



FCB3201 Methods in Current Research in Medical Biotechnology 3.0 credits

Metoder i aktuell forskning inom medicinsk bioteknik

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for FCB3201 valid from Spring 2021

Grading scale

P, F

Education cycle

Third cycle

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After completion of the course the student should have the knowledge and ability to demonstrate:

- both broad and specialized knowledge in the overall subject area of methods used in biotechnology with special emphasis on the selected methods discussed within the course.
- the ability to present pedagogically, critically examine and discuss their own and others' scientific work in the subject of methods used in biotechnology with special emphasis on the selected methods discussed within the course.
- the ability to acquire knowledge of academic authorship and the international scientific publishing landscape with relevance to the scientific focus area of the course.
- the ability to identify, discuss and reflect on ethics and sustainability aspects in the research that is discussed within the framework of the scientific focus area of the course.

Course contents

The course aims to provide a broad overview of contemporary methodology in the field of Medical Biotechnology, such as:

- A selection of methods in current research in medical biotechnology, such as recombinant protein production, chromatography, methods for protein structure determination, microscopy, bioinformatics, immunoanalytical tools, biosensors, protein arrays, lab-on-a-chip, mammalian cell culturing, tissue engineering, gene silencing.
- General theory behind the methods.
- Insights into the practical procedure of the methods.
- Knowledge of which scientific questions the methods can answer.
- Orientation in how the methods are used today as a tool in the field of biotechnology

Specific prerequisites

Eligible for studies at the third-cycle level.

Examination

- DEL1 - Participation, 3.0 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

Successful completion requires minimum 80 % attendance, active participation at presentation and discussions during seminars.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.