ERASMUS+
EU programme for education, training, youth and sport

Incoming student mobility

Name of UNIOS University Unit:

COURSES OFFERED IN FOREIGN LANGUAGE FOR ERASMUS+ INDIVIDUAL INCOMING STUDENTS

Department or Chair within the UNIOS Unit	Department for Geotechnics, Transportation Engineering and Geodesy

Study program	MASTER – TRANSPORTATION ENGINEERING

Study level (bachelor/master)	Graduate (master)

Course title	**PAVEMENT STRUCTURES**
Course code (ISVU)	294952
Language of instruction	ENGLISH
Course content	Systems of modern pavement structures (asphalt and concrete pavement). Influential factors on the pavement structure (traffic load, climatic factors, bearing capacity of subgrade). Design of pavement structures: empirical and theoretical methods. Subgrade, unbound and stabilized base course, asphalt and concrete pavement. Sustainable road construction.
Prerequisites for enrolment (if any)	-
Learning outcomes	1. Explain the behaviour of individual components of a pavement structure, as well as the structure as a whole, under various traffic loads and environmental influences. 2. Select appropriate types of pavement structures and design methods, in accordance with the intended use of the traffic surface. 3. Apply suitable design methods for road and/or traffic surface pavement structures, in line with both domestic and international design practices. 4. Explain the characteristics of materials used in pavement structures, the technology for producing mixtures incorporated into these structures, and the construction technology for the pavement structure as a whole. 5. Conduct laboratory testing of material properties in accordance with relevant standards.

	6. Apply principles of sustainability in the design and construction of pavement structures.
Basic Literature	1. Babić, B. Projektiranje kolničkih konstrukcija, HDGI Zagreb, 1997. 2. Opći tehnički uvjeti za radove na cestama, Hrvatske ceste d.o.o. knjige III, VII i XIV; 2024.
Additional Literature	1. Tehnički propis za asfaltne kolnike (NN 48/21) 2. Roberts, F.L. i koautori. Vruće asfaltne mješavine – materijali, projektiranje i ugradnja 1996. (prijevod na hrvatski jezik)
Form of teaching	lecturing, student works, seminars, laboratory tests, fieldwork
Form of assessment	written and oral exam
Number of ECTS	5
Class hours per week	2+2
Period of realization (summer/winter semester)	summer semester
Teacher(s) + Email address	Sanja Dimter, Full Professor; sdimter@gfos.hr
Assistant(s) + Email address(es)	-