



**Karolinska
Institutet**

Course syllabus for

Degree Project in Biomedicine, 30 credits

Examensarbete i biomedicin, 30 hp

This course syllabus is valid from spring 2017.

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 | Programme Committee 7 |
| Decision date | 2016-10-28 |
| Course syllabus valid from | Spring 2017 |

Specific entry requirements

At least grade G (pass) on the courses Introduction to biomedical science, General and organic chemistry, Medical biochemistry, Cell biology and genetics, Infection and immunity, Integrative physiology, Tissue biology and Biostatistics. In addition, the grade pass must have been obtained on the parts Pharmacokinetics and Pharmacodynamics (2 credits), Laboratory work in pharmacology (1.5 credits) and Group assignments in pharmacology and toxicology (2.5 credits) on the course Pharmacology and toxicology, Practical features (5 credits) on the course Neuroscience, Laboratory practicals (5 credits) and Problem based seminars and group seminars (5 credits) on the course Molecular oncology and biostatistics, and Research plan proposal (3 credits) on the course Molecular medicine, within the Study Programmen 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.

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.

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.