

# A Presentation



Stockholm University was founded in 1878 as Stockholm University College – an alternative to the traditional universities. Now as then, the University stands for openness and accessibility, and it continues to play an active role in society.

# Welcome to Stockholm University

Stockholm University was founded in 1878 as Stockholm University College – a radical alternative to the traditional universities in Sweden. Today we are among the top one hundred universities in the world, according to international ranking.

We have more than 60,000 students, 1,800 PhD students and 5,000 members of staff working in science, the humanities and social sciences. The strong link between research and teaching ensures high quality education.

The combination of the dynamism of the capital city, Sweden's largest labour market, beautiful countryside, and historic environs characterises Stockholm University. While the city is in easy reach, the University is in fact located in the middle of the world's first national city park.

We make knowledge accessible to everyone through dialogue and active participation in debate and social development. The University's researchers are invited to participate in government investigations and to provide consultation responses to proposed legislation. They also participate in the media and are part of several Nobel committees and international expert bodies.

A relationship with Stockholm University is valuable whether you are a student, former student, policy maker, or if you meet us in another way.

Welcome!

A handwritten signature in black ink, appearing to read 'Kåre Bremer', with a stylized, flowing script.

Kåre Bremer, Vice-Chancellor



# The University in the Capital

Stockholm is one of the world's most dynamic capital cities, ranked among the top five in the world when it comes to intellectual capital, innovation and quality of life.\* The city generates the largest gross regional product in the country, and is the natural location for international companies.

## **The Region of Knowledge**

The region has many knowledge-intensive companies, several world-leading innovation environments and a large number of researchers. Stockholm University is an important part of this region of knowledge. We have expertise in the fields of science, the humanities and social sciences, ranging from undergraduate education to advanced, cutting-edge research.

## **Research that Produces Results**

The world's hardest glass, mobile technologies for communication, and methods for preventing antibiotic resistance – these are a few examples of the results of collaboration between Stockholm University researchers, industry and society. Many companies and organisations collaborate with the University in order to benefit from research findings in a number of fields. In turn, these stakeholders contribute to the students' education by offering practical insights into the labour market, for example, through degree projects and valuable work experience.

## **Dynamic Environment**

As one of Scandinavia's most exciting cultural cities, Stockholm is famous for its craft and design, music production and international cuisine. In this centre of economy, culture and knowledge lies Stockholm University.



\* PWC (PricewaterhouseCoopers), Cities of Opportunity 2011



Pia Hultgren, TV Meteorologist.  
Former student and researcher  
at Stockholm University.

# Education and Research that Make a Difference

Stockholm University has a high international status and is ranked among the top universities in Europe. A degree from Stockholm University is an award that makes our graduates attractive and creates opportunities for a career in Sweden or on the international labour market.

## Where Careers Begin

Since the founding of Stockholm University, many successful writers, journalists, business leaders, politicians and other distinguished personalities have studied here in order to carve out a future career. These include Prime Minister Fredrik Reinfeldt, County Police Commissioner Carin Götblad, author Jonas Hassen Khemiri, business leader Olof Faxander, journalist Alexandra Pascalidou, party spokesperson Åsa Romson, and many others.

## A Meeting Place

To our former students, Stockholm University is a meeting place to return to for further development. They come here to build on their undergraduate education with a Master's degree, a research programme, or to try an entirely new field of study. Others come back to participate in collaborative projects, to teach, or to attend open lectures.

The strong link between research and teaching is an important condition for the quality of education at Stockholm University. Thirty of the University's research areas have been identified as leading. They cover a wide range of areas, including Materials Chemistry, Genome Function and Stability, Political Economics, Bilingualism, and Intellectual Property Law. With our research in these fields, we lead nationally, and often internationally.

Researchers at Stockholm University create a dynamic environment for research and education. Centres such as the Centre for Fashion Studies and the Centre for the Study of Cultural Evolution are innovative in their respective fields. In addition, no less than 40 scientific researchers are also members of the Royal Swedish Academy of Sciences which appoints the Nobel Laureates in Physics and Chemistry.

