



Faculty of Technology and Science
Materials Engineering

Syllabus

Course Approval

The syllabus was approved by the Faculty Board of Technology and Science on 12 May 2008, and is valid from the Spring semester of 2008 at Karlstad University.

Course Code: CBAEM1

**Degree Project for Master of Science in Engineering, Mechanical Engineering, 30 ECTS Credits
(Examensarbete för civilingenjörsexamen i maskinteknik, 30 Swedish credit points)**

Degree Level: Master

Progression Level: E

Language of Instruction

Swedish or English

Prerequisites

Upon commencement of the degree project, excepting the degree project itself, the student can be no more than 30 ECTS Credits short of the degree.

Major Field of Study

Mechanical Engineering

Learning Outcomes

The course aims to provide the students opportunities to:

- exercise scientific methods and critical evaluation, analysis, and synthesis
- apply engineering methods with discrimination, formulate and solve problems of technical relevance
- conduct an independent project to be presented orally and in writing, as well as critically evaluate the work of others.

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

- identify, formulate, and delimit problems and apply methodology from the chosen subject field, meeting the requirements of scientific method
- apply knowledge and skills acquired during the course of studies on problems within the chosen field
- plan their work and define partial objectives
- analyze the need for research information, retrieve information, and evaluate and compile the retrieved information
- present the project in a written report meeting the requirements on contents, structure, and expression according to standards of science and engineering
- give oral presentations, keeping within a given time frame, and meeting the requirements of intelligibility regarding language, presentation, and graphic illustrations
- review and give feedback on an engineering/scientific project in the field of mechanical engineering, as well as apply the corresponding views on their own projects.

Content and Form of Instruction

The course work is done in the form of a project, either individually or in groups. If a group of students collaborate on a larger project, the individual contribution and area of responsibility shall be made explicit at the commencement of the project as well as when it is reported and presented.

Reading List

See separate document.

Examination

The course is examined through the documentation of the project in the form of a written report. It is normally written in English with a Swedish summary. It can, however, be written in another language than English upon agreement with the examiner of the course.

Participation in the final seminar where the projects are presented is obligatory. Besides presenting their own projects, students shall also function as opponents on another degree project.

Grades

One of the grades 5 (Distinction), 4 (Some Distinction), 3 Pass , or Fail (U), 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 a mandatory part of the programme in Master of Science in Engineering, Degree Programme in Mechanical Engineering.

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