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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | **Faculty of Civil Engineering and Architecture** | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | **Civil Engineering** | | |
| Study Module (if applicable) | | | | Structural engineering | | |
| Course title | | | | Special metal structures | | |
| Level of study | | | | Master’s | | |
| Type of course | | | | Elective | | |
| Semester | | | | Autumn | | |
| Year of study | | | | 1st | | |
| Number of ECTS allocated | | | | 5 | | |
| Name of lecturer/lecturers | | | | Todor Vacev; Srđan Živković | | |
| Teaching mode | | | | Lectures; Group tutorials; Seminar | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| Student is qualified for design and detailing of special metal structures.  Introducing into the design and and detailing of special metal structures (towers, masts, power-line columns, chimneys, silos, bunkers, tanks, water-towers, pipelines, hydrotechnical structures, hanging structures, prestressed metal structures. | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| Introduction and application of steel structures for special civil engineering objects.  Towers, masts, chimneys, and power-line columns: disposition, loads, basics of design, detailing, erection.  Tanks and watertowers: disposition, loads, basics of design, detailing, erection.  Silos and bunkers: disposition, loads, basics of design, detailing, erection.  Pipelines and hydraulic structures (dams and locks).  Hanging roof structures: fields of application, classification, bearing cables, cable connections.  Hanging roof structures (cable stayed structures, single/double-layer roof structures), waved and corrugated roof structures.  Prestressed metal structures: systems, application.  Seminary work on two topics/structural types by student´s choice.  Visiting of a construction site/finished object. | | | | | | |
| **LANGUAGE OF INSTRUCTION** | | | | | | |
| Serbian (complete course) | | | | | | |
| **ASSESSMENT METHODS AND CRITERIA** | | | | | | |
| **Pre exam duties** | **Points** | | **Final exam** | | | **points** |
| **Activity during lectures** |  | | **Written examination** | | | **40** |
| **Practical teaching** | **60** | | **Oral examination** | | |  |
| **Teaching colloquia** |  | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |