Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Syllabus

BIo859.3 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 3 in Slukurs. Corresponds to version 8 and 9 in Ladok

Syllabus approved

21 January 2015

The version applies to students admitted from autumn 2015

The version is not a module version

Subjects

Biology/Chemistry

Education cycle

First cycle

Modules

Title	Code	Credits
Single module	0301	5.0

Advanced study in the main field

First cycle, less than 60 credits from first-cycle courses 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

Basic knowledge and skills in general and organic chemistry and basic knowledge and skills 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

The course is based on lectures, exercises, laboratory practicals and seminars. Laboratory practicals and seminars are compulsory.

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 prerequisites can be fulfilled by having followed the courses KE0051 and BI1032 and:
i. having passed at least half of the course modules in KE0051,
and
ii. having passed the exam in the course BI1032.

Some learning activities may be conducted in English.

- 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: Programnämnden för utbildning inom naturresurser och jordbruk (PN - NJ)
Biology Area: Molecular Biology