FKD3411 Frontiers in Enzyme Design II 3.0 credits

Forskningsfronten i enzymdesign II

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

Establishment

Course syllabus for FKD3411 valid from Spring 2020

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Eligible for studies at the third-cycle level. It is an advantage to have completed the courses BB1050 Biotechnology, BB2380 Biochemistry, KD1230 Organic Chemistry, Basic Concepts and Practice, or equivalent.

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 should have the knowledge and ability to:

- show broad and specialized knowledge in the scientific field of the course and about the overall subject areas of biotechnology and chemistry with emphasis on enzyme design, green chemistry and biocatalyzed chemical synthesis
- demonstrate the ability to present pedagogically, critically examine and discuss scientific papers in the subjects of chemistry and biotechnology with emphasis on the doctoral students' own work, and papers published in the field of enzyme design
- demonstrate insight into, and basic ability to apply, academic authorship and the international scientific publishing landscape with relevance to the scientific subject area of the course
- demonstrate the ability to identify, discuss and reflect on ethics and sustainability aspects in the research that is discussed within the framework of the subject area of the course

Course contents

The course includes approximately 80 full-time study hours in the form of science seminars that are held every two weeks. The seminars focus on current trends in the field of enzyme design where the research students present, read, interpret, analyze, critically examine and actively discuss their own and other doctoral students' work. Current published scientific work in the field of research will also be discussed. When possible, outside researchers in the field can be invited. The course is the second of four courses in the seminar series.

Examination

- DEL1 - Attendance, 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.

Grading criteria are specified in the course memo.

Other requirements for final grade

Active participation at 80% of the course sessions, which in addition to attending and actively participating in discussions also includes carrying out two project presentations during a school year.

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.