



LUND
UNIVERSITY

Faculty of Science

MOBT04, Molecular Biology: Project, 30 credits

Molekylärbiologi: Projekt, 30 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2017-06-29 to be valid from 2017-06-29, autumn semester 2017.

General Information

The course is an elective course for a degree of Master of Science (120 credits) in Molecular Biology.

Language of instruction: Swedish and English

The course is given in English, but can be given in Swedish depending on the subject of the project and if the student is Swedish-speaking.

Main field of studies

Molecular Biology

Depth of study relative to the degree requirements

A1F, Second cycle, has second-cycle course/s as entry requirements

Learning outcomes

The major aim of the course is that the student should plan and carry out a longer molecular biological project. The project can be a research project or a project of other character. The student should understand the process of the project, including its potential and limitations, and carry out the project with a high degree of independence.

Knowledge and understanding

On completion of the course the student shall be able to:

- in detail account for the process of a molecular biological project, including issues, aims and implementation

- in detail account for applications and methods in the current project
- account for relevant safety precautions for laboratory and/or fieldwork (if applicable)

Competence and skills

On completion of the course the student shall be able to:

- carry out information survey in scientific and/or other relevant sources
- compile information that is relevant for the implementation of a project
- with some independence plan a project and write a project plan and, when necessary, a risk assessment of laboratory sessions or fieldwork
- apply acquired molecular biological knowledge and with a high degree of independence carry out a project in a scientific way within given time frames
- continuously document the practical work during a project
- write a project report in the form of a scientific article or in another form depending on the subject of the project
- carry out an oral presentation of a project

Judgement and approach

On completion of the course the student shall be able to:

- critically review information and assess what is relevant for the implementation of the current project
- evaluate applicable ethical and safety aspects of a project
- engage in a critical discussion about a project, both in writing and orally
- reflect on his/her knowledge in relation to the implementation of the current project

Course content

During the course, a longer project with molecular biological connection is planned, carried out and presented. The project can be carried out within or outside the university. Work includes literature search, planning of the project, theoretical or experimental work, compilation, evaluation and analysis of obtained results, as well as written and oral presentation. The course can in certain cases also include seminar activity and/or methodology courses.

Course design

The student should contact a supervisor. The project is planned by the student in consultation with the supervisor. The project should contain experimental and/or theoretical work as well as literature studies. The student writes a project plan that includes a time plan and, if applicable, ethical aspects and risk assessment of field and/or laboratory work. The project plan should be accepted by the examiner of the course. The student's work load should correspond to full-time work during approximately 90 days. The practical work should be documented continuously, and after the completion of the project, a project report should be written. This should be written as a scientific report (with introduction, method, results, discussion and list of references) or in other form after consultation with supervisor and examiner. The

project is also presented orally during a seminar, where the work is discussed. Written project plan, implementation of the project, written project report and oral presentation are compulsory.

Assessment

Examination takes place through an assessment of the implementation of the project as well as through compulsory parts. The project report should be delivered to the examiner no later than two weeks after the project has been completed.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

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Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.

To pass the entire course, approved compulsory parts are required. To pass with distinction, it is required that the student has carried out the project with high quality and a high degree of independence, and that a high quality report is submitted no later than two weeks after the completion of the project.

Entry requirements

For admission to the course, 90 credits in Molecular Biology, including 15 credits at second-cycle level, as well as a degree of Bachelor of Science, are required.

Subcourses in MOBT04, Molecular Biology: Project

Applies from H19

1901 Project, 30,0 hp
Grading scale: Fail, Pass, Pass with distinction