Many researchers who have worked here have contributed to society in the spirit of Stockholm University. As early as 1884, history was written, as Sonja Kovalevsky became Sweden's first female professor and the world's first female professor of Mathematics.



*Top row from the left: Henrik Cederquist (Professor of Atomic Physics) studies how larger molecules are formed and destroyed in different processes in the universe. Göran Östlin (Professor of Astronomy) studies the formation, features and development of galaxies, from their creation in the early days of the universe about 13 billion years ago until today. Second row from the left: Lena Kautsky (Professor of Marine Plant Ecology) and Xiaodong Zou (Professor of Materials and Environmental Chemistry). Read more about Lena's and Xiaodong's research in the text on the right.*

# Science

The understanding of nature and its laws is behind many of our time's most revolutionary discoveries and is the driving force behind humanity's incredible prosperity. Scientists all around the world are working towards the future. This may involve developing better medicine, solving climate problems or creating healthier food. The research at Stockholm University covers a wide range of areas, from the elementary particles of the atomic nucleus to the outer limits of the universe. Many of our researchers are responsible for scientific breakthroughs that have gained international recognition.

## Cavities Solve Environmental Problems

Xiaodong Zou is a professor of Inorganic and Structural Chemistry at the Department of Materials and Environmental Chemistry. She is one of the prominent figures at the research centre Berzelii Center EXSELENT, where 70 researchers are working to discover new porous materials, develop methods to characterise them, and find new applications. These materials are small crystals, zeolites, with cavities in which selected molecules can be captured and react under controlled conditions. This research is being followed with great interest by the energy sector, which is interested in processes that require less energy to capture carbon dioxide, thus reducing industrial emissions. Another area of use for porous materials is in the pharmaceutical industry. By controlling chemical reactions inside the cavities, drugs could be produced more selectively and in a more environmentally-friendly way.

## Seaweed in the Baltic Sea Reveals Environmental Conditions

One of the key issues in the field of Climate, Seas and Environment is how vulnerable different ecosystems are to human impact. The University has a strong position in research on the ecosystem and environment of the Baltic Sea and how these are affected by pollution, overfishing and eutrophication.

Professor Lena Kautsky works at the Askö Laboratory – the field station for Stockholm University's marine research centre. There she studies bladder wrack seaweed and how it is affected by eutrophication and pollution. Current issues include the importance of shallow coast environments for fish spawning and rejuvenation, how natural resources are managed and how they can be restored after being destroyed. These and other issues are studied in the strategic research programme Baltic Ecosystem Adaptive Management (BEAM), with the aim of creating better conditions for interdisciplinary and sustainable ecosystem management of the Baltic Sea environment.

## Science Education

Some go deep, others aim for the stars; studying science is an adventure that builds roads to new worlds.

Sweden's largest science faculty is located at Stockholm University. The University offers 22 undergraduate programmes, 46 Master's programmes and more than 500 individual courses

## Leading Research Areas in Science

- Astrophysics and Particle Physics
- Atomic and Molecular Physics
- Biological Membranes
- Biological Modelling
- Catalysis in Organic Chemistry
- Climate, Seas and Environment
- Genome Function and Stability
- Geometry
- Materials Chemistry

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Many of the University's research groups are at the cutting edge of research in their fields. Thirty of the University's research areas are particularly prominent. The research in these areas is nationally leading and has a high international status.



Glaciology is an umbrella term for various lines of research that focus on ice and snow. At Stockholm University, Glaciology has a strong link to climate, and a significant part of the work is based on data collected at the Tarfala Research Station, as well as in connection with polar expeditions. Researchers at Stockholm University have, for many years, taken part in international expeditions with the icebreaker Oden to investigate climate change. The picture shows researchers studying the development of sea ice in the Arctic.



