UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

PROGRAMME SYLLABUS

Molecular Biotechnology - Master's Programme

60 credits

Programme code: MOBAA
Version number: 8.1
Valid from: 1 July 2026
Ratified by: Curriculum Committee for Bioscience
Date of ratification: 28 August 2025

1. General information about the study programme

The study programme is provided by the University of Skövde and is named Molecular Biotechnology - Master's Programme (Molekylär bioteknik - magisterprogram). It comprises 60 credits and is a second-cycle programme. The main field of study is Bioscience.

2. Entry requirements

To be eligible for the program a Bachelor's Degree (equivalent to a Swedish Bachelor's Degree) with a major in the biological or medical area is required. The biological area can be defined as e.g. Molecular Biology, Biochemistry, Microbiology or Physiology. The medical area is here defined as Biomedicine but can also include subjects like Pharmacology.

A further requirement is proof of skills in English equivalent of studies at upper secondary level in Sweden, known as English course 6 or English level 2. This is normally demonstrated by means of an internationally recognized test, e g IELTS or TOEFL or the equivalent.

The entry requirements above are applicable for admission to the study programme. For further studies within the programme, the entry requirements for each course must be met. These entry requirements are specified in each separate course syllabus.

3. Study programme content

The programme involves in-depth research oriented studies in the areas of Molecular Biology and Biotechnology. Independent laboratory work is a prominent part of the studies. The second part of the programme consists of a 30 credits master degree project where the student independently shall apply his/her acquired knowledge to solve a relevant research problem.

The following courses are included in the programme:

Experimental Methods and Design in Bioscience A1N, 17.5 credits

Molecular Biotechnology A1N, 7.5 credits

Data Analysis for Life Science A1N, 5 credits

Master Degree Project in Bioscience A1E, 30 credits

4. General objectives

Objectives for education at the second-cycle level in The Higher Education Act

Second-cycle courses and study programmes shall involve the acquisition of specialist knowledge, competence and skills in relation to first-cycle courses and study programmes, and in addition to the requirements for first-cycle courses and study programmes shall:

- further develop the ability of students to integrate and make autonomous use of their knowledge,
- develop the students' ability to deal with complex phenomena, issues and situations, and
- develop the students' potential for professional activities that demand considerable autonomy, or for research and development work.

5. Study programme objectives

Objectives for Master's Degree according to the Higher Education Ordinance

Knowledge and Understanding
For a Master's Degree the students shall be able to

- show knowledge and understanding within the main area of the education, inclusive of wide knowledge within the area, a considerable in depth knowledge within certain parts of the area as well as deeper insight into current research and development
- show in depth knowledge of methodology within the main area of the education.

Proficiency and Ability
For a Master's Degree the students shall be able to

- show the ability to critically and systematically integrate knowledge and analyse, assess and manage complex phenomena, questions and situations even with limited information
- show the ability to identify and formulate questions, independently, as well as to plan and, with adequate methods, carry out advanced assignments within specified time limits
- show the ability to, orally and in writing, account for and discuss their conclusions and the knowledge and arguments these are based on in dialogue with different groups
- show the proficiency required to participate in research and development in other advanced activity.

Ability to Evaluate and Relate
For a Master's Degree the students shall be able to

- show the ability, within the main area of the education, to make assessments in accordance with relevant research, societal and ethical aspects as well as show awareness of ethical aspects in research and development
- show insight into the possibilities and limitations of research, its role in society and human beings' responsibility for how it is used
- show the ability to identify the need for further knowledge and to take responsibility for the development of their knowledge.

Local objective for the study programme at the University of Skövde

After completion of the programme the student shall

- within the specialization of the programme demonstrate knowledge of how digitization can be used to promote sustainable development.

6. Language of instruction

The teaching is conducted in English.

7. Degree qualification

A student who passes the courses in the programme fulfills the requirements for obtaining a Degree of Master of Science (60 credits) with a major in Bioscience.

Degree certificates are issued after application. Information about how to submit an application can be found on the website of the University of Skövde.

8. Changes to the programme syllabus

The programme syllabus and its courses may be changed, within the framework of the objectives for the study programme.

9. Student influence

Student influence in the study programme is ensured by means of programme evaluations. The students are informed about the results of the evaluations and potential measures that have been taken or are planned, based on the course evaluations.

10. Additional information

Further information about the study programme, as well as national and local governing documents for higher education, is available on the website of the University of Skövde.