Study programme(s): Information Technologies	
Level: Bachelor	
Course title: Computer Graphics 1	
Lecturer: Dragan Mašulović	
Status: elective	
ECTS: 7	
Requirements: Analytic Geometry	

Learning objectives

In this course students shall acquire basic knowledge of computer graphics modeling and rendering techniques in 2D and 3D using OpenGL.

Learning outcomes

At the end of the course a successful student will be able to model elementary graphics objects and invoke basic rendering algorithms using OpenGL.

Syllabus

- Overview of graphics systems
- Graphics primitives and their attributes
- Geometric transformations
- 2D viewing
- 3D viewing
- 3D object representation
- Visible-surface detection
- Illumination models and surface-rendering methods

Literature

Hearn, Baker: "Computer Graphics with OpenGL", 3rd Ed., Pearson Education International, 2004
Foley, van Dam, Feiner, Hughes: "Computer Graphics - Principles and Practice", 2nd Ed, Addison-Wesley, 1996

Weekly teaching load

Lectures: 2	Exercises: 1	Practical Exercises: 2	Student research: 0	Other: **0**

Teaching methodology

Blackboard lectures, Blackboard exercises, Exercises in computer lab, working in small groups

Grading method (maximal number of points 100)

Pre-exam obligations	points	Final exam	points
Colloquium 1	**30**	*Oral exam*	*30*
Colloquium 2	**40**		