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| **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Mechanical Engineering |
| **GENERAL INFORMATION** |
| Study Program | **Engineering Management** |
| Study Module (if applicable) | **Energy Management** |
| Course Title | Modern Energy Technologies |
| Level of Study | ☐ Bachelor | ☒ Master’s | ☐ Doctoral |
| Type of Course | ☐ Obligatory | ☒ Elective |
| Semester | ☒ Autumn | ☐ Spring |
| Year of Study | I |
| Number of ECTS Allocated | 6 |
| Name of Lecturer/Lecturers | Mirjana S. Laković-Paunović, Dejan Mitrović, Živan Spasić |
| Teaching Mode | ☒ Lectures | ☐ Group tutorials | ☐ Individual tutorials |
| ☐ Laboratory work | ☒ Project work | ☒ Seminar |
| ☐ Distance learning | ☐ Blended learning | ☐ Other |
| **Purpose and Overview (max. 5 sentences)** |
| *Introduce students to the basics of energy systems, use of the modern energy technologies from the aspects of energy efficiency in the transformation, distribution and final use of energy in the energy sector, environmental, economic and social aspects of energy use.* |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** |
| *- General introduction to energy policy, - Energy transformation basics, - Renewable and non-renewable energy sources, - Modern technologies for transformation of primary energy into heat energy, - Modern technologies for transformation of primary energy into electrical energy, - Modern technologies for coupled production of electricity and heat , - Modern technologies for the transformation of hydropower, - Modern technologies for the transformation of water energy, - Modern technologies for the transformation of wind energy, - modern technologies for energy deposit toward to increase of energy efficiency and cost reduction for purchase of primary energy* |
| **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** | **5** | **Written Examination** | **-** |
| **Practical Teaching** | **5** | **Oral Examination** | **Max.60 (depending on Teaching Colloquia)** |
| **Teaching Colloquia** | **30** | **Overall Sum** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |