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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 | BUILDING PHYSICS |
| Level of study | Integrated studies  |
| Type of course | Obligatory  |
| Semester  | Autumn  |
| Year of study  | 3rd  |
| Number of ECTS allocated | 2 |
| Name of lecturer/lecturers | Veliborka B. Bogdanovic, Miomir S. Vasov |
| Teaching mode | Lectures Group tutorials  |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Acquiring knowledge of the physical phenomena on which the building is exposed, their impact on individual comfort, as well as the principles of architectural design and construction of the buildings themselves in order to achieve these comfort, complying with bioclimatic and environmental architecture and sustainable demands. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Ability to independently assess the influence of certain physical phenomena on the building, the requirements for individual comfort in the building, as well as the ability to adopt optimal solutions in the field of design and construction. Course description: Physical phenomena-effects and consequences, the concept and type of comfort, regulations, Thermal comfort-physiological causality, parameters and measures for the implementation, the concept of energy efficiency, Basic thermal specifications of materials and architectural assemblies, technical solutions, energy efficient assemblies, The concept of bioclimatic and ecological construction, passive and active solar systems, Systems and components for passive solar operation: direct/indirect intervention, Trombe wall, a greenhouse, Application of bioclimatic and energy efficient principles in architectural and structural design of buildings - Passive House, Noises-term and types, sources, effects, sound comfort, Examples of architectural assemblies for air insulation and structural sound, Air comfort-basic requirements for design, Light comfort, the concept of natural lighting, parameters, requirements. Basic measures to ensure natural lighting; principles of design |
| **LANGUAGE OF INSTRUCTION** |
| Serbian (complete course)  |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **5** | **Written examination** | **45** |
| **Practical teaching** | **25** | **Oral examination** | **15** |
| **Teaching colloquia** | **10** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |