

Study programmes: Bachelor studies - Informatics				
Course name: R255 - Computer graphics				
Lecturers: Predrag Janičić, Vesna Marinković and other lecturers of the Department of Computer science and informatics				
Status: Optional				
ECTS: 6				
Attendance prerequisites: P100, P101, M120, M131				
Course aims: Acquiring knowledge about computer graphics and applications.				
Course outcome: Upon completion of the course, a student is capable of writing programmes based on computer graphics algorithms and of using OpenGL library.				
Course content: Computer graphics development and basic concepts. Hardware for graphics, raster and vector systems. Basic 2D algorithms. Geometrical algorithms. Views in 3D. Describing curves and surfaces in 3D. Modeling of geometric shapes. Light. Visibility. Lightening and shadowing. Image synthesis and techniques for image quality improvement. OpenGL library: geometrical primitives; transformations and visible parameters; lightening; working with pixels; texture mapping.				
Literature: 1. Predrag Janičić: Computer graphics, script, Faculty of Mathematics, 2008. 2. Hughes, van Dam, McGuire, Sklar, Foley, Feiner, Akeley: Computer Graphics: principles and practice, Addison-Wesley, 2014. (lecturer may opt for other suitable current literature)				
Number of hours: 5	Lectures: 2	Tutorials: 3	Laboratory: -	Research: -
Teaching and learning methods: Frontal, group, individual and practical.				
Assessment (maximal 100 points)				
Course assignments	points	Final exam		points
Lectures	20	Written exam		-
Exercises / Tutorials	-	Oral exam		-
Colloquia	30	Written-oral exam		50
Essay / Project	-			