ML2202 Computerized Tools in Design Process, Intermediate Course 7.5 credits

Datorbaserade designverktyg, fortsättningskurs

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 ML2202 valid from Autumn 2015

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Passed grade in ML1212 or the equivalent

Language of instruction

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

Intended learning outcomes

On completion of the course, the student should be able to:

- identify limitations and possibilities with the programs that are used in the course
- from the geometry, function and possible considerations to production of a product identify and apply appropriate modelleringsstrategi and choose and use appropriate software for modelling
- produce digital and pressed presentation material based on digital models and with the programs that are used in the course
- based on digital models produce product ideas
- in a clear and convincing way oral, written and by means of required physical models present/present problems and solutions to these

Course contents

- Yt-, kurv- and solid modeling with an emphasis on surface modelling
- Structured modelleringsmetodik and problem-solving in design and development
- Handling of layers functions in graphical applications
- Production of product ideas with support of digital models
- Image processing for shield and pressures
- Graphical design and design through surface modelling
- Lighting, textures and rendering of digital models and yt-modeller

Disposition

The course is based on that the participants carry out some self-study at his own pace but with the possibility of lÃ¤rarassistans when necessary. It can occur some timetabled lectures to support the studies.

Course literature

Egenproducerat material används samt programvarornas on-linedokumentation. Programvaran och utbildningsmaterial från programvaruleverantören är på engelska.

Examination

- INLA - Individual Computer Exercises, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- INLB - Large Computer-Based Assignment, 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.

Other requirements for final grade

- INLA- Individual computer exercises
- INLB- Larger computer exercise

The Aktiviterna that is included in INLA and INLB and grading criteria that are used in examination are communicated at the beginning of the course

The final grade of the course is calculated from grades in INLA (60%) and INLB (40%).

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.