



BB1200 Analysis of Biomolecules 6.0 credits

Analys av biomolekyler

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 BB1200 valid from Spring 2016

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

The upper-secondary school before 1 July 2011 and adult education at upper-secondary level before 1 July 2012

Entry requirements A9

Specific entry requirements: mathematics E, physics B and chemistry A. In each of the subjects the grade required is Passed or 3.

The upper-secondary school from 1 July 2011 and adult education at upper-secondary level from 1 July 2012 (Gy2011)

Entry requirements 9

Specific entry requirements: Physics 2, Chemistry 1 and Mathematics 4. In each of the subjects the minimum grade required is Pass.

Language of instruction

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

Intended learning outcomes

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

- Account for common analytical methods for biomolecules
- Choose and combine appropriate methods and technologies for given issues
- Discuss possibilities and limitations with the technologies that are treated in the course critically
- Report orally and in writing on a second cycle within the subject
- Review and give constructive feedback on oral and written reports within the subject
- Design experiment and analyse the data and statistics

Course contents

The course gives a general knowledge of methods and technologies for the analysis of biomolecules. Main focus is on analysis of proteins, but also analysis of other biomolecules such as DNA and RNA include. Basic experimental design and statistics will also be treated.

The following analytical methods will be treated in the course:

Electrophoresis

Spectrophotometric methods

Immunochemical and immunotechnological methods

Mass spectroscopy

Microscopy

NMR

X-Ray Crystallography

Biosensor methods

Radiochemical methods

Flow cytometry

Analytical chromatography

Disposition

The course contains both theoretical and practical parts.

Course literature

Principles and Techniques of Biochemistry and Molecular Biology, 7th Edition by Keith Wilson (Editor), John Walker (Editor).”

Examination

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

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.