

## Institutionen för organisk kemi

# Kursplan

för forskarkurs Frontiers in Organic Chemistry Frontiers in Organic Chemistry

7.5 Högskolepoäng 7.5 ECTS credits

Kurskod: KO40010 Gäller från: VT 2020

**Institution** Institutionen för organisk kemi

### Förkunskapskrav och andra villkor för tillträde till programmet

Admitted to PhD studies, and passed half-time control (seminar, report and defense).

#### Lärandemål

After the course the student should be able to:

- Demonstrate knowledge in a research topic that is unrelated to the theme of the PhD thesis
- Analyze the current state-of-the-art of a frontier research topic, identify its current challenges, and propose future directions.
- Communicate orally the context and outlook of a wider area of research
- Write a short original proposal in a research topic that is unrelated to the theme of the PhD thesis, including a survey of the state-of-the-art, objectives, and work-plan.
- Elaborate and communicate constructive critiques to the presentations and proposals of other students in the course.
- Organize and manage the visit of an invited researcher on one of the research topics chosen by the students in the course.

#### Innehåll

The aim of the course is to complement the education in organic chemistry with exposure to an unrelated research topic to the main activity of the student, and the strengthening of soft skills to complement the technical training.

The alternative research topic, which is central to the development of instruction in this course, is aimed at preparing the student for upcoming professional opportunities after the PhD graduation (post-doctoral research, private R&D, etc...).

The main emphasis will be placed in the complementary soft skills involved in the presentation, analysis and design of research projects. The constructive critical evaluation on the research proposals by other students involved in the course will expedite the professional maturation and further expose the participants to unrelated hot fields of research, and enrich the content of the short proposals that will result in the course. The course is built upon a learning community that will interact and exchange material through workshops and online learning platforms. The workshops give the opportunity to meet, exchange ideas and keep milestones on progress within the timescales defined. The online learning platform facilitates the organization of feedback workflows between the students.

Formative assessment to help the student meet the learning outcomes is accomplished through assignments, oral presentations, the active preparation and participation in the workshops, and online activities. Summative assessment will be based on the quality of the oral and written presentation of the research proposal, and the oral and written feedback to other students. The students will select one of the research topics presented to invite a world-leading lecturer in that particular area of research.

#### **Obligatoriska** moment

Participation in workshops and online activities (presentation, report and oral and written feedback) is compulsory. In the event of special circumstances, the examiner may, after consultation with the teacher concerned, grant a student exemption from the obligation to participate in certain compulsory instruction.

#### Examinationsformer

The course is examined as follows:

Knowledge assessment takes the form of a final oral presentation, and a final written report.

The course and examination language is English.

Grading (passed or failed) is related to the intended learning outcomes.

Grading criteria are handed out at the start of the course.

Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still given. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has failed the examination twice is entitled to have another examiner appointed, unless there are special reasons to the contrary. Such requests should be made to the department board.

The course has one examination occasion per year.

#### **Arbetsform**

Instruction (in English) consists of presentations, workshops, online activities and individual tutoring.