MSc in Mathematics

- **Master of Science in Mathematics**
- **2 years, full-time, 120 ECTS credits**
- **Centre for Mathematical Sciences**
- **Lund Campus**
- **Application deadline: January 2021**
- **Programme start: August 2021**

Programme overview

The purpose of the Master's programme in Mathematics is to give students advanced theoretical knowledge of mathematics together with practical skills to apply this knowledge both to mathematical problems and in applications of mathematics. A highly flexible structure that allows for individual adaptation, a diversified curriculum, a high theoretical level and an active research-oriented environment are some of the strongest features of the programme.

The Master's Programme in Mathematics has two specialisations: **Mathematics** and **Numerical Analysis**.

A separate Master's Programme in Mathematical Statistics is available at the Centre for Mathematical Sciences. A vast variety of courses in all mathematical disciplines – pure and applied mathematics, numerical analysis and mathematical statistics – are available within the programme.

The programme was recently evaluated by a panel of mathematicians appointed by The Swedish Higher Education Authority and was ranked 'Of highest quality' (http://english.uk-ambetet.se/).

Programme modules/courses

The programme consists of two course modules – alternative compulsory courses and elective courses – comprising 90 credits and a thesis comprising 30 credits. The thesis can be done in mathematics or numerical analysis. The alternative compulsory courses (45 credits) must be chosen amongst courses at advanced level in mathematics or in numerical analysis according to the chosen specialisation. Of the elective courses (45 credits), at least 15 credits must be in mathematics, mathematical statistics or numerical analysis and no more than 30 credits may be at the basic level.

The choice of courses within the programme is highly dependent on the prior knowledge, subject of interest and career aspirations of each student. A student already determined to take a PhD degree might choose 90 credits of advanced courses in mathematics or numerical analysis in order to obtain a deep knowledge of the subject as a basis for the PhD. A student planning to work with applied mathematics directly after graduation can choose up to 45 credits, including some at basic level, in a different subject relevant to the applications of mathematics, for example in physics or economics.

Individual student counselling is available throughout the entire programme.

MASTER'S DEGREE THESIS: As mentioned above, the Master's thesis comprises 30 credits and can be done on a topic of interest in pure or applied mathematics (code MATM03) or in numerical analysis and scientific computing (code NUMM03). The thesis can be done during the last semester of the programme or during the entire second year in parallel to other relevant courses within the programme.

The topic is chosen in cooperation with an advisor at the department and may either be of theoretical character or within an applied area together with an industrial partner.

Career prospects

After graduating from this programme, you are qualified to enter a PhD programme in mathematics. You will also have sufficient skills in applying mathematics to seek employment in industry, with government agencies and in other organisations working with mathematical problems.

Entry requirements and how to apply

ENTRY REQUIREMENTS

A Bachelor's degree of at least 180 credits or the equivalent, including at least 90 credits in mathematics, or at least 60
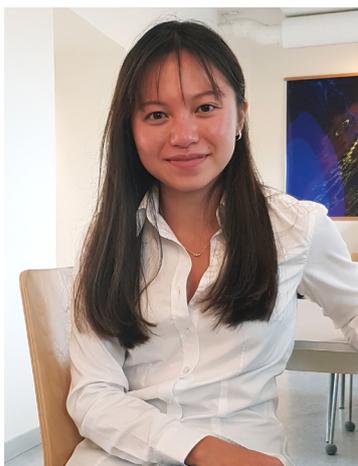
"I appreciate that the programme was very flexible and of a high quality. I could start preparing for my doctoral studies at an early stage and felt comfortable knowing that I would be able to change direction later if I wanted to."

Tien Truong from Sweden

credits in mathematics and at least 30 credits in numerical analysis and computational science. The latter alternative applies to applicants who intend to pursue a Master's degree in mathematics, specialising in numerical 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/mathematics** 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 'Summary Sheet' with your application. See the programme webpage for details.

3. Pay the application fee (when applicable).

SELECTION CRITERIA/ADDITIONAL INFO

The selection will be based on grades awarded for previous academic courses, particularly qualifying courses, as well as the statement of purpose clarifying the applicant's objective with the programme (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.

CONTACT
Programme webpage
www.lunduniversity.lu.se/mathematics
Director of Studies
Anna-Maria Persson, anna-maria.persson@math.lu.se
Study Advisor
Kjell Elfström, kjell.elfstrom@math.lu.se

About the Centre for Mathematical Sciences

The Centre for Mathematical Sciences is both part of the Faculty of Science and of the Faculty of Engineering. The Centre consists of approximately 120 employees. We carry out research and teaching in mathematics, mathematical statistics and scientific computing. The personnel of the Centre can be clustered according to different non-disjoint criteria, e.g. according to title, faculty, subject or research groups. The three administrative divisions are: Mathematics (Faculty of Science), Mathematics and Numerical Analysis (Faculty of Engineering) and Mathematical Statistics.

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.

Learn more at **www.lunduniversity.lu.se**
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