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| **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Mechanical Engineering |
| **GENERAL INFORMATION** |
| Study Program | **Mechanical Engineering** |
| Study Module (if applicable) | - |
| Course Title | Computational fluid dynamics |
| Level of Study | ☒Bachelor | ☐ Master’s | ☐ Doctoral |
| Type of Course | ☐ Obligatory | ☒ Elective |
| Semester | ☐ Autumn | ☒ Spring |
| Year of Study | IV |
| Number of ECTS Allocated | 6 |
| Name of Lecturer/Lecturers | Miloš Jovanović  |
| Teaching Mode | ☒ Lectures | ☐ Group tutorials | ☐ Individual tutorials |
| ☐ Laboratory work | ☒ Project work | ☐ Seminar |
| ☐ Distance learning | ☐ Blended learning | ☐ Other |
| **Purpose and Overview (max. 5 sentences)** |
