Course syllabus for

Degree Project in Biomedicine, 30 credits

Examensarbete i biomedicin, 30 hp
This course syllabus is valid from spring 2025.
Please note that the course syllabus is available in the following versions:
Autumn2024 , Spring2025

Course code	4BI135
Course name	Degree Project in Biomedicine
Credits	30 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Medicine, Huddinge
Decided by	Programme committee for study programmes in biomedicine
Decision date	2024-03-11
Revised by	Programme committee for study programmes in biomedicine
Last revision	2024-10-10
Course syllabus valid from	Spring 2025

Specific entry requirements

At least the grade G (Pass) for all the courses in semesters 1 and 2 (Frontiers in Biomedicine, Applied Biostatistics, Bioinformatics, semester 1 elective course, Bioethics and Laboratory Animal Science, Applied Biomedical Communication and Professional Development, Frontiers in Biomedicine: Research Project 1), at least the grade G for the semester 3 course Biomedical Research Literacy, and registration for Frontiers in Biomedicine: Research Project 2 within the Master's Programme in Biomedicine.

Objectives

The course enables students to, under supervision and via independent work, plan and carry out a research project within the biomedical field.

On completion of the course, the student should be able to:

A. Regarding knowledge and understanding

- acquire and critically review relevant scientific literature in support of broadening and deepening their knowledge of the chosen project and its biomedical field,

- establish a plan for an experimental project and be able to explain the choice of methods to solve a stated scientific issue

B. Regarding competence and skills

- apply experimental methods to solve a stated scientific issue,
- collect data for compilation and statistical analysis,
- place and evaluate their own work in the specific research field of the project and in a broader scientific perspective,
- critically and objectively assess their own scientific work and that of others and give relevant feedback,
- present their work in written and oral forms to the scientific community and in written form to laymen,
- demonstrate independent, critical and creative thinking,
- reflect on the ethical dimensions of the project and its impact on society in terms of addressing the Sustainable Development Goals (SDGs).

C. Regarding judgement and approach

- show a professional approach regarding time planning and collegial cooperation,
- carry out the project work according to Karolinska Institutet's guidelines for ethically correct research.

Content

Individual work with literature studies. An individual project plan will be written by the student and supervisor together. The project work can be performed at other universities or government agencies than Karolinska Institutet or at a company.

Teaching methods

Individual work under supervision but with a certain degree of independence, including participation in seminars, journal clubs and other similar activities taking place where the work is carried out. Studies of scientific literature according to the recommendation of the supervisor and the student's own assessment.

Examination

Written summary of the work in the form of a scientific report, written and oral feedback on another student's report, a popular science summary aimed at a general (layman) audience and an oral presentation. The examiner sets the grade after consultation with the supervisor and the examining teacher, based on the student's work performance, the research report and presentation.

If submission of the report occurs later than the set deadline the student loses the opportunity to obtain the grade of pass with distinction for the course.

Compulsory participation
The student's presence in the host laboratory or workplace during the duration of the course is compulsory, unless otherwise agreed upon with the supervisor. The examiner assesses if and, in that case, how absence from compulsory components can be compensated. The student must participate in all compulsory parts, or compensate for absence in accordance with the examiner's instructions, in order to pass the course. Absence from a compulsory activity may result in the student not being able to compensate the absence until the next time the course is given.

Limitations of the number of examinations or practical training sessions
A student who does not pass the written and oral presentation at their first attempt is entitled to

participate in five additional examination sessions. If the student has failed six examinations, no additional examination sessions are provided.

Physically attending or otherwise commencing an examination is regarded as an examination session. An examination, for which the student registered but did not participate, is not counted as an examination session.

The examiner may terminate a student's practical training or equivalent at a placement with immediate effect if the student shows such serious deficiencies in knowledge, skills or approach that the safety of the student and/or other personnel, equipment or valuable reagents/material at the placement are at risk. If a placement requires termination in this way, the student fails the practical work. In such cases, an individual action plan must be drawn up, stating the actions that are required before the student is permitted to perform a new practical placement.

A student who does not pass the practical work (as specified in the assessment criteria) at their placement at their first attempt should perform practical work at a new placement. If the student fails the practical work twice, no additional examination sessions are provided, and the student may not register for future course occasions.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

Other directives

The course language is English and examination is performed in English.

Course evaluation will be carried out in accordance with the guidelines established by the Committee for Higher Education.

This course replaces the course Degree Project in Biomedicine, 30 credits (4BI125) and cannot be included in a degree together with the latter course.

Literature and other teaching aids

Individual reading list will be established in the project plan for the present degree project.