

Study Programme: Civil Engineering			
Course Unit Title: BIM in Design of Roads			
Course Unit Code: GG52			
Name of Lecturer(s): Jovanović Stanislav			
Type and Level of Studies: bachelor			
Course Status (compulsory/elective): elective			
Semester (winter/ summer): summer			
Language of instruction: english			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 3			
Prerequisites: none			
Course Aims:. Introduction of students with the methodology of applying modern BIM technology systems in the design of infrastructure roads objects.			
Learning Outcomes: Enabling to form digital terrain model, ie control and processing of geodetic data, modeling and calculation methods of all modeled objects in the roads infrastructures, development and arrangement of the model for the further elaboration.			
Syllabus. Techinques and algorithms for terrain modeling. Earthworks – volumetric calculations, grading details and granding plans. Design of the geometry axis, algorithms for applying the longitudinal profile and definition of the level, analysis of the application of detailed leveling solution, modeling of surface and undivided crossroads.			
Required Reading: Relevant literature in English, tbd			
Weekly Contact Hours:2		Lectures: 3	
Practical work: 1			
Teaching Methods: Lectures. Examples. Cosultations. Continuous monitoring of the knowledge level and exam.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Attendance			
Computer exercises			
Tests (4x)			

