FCB3042 Higher Seminar in Metabolic Engineering II 3.0 credits

Högre seminarium i metabolisk ingenjörskonst II

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

Establishment

Course syllabus for FCB3042 valid from Spring 2019

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Eligible for studies at the third-cycle level.

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 be able to

- demonstrate both broad and specialized knowledge in the scientific focus area of the course
- demonstrate the ability to present pedagogically, critically examine and discuss their own and others' scientific work in the subject of biotechnology with emphasis on research in metabolic engineering
- demonstrate the ability to acquire knowledge of academic authorship and the international scientific publishing landscape with relevance to the scientific focus 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 scientific focus area of the course

Course contents

The course comprises approximately 80 full-time study hours in the form of science seminars held once every two weeks. The seminars focus on research and current trends in the field of metabolic engineering, where both the doctoral students' own work and leading published research are presented, critically examined and discussed and given feedback. The research field includes, for example, research within modeling, genetic engineering, system biology, and metabolomics. The student holding the seminar selects his or her own work, or a published research article to present. The work is critically examined, and a reflective summary of the work is written. The other course participants should critically read and review the work, and prepare at least one question before the meeting. At the meeting, the student gives an oral presentation that summarizes the work and presents his or her own interpretation and critical review. In cases where the student chooses to present his/her own work, an overview article with introduction to the field must be included as a reading assignment for the other participants. All participants are expected to participate in the critical review and discussion at the meetings. The course is the second of four courses in the seminar series.

Course literature

Literature in the form of the students' own scientific work and published articles are assigned separately for each individual session.

Examination

- DEL1 - Participation, 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 seminar sessions, which, in addition to attending, presenting, preparing and actively participating in reviews and discussions of selected scientific work, also includes compiling written reflections on the examined work.

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.