

KÖZLEKEDÉSÉPÍTÉS I. (ROADBUILDING)

2023/24. 1. SEMESTER

ALAPADATOK		
COURSE NAME	KÖZLEKEDÉSÉPÍTÉS I. (ÚTÉPÍTÉS)	ROADBUILDING
CODE OF COURSE	YCCKÖÉ1BNF	
DEPARTMENT	Óbuda University, School of Civil Engineering, Department of Infrastructure building	
MAJOR	Civil Eng. BSc	Full time
COURSE LEADER	Dr. Klara Maccsinka PhD, associate prof. e-mail address: maccsinka.klara@uni-obuda.hu	office hours by arrangement
LECTURER	Dr. Klara Maccsinka PhD, associate prof. e-mail address: maccsinka.klara@uni-obuda.hu	office hours by arrangement
PRECONDITIONS	Geodézia II., SGYMALT208XXX Geotechnika II. (Földművek), SGYMKOM2054XA	
NUMBER OF LECTURES /WEEK	1 x 45'	
SEMINARS/WEEK	2 x 45'	
LABORATORY SEMINARS/WEEK	0	
ASSESSMENT	Exam	
ECTS CREDITS	3 credits	
DESCRIPTION	The subject is to introduce the students to the basic notions, elements and the operational principles of road infrastructure. During the seminar students will hear about main types, elements, design principles and priorities of transportation infrastructure. They will learn main terms of transportation dynamics, technology and junctions and carriageways. During seminars students must prepare a studyplan for a rural road, completed with siteplan, longitudinal and cross-sections and technical descriptions.	
SUGGESTED LITRERATURE	Horváth - Koren - Prileszky-Tóth-Szabó: Közlekedéstervezés (HEFOP-jegyzet) Notes and presentation from e-learning site of the subject.	
NECESSARY TECHNICAL EQUIPMENT	Scientific calculator may be used during tests. Use of mobile phones, smart watches and other technical equipment is forbidden! In case of Online studies: Contact: through Neptun-system and e-mail. Notes and presentation: uploaded to the E-learning-site. Lectures and seminars: Google Meet.	

SEMESTER OUTLINE				
WEEK	LECTURE	LECTURER		SEMINARS
1.	Transportation networks, priorities. Roadnetwork in Hungary.	Macsinka Klára	In person	Process of transportation projects. Types and elements of roadplanning.
2.	Characteristics of roadnetwork, types of roads. Motorways.	Macsinka Klára	In person	Basic terms of transportation dynamics, road.
3.	Parameters of carriage-ways, junctions. Split level junctions.	Macsinka Klára	In person	Handing out assignments for the semester. Searching for the axis line.
4.	Level junctions, geometry.	Macsinka Klára	In person	Main elements of side plan, sectioning. Consultation.
5.	Roundabouts.	Macsinka Klára	In person	Balance of forces affecting cars running in curves. Consultation.
6.	Traffic assignments, examinations basic terms.	Macsinka Klára	In person	Calculation of stopping distances. Consultation.
7.	Modelling of roadnetworks, traffic estimations.	Macsinka Klára	In person	I. Test. Consultation.
8.	Elements of road cross-sections.	Macsinka Klára	In person	Basic elements of the longitudinal section, planning.
9.	Earthworks of transportation structures.	Macsinka Klára	In person	Calculation of details in the longitudinal section. Consultation.
10.	Pavement types, bases for roads, construction technologies.	Macsinka Klára	In person	Consultation.
11.	Asphalt pavements, construction technologies.	Macsinka Klára	In person	Cross-sections, calculation of earthwork volumes.
12.	Concrete pavements.	Macsinka Klára	In person	Consultation.
13.	REMIX-technology.	Macsinka Klára	In person	II. Test, handing in study plan.

COMPLITION CRITERIA		
TASKS DURING SEMESTER		
CRITERIA	DESCRIPTION	VALUE (point, %, mark)
RULES OF ATTENDANCE AT LECTURES AND SEMINARS	Participation at the seminars is compulsory. Three absence can be accepted.	-
ACCEPTENCE OF ABSENCE	Absence can be acknowledged by a doctor's notice.	-
Short description of the assignment	During semester students have to prepare a study plan of a rural road based on the seminars. Necessary rules for all formal criteria and the working map will be given to students in the beginning of the seminar. Compulsory scales: M=1:10000 for the site plan, M= 1:10000 and M=1:500(200) for the longitudinal section. Longitudinal section is to be printed on an A4 high paper roll. At least 5 consultations are needed during the semester. Acceptance of the study plan is based on number of consultations, and meeting the requirements od the given content and formal issues. Missing and non accepted drawings must be replaced.	50 points
Tests	During semester, two successful tests must be completed by the students. Timing of tests will be clearly given in the beginning of the semester. The tests will contain several calculations that students have to use while preparing the study plan. Tests can repeated once, at the end of the semester.	2x25 points
TOTAL VALUE		100 points

COMPLITION CRITERIA					
PRECONDITIONS FOR OBTAINING SIGNATURE	At least 30 points must be achieved for the study plan and at least 15-15 points in the tests.				
	Attendance of seminars as above.				
	In case any of the above requirements is not fulfilled, the semester will be refused.				
PRECONDITIONS FOR RECOMMENDED MARK	No recommended mark may be given.				
PRECONDITIONS FOR THE EXAM					
	Only students obtaining signature (even in a previous seminar) are allowed to take the exam.				
	Students will be taking exams during exam-period, on days determined in the Neptun system.				
	Length of the exam is 60 minutes, containing several questions, with a total value of 100 points. The exam can be oral or written.				
EVALUATION	Evaluation is based on result achieved on the exam.				
	0-59 points	60-69 points	70-79 points	80-89 points	90-100 points
	1- FAILED	2- SUFFICIENT	3- SATISFACTORY	4- GOOD	5- EXCELLENT