Study programme(s): Computer Science

Level: master

Course title: Computer Graphics

Lecturer: Dragan Mašulović

Status: elective

ECTS: 8

Requirements: Linear Algebra and Analytic Geometry, Introduction to Computer Graphics

Learning objectives

In this course students shall acquire advanced 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 advanced graphics objects and implement advanced rendering algorithms using OpenGL.

Syllabus

- Advanced 2D viewing
- Advanced 3D viewing
- Advanced 3D object representation and Constructive Solid Geometry
- Advanced illumination models
- Advanced surface-rendering methods, Ray tracing

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

Teaching methodology

Blackboard demonstration, Working in small groups, Student projects

Grading method (maximal number of points 100)

Pre-exam oblications	**points**	**Final exam**	**points**
Test 1	**15**	*Student project*	*70*
Test 2	**15**		