

# Master's Programme in Molecular Biology, Microbiology and Biotechnology

LUND UNIVERSITY | SWEDEN

- Master of Science in Molecular Biology
- 2 years, full-time, 120 ECTS credits
- Department of Biology
- Lund Campus
- Application deadline: January 2023
- Programme start: August 2023

## PROGRAMME OVERVIEW

The programme offers a highly competitive education in modern microbiology. It offers a broad foundation of knowledge and generally important skills in microbiology and molecular biology. Within the programme, you can specialise further according to your own preferences, towards for example medical microbiology, biotechnology, or cellular or molecular microbiology. Knowledge about microbes and their diversity, physiology and genetics, as well as modern tools to study them are important and highly relevant for work or research in molecular biology, infectious diseases and ecology, as well as for the exploration of microbes, for example to produce bulk and fine products, food and pharmaceuticals, and for use in environmental biotechnology.

### Special features of the programme:

- Integration of basic research and applied microbiology
- Learning in an international and research-intensive environment
- Inquiry-based and research-based laboratory exercises
- Mentorship and extracurricular activities

## PROGRAMME MODULES/COURSES

### Courses and number of credits:

**Semester 1:** Microbiology (15 credits), Molecular Microbiology (15 credits).

**Semester 2:** Molecular Biotechnology (15 credits), Bioimaging (7.5 credits, optional), Antibiotics – Biology and Chemistry (7.5 cr, optional).

**Semester 3–4:** Bioinformatics and Sequence analysis/Programming using Python (7.5 plus 7.5 credits, optional), MSc thesis project (30, 45 or 60 credits). For the full list of electives, see: [www.biologyeducation.lu.se/education/masters-degree-programmes/masters-programme-molecular-biology-microbiology](http://www.biologyeducation.lu.se/education/masters-degree-programmes/masters-programme-molecular-biology-microbiology)

Most courses are full-time studies, and you take one course at a time. The courses are typically teaching-intensive with lectures, seminars, theoretical and practical exercises as well as self-studies. During one semester, you normally take two courses of 15 credits (i.e. a total of 60 credits per year).

## CAREER PROSPECTS

The programme provides a point of entry into many directions, such as postgraduate academic research or a career in industry or the public sector. For microbiologists, there is a broad employment market, for example in biotechnology, pharmaceutical and food industries. Many students that graduate from the programme continue with PhD studies in biomedical research or other fields related to microbiology or molecular biology.

## ENTRY REQUIREMENTS AND HOW TO APPLY

### Entry requirements

A Bachelor's degree of at least 180 credits or the equivalent, of which 120 credits must be in natural science/ biomedicine/ engineering, including 45 credits in molecular biology comprising genetics, cell biology and microbiology, and 30 credits in chemistry comprising biochemistry. English Level 6.

### How to apply

- 1. Apply online:** Go to [www.lunduniversity.lu.se/microbiology-biotechnology](http://www.lunduniversity.lu.se/microbiology-biotechnology). Click on "Apply" and follow the instructions for the online application at [www.universityadmissions.se](http://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](http://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).**



“The programme is very different from what I’m used to, but it’s a good different. Here in Sweden, you only have one course at a time, so you can process everything much better. I really like that. I also feel that the coordinators and teachers are very easy to talk to. In Portugal, they are usually not very approachable, and you always have to call them ‘Doctor’ or ‘Professor’, while here you feel at ease speaking with them and you call them by their first name.”

Sílvia Pedro from Portugal





#### Selection criteria/additional info

The selection will be based on grades awarded for previous academic courses and the statement of purpose (from the applicant's 'Summary sheet').

#### 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](http://www.lunduniversity.lu.se) for details on tuition fees

#### ABOUT THE DEPARTMENT OF BIOLOGY

We have outstanding competence in education and research, covering a large number of biological disciplines from molecular biology to large-scale ecology. Several of our research groups are world-leading in their topic and a large number of international projects is coordinated by the department of Biology. As our education is integrated with the department's research, you will have researchers as teachers and get involved in ongoing projects during your studies. Our courses range from basic to Master's level. We offer around 50 advanced level courses as well as an extensive postgraduate programme.

#### 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/micro-biology-biotechnology](http://www.lunduniversity.lu.se/micro-biology-biotechnology)

Study Advisor

Christina Ledje

[christina.ledje@biol.lu.se](mailto:christina.ledje@biol.lu.se)

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Learn more at [www.lunduniversity.lu.se](http://www.lunduniversity.lu.se)

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