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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | **Faculty of Civil Engineering and Architecture** |
| **GENERAL INFORMATION** |
| Study program  | Architecture |
| Study Module (if applicable) |  |
| Course title | LIGHTWEIGHT STRUCTURES IN ARCHITECTURE |
| Level of study | Doctoral studies  |
| Type of course | Elective |
| Semester  | Autumn  |
| Year of study  | 2nd  |
| Number of ECTS allocated | 10 |
| Name of lecturer/lecturers | Tomislav Igic, Dragan Kostic |
| Teaching mode | Lectures  |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Introduction to the specific problem of lightweight spatial structures and the ways of solving them. Training for the analysis of static-structural characteristics of these systems for their rational application in specific cases. Independent research on finding optimal solutions for the application of lightweight space structures. Acquiring the knowledge required for the study of optimal solutions for lightweight spatial structures in terms of geometric forms, building materials, details, functional solutions, technology of development, ... using the model on the computer. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Basic characteristics and examples of application. Materials and design. Basic, complex and free form. Multiplication, growing, and combination of multiple forms into a single spatial structure. Closed and open forms according to particular purpose and functional requirements of space. Connections and mounting. Possibility of disassembly, storage and reassembly - dislocation in space and time. Analysis of the rationality of exploitation. Analysis of aesthetic components and integration into the environment. |
| **LANGUAGE OF INSTRUCTION** |
| Serbian (complete course |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** |  | **Written examination** |  |
| **Practical teaching** |  | **Oral examination** | **50** |
| **Teaching colloquia** | **50** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |