DH2320 Introduction to Visualization and Computer Graphics 6.0 credits

Introduktion till visualisering och datorgrafik

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

Establishment

The course syllabus is valid from Spring 2024 according to the faculty board's decision: J-2024-1027.Decision date: 2024-05-14

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Computer Science and Engineering

Specific prerequisites

Single course students: 90 university credits including 45 university credits in Mathematics and/or Information Technology and the courses SF1604 Linear algebra, SF1625 Calculus in one variable, SF1626 Calculus in several variables, SF1901 Probability theory and statistics, DD1337 Programming and DD1338 Algorithms and Data Structures or equivalent.

Language of instruction

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

Intended learning outcomes

The students should after the course be able to

- explain fundamental concepts within computer graphics such as geometrical transformations, illumination models, removal of hidden surfaces and rendering
- explain the ideas in some fundamental algorithms for computer graphics and to some extent be able to compare and evaluate them
- explain and apply fundamental principles within interaction programming
- explain and understand fundamental concepts within information visualization and scientific visualization.

Course contents

- Computer graphics
- Information visualization
- Scientific visualization
- Interaction programming

Examination

- TEN1 - Examination, 3.0 credits, grading scale: P, F
- LAB1 - Laboratory Work, 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.

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.