



HX1001 Biological Chemistry

7.5 credits

Biologisk kemi

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

Establishment

Course syllabus for HX1001 valid from Autumn 2007

Grading scale

P, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Language of instruction

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

Intended learning outcomes

To give the students basic knowledge about the way on which bio-molecules co-operate in the normal life of the cell.

Course contents

The aim of the course is to give knowledge of the importance of the chemical bounding for the chemical and physical properties of chemicals compounds, set in a biological perspective. It will furthermore explain aspects of the thermodynamic forces driving chemical reactions.

Biological important equilibrium reactions will be discussed focusing on the properties and function of buffer solutions in the body.

The structure and biological function of carbohydrates, lipids, proteins, and nucleotides will be highlighted.

The course will focus on the structure and function of the eukaryotic cell.

Thus the student will obtain basic knowledge of the regulation of cell metabolism, i.e. the metabolism of carbohydrates, lipids, and amino acids in the maintenance of normal cellular functions.

Course literature

Holum, John R.: Fundamentals of General, Organic, and Biological chemistry, 6th edition, John Wiley & sons, New York 1997
Handouts

Examination

- TEN2 - Examination, 4.5 credits, grading scale: P, F
- TEN1 - Examination, 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.

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

Other requirements for final grade

Written examination 1 (TEN1: 3 cr.)

Written examination 2 (TEN2; 4.5 cr.)

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.