Programme overview

On the nanometre scale, the distinction between disciplines such as physics, chemistry and biology becomes less clear. A high degree of interdisciplinarity is therefore characteristic for nanotechnology. 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.

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 Bachelor’s degree of at least 180 credits in physics or the equivalent. The degree must include at least 90 credits in physics, or 60 credits in physics and 30 credits in relevant engineering subjects or the equivalent.

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.

The full list of courses can be found at www.fysik.lu.se/english/education/start-studying/masters-programme.

“...the programme is highly interdisciplinary. Depending on what field you decide to focus on within this Master’s programme in Nanoscience, you can pursue what you really want to do in your future career, which is great.”

Sudhakar Sivakumar from India
Programme-specific supporting documents: When applying for this programme, you must also submit a ‘Summary Sheet’ with your application. See the programme webpage for details.

3. Pay the application fee (when applicable).

SELECTION CRITERIA/ADDITIONAL INFORMATION
The selection will be based on grades awarded for previous academic courses, particularly qualifying courses, and the statement of purpose (from the applicant’s ‘Summary Sheet’).

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 for details on tuition fees.

About the Department of Physics
The Department 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 40,000 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. Lund University offers one of the broadest ranges of programmes and courses in Scandinavia, based on cross-disciplinary and cutting-edge research. The University has a distinct international profile, with partner universities in over 70 countries.

Lund University has an annual turnover of SEK 8 billion, two-thirds of which are destined for research. Our eight faculties conduct strong research in many different areas, including over thirty research fields in which we are world-leading. Many scientific breakthroughs and pioneering innovations have originated from Lund University.

The world-leading research facilities MAX IV and ESS which are being established in Lund will be of great significance for research and industrial development within materials and life sciences. MAX IV, which was inaugurated in 2016, is the world’s foremost synchrotron radiation facility and the ESS will be the most powerful neutron source in the world once it opens for research in 2023. Science Village Scandinavia is developing nearby, destined to become a meeting place and a test environment for research, education and entrepreneurship.

Learn more at www.lunduniversity.lu.se
Ask questions and follow news at facebook.com/lunduniversity