



Faculty of Technology and Science
Chemical Engineering

Syllabus

Course Approval

The syllabus was approved by the Faculty Board of Technology and Science on 5 November 2007, and is valid from the Autumn semester of 2007 at Karlstad University.

Course Code: CKAE90

Degree Project, 30 ECTS Credits

(Examensarbete, civilingenjörutbildning kemiteknik, 30 Swedish credit points)

Degree Level: Master

Progression Level: E

Language of Instruction

The language of instruction is Swedish or English.

Prerequisites

60 ECTS cr. on the Chemical Engineering master programme.

Major Field of Study

Kemiteknik Chemical Engineering

Learning Outcomes

The aim of the course is that the students should

- apply scientific methods including critical assessment, analysis and synthesis
- apply engineering methods in identifying, formulating and solving problems with a technical relevance
- conduct an independent study and present it orally and in writing, as well as critically review and assess another student's work

Upon completion of the course students should be able to:

- identify, formulate and limit problems and apply suitable scientific methodology within the chosen subject area
- apply knowledge and skills acquired during the studies when solving problems within the chosen subject area
- plan their own work and set up goals
- analyze the need for scientific information, and value and compile the information found
- present their work in a written report in which content, structure and language adhere to scientific and technical norms
- make oral presentations with clarity of language, delivery and illustrations within defined time limits
- review and comment on technical/scientific work within the technical discipline and be able to evaluate criticism of their own work

Content and Form of Instruction

The course is conducted as a project, individually or in groups of two students. In the case of two students cooperating on a larger project, the individual efforts and the areas of responsibility should be defined before the start of the thesis work.

If the student wants to apply for a degree certificate which specifies a major field of study, the thesis work should as a rule be carried out as a specialization of the same field. If the student wishes to carry out a thesis work outside the major field of study, this requires the approval of the director of the programme.

For a degree certificate stating that the student has specialized in pulp, paper and coating technology, the thesis work must be conducted in subject areas relevant to that specification. Examples of such subject areas are pulp technology, paper technology, surface treatment technology, graphical technology, process technology, separation processes, materials technology, energy technology, process control, biotechnology, analytical chemistry and physical chemistry.

For a degree certificate without specification the master thesis can be conducted in chemistry, chemical engineering or adjacent disciplines.

Reading List

See separate document.

Examination

Examination is based on the documentation of a project in the form of a written report. Normally, the report is written in Swedish with an English abstract. It can also be written in English, or, subject to the examiner's approval, in another language. If the report is written in a language other than Swedish, there must be a Swedish title and an abstract in Swedish.

The final thesis seminar is mandatory. In addition to presenting their own work, students are also required to comment upon another student's thesis work.

Grades

One of the grades Fail, 3 (Pass), 4 (Pass not without distinction) or 5 (Pass with distinction) alternatively Fail, Pass or Pass with distinction 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 assessment is based on student views and experiences as reported in written course evaluations and/or group discussions. Students will be informed of the result of the evaluation and of the measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional Information

Students who enrolled before 1 July 2007 will complete their studies in accordance with the requirements of the earlier admission. Upon completion students may request degree and course certificates to be issued under the current ordinance if they meet its requirements.

The local regulations for studies at the Bachelor's and Master's levels at Karlstad University, ref. C2007/368, stipulate the obligations and rights of students and staff.

The course is included in the master programme in Chemical Engineering but is also offered as a non-programme course.

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