



Faculty of Health, Science and Technology
Chemical Engineering

Syllabus

Degree Project for Master of Science in Chemical Engineering

Course Code: CKAE91

Course Title: Degree Project for Master of Science in Chemical Engineering
Examensarbete för civilingenjörsexamen i kemiteknik

Credits: 30

Degree Level: Master's level

Progressive Specialisation: Second cycle, contains degree project for Master of Arts/Master of Science (120 credits) (A2E)

Major Field of Study:

KTA (Chemical Engineering)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2025-09-03, and is valid from the Spring semester 2026 at Karlstad University.

Prerequisites

240 ECTS credits completed in the Chemical Engineering Master programme, and upper secondary level Swedish 3 or Swedish level 3, or Swedish as a second language 3 or Swedish as a second language level 3, plus English 6 or English level 2, or equivalent

Learning Outcomes

Upon completion of the course, students should be able to:

1. identify, formulate, and define problems and apply methodology within the chosen subject area in accordance with the requirements of a scientific approach,
2. apply the knowledge and skills acquired in previous courses to problems within the chosen subject area,

3. plan their own work and set intermediate goals,
4. analyse the need for scientific information, perform information searches, and evaluate and compile the obtained information,
5. present their work in a written report that meets requirements for content, structure, and language according to scientific and technical standards,
6. deliver oral presentations that meet requirements for time management and clarity in language, delivery, and visual aids, and
7. review and provide feedback on scientific work in the field of technology and assess feedback on their own work.

Content

Students complete a degree project and present it both orally and in writing. The course also includes peer review ("opposition"). The course is conducted in project form, usually individually but may also be carried out in groups. In cases where several students collaborate on a larger project, the individual contribution and area of responsibility must be clearly defined at the start of the project.

Students are offered training in a scientific approach involving critical evaluation, analysis, and synthesis. An engineering approach is applied, focusing on identifying, formulating, and solving problems of technical relevance.

As part of the analysis of scientific information and through the execution of the project, students identify the need for additional knowledge to further develop their competence within the chosen area.

The degree project is documented in the form of a written report. Normally, the report is written in Swedish with an English summary. It is permitted to write the report in English or, upon agreement with the examiner, in another language. If the report is written in a language other than Swedish, it must include a Swedish title and a summary in Swedish.

Reading List

See separate document.

Examination

Assessment is based on

1. a written scientific report
2. an oral presentation and defense of the degree project in a seminar
3. peer review of another student's scientific report and oral presentation

Submissions for assessment must clearly indicate individual contributions.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades 5 (Pass with Distinction), 4 (Pass with Some Distinction), 3 (Pass), or U (Fail) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed

of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.