
Finland’s leading centre of expertise in the exact sciences, such as physics and chemistry, and the largest centre of natural sciences in the Nordic countries.

CITY CENTRE Campus
21,000 Students
The largest concentration of faculties lies in the historical city centre. Set amidst ministries and important public institutions, the focus lies in education, law, social sciences, arts and theology.
The University of Helsinki is ranked as the 73rd best of the world’s 15,000 universities – it is one of Europe’s top multidisciplinary universities. As a founding member of the League of European Research Universities (LERU), the university promotes science and research together with Europe’s top research-intensive universities.

The university’s goal is to become one of the 50 best universities in the world. On the journey towards the top 50, the University of Helsinki aims to build a better world by approaching global problems from a multidisciplinary perspective.

The university is especially strong in the fields of atmospheric physics, metapopulation biology, molecular medicine, mathematics of inverse problems, world politics and Russian studies.
36,500 students in all, 2,000 of whom are international

Undergraduates: 2,0123 finnish, 334 int’l
Masters: 8,734, 792
Licenciates: 256, 8
Doctoral students: 4,059, 737

Other degree*: 1359, 96

Women 59%
Men 41%

* Specialists’ degrees: medicine, dentistry, veterinary medicine

60% of the research budget comes from external entities.

TOTAL STAFF 8,590

4,800 researchers, professors and lecturers, of whom 768 are foreign

3,770 other staff, 113 foreign

SHANGHAI RANKINGS FOR KEY UNIVERSITIES 2007–2012

Harvard university
University of Oxford
University of Toronto
University of Copenhagen
Utrecht University
University of Helsinki
Uppsala University
Stockholm University

Ranking goal for 2020

36,500 students in all, 2,000 of whom are international
GREAT RESEARCH, BETTER SOCIETY

TOP RESEARCH IS NOT BORN OUT OF THIN AIR: FIRST-CLASS BASIC RESEARCH AND TEACHING ARE PREREQUISITES FOR ITS EXISTENCE.

HEAVYWEIGHT IN CANCER RESEARCH

MOLECULAR CANCER BIOLOGY

The University of Helsinki is ranked 46th among world universities providing medical education and research. When measured in terms of the average number of citations per article, Finnish cancer research is now the best in the world. The university’s Molecular Cancer Biology Program is, for example, led by Europe’s fifth most-cited cancer researcher, Professor Kari Alitalo.

Cancer research is highly connected to genetics. The researchers at the Faculty of Medicine identify and test novel genes and molecules that regulate DNA damage response, tumour or stem cell growth and differentiation, and the metastatic and lymphatic spread of tumours. The university’s pioneering research into the growth factors of blood and lymphatic vessels is known worldwide. University researchers have discovered several growth genes of lymphatic vessels, and as a result of these discoveries, new types of cancer medicine are being developed.

PERSONALISED MEDICINE

If we know more about the individual genetics of each person, diseases can be treated more effectively.

UNIQUE GENES

The small population in Finland offers genetic scientists a unique gene pool to study.
SICK AS A DOG

GENETICS

People and dogs share many natural hereditary diseases. The unique population history and breed structure of dogs make them great candidates for genetic research as their genetic system is simplified. This facilitates gene mapping. Compared to similar human studies, studies on dogs make it possible to identify genes, even those causing complex diseases, from a much smaller collection of samples. The aim of the canine genetic research at the University of Helsinki and Folkhälsan Research Center, directed by Professor Hannes Lohi, is to identify genetic abnormalities leading to different hereditary diseases as well as other breed-specific traits. The research group also develops genetic tests for purposes of breeding, and uses the gained knowledge in the study of human diseases. A new genetic discovery opens up possibilities for better understanding of disease mechanisms and may eventually help to improve diagnostic methods, treatments and drug development.

EARLY CARE

The very first weeks are crucial for the premature infant’s healthy development. If there are complications these might have lifelong effects.

