



MF2049 Internal Combustion Engines, Project Course 9.0 credits

Förbränningsmotorteknik projektkurs

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for MF2049 valid from Autumn 2011

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Combustion Engines, advanced course MF2047 or MF2016

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The student should be able to

- do on engine development or investigation with laboratory tests or simulation
- apply knowledge gained in combustion engines or other relevant KTH courses
- contribute to development of the combustion engine, since all projects represent industrially relevant challenges
- working in a project group

Course contents

The project course enables to put into practice newly won knowledge in combustion engines or other relevant KTH courses

Disposition

The focus of the project is chosen in discussions between the examiner and the students, who normally work in groups with different projects

The problem shall be relevant in such a way that it is stimulating for the students and preferably so interesting for the industry that the industry supply necessary extra test equipment and send representatives to listen to the compulsory official presentation.

The examiner, the department's doctoral students and the employed laboratory personnel work as supervisors. The well equipped department workshop assists in manufacturing test equipment. In certain cases, also the industry assists with supervision and test equipment.

For projects based on simulation, licenses for modern software are supplied.

Course literature

Bosch Automotive Handbook

Heywood. Internal Combustion Engine Fundamentals. McGraw-Hill

Examination

- PRO2 - Project Work, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO1 - Project Work, 6.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.