*From the left: Maaret Koskinen (Professor of Cinema Studies) conducts research on Ingmar Bergman productions and has written a number of books on the subject. Cecilia Magnusson Sjöberg (Professor of Law and Information Technology) conducts research on how laws and regulations relate to IT. Torbjörn Åkerstedt (Professor at the Stress Research Institute). Per Krusell (Professor at the Institute for International Economic Studies). Read more about Torbjörn and Per's research in the text on the right.*



# The Humanities and Social Sciences

Research and education in the humanities and social sciences span a wide range of subjects: from the humanities' focus on humans as cultural beings, and subjects such as Philosophy, History, Archaeology, Performance Studies, Literature and Language, to the social sciences' ambitions to understand the individual, society, and the relationship between them. There are behavioural science courses in Psychology, more technically oriented courses in Computer and Systems Sciences, as well as more traditional social science programmes in Political Science and Business Administration.

Law is also part of the humanities and social sciences. Modern Law is incorporating more and more international elements, such as European law and human rights issues, which have influenced both education and research in recent years.

## Stress-related Illness

Stockholm University is home to several leading research areas in the humanities and social sciences. One example is the research being conducted at the Stress Research Institute, where researchers from various disciplines work to seek answers to fundamental questions about stress and illness: what actually happens when we get sick from stress? What treatments are effective for those who become ill? And not least: what preventive measures can be taken so that more people stay healthy? Professor Torbjörn Åkerstedt and his colleagues have proven through their studies that stress activates the immune system, and that neurotransmitters from the inflammatory part of the immune system cause severe fatigue. These substances also include neurotransmitters in the brain that regulate sleep

and the need for sleep. The research group has results from several studies showing that fatigue is the most important factor when it comes to subjective health – that is, how healthy or sick we feel on a particular day. Stress-related illness is one of today's biggest public health issues and represents a substantial cost for the health insurance system.

## Climate and Economics

Political Economics is another field in which Stockholm University's researchers distinguish themselves both nationally and internationally. Per Krusell is a professor of Economics and works at the Institute for International Economics (IIES), where he conducts research in order to understand how climate change and economics interact.

## Language Skills

In an increasingly globalised world, language skills are invaluable. At Stockholm University, one can study 30 different languages: most of the EU languages, as well as the major languages from the different continents. All the classical languages are represented, along with sign language and more theoretical subjects, such as linguistics and bilingualism.

## Education in the Humanities and Social Sciences

In the humanities, humans are studied as cultural beings. Understanding society is the basis for an active, reflective social debate and a prerequisite for good decisions and effective social planning.

Sweden's largest faculties of social sciences and humanities are located at Stockholm University. The University offers 46 undergraduate programmes, 52 Master's programmes (two-year), 5 Master's programmes (one-year), and more than 1,400 individual courses.

