Study programme(s): Computer Science

Level: bachelor

Course title: Introduction to Computer Graphics

Lecturer: Dragan Mašulović

Status: obligatory

ECTS: 5

Requirements: Linear Algebra and 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**		