MJ2481 Aeromechanics Project Course - Part 1 6.0 credits

Projektkurs i aeromekanik - del 1

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

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

Establishment

Course syllabus for MJ2481 valid from Autumn 2011

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Language of instruction

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

Intended learning outcomes

After completing the course the student will be able to:

• Know what the field of aeromechanics is

• Know about the key challenges in aeromechanics both from an academic as well as industrial perspective

• Be able to discuss aspects of aeromechanics on a basic level

Course contents

The present first part of the project course aims at giving an introduction into the field of aeromechanics.

Turbomachinery aeromechanics is a highly interdisciplinary field as it involves aerodynamics, structural dynamics, structural damping and material fatigue aspects. This project course is the first of three in a row to have the student getting familiar with this field in an interactive manner. Lectures will be given from specialists from academia and industry. Given the scientific profiles of the involved academic partners in THRUST lectures will be supported by KTH (on site) as well as Duke, ULg and AUTH (remotely). The course involves discussions on scientific aspects in this field on a basic level.

Specific prerequisites

Fluid dynamics, thermodynamics, BSc level

Only for TAETM

Course literature

Egen litteratur, urval av vetenskapliga artiklar

Examination

- PROJ - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 3.0 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.

TEN, 3 ECTS, A-F

PROJ, 3 ECTS, A-F

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.