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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Occupational Safety in Niš |
| **GENERAL INFORMATION** |
| Study program  | Communal System Managemant |
| Study Module (if applicable) | / |
| Course title | Energy in residental areas |
| Level of study | ☐Bachelor ☒ Master’s ☐ Doctoral |
| Type of course | ☒ Obligatory ☐ Elective |
| Semester  |  ☒ Autumn ☐Spring |
| Year of study  | 1 |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Miomir Raos |
| Teaching mode |  ☒Lectures ☐Group tutorials ☐ Individual tutorials ☐Laboratory work ☐ Project work ☒ Seminar ☐Distance learning ☐ Blended learning ☒ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Acquiring knowledge about energy flow and energy balance in residential areas in the function of communal system management and environmental quality management. Students’ ability to analyze, predict, and select sustainable solutions for effective and efficient management of energy flows in human residential areas.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Beneficial and non‐beneficial types of residential area energy. Types of beneficial energy necessary for the functioning of residential areas. Location of energy resources in a residential area. Material and energetic balances of residential areas. Electric and thermal energy necessary for the functioning of residential areas, their transformation, exploitation, and misuse. Alternative energy sources of certain systems (communal, healthcare, military, etc.). Energy efficiency improvement. Energy distribution systems. Potential for using alternative energy sources in residential areas (solar, geothermal, and aeolian). Sustainable development of residential areas based on rational exploitation of energy. Emergency energy balance. |
| **LANGUAGE OF INSTRUCTION** |
| ☒Serbian (complete course) ☐ English (complete course) ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)☐Serbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **10** | **Written examination** |  |
| **Practical teaching** | **35** | **Oral examination** | **40** |
| **Teaching colloquia** | **15** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |