Master's Programme in Geographical Information Systems

LUND UNIVERSITY | SWEDEN

- Master of Science in Geographical Information Science
- 2 years, full-time, 120 ECTS credits (half-time/50% option available as well)
- Department of Physical Geography and Ecosystem Science (Distance learning)
- Distance learning
- Application deadline: January 2024
- Programme start: August 2024

PROGRAMME OVERVIEW

This is an internet-based distance learning programme in which you learn how to analyse and model spatial phenomena, using GIS (Geographical Information Systems) and remote sensing. The aim is to offer you a flexible and comprehensive training in GIS, remote sensing and environmental modelling. All courses are provided over the internet, including text, audio and video lectures, email contact, forums and Skype correspondence with specialised academic staff. The course offers hands-on training using up-to-date software and affords the opportunity to achieve deep theoretical understanding, as well as excellent technical skills, of e.g. GIS, remote sensing, spatial programming, SDI, database management, cartography and environmental modelling. The programme runs for 22 months.

PROGRAMME MODULES/COURSES

The programme starts with 1 semester (30 credits) of compulsory courses: GIS Introduction and GIS Advanced (15 credits each). This is followed by 52.5 credits of specialisation, where the student can choose between a large number of technical and applied courses. Elective courses are: Geographical Databases, Climate Change, Open Source GIS, GIS and Tourism, Python Programming, SDI, Internet GIS, Hydrological Modelling, GIS and Biodiversity, GIS in Physical Planning, Algorithms in GIS, Remote Sensing and GIS, and GIS and Statistical Analysis. The programme ends with a 7.5 credit course in Research Methodology and a 30 credit Master's degree project (thesis).

CAREER PROSPECTS

After completing the programme, you will have gained theoretical and practical knowledge about the planning, implementation and handling of GIS and remote sensing within diverse disciplines, focusing on natural resources. These skills are highly useful within all areas concerned with spatial phenomena, such as natural and social sciences, medicine, engineering, hydrology, agriculture, forestry, defence, global change and in spatial planning of local, regional and national contexts.

ENTRY REQUIREMENTS AND HOW TO APPLY

Entry requirements

A Bachelor's degree of at least 180 credits or the equivalent. English Level 6. Note that your Bachelor's degree must be documented as complete by the application due date. Our programme does not offer conditional admission.

How to apply

1. **Apply online:** Go to www.lunduniversity.lu.se/gis. 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:** 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, the statement of purpose including how the applicant believes they meet the admission requirements for the programme, and professional qualifications and/or other practical experience of relevance (from the applicant's 'Summary Sheet').

Tuition fees

Tuition fee SEK 135 000 per year for non-EU/EEA citizens. No fee for EU/EEA citizens. See www.lunduniversity.lu.se for details on tuition fees

ABOUT THE DEPARTMENT OF PHYSICAL GEOGRAPHY AND ECOSYSTEM SCIENCE

The department of Physical Geography and Ecosystem Science is mainly focused on interdisciplinary studies of how climate and environmental changes affect the function and composition of terrestrial ecosystems. We combine field studies in many different places in the world with work in laboratories and computer simulations, programming and modelling. The goal is to increase understanding of the processes that take place in the exchange between the biosphere and atmosphere, hydrosphere and geosphere, not least under different climatic and environmental changes.

Our work focuses on the climate of today and the future, the interactions of ecosystems with the atmosphere, as well as applied environmental problems. Our diverse and cutting- edge research is well reflected in the courses and education programs that we

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offer, which means that our students are well prepared for the challenges of the labour market after graduation.

ABOUT LUND UNIVERSITY

Lund University was founded in 1666 and is repeatedly ranked among the world's top universities. The University has around 45 000 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 considered one of the most popular study locations 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 unique disciplinary range encourages boundary-crossing collaborations both within academia and with wider society, creating great conditions for scientific breakthroughs and innovations. The University has a distinct international profile, with partner universities in approximately 75 countries.

Lund University has an annual turnover of EUR 892 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 European Spallation Source (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 ESS will feature the world's most powerful neutron source when it will be fully operational by the end of 2027. These facilities together with the new University campus in Science Village will constitute a science complex and an international hub for research, education and innovation in which Lund University plays a central role.

CONTACT

Programme webpage:
www.lunduniversity.lu.se/gis

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