



Faculty of Health, Science and Technology
Chemical Engineering

Syllabus

Chemical Engineering, Bachelor Thesis

Course Code: KTGCG8

Course Title: Chemical Engineering, Bachelor Thesis
Kandidatarbete, kemiteknik

Credits: 15

Degree Level: Undergraduate level

Progressive Specialisation: First cycle, has at least 60 credits in first-cycle course/s as entry requirements, contains degree proj. for B.A./B.Sc. (G2E)

Major Field of Study:

KTA (Chemical Engineering)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2025-08-25, and is valid from the Spring semester 2026 at Karlstad University.

Prerequisites

150 ECTS credits in the Chemical Engineering Master programme, including 15 ECTS credits at the G1F level or higher and registered for 15 ECTS credits at the G2F level, or registered for 60 ECTS credits in Chemical Engineering with 45 ECTS credits completed, including 15 ECTS credits at the G1F level or higher and registered for 15 ECTS credits at the G2F level, or equivalent

Learning Outcomes

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

1. apply methodology in chemical engineering with the requirements of a scientific approach,
2. apply knowledge and skills acquired during studies to problems in chemical engineering,

3. plan their own work and set intermediate goals,
4. conduct information searches and evaluate and compile the obtained information,
5. present their work in a written report meeting requirements for content, structure, and language according to scientific standards,
6. deliver oral presentations with requirements for time management and clarity in language, delivery, and illustrations,
7. review and provide feedback on scientific work in chemical engineering and be able to assess feedback on their own work, and
8. reflect on the need for additional knowledge to develop their competence in chemical engineering.

Content

In this course, students:

- practice a scientific approach with critical evaluation, analysis, and synthesis,
- practice the ability to apply methodology to address chemical engineering issues, and
- carry out an independent project, present it both orally and in writing, and perform as peer reviewers.

The course comprises a project, completed either individually or in groups. If several students collaborate on a larger project, individual contributions and areas of responsibility must be clearly defined at the start of the project.

The thesis typically involves experimental work, but other types of methods may be used, such as theoretical studies.

The independent project is documented in the form of a written report. It is normally written in Swedish with a summary in English. It is permitted to write the report in English or, by agreement with the examiner, in another language. If the report is written in a language other than Swedish, it must have a Swedish title and a summary in Swedish.

Reading List

See separate document.

Examination

Assessment is based on a written scientific report, an oral presentation in a seminar, and performance as a peer reviewer.

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 Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course. For students in Engineering, 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.