



BB1200 Analysis of Biomolecules 6.0 credits

Analys av biomolekyler

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

Establishment

Course syllabus for BB1200 valid from Autumn 2019

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Completed course BB1150 Biochemistry 1.

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 shall have

Knowledge and understanding to:

- Describe and explain common analytical methods for biomolecules (TEN1, SEM1)
- Apply methods for analysis of biomolecules (LAB1)

Skills and abilities to:

- Report orally and in writing within the subject. (LAB1, SEM1)
- Choose and combine appropriate methods and technologies for given questions. (SEM1, LAB1)
- Design experiments (LAB1, SEM1)

Values and approaches to:

- Critically discuss possibilities and limitations with the technologies that are treated in the course. (TEN1, LAB1, SEM1)
- Review and give constructive feedback on oral and written reports within the subject. (SEM1)

Course contents

The course gives a general knowledge of methods and technologies for the analysis of biomolecules. The main focus is on analysis of proteins, but also analysis of other biomolecules such as DNA and RNA is included. Basic experimental design will also be included. The course contains both theoretical and practical parts.

The following analytical methods will be treated in the course:

- Electrophoresis
- Spectrophotometric methods
- Immunochemical and immunotechnological methods
- Mass spectroscopy
- Microscopy
- Structural biology methods
- Biosensor methods
- Radiochemical methods
- Flow cytometry
- Analytical chromatography

Prerequisites equivalent to BB1030 Microbiology, BB1210 Purification of biomolecules and BB1190 Genetechnology are recommended.

Examination

- SEM1 - Seminar, 2.0 credits, grading scale: P, F
- TEN1 - Written exam, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 2.0 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.

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

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.