

Study Programme: Civil Engineering			
Course Unit Title: Selected Chapters of Masonry Structures			
Course Unit Code: GG531			
Name of Lecturer(s): Vladimir Vukobratović			
Type and Level of Studies: Master Level			
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: 4			
Prerequisites: None			
Course Aims: Acquiring highly specialized academic and professional knowledge in the field of the design and construction of masonry building structures of various purposes and enabling students for the application of the latest engineering principles and software tools in practice.			
Learning Outcomes: Students possess highly specialized academic and professional knowledge in the field of the design and construction of masonry structures. They are able to solve problems of different levels of complexity on their own, as well as in communication and interaction with others, with the innovative approach and application of modern software tools. They are entrepreneurial and can lead projects of different complexity by respecting the ethical standards of their profession. They have a positive attitude towards lifelong learning and personal and professional development.			
Syllabus: Analysis and design of unreinforced, reinforced and prestressed masonry structures according to ultimate and serviceability limit states. Basic principles of use of the finite element method and structural modelling of masonry structures. Basement and retaining masonry walls. Treatment of masonry structures exposed to actions of wind and earthquake. Ductility considerations. Cantilever walls. Coupled wall systems. Masonry-infilled frames. Assessment, retrofitting and strengthening of existing masonry structures. Construction of new masonry structures.			
Required Reading: Relevant literature in English			
Weekly Contact Hours:	Lectures: 2	Practical work: 2	
Teaching Methods: Lectures, practical classes, consultations. The theoretical part of the study material is presented at lectures through presentations of individual thematic units, followed by the appropriate examples from engineering practice for the sake of easier perceiving and understanding. At practical classes, the study material is processed through the solving of practical problems with the active participation of students. In addition to lectures and exercises, consultations are held regularly in order to provide students with answers to additional questions related to the study material.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Group assignment	50	Examination Assignment	50
Exercises			
Test			
Test			

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.