Programme overview

On the nanometre scale, the distinction between disciplines such as physics, chemistry and biology becomes less clear. Characteristic for nanotechnology is therefore a high degree of interdisciplinarity. The Nanoscience programme at Lund University has its scientific base in a physics description of nanoscale phenomena, but in addition to nanophysics, you can, depending on your background and interests, choose to specialise in fields such as nanoelectronics, materials science or biophysics.

The programme is part of NanoLund, one of the world’s leading nanoscience research centres. You will interact with cutting-edge research throughout the programme, starting in the first semester and building up to the Master’s project. Moreover, by taking advantage of the wealth of courses offered by Lund University, you will be able to explore the cross-disciplinary nature of nanoscience.

Programme modules/courses

**COMPULSORY COURSES AND NUMBER OF CREDITS:**
- Semiconductor Physics (7.5)
- Processing and Device Technology (7.5)
- Materials Analysis at the Nanoscale (7.5)
- The Physics of Low-Dimensional Structures and Quantum Devices (7.5)
- Master’s degree project (30 or 60)

**ELECTIVES:** Choose elective courses for specialisations in, for example nanophysics, materials science or biosensors. Full list of courses can be found at www.fysik.lu.se/english/education/start-studying/masters-programme

Career prospects

There is an increasing demand worldwide for people knowledgeable in nanotechnology. Nanoscientists are not only needed in specialised nanotechnology companies but also in more traditional industries, with more and more nanotechnology being incorporated into products. Due to the close connection to world-class research, the Master’s programme also provides excellent preparation for doctoral studies and an academic career.

Entry requirements and how to apply

**ENTRY REQUIREMENTS**
A BSc in Physics or Nanoscience or an equivalent BSc corresponding to at least three years of study in science or engineering. Courses in physics of at least 40 higher education credits and mathematics of at least 40 higher education credits must be included. These courses should cover basic quantum mechanics, electromagnetism, solid state physics, multi-dimensional calculus, linear algebra and Fourier analysis. English Level 6 (equivalent to IELTS 6.5, TOEFL 90). See www.lunduniversity.lu.se for details on English proficiency levels.

**HOW TO APPLY**
1. Apply online: Go to www.lunduniversity.lu.se/physics-nano. Click on “Apply” and follow the instructions for the online application at www.universityadmissions.se, the Swedish national application website. Rank the chosen programmes in order of preference.
2. Submit your supporting documents:
   - General 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.
• Programme-specific supporting documents: When applying for this programme, you must also submit a statement of purpose and letters of recommendation with your application.

3. Pay the application fee (when applicable).

SELECTION CRITERIA/ADDITIONAL INFORMATION
Selection of students is based on previous university/college studies and other merits such as letters of recommendation and statement of purpose.

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. For details on tuition fees, see www.lunduniversity.lu.se.

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.

About Lund University
Lund University was founded in 1666 and is repeatedly ranked among the world’s top 100 universities. The University has 42 000 students and 7 400 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 programmes and courses in Scandinavia, based on cross-disciplinary and cutting-edge research. The compact university campus encourages networking and creates the conditions for scientific breakthroughs and innovations. The University has a distinct international profile, with partner universities in over 70 countries.

Lund University has an annual turnover of SEK 8 billion, of which two-thirds go to research. Our research is characterised by both breadth and strength and, according to independent evaluations, over 30 of our research fields are world-leading.

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, which was inaugurated in June 2016, 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
Ask questions and follow news at facebook.com/lunduniversity

Disclaimer: Changes may have been made since the printing of this fact sheet. Please see www.lunduniversity.lu.se for any updates.