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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) | - | | | | | | | |
| Course Title | Energetics | | | | | | | |
| Level of Study | ☒Bachelor | | | ☐ Master’s | | | | ☐ Doctoral |
| Type of Course | ☐ Obligatory | | | ☒ Elective | | | | |
| Semester | ☐ Autumn | | | ☒ Spring | | | | |
| Year of Study | III | | | | | | | |
| Number of ECTS Allocated | 7 | | | | | | | |
| Name of Lecturer/Lecturers | Mića V. Vukić, Živojin М. Stamenković | | | | | | | |
| 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 with the most modern types of HVAC, thermal power, hydropower, pump stations and processing plants and principles of their work.* | | | | | | | | |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** | | | | | | | | |
| 1) Fuels. Combustion. 2) Conventional and renewable energy sources. 3) Real gases and steam properties and changes of state. Processes in refrigeration systems and heat pumps. 4) Heat transfer: Conduction, Convection, Radiation. 5) HVAC systems. 6) Thermal Power Plants. 7) District heating. 8) Fluid flow transport. 9) Hydro Power Plants. 10) Hydro equipment. 11) Compressors and fans. 12) Hydraulic Power Transmission**.** | | | | | | | | |
| **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** | | | **30** | | |
| **Teaching Colloquia** | | **60** | **Overall Sum** | | | **100** | | |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | | | |