Foreword

At the Faculty of Science at Lund University, we study and describe the physical world. We strive to understand everything from nature’s smallest component parts and molecular processes in the body to the sensitivity of the climate system and the possibility of life on exoplanets. Science research makes it possible to develop new drugs, new construction materials and models that predict climate change, and gives us the giddy realisation that we are perhaps not alone in the Universe. This strategic plan describes the values and visions that are to mark our activities over the next four years, and influences how we are to develop our activities.

The Faculty of Science focuses on the two tasks of research and education, and into these two pillars we integrate collaboration with the other parts of Lund University and with wider society – previously known as third-stream activities. We have a clear mission to primarily conduct research that provides understanding of fundamental phenomena, since this is essential in order to lay the scientific foundation required for more applied research. We offer degree programmes at undergraduate, Master’s and PhD levels, which aim both to satisfy our students’ burning interest in science and to supply the needs of society for skilled science graduates. Our work involves many major challenges, and in order for us to meet them in the best way possible, all the staff of the faculty must collaborate. Our research and our education are the concern of all employees.

It is my hope that all colleagues and working groups at the faculty will acquaint themselves with and gain inspiration from the contents of this strategic plan. In order to maintain it as a living document, the faculty management’s ambition is to regularly check the progress of the faculty’s day-to-day activities against the intentions of this strategy document.

Olov Sterner
Dean of the Faculty of Science

The strategic plan was adopted by the Faculty Board on 18 December 2013.
Core values

Lund University represents fundamental human rights and democratic and academic values. We shall operate in a context of gender equality and ethnic and social diversity. Respect, tolerance and concern shall govern all relationships. Academic integrity is absolute. There is ample room for different opinions and debate, and respect for different viewpoints and objectivity shall direct our activities. Naturally, the Faculty of Science supports the University’s core values, but also wishes to stress the following three points.

We want to understand the world
Science seeks new knowledge of how the world works and strives to formulate unambiguous descriptions of reality with clear causal connections that can be verified or rejected. The link between theory and empirical evidence is fundamental. The knowledge generated by science research is of vital importance to the construction and development of our society.

We dare to question and scrutinise reality
Critical thinking is in constant focus, and scientists continually scrutinise both their own and others’ results. The methods used to generate new scientific findings are described openly and in sufficient detail that the experiments can be repeated. The scientific approach also entails respect for the views of colleagues, even on controversial issues.

Our curiosity contributes to human development and culture
Science research is curiosity-driven and creates fundamental understanding of natural processes – an understanding that both forms part of humanity’s cultural heritage and is of vital importance to the development of society. Our research and education play a key part in passing on this knowledge to coming generations and enable it to be used to help solve important issues in society.
Vision

The Faculty of Science at Lund University aims to conduct activities of the highest class to understand, explain and improve our world and the human condition.

Our research is characterised by high international quality
The faculty’s vision for its research is based on the ability of individual researchers to pursue projects in collaboration at the forefront of research. A prerequisite for their success is that the faculty provides strong research and education environments not limited by department and faculty boundaries, and that the activities have long-term funding.

Our programmes and courses have a clear identity and are in demand
The faculty wants all teaching to be characterised by strong links to research and relevance to society, and to stand on an equal and critical foundation. The teaching encourages curiosity and is based on the conviction that students themselves actively create their understanding. The faculty’s programmes and courses give students a broad understanding of science and in-depth knowledge of their subject, along with the tools necessary to understand the world around them. The programmes and courses are well-funded so that laboratory exercises, field studies and simulations are natural elements. They have a clear identity and high international quality. All teaching staff at the faculty are active researchers.

