MSc in Water Resources Engineering

LUND UNIVERSITY | SWEDEN

- Master of Science in Water Resources Engineering
- 2 years, full-time, 120 ECTS credits
- Faculty of Engineering
- Lund Campus
- Application deadline: January 2023
- Programme start: August 2023

PROGRAMME OVERVIEW

Having access to clean water is the cornerstone for improving healthcare, increasing food supply, reducing child mortality rates and enhancing people's overall quality of life. It has become crucial to develop technologies that can tackle water security challenges and meet the increasing demand. By applying integrated water resources management, various kinds of water can be used to cover this demand in a sustainable and eco-friendly way. These are the issues we explore with our students, as well as challenges such as wastewater treatment, storm water management, coastal hydraulics, and modelling of hydrological processes. The programme is broad and covers the most important aspects of water resources engineering.

Many of the courses included in the programme contain practical elements, which allow our students to deepen their understanding of the more theoretical components and to develop both professional and academic skills. Our strong links to industry and scientific cooperation projects ensure that our courses maintain a high level of relevance to current issues and developments.

Special features of the programme

- An opportunity to specialise in fields where we have world-leading expertise, such as water and waste-water treatment, coastal hydraulics and modelling of hydrological processes
- Accessible and engaged teachers who will give you thorough feedback and help you progress throughout your studies
- Strong industry links and opportunities to work closely with local and international organisations
- A multinational, innovative and interactive learning environment

PROGRAMME MODULES/COURSES

COMPULSORY COURSES AND NUMBER OF CREDITS: Integrated Water Resources Management (7.5), Urban Storm Water Management (7.5), Water and Wastewater Treatment (7.5), Groundwater Engineering (7.5), Groundwater Modelling and Contaminant Transport (7.5), Hydromechanics (7.5), Master's degree project (30).

ELECTIVE COURSES AND NUMBER OF CREDITS: Advanced Wastewater Treatment (7.5), Water, Society and Climate Change (7.5), Coastal Hydraulics (7.5), GIS (7.5), Rainfall Runoff Modelling (7.5), Environmental Hydraulics (7.5), Finite Element Method (7.5), Pipe System Engineering and Hydraulics (7.5), Project Course I/II in Water and Environmental Engineering (7.5), Advanced course in one or more subjects (15).

CAREER PROSPECTS

The need for clean water and sanitation is a global concern affecting large, densely populated cities and smaller communities in industrialised and developing regions alike. This Master's programme will prepare you for a rewarding and challenging career within an essential profession. Our graduates play important roles in the water sector all over the world, and their educational experience in Lund has assisted them in becoming outstanding professionals.

The skills they have acquired during the programme are sought after by organisations in a wide variety of industries, from large multinational corporations and nonprofit organisations, to regional and national government bodies. Many go on to become hydrologists, process engineers, hydrogeologists, consultants and water resource managers. Others pursue an academic career within prestigious universities.

Typical examples of organisations which have employed our graduates are Sweco (Sweden), Stockholm Environment Institute (International), Hussey Gay Bell & DeYoung (USA) and Beijing YHR Environmental Engineering Co., Ltd (China). Some

"I found Lund University to be a very appealing option because of the variety of research being carried out by the professors at LTH. There are several ongoing projects regarding water reuse, and some of them might even result in collaborations with local companies. In addition, the Master's in Water Resources Engineering offers a flexible programme with a common base of courses plus a group of electives and even chances to explore our own interests aside from (or in addition to) the final thesis."

Maximiliano from Chile – student of the programme

of our graduates move on to PhD programmes. Among the many universities which have accepted our students are KTH (Sweden), UC Davis (USA), Uppsala University (Sweden) and University of Melbourne (Australia).

ENTRY REQUIREMENTS AND HOW TO APPLY

Entry requirements

A Bachelor's degree in civil engineering, environmental engineering or equivalent. Completed courses in mathematics/calculus, hydraulics/fluid mechanics and geology, each of them corresponding to at least 4 credits/ECTS. English Level 6.

How to apply

1. **Apply online:** Go to www.lunduniversity.lu.se/water-resources. 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:** For information on programme-specific documentation, please check the programme webpage.
3. **Pay the application fee (when applicable)**

Tuition fees

Tuition fee SEK 155 000 per year for non-EU/EEA citizens. No fee for EU/EEA citizens. See www.lunduniversity.lu.se for details on tuition fees.

Selection criteria/additional information

The selection is based on academic qualifications.

ABOUT THE FACULTY OF ENGINEERING

The Faculty of Engineering LTH, is a place for dreams and discoveries. We inspire creative development of technology, architecture and design and teach some of Sweden's most attractive Master's programmes, all built on a broad research base. LTH is among the leading engineering faculties in Europe with nearly 10 000 students. Over 1 000 researchers at LTH work hard to improve the quality of life for people and promote more careful use of the Earth's resources. A world record in 5G technology, solar cell-driven water purification, early cancer diagnosis, nanotechnology for more efficient solar panels, and a health-promoting oat drink are some of the innovations developed at LTH. Together we explore and create – for the benefit of the world.

ABOUT LUND UNIVERSITY

Lund University was founded in 1666 and is repeatedly ranked among the world's top 100 universities. The University has around 46 000 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 70 countries.

Lund University has an annual turnover of EUR 912 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:
www.lunduniversity.lu.se/water-resources

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Learn more at www.lunduniversity.lu.se

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