



**Karolinska
Institutet**

Course syllabus for

Degree Project in Biomedicine, 30 credits

Examensarbete i biomedicin, 30 hp

This course syllabus is valid from spring 2020.

Please note that the course syllabus is available in the following versions:

Spring2017 , Spring2020

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| Course code | 1BI034 |
| Course name | Degree Project in Biomedicine |
| Credits | 30 credits |
| Form of Education | Higher Education, study regulation 2007 |
| Main field of study | Biomedicine |
| Level | G2 - First cycle 2 |
| Grading scale | Fail (U), pass (G) or pass with distinction (VG) |
| Department | Department of Microbiology, Tumor and Cell Biology |
| Decided by | Programnämnd 7 |
| Decision date | 2016-10-28 |
| Revised by | Programme committee for study programmes in biomedicine |
| Last revision | 2019-10-21 |
| Course syllabus valid from | Spring 2020 |

Specific entry requirements

At least grade pass (G) for the courses in semester 1-4: Introduction to Biomedical Science; General and Organic Chemistry; Cell, Stem Cell and Developmental Biology; Biochemistry; Genetics, Genomics and Functional Genomics; Chemical Biology; Biostatistics; Tissue Biology; Immunology and Microbiology; Neuroscience; Physiology; Pathology; Pharmacology and toxicology and The Life Science Industry.

Furthermore, in semester 5, at least the grade pass (G) in the part Laboratory practicals (5 hp) in the course Molecular Medicine - Oncology of the Bachelor's Programme in Biomedicine.

Objectives

The course aims to give the students the opportunity to under supervision work with a scientific project within the field of biomedicine, and thereby get practice to work independently and to use their practical and theoretical knowledge.

Upon completion of the course, the student shall:

Regarding knowledge and understanding

- be able to account for the scientific literature within the field of the project,
- be able to account for experimental methods used to solve a specific scientific question,
- be able to collect data for compilation and statistical calculations

Regarding skills and ability

- demonstrate an understanding of independent, critical and creative thinking,
- be able to use experimental methods to solve a given scientific question,
- demonstrate an understanding of how new scientific hypotheses are formed during the course of the project, and to be able to put this in perspective to what is known within the specific research field of the project,
- be able to present the work in written and oral form,
- in an objective manner be able to judge others' scientific work

Regarding judgement and approach

- show a professional attitude to collegial cooperation, time planning and connection between theoretical and practical knowledge,
- in a reassuring way and with good order handle valuable scientific material,
- be able to carry out a project work in a research-ethical correct way,
- be able to reflect over a project regarding relevant scientific, social and ethical aspects.

Content

Individual work with emphasis on practical laboratory/experimental work and including some literature studies.

An individual study plan will be written jointly by the student and supervisor also serving as a project description together with methodologies and a time plan.

The project can be performed outside of Karolinska Institutet.

Teaching methods

Individual experimental work with data collection under supervision.

Examination

The examination consists of a written report, an oral presentation and an evaluation of the practical work. The examiner sets the grade after consultation with the supervisor and the examining teacher, based on the student's work performance 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

Opposition of another student's work is compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results for respective part will not be registered in LADOK.

Limited number of examinations or practical training sessions

Students who have not passed the course after their first presentation (written or oral) are entitled to rework their report and/or presentation and participate in five more presentations. If the student has not passed the course after four presentations, he/she is recommended to retake the course the next time it is

held, with a new project. In connection with that course the student will be granted two more opportunities to present. If the student has failed six presentations, no additional presentation opportunity or possibility to retake the course will be offered.

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.

Transitional provisions

After each course there will be at least six occasions for examination within a two-year period.

Other directives

The course language is English.

In order to start and to be registered for the course, a project plan has to be submitted and be approved by the examiner.

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

Literature and other teaching aids

Scientific literature of relevance for the work, chosen by the supervisor and the student.