

Faculty of Civil Engineering / CIVIL ENGINEERING /

Course:								
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exer cises+Laboratory)				
14304	Optional	1	8	3+2+0				
Programs	CIVIL ENGINEERING							
Prerequisites	Roads design Urban communications							
Aims	Training of student, acquisition of professional and scientific knowledge in the field of modern methods of designing all types of interchanges.							
Learning outcomes	After passing this exam, the student will be able to: 1. Classify and plan the required type of interchange. 2. Manage the geometric elements of all three projections. 3. Dimension and design interchanges. 4. Manage the elements of traffic signalization and equipment of the interchanges. 5. Work on determining the level of service of individual elements of the interchanges.							
Lecturer / Teaching assistant	dr Biljana Ivanović - Associate Professor							
Methodology	Additional lectures with the help of modern presentation technology, followed by computational or practical examples. Exercise classes consist of the theoretical part of the matter being processed and the independent work of the student.							
Plan and program of work								
Preparing week	Preparation and registration of the semester							
I week lectures	Structure of traffic load.							
I week exercises	Structure of traffic load.							
II week lectures	Traffic flows and traffic operations at interchanges.							
II week exercises	Traffic flows and traffic operations at interchanges.							
III week lectures	Classification and methodology for determining the dimensions of relevant vehicles.							
III week exercises	Classification and methodology for determining the dimensions of relevant vehicles.							
IV week lectures	Geometry of movement and horizontal passability of vehicles.							
IV week exercises	Geometry of movement and horizontal passability of vehicles							
V week lectures	Procedures for determining the trajectory path.							
V week exercises	Procedures for determining the trajectory path.							
VI week lectures	Types of interchanges.							
VI week exercises	Types of interchanges.							
VII week lectures	Colloquium I.							
VII week exercises	Colloquium I.							
VIII week lectures	Basic elements of interchanges.							
VIII week exercises	Basic elements of interchanges.							
IX week lectures	Dynamic driving conditions in determining the dimensions of lanes for turning, acceleration and deceleration.							
IX week exercises	Dynamic driving conditions in determining the dimensions of lanes for turning, acceleration and deceleration.							
X week lectures	Weaving design.							
X week exercises	Weaving design.							
XI week lectures	Ramp design.							
XI week exercises	Ramp design.							
XII week lectures	Design of plateaus for toll stations.							
XII week exercises	Design of plateaus for toll stations.							
XIII week lectures	Island design and geometry of the edges of traffic surfaces.							
XIII week exercises	Island design and geometry of the edges of traffic surfaces.							



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XIV week led	tures	Traffic signalization.								
XIV week ex	ercises	Traffic signalization.								
XV week lec	tures	Colloquium II.								
XV week exe	ercises	Colloquium II.								
Student wo	orkload	Weekly 8.0 credits x $40/30 = 10$ hours and 40 minutes Total workload on the subject 8.0x30 = 240hours								
Per week			Per semester							
 8 credits x 40/30=10 hours and 40 minuts 3 sat(a) theoretical classes 0 sat(a) practical classes 2 excercises 5 hour(s) i 40 minuts of independent work, including consultations 			Classes and final exam: 10 hour(s) i 40 minuts x 16 =170 hour(s) i 40 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 10 hour(s) i 40 minuts x 2 =21 hour(s) i 20 minuts Total workload for the subject: 8 x 30=240 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 48 hour(s) i 0 minuts Workload structure: 170 hour(s) i 40 minuts (cources), 21 hour(s) i 20 minuts (preparation), 48 hour(s) i 0 minuts (additional work)							
Student obligations			Attendance in lectures and exercises, doing graphic work, passing colloquiums.							
Consultations			According to the schedule defined at the beginning of the semester.							
Literature			Lorenc: Projektovanje i trasiranje puteva i autoputeva, Katanić, Anđus, Maletin: Projektovanje puteva, Dostupni standardi za projektovanje							
Examination methods			- Positively evaluated tests during the semester from 50 to 100 points Final exam up to 50 points. A passing grade is obtained if 50 points are collected.							
Special remarks										
Comment			Additional information about the subject can be obtained from the subject teacher, associate, head of the study program and from the Vice Dean for Teaching.							
Grade:	F		E	D	С	В	А			
Number of points	less than 50 points		greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points			