Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Syllabus

BI0859.1 Biochemistry II, 5.0 credits

Biokemi II

The course is given Biology with specialisation in Biotechnology - Bachelor's Programme, Food & Health - Bachelor´s Programme and Food Science - Bachelor´s Programme

Version 1 in Slukurs. Corresponds to version 1, 2, 3, 4, 5 and 6 in Ladok

Syllabus approved

7 November 2007

The version applies to students admitted from autumn 2008 to spring 2014

The version is not a module version

Subjects

Biology/Chemistry

Education cycle

First cycle

Modules

Title	Code	Credits
Single module	0101	5.0

Advanced study in the main field

First cycle, has less than 60 credits in first-cycle course/s as entry requirements (G1F)

Grading scale

5:Pass with Distinction, 4:Pass with Credit, 3:Pass, U:Fail
The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Language

Swedish

Prior knowledge

The equivalent of 10 ECTS in general and organic chemistry and 10 ECTS in biochemistry.

Objectives

After completing the course the student should be able to:
- identify structural and functional units in protein structures
- describe catalytic mechanisms in enzymes in relation to three-dimensional structures
- describe in general terms the relation between protein sequence, structure and evolution
- search and evaluate information in databases for bioinformatics, amino acid sequences and protein structure
- interpret information concerning protein structure in scientific review articles

Content

The course contains the following parts:
- Protein structure and function with focus on catalytic mechanisms of enzymes
- Bioinformatics and phylogenetic trees based on structurally aligned protein sequences
- Computer- and computer graphic exercises which will give an introduction to current tools used in structural biology and bioinformatics
- A short literature study to be presented in a seminar

Implementation

Scheduled activites
Lectures approx. 20 h
Laboratory exercises approx. 20 h (compulsory)
Exercises approx. 10 h
Seminars approx. 5 h (compulsory)
Exam and evaluation approx. 5 h

Group activites outside the schedule
Report writing and planning of seminar approx. 10 h

Self studies outside the schedule
Literature studies approx. 75 h

Total approx. 135 h

Formats and requirements for examination

Approved written examination at the end of the course. Completed and approved compulsory parts.

- If the student fails a test, the examiner may give the student a supplementary assignment, provided this is possible and there is reason to do so.
- If the student has been granted special educational support because of a disability, the examiner has the right to offer the student an adapted test, or provide an alternative assessment.
- If changes are made to this course syllabus, or if the course is closed, SLU shall decide on transitional rules for examination of students admitted under this syllabus but who have not yet passed the course.
- For the examination of a degree project (independent project), the examiner may also allow the student to add supplemental information after the deadline. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Additional information

- The right to take part in teaching and/or supervision only applies to the course date to which the student has been admitted and registered on.

- If there are special reasons, the student may take part in course components that require compulsory attendance at a later date. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Responsible department

Department of Molecular Sciences

Supplementary Information

Finalized by: Utskottet för naturvetenskapliga utbildningar, grundnivå (UNG)
Biology Area: Molecular Biology