

## Lecture 13.01.2020

- how to program graphics accelerators
- how we can use GPUs to render pictures on a screen
- real time graphics will be the focus
- we will attempt to build a 3D graphics engine (very simple of course)
- then we will try to write a simple game using this engine
- with each lab we will work to improve the engine
- we will use OpenGL ES to program our program
- what do common graphics engines look like
- how all the processing and communication works
- neither the development platform nor the type of GPU matters for this course
- we will work in C++ because it is the most common programming language for graphics programming
- it is incredibly complicated, but graphics development is generally relatively simple
- vectors and matrices and some C++ basics will be quickly covered in the first weeks
- GLSL will be used to program the GPU
- step by step improvements until we get to shading, colors, light, details, textures, texture mapping etc
- all other things are in the Syllabus