DH2640 Graphics and Interaction Programming 9.0 credits

Grafik- och interaktionsprogrammering

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

Establishment

Course syllabus for DH2640 valid from Autumn 2009

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

Language of instruction

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

Intended learning outcomes

The goals of the course are to give the students

- knowledge of computer graphics and interaction techniques,
- an understanding that the qualifications and limitations of the humans should influence the design of interactive systems,
- give experience of programming tools for the design of graphical and interactive applications,

so that they will

- have a good notion of the possibilities and limitations concerning the design and use of computer graphics and modern interaction techniques for different media.

Course contents

Computer Graphics: History, signal processing, transformations, image

processing, modelling, animation, visualization, image synthesis, real-time graphics in computer games. Applications and tools: OpenGL, Photoshop and Maya.

Interaction: Principles of human-computer interaction, prototyping tools and integrated development environments for designing interaction with text, graphics, images, sound, video and animation. Applications and tools: Java/Swing and Flash.

Disposition

Laboratory exercises and a project.

Course literature

To be announced at the web page for the course at least 4 weeks before course start. Previous year: Angel: Interactive Computer Graphics, Addison-Wesley, and material produced at the department.

Examination

- INL1 - Exercises, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 4.5 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.

In this course all the regulations of the code of honor at the School of Computer science and Communication apply, see: http://www.kth.se/csc/student/hederskodex/1.17237?l=en_UK.

Other requirements for final grade

Examination (TEN1; 3 university credits).
Laboratory assignments (LAB1; 4,5 university credits)
Hand in assignments (INL1; 1,5 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.