



LUND  
UNIVERSITY

# BSc in Physics

LUND UNIVERSITY, SWEDEN

- Bachelor of Science in Physics
- 3 years, full-time, 180 ECTS credits
- Department of Physics
- Lund Campus
- Application deadline: January 2021
- Programme start: August 2021

## Programme overview

Our world is facing many challenges – in basic science when exploring fundamental forces and particles or the origin of the universe, planets and life – and in applied science to find sustainable energy sources, new technology on the nano-scale and tailor-made materials for industry, chemistry and medicine. Physics is the basis for this endeavour and physicists play an important role in these and many other fields.

We offer the whole three-year Bachelor's programme in English, and since all of the courses on advanced level are given in English you are free to choose from a wide variety of courses. The courses join theory with laboratory exercises, giving you a good experience in performing and analysing experiments.

As a physicist you will have a broad education and a great range of tools for problem solving, tools which you can apply in almost any situation. These tools include great mathematical and programming skills.

On completion of this Bachelor's programme, students are eligible for a number of different Master's programmes at Lund University and elsewhere.

## Programme modules/courses

The Bachelor's programme is completed over the course of three years. **In the first semester**, you will be studying introductory mathematics, where you will learn basic calculus in one variable and basic algebra. **In the second semester**, you will be introduced to physics and study the

basics of mechanics, electromagnetism, optics, and waves and thermodynamics. **In the third semester**, you will learn more mathematical methods, and you will be introduced to quantum mechanics. **The fourth semester** is devoted to modern physics. **The fifth semester** consists of more modern physics and elective courses. **During the sixth**, semester you will combine elective courses with your diploma work.

## Career prospects

General As a physicist, your expertise will be sought after on the labour market outside academia, in Sweden as well as internationally. Areas in which graduates find employment include information and communication technology, manufacturing, space exploration, life sciences, medicine, pharmacy, energy production, the environment, electronics and materials science.

Lund is consistently ranked as the top university in Northern Europe in physical sciences and this excellence is now expanding through the addition of two international research centres – MAX IV, a synchrotron radiation laboratory that opened in Lund in June 2016, and ESS, the European Spallation Source that is currently under construction and expected to be in operation in 2023. These research facilities will create new opportunities for physics graduates.

Around the University and the centres, you will find a large number of innovation companies, making Lund a motor in the economy of southern Scandinavia. Physicists in Lund are working on the cutting edge of everything from particle physics at CERN to nanoscience and photonics.

## Entry requirements and how to apply

### ENTRY REQUIREMENTS

General and courses corresponding to the following Swedish upper secondary school studies: Physics 2, Chemistry 1 and Mathematics 4. English Level 6 (equivalent to IELTS 6.5, TOEFL 90). Please see [www.lunduniversity.lu.se](http://www.lunduniversity.lu.se) for details on required English proficiency levels.





### HOW TO APPLY

- 1. Apply online:** Go to [www.lunduniversity.lu.se/bsc-physics](http://www.lunduniversity.lu.se/bsc-physics). Click on "Apply" and follow the instructions for the online application at [www.universityadmissions.se](http://www.universityadmissions.se), the Swedish national application website. Rank the chosen programmes in order of preference.
- 2. Submit your supporting documents:** Check what documents you need to submit (i.e. official transcripts, degree diploma/proof of expected graduation, translations, proof of English, passport) and *how* you need to submit them at [www.universityadmissions.se](http://www.universityadmissions.se)
- 3. Pay the application fee** (when applicable).

### SELECTION CRITERIA/ADDITIONAL INFO

The general average (GPA) of your higher secondary school leaving certificate.

### TUITION FEES

There are no tuition fees for EU/EEA citizens. For non-EU/EEA citizens, the tuition fee for this programme is SEK 145 000 per year. See [www.lunduniversity.lu.se](http://www.lunduniversity.lu.se) for details on tuition fees.

### About the Department of Physics

The Departments of Physics has over 300 researchers, teachers, technicians and administrators. We work to extend the understanding of physics and its applications, and to communicate our findings, and those of others, to new generations. We also teach the basics of physics to over one thousand students every year and we have the most popular physics programme in Sweden. We strive to offer a study and research environment that is open and inclusive by actively working with gender equality issues and improvement of the support functions for students with special needs. The student services and support at the department is well-known and much appreciated by our students.

### About Lund University

Lund University was founded in 1666 and is repeatedly ranked among the world's top 100 universities. The University has 40 000 students and more than 8 000 staff based in Lund, Helsingborg and Malmö. We are united in our efforts to understand, explain and improve our world and the human condition.

Lund is the most popular study location in Sweden. The University offers one of the broadest ranges of degree programmes and courses in Scandinavia, based on cross-disciplinary and cutting-edge research. Because of its wide disciplinary range, interdisciplinary collaborations and engagement with wider society, Lund University is particularly well equipped to meet complex societal challenges. With partner universities in around 70 countries, the University's profile is distinctly international.

Lund University has an annual turnover of more than EUR 830 million, of which two-thirds go to research in our nine faculties, enabling us to offer one of the strongest and broadest ranges of research in Scandinavia.

The establishment of the world-leading facilities MAX IV and ESS will have a major impact on future scientific and industrial development in both materials science and life science. MAX IV is the leading synchrotron radiation facility in the world, while the European research facility ESS will be the world's most powerful neutron source when it opens for research in 2023. Adjacent to these facilities, Science Village Scandinavia is also being developed into a meeting place and testing environment for research, education and entrepreneurship.

Learn more at [www.lunduniversity.lu.se](http://www.lunduniversity.lu.se)

Ask questions and follow news at

[facebook.com/lunduniversity](https://facebook.com/lunduniversity)



**LUND**  
UNIVERSITY

### CONTACT

#### Programme webpage

[www.lunduniversity.lu.se/bsc-physics](http://www.lunduniversity.lu.se/bsc-physics)

#### Programme Coordinator

Jan Knudsen, [jan.knudsen@sljus.lu.se](mailto:jan.knudsen@sljus.lu.se)

#### Study Advisor

[studievagledning@fysik.lu.se](mailto:studievagledning@fysik.lu.se)

Mathieu Gisselbrecht, +46 46 222 8275