

Course syllabus

Projektkurs i läkemedel, material eller kemi

Project in Pharmaceuticals, Materials or Chemistry

KASN40, 15 credits, A (Second Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED B/K

Date of Decision: 2023-04-18

General Information

Main field: Pharmaceutical Technology.

Compulsory for: MLAK1

Elective for: B4-l, K4-m, K4-l, N4

Language of instruction: The course will be given in English on demand

Aim

The aim of the course is to give thorough practical skills in chemistry.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- be able to interpret experimental results to explain chemical phenomena.
- understand how a project group works including knowledge on some common tools for project management.
- understand the use of subject specific tools and procedures within the project

Competences and skills

For a passing grade the student must

- be able to plan and execute chemical experiments under supervision

- be able to describe how to apply theoretical reasoning in the laboratory
- be able to document experimental results
- be able to present results in speech and writing
- be able to search, evaluate and use information relevant for the project using university library resources and open electronic sources
- be able to assess the feasibility of the project and determine the factors that contribute to, or impede, the feasibility
- be able to make relevant judgements and validations concerning safety, economy and environmental factors in the project.
- be able to discuss and generate creative solutions for a practical and relevant problem

Judgement and approach

For a passing grade the student must

- understand how the choice of a technique and method affects the quality of the result
- for a given problem be able to choose an optimal method
- be able to reflect on the role that the student will take in a project group

Contents

The course comprises of a experimental project related to different chemical, biochemical and/or cellular techniques and methods, such as organic synthesis, chemical analysis, polymer and material and analysis, bioanalysis or cell cultivation. The project is reported orally and in writing.

Examination details

Grading scale: UG - (U,G) - (Fail, Pass)

Assessment: For passing grade, the student should show ability to write, follow and manage a project plan and work according to the standard set by the specific project. The student should participate in mandatory activities, give an oral seminar and provide a written report.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Parts

Code: 0120. **Name:** Written Report.

Credits: 7,5. **Grading scale:** UG. **Assessment:** Approved report

Code: 0220. **Name:** Oral Presentation.

Credits: 7,5. **Grading scale:** UG. **Assessment:** Approved presentation

Admission

Admission requirements:

- Theoretical advanced course within selected project: - KASN10 Materials Chemistry for projects in Materials Chemistry - KASN25 Polymer Chemistry or KASN20 Polymer Physics for projects in Polymer Technology - KOKN01 Medicinal Chemistry and at least 2.5 hp approved of KOKN05 Organic Chemistry - Theory for projects in Organic Chemistry - Approved part 0220 Laboratory Experiments 1.5 credits in KASN45 Advanced Analytical Chemistry for projects in Analytical Chemistry - At least 3 hp approved of KIMN10 Biopharmaceuticals for projects in Biopharmaceuticals

The number of participants is limited to: No

The course overlaps following course/s: KASN01

Reading list

Contact and other information

Examinator: Margareta Sandahl, margareta.sandahl@chem.lu.se

Examinator: Patric Jannasch, patric.jannasch@chem.lu.se

Examinator: Ulf Ellervik, ulf.ellervik@chem.lu.se

Examinator: Martin Ek Rosén, martin.ek_rosen@chem.lu.se

Examinator: Anna Sandström Gerdtsen, anna.sandstrom_gerdtsson@immun.lth.se

Course coordinator: Johan Reimer, johan.reimer@chem.lu.se

Further information: The course comprises an experimentally based project within a subject; organic chemistry, analytical chemistry, polymer technology, materials chemistry or biopharmaceuticals.