We are a significant and innovative force in society
In our interaction with wider society, it becomes clear that scientific knowledge is crucial to the development of society, especially for issues concerning the environment and sustainable development. Our researchers’ expertise and research projects are highly visible and arouse interest, and they encourage a scientific mindset. The skills of our students are made clear to society and business, creating high demand for them on the labour market. Our staff and students act as good ambassadors for science, and participate in outreach to primary and secondary schools. The faculty’s various communication channels are continually being developed.
The path ahead over the next few years

Our staff
The faculty’s staff, students and doctoral students are to have a sense of pride, job satisfaction and participation. We encourage free searching for new knowledge and cross-boundary collaboration. Establishing collaborations produces better results and greater job satisfaction than competition between colleagues, and is therefore a better incentive. We create the conditions for a good work environment and professional development for all staff through well-functioning leadership and management. We continue to recruit talented staff by rewarding skill, commitment and responsibility, and for every post consider both internal and external recruitment, with a focus on gender equality and diversity.

The faculty shall have balanced finances, long-term planning of its activities and sufficient capital for long-term investments. We develop meeting places for students, doctoral students and staff, and analyse successful environments that could serve as models for us. We strive to actively pick up on discussions and analyses within the faculty through well-functioning management structures with open dialogue between all levels.

Our research
The faculty safeguards free basic research and supports academic freedom in the selection of new research fields. Our existing research is to maintain a high international standard, while being developed, exposed, disseminated and applied. Our research environments and meeting places inspire innovation and collaboration, both within the faculty and across faculty boundaries.

Researchers at the faculty have access to modern infrastructure of the highest quality and we support researchers who make use of national and international research facilities, for example MAX IV, ESS and CERN.
Researchers at the faculty are encouraged to share their expertise and disseminate their research findings. We support and encourage interdisciplinary collaboration and increased dialogue with business, politicians and funding bodies. We assist our researchers in their work to popularise research results and contribute to public education. We encourage researchers to take part in the public debate and support staff who wish to commercialise innovations.

**Our undergraduate and Master’s education**

The programmes and courses offered at the faculty give students knowledge and skills to meet future challenges in their professional careers. Support is provided to students through early follow-up and study guidance. Programmes and courses are to be of highest quality with content closely linked to research and be delivered in good study environments. Alumni activities and careers advice provide students with professional role models and contacts. The programme boards have general responsibility for existing and future programmes and courses. Students participate in the development of programmes and courses through active student representation. Systematic and continual quality enhancement helps to develop both teaching and examination. Teaching staff and doctoral students are encouraged to develop their teaching skills through professional development for teachers, including a gender perspective.

In order to raise interest in science, we are to have strong outreach activities. In order to achieve modern and high quality teaching in schools and to get more young people to choose to study with us, including those from educationally disadvantaged backgrounds, school outreach activities with a focus on both teachers and pupils is crucial. The international perspectives in courses and programmes are to be further expanded in order to attract talented international students and increase international student and teaching staff mobility.

**Our doctoral education**

The faculty develops routines for vacancy announcements, selection and admission in order to ensure the doctoral students who are best able to benefit from the programmes are recruited. The doctoral students, who represent a significant part of the faculty’s research activities, are to feel secure in their double role as employees and students, and they are to be supported in their role as lecturers. Strong influence from responsible doctoral student representatives benefits the faculty.

All those involved in our PhD programmes are to be aware of rules and regulations on the role of the supervisors, the terms of employment for doctoral students, and the importance of the individual study plan. The study plans are to be of high quality and are to be well followed up and updated at regular doctoral student appraisals. Supervisors are committed and well equipped, doctoral students are offered relevant careers advice, and a good range of high-quality courses are available. Doctoral students are well aware of the transferable skills that they gain during their studies, and they take the initiative to establish professional contacts. Our PhD graduates are capable of carrying out independent research in academia and in business, in Sweden and abroad.
The Faculty of Science at Lund University aims to ensure its operations are of the highest standard in order to understand, explain and improve our world and the human condition.

Would you like to discuss the future or activities of the Faculty of Science? Please contact the Dean of the Faculty, Olov Sterner.

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