



## Course syllabus

Faculty Board of Science and Engineering  
School of Computer Science, Physics and Mathematics

1DV440 Grundläggande visualisering, 7,5 högskolepoäng  
Introduction to Visualization, 7.5 credits

### **Main field of study**

Computer Science

### **Subject Group**

Informatics/Computer and Systems Sciences

### **Level of classification**

First Level

### **Progression**

G1F

### **Date of Ratification**

Approved by the Board of the School of Computer Science, Physics and Mathematics  
2009-11-19

Revised 2011-05-13. Revision made for English translation of the syllabus and course evaluation.

The course syllabus is valid from autumn semester 2011

### **Prerequisites**

1ME401 Applied Computer Graphics 7.5 credits or equivalent.

## Expected learning outcomes

After completing the course students will be able to:

- modeling in 3D
- have basic knowledge of the software 3D Studio Max
- create realistic images and 3D models for presentations, manuals and games
- make simple animations

## Content

The theory provides the fundamental principles, which are used as the basis for the creation of self-knowledge, which is then used in practical applications.

The course covers:

- Basic knowledge of 3D. Illumination of the depth concepts such as solids, surfaces, Boolean operations, lofts and more
- Using the DMU (Digital Mockup) to explain how the model works and show how it looks

- Creating a photorealistic image of a model using the textures to their 3D objects that mimic reality
- Basic knowledge of animation

### Type of Instruction

Teaching consists of lectures and laboratory work/exercises. The practical application consists of an individual's work in the form of assignments. Materials are web based. The lectures are recorded and placed on the web. Distance Tutoring is provided through Skype, MSN, or any kind of desktop sharing.

### Examination

The course is assessed with the grades U,3,4 or 5.  
For grade 3, the expected learning outcomes should be achieved.

Grades are given after the completion of the course and based on the results of the reported practical application. In order to obtain at least grade 3, all required assignments must be completed and approved.

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Reexamination will be offered within six weeks under the regular semester periods. The number of examinations are limited to five times.

### Course Evaluation

A course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The result of the course evaluation will be filed at the department.

### Required Reading and Additional Study Material

#### **Other teaching material**

Web-based materials are provided on the course website.