## Leading Research in the Humanities and Social Sciences

### Humanities

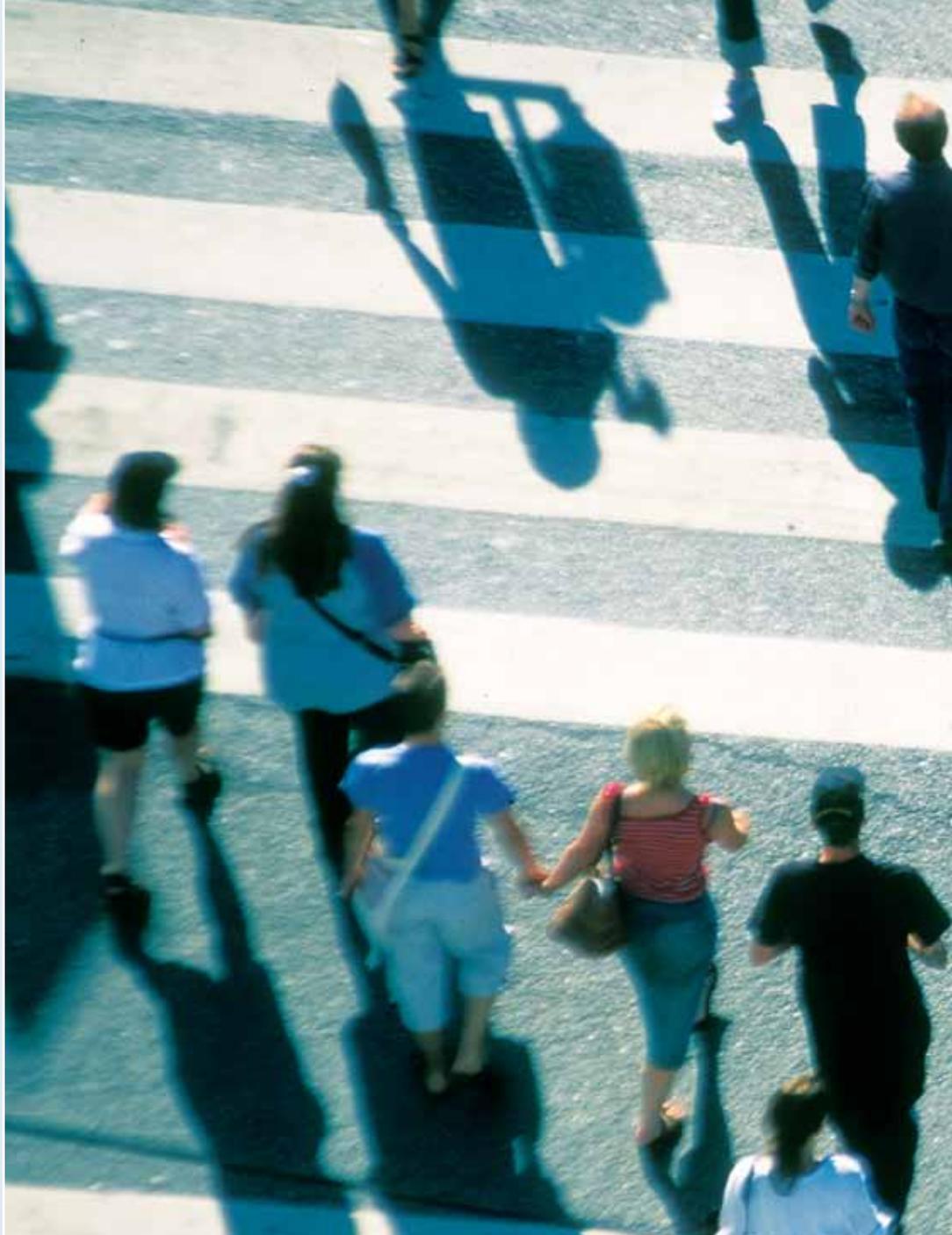
- Archaeology
- Bilingualism and Second Language Acquisition
- Cinema Studies
- History, especially Medieval Studies
- Linguistics
- Literature
- Philosophy
- Romance Linguistics

### Social Sciences

- Cognitive Aging
- Demography
- Economic, Social and Health Inequalities
- Evaluation of Public Policy
- Political Economics
- Stress, Work, Health and Restitution
- Transnational Actors and Global Governance

### Law

- Environmental Law
- European Integration Law
- Financial Law
- Intellectual Property Law
- Law and Information Technology
- Procedural Law



Researchers at the Stress Research Institute study how changes to industry and society affect people's health. The hope is to create better prevention and treatment of stress-related illnesses.





Aula Magna (Ralph Erskine 1997) is Stockholm University's venue for national and international exchange. Seminars, conferences and other major events are held here.

# An International Academic Environment

Knowledge spreads as people move around the world to work or study. Stockholm University contributes greatly to this development. Distinguished people from all over the world come together here in an international academic environment. Together they help to improve the quality of the education through innovation, openness and diversity.

## International Collaboration

Stockholm University is characterised by a lively international exchange at every level of education. Collaboration agreements with a great number of prominent universities around the world make it easier for students and researchers to spend time at universities in other countries. It is a valuable academic and personal experience. An exchange or internship abroad can also be an important qualification on both the national and international labour market.

To promote international exchange, many courses and programmes at Stockholm University are held entirely in English, including nearly 70 Master's programmes.

The University's researchers participate in a number of international research collaborations, including the EU Research Framework Programme, where researchers are currently involved in over 100 projects.



**Chika Kobayashi**, exchange student from Nihon University, Tokyo, Japan. Studies Political Science and Cinema Studies at Stockholm University.

# An Engine for Social Development

Stockholm University contributes to debate and social development in many different areas. Climate scientists, with Bert Bolin in the lead, have put the focus on global warming through the UN's climate change work. Thanks to the researchers at the Department of Law and the Stockholm Environmental Law and Policy Centre, Stockholm University has unique expertise in transnational environmental law.

