Computer Graphics
Spring 2015
Teachers

- Anders Hast (head teacher)
- Stefan Seipel (teacher)
- Johan Nysjö (teacher and lab assistant)
- Tomas Wilkinson (lab assistant)
- Kristina Lidayova (lab assistant)
- Ingrid Carlbom (guest lecturer)
Formalities

- Register for the course on Studentportalen!
- 3 mandatory programming assignments
- 1 project (also mandatory)
- 1 exam (5 hours)
- 10 credits (4 for the exam, 6 for the assignments/project)
- More information can be found on the course web page on Studentportalen
Content

Course book

Lab sessions

• The lab sessions will be in the PC-labs in 1312D and 1313D

• We (you!) will program in C++ using OpenGL 3.0 and GLSL 1.30 (or higher if supported by hardware)

• Visual Studio 2010 and OpenGL have been installed on the lab computers

• We recommend that you also set up an OpenGL development environment on your own computer

• General instructions for the labs/assignments can be found on Studentportalen. More instructions will follow...
Assignment 1

Getting started with OpenGL and shader programming
Assignment 2

Spinning RGB cube

3D model viewer
Assignment 3

Per-pixel Blinn-Phong shading

Environment mapping
Project option 1: Volume rendering

Medical 3D image rendered with GPU-accelerated ray-casting
Project option 2: Implement advanced rendering technique of your own interest

Particle systems, shadow mapping, toon shading, depth-of-field, bloom/glow, procedural textures, ambient occlusion, terrain rendering, deferred shading, etc