|  |
| --- |
| **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** |