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

Incoming student mobility

Name of UNIOS University Unit: Faculty of Civil Engineering and Architecture Osijek

COURSES OFFERED IN FOREIGN LANGUAGE
FOR ERASMUS+ INDIVIDUAL INCOMING STUDENTS

Department or Chair within the UNIOS Unit	Department of Technical Mechanics

Study program	Graduate university studies

Study level (bachelor/master)	Master level

Course title	STRUCTURAL TESTING
Course code (ISVU)	294940
Language of instruction	English
Course content	History and purpose of testing materials and structures. Classification of tests. Mechanical and geometric quantities to be measured when testing structures. Accessories for measuring physical-mechanical and geometric quantities. Assemblies of measuring instruments. Methods of analysis of stress state and deformation in structures. Types of tests: destructive and non - destructive testing, static testing of structures, dynamic testing, modelling of structures. Regulations on testing of materials and structures. The influence of the size of the tested samples and the theory of similarity.
Prerequisites for enrolment (if any)	Mechanics, Statics, Dynamics, Strength of Materials
Learning outcomes	After mastering the program of this course, the student will be able to: Use equipment and apply procedures and methods of materials and structures testing and procedures for proving their safety and reliability, Analyse the behaviour of construction materials based on the tests Analyse the behaviour of structural elements and load-bearing systems based on the tests,

	Evaluate the behaviour of structures and materials in structures under static and dynamic action loads, environmental influences on rheological changes, Assess the condition of structures, structural elements and their materials on the basis of test results.
Basic Literature	***M. Rashad Islam**, Civil Engineering Materials: Introduction and Laboratory Testing, CRC Press, 2020.* ***Harris, H.G., Sabnis, G.M.**, Structural modelling and experimental techniques, 2nd edition, CRC Press, 1999.*
Additional Literature	***Aničić, D.: Ispitivanje konstrukcija, GFOS, Osijek, 2002.*** ***Guljaš, I.: Lecture Notes, www.gfos.hr.***
Form of teaching	Lectures and model illustrations. Obligatory experimental exercises.
Form of assessment	Homework and Computer Assignments 30% Midterm (30 %) and Final (40 %) Exams
Number of ECTS	5,0
Class hours per week	4
Period of realization (summer/winter semester)	summer semester
Teacher(s) + Email address	iguljas@gfos.hr
Assistant(s) + Email address(es)	-