OUR GENES DEFINE OUR VULNERABILITY TO DISEASE.
Researchers have found out that aerosol particles, which are formed by emissions, desert sandstorms and the biosphere, have an important impact on the progress of climate change. The particles have a dual effect on global warming. On the one hand, particles formed as a by-product of photosynthesis slow down global warming. On the other hand, soot particles that are produced by prescribed burning or street dust warm up the atmosphere by absorbing solar energy.

“Aerosol particles reflect solar radiation back to the space and they also form clouds, thereby they cool the climate and slow down climate change. In order to determine the mechanism involved, we need comprehensive knowledge about the dynamics of aerosol particles and cloud droplets,” says Academy Professor Markku Kulmala, Director of the Centre of Excellence in Physics, Chemistry, Biology and Meteorology of Atmospheric Composition and Climate Change, who is also the world’s most cited researcher in the geosciences.

Climate change research is one of the university’s key fields of know-how. A tenth of all publications in the area of atmospheric new particle formation is produced in Finland.
FORERUNNER OF META-POPULATION BIOLOGY

Metapopulation biology is concerned with the ecological, genetic and evolutionary consequences of habitat fragmentation due to urbanization, deforestation, climate change, and many other processes. The results of the research can point to measures that allow populations to survive under the pressure of human impact.

The Metapopulation Research Group at the University of Helsinki is led by Professor Ilkka Hanski, who is one of the most prominent ecologists in the world. Hanski has contributed substantially to the field of metapopulation biology and made it a significant field of study in ecology. The research results are put into practice in international and national conservation planning. Based on knowledge from theoretical and experimental population biology studies, conservation biologists have developed tools to maintain biological diversity in habitats that are becoming increasingly fragmented.
The Finnish system of education creates some of the world’s best school pupils, but what about the next step? The University of Helsinki’s solution is to base teaching on research: the students are involved in the researchers’ work from the beginning of their studies. This motivates, inspires and supports the student, creating an expert with the means to create an impact on society.

Another important principle is that every teacher is a researcher, and vice versa. A multidisciplinary approach and international cooperation networks offer students a wider perspective to research and science and excellent possibilities to go abroad for exchange studies.

The teacher education is also world-class – Finland’s high rankings in the PISA evaluations of school pupils is no coincidence. Some of the world’s best teachers graduate from the University of Helsinki.

EVERY RESEARCHER IS A TEACHER, EVERY STUDENT A POTENTIAL RESEARCH ASSISTANT.

TEACHERS’ ACADEMY
In 2012 the university launched the Teachers’ Academy to provide the university with a new model of not only awarding, but also listening to good teachers more carefully. The Academy gathers well-respected teachers who are interested in developing their teaching skills and distributing good practices within the university.

KAISA HOUSE
The new Main Library, located in the heart of the city centre, is based on the idea that a library should be more than an archive of books or a place for quiet reading: a genuine learning hub. The library offers spaces and services for different learners’ needs: workstations suited for laptops, quiet reading rooms, group study workspaces, lounge areas, a café, kitchen facilities, and an impressive view of the Helsinki skyline from the balcony on the seventh floor.
There are over 180,000 University of Helsinki alumni. The university offers a free web service for all of the university’s alumni, Alumni Campus. Registered alumni stay up to date with recent research news, can look up colleagues and university friends in the alumni register and receive invitations to university events. Join the alumni community and stay in touch!

**THINK CORNER**

In 2012 the university opened a pop-up science store, the Think Corner, to showcase research projects. Each science theme is exhibited for two weeks at a time, giving passers-by an opportunity to get acquainted with the researchers’ work, participate in workshops or even contribute to the research process.

**VOX HELSINKI**

A cooperative effort with Helsingin Sanomat, Finland’s largest daily newspaper, VOX Helsinki is a forum for fresh ideas and new ways of thinking. The concept is simple: three researchers and three journalists each get to present a speech that relates to a common theme. Previously there have been presentations on equality, local communities, how to handle failures and pressure at the workplace, to name a few.

**ALUMNI**

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