



LUND
UNIVERSITY

Master's Programme in GIS and Remote Sensing

LUND UNIVERSITY | SWEDEN

- Master of Science in GIS and Remote Sensing within the field of Geomatics
- 2 years, full-time, 120 ECTS credits
- Department of Physical Geography and Ecosystem Science
- Lund Campus
- Application deadline: January 2024
- Programme start: August 2024

PROGRAMME OVERVIEW

Geomatics and the two key topics GIS and Remote Sensing involves the management and analysis of phenomena with a spatial reference. Spatial analysis finds applications in many areas, such as health, environment management, natural resources assessment, sustainability, urban planning, geology, archaeology and agronomy. Apart from analysis of data, management and structuring of large amounts of data in databases is a key element in the program. Also visualization of results in map format and sharing data over the web are important features. A natural part of this field is programming and several courses allows the students to improve their skills in using programming to improve efficiency in analysis and data management. Special courses in artificial intelligence (AI) and machine learning (ML) as well as courses for 3D-data acquisition using e.g. laser technology are also included.

PROGRAMME MODULES/COURSES

In the programme, you study a number of obligatory courses; programming for applications in GIS and remote sensing (15 credits), Applied GIS (15 credits) and Satellite Remote Sensing (15 credits). In addition, you choose elective courses from our department, at least 30 credits from the following; Algorithms and data structures in GIS (7.5 credits), Web GIS (7,5 credits), Spatial Analysis (7.5 credits), Geographical Databases (7.5 credits), Geospatial artificial intelligence (7.5 credits), and Collection and Analysis of Geospatial 3D Data (7.5 credits). An elective courses to study to a specialization towards physical geography and ecosystem sciences can be Ecosystem modelling (15 credits), Biosphere – Atmosphere Interactions (15 credits) Global Ecosystem Dynamics (15 credits) or Climate change and its impact on the environment, or an Internship course of 15 credits. The programme ends with a Master's degree project (30).

CAREER PROSPECTS

Graduates from the programme will be able to work as GIS and environmental specialists in public and private sectors within areas such as environmental monitoring, urban planning and develop-

ment, natural resources and sustainability. The programme is also suitable for students interested in research careers.

ENTRY REQUIREMENTS AND HOW TO APPLY

Entry requirements

A Bachelor's degree of at least 180 credits in science or engineering or the equivalent, within a specialisation of relevance to the study programme, of which 15 credits should be in GIS, remote sensing, spatial analysis or equivalent. English Level 6.

How to apply

1. **Apply online:** Go to <http://www.lunduniversity.lu.se/gis-remote-sensing>. 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, particularly qualifying courses, as well as the statement of purpose and professional qualifications and/or other practical experience of relevance (from the applicant's 'Summary Sheet').

Tuition fees

Tuition fee SEK 170 000 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 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.

CONTACT

Programme webpage:
<http://www.lunduniversity.lu.se/gis-remote-sensing>

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