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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) | Building construction |
| Course title | Energy efficiency of buildings |
| Level of study | Master’s  |
| Type of course | Obligatory  |
| Semester  | Autumn  |
| Year of study  | 1st |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Veliborka Bogdanovic; Miomir Vasov |
| Teaching mode | Lectures; Group tutorials  |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Gaining knowledge about the parameters of energy-efficient building, about requirements which are set from viewpoint of individual architectural designs, the concepts of energy rehabilitation of existing buildings and getting to know the procedures of energy certification of buildings. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Enabling students to calculate and check relevant characteristics of appropriate architectural assemblies, in order to design energy-efficient new buildings, as well as to do energy rehabilitation of existing buildings. Course content: Energy efficiency of the buildings, Principles of designing energy efficient buildings, Thermal stability of structures in the summer, The methodology of determining the energy performance of buildings, Transmission and Ventilated heat losses, Heat gains, The energy certification of buildings, Energy rehabilitation of existing buildings, A brief history of the development and definition of concepts in the field of bioclimatic, ecological, solar and energy-efficient architecture. |
| **LANGUAGE OF INSTRUCTION** |
| Serbian (complete course)  |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **5** | **Written examination** | **40** |
| **Practical teaching** | **25** | **Oral examination** | **20** |
| **Teaching colloquia** | **10** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |