SG2803 Numerical Modelling and Simulation 7.5 credits

Numerisk modellering och simulering

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 valid from Fall 2022

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

Passed courses DN1214, SG1107, SG1801.

English B / English 6

Language of instruction

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

Intended learning outcomes

The student will learn to understand and use element methods, difference methods, evolution forms and computer software, for structural mechanical beam problems and for temperature distribution problems.

Course contents

Fundamental aspects of computer algebra and numerical methods for chosen problem classes. Numerical and symbolic software. Bar and beam problems, temperature distribution. Time-dependent solutions and evolution. Element methods.

Examination

- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercises, 3.0 credits, grading scale: P, 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

A written examination (TENA; 4,5 university credits). Exercises (ÖVNA; 3 university credits)

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.