Departments and individual researchers are invited to participate in government investigations and to provide consultation responses to proposed legislation. Scientific arguments have an impact on public debate when the University's researchers are involved with the media on a daily basis.

## **Collaboration with Industry and Society**

Many research findings come to commercial use, and Stockholm University provides professional

support to students and researchers who want to develop their ideas commercially. Thanks to collaboration with investors, more than 200 projects and companies have been started in various lines of business.

Successful collaboration with different actors is very important to the University. Private donations and support from industry and commerce make it possible to finance priority research positions and important equipment. Researchers work together with businesses in areas where new services and products can be developed.

Moreover, Stockholm University provides training for businesses, government agencies, organisations and schools in areas such as work environment, IT security, leadership and further education of teachers.



Anna Forsby, researcher and teacher in Neurochemistry, is interviewed in connection with "the world's longest laboratory table" – an activity aimed at 2,500 secondary school pupils.

# A University for Everyone

Rewarding meetings between the public and researchers have a long tradition at Stockholm University. Open lectures provide insight into new research and current issues in such diverse topics as nanomaterials, the principle of public access, the development of same-sex marriage, and how languages change and influence each other. The popular lectures contribute to public education and open discussion on important social issues. At the same time, they are a link to the public lectures that once formed the basis for the founding of Stockholm University College in 1878.

## Research Days

Another important task for the University is to stimulate an interest in knowledge. Several activities are aimed at school pupils in order to spread exciting popular science and provide insight into what it is like to conduct research. The Research Days, for example, where new PhD graduates from all disciplines talk about their research, attract thousands of visitors every year. In addition to gaining new knowledge, the pupils and other visitors get the opportunity to meet the people behind the science.



# Award-winning Research

Alfred Nobel was the chemist, engineer, inventor and industrialist who obtained no less than 355 patents in his lifetime, dynamite being the most famous. In his will, he gave instructions for a foundation to which he donated his fortune. Since 1901, the Nobel Foundation has awarded the Nobel Prize to distinguished men and women for their achievements in Physics, Chemistry, Medicine, Literature and peace efforts.

Curiosity and the desire to understand and change the world were strong motivations for Alfred Nobel – as they are for most researchers. Stockholm University has always attached great importance to creating healthy research environments and opportunities for researchers to freely choose their research areas, issues, methods and materials.

## Nobel Laureates

Five researchers at Stockholm University have been awarded a Nobel Prize or the Economics Prize in Memory of Alfred Nobel:

- Svante Arrhenius, 1903 (Chemistry)
- Hans von Euler Chelpin, 1929 (Chemistry)
- George de Hevesy, 1943 (Chemistry)
- Paul Crutzen, 1995 (Chemistry)
- Gunnar Myrdal, 1974 (Economics)

The 2011 Nobel Laureate in Literature, Tomas Tranströmer, studied Literature, History, Political Science and Psychology at Stockholm University. In 1956 he earned a Bachelor's degree, and the following year he started work as a research assistant at the Department of Psychometrics. In 1990 Tomas Tranströmer received an honorary doctorate from the Faculty of Humanities.

Tomas Tranströmer; poet, honorary doctor and former student at Stockholm University, received the Nobel Prize in Literature in 2011.





## Brief Facts about Stockholm University 2011

- Disciplinary research domains:  
Science, Humanities and Social  
Sciences
- Departments and centres: 69
- Study programmes: 200
- Individual courses: 1,900
- Master's programmes in English: 69
- Annual performance equivalent:  
22,153
- Awarded undergraduate degrees:  
5,882
- Students: 64,065  
(63% women and 37% men)
- Students per disciplinary research  
domain:  
Science: 14%  
Humanities and Social Sciences: 86%
- Active research students: 1,846
- PhD students: 1,800
- PhD degrees: 225
- Employees: 4,952



The Stockholm University Library is one of Sweden's largest research libraries and one of Stockholm's most visited cultural institutions. It welcomes around 1.8 million visitors each year.



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