Computer Graphics  
Datorgrafik  
7,5 Credits/högskolepoäng

Ladok code: 21DG2B  
Revision: 1  
Valid from: Spring 2014  
Approved by the Teaching Committee: 2013-12-11

Disciplinary domain: Natural Sciences  
Subject Group: Informatics (IF1)  
Education Cycle: Basic  
Main field of study: Informatics (IKA)  
Progressive specialisation: G1F  
Prerequisites: Passed courses in Object-oriented Programming in Java 7,5 Credits, knowledge in the programming language C#. Verified knowledge of English corresponding to the course English B in the Swedish Upper Secondary School.  
Grades: ECTS (A-F).

Learning Outcomes  
After completion of the course the student is expected to be able to:  
1. construct computer programs to visualize moving graphic 2/3D-element with a standardized framework.  
2. explain the basic principles of graphic presentations on the computer.  
3. explain the basic principles of visualization of 2/3D-elements

Contents  
This course provides an introduction to the visualization of graphical environments of 2/3D-element on computer screens and the underlying theoretical foundations for this realization. Furthermore, an insight into the key technologies and frameworks for graphical visualization is given. From a programming viewpoint a deeper study of a modern and extensive framework for realization of computer graphics is given. Practical experience is provided through the laboratory work in which students in groups develop graphical applications using a modern framework.

Forms of Tuition  
Lectures, laboratory work and tutoring. Education and literature is in English.

Forms of Examination  
The course is examined through three assignments performed as laboratory work in groups and an exam. The purpose of the assignments are to ascertain that the student has achieved the learning outcome 1.

For the grade Passed on the whole course (ECTS grade E) both the assignments and the exam must have been passed. Grade on the whole course is, for higher grades, determined based on the grade on the exam, which is based on the ECTS scale.

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

Literature and Other Teaching Means  
**Student Influence and Evaluation**
The course is evaluated in accordance with the school's guidelines, in which students' views will be obtained. The results of the evaluation will be published and fed back to participating and prospective students in accordance with the school's guidelines, and will provide the basis for future course and program development.

**Miscellaneous**
The course is given in the Computer Science Program, as well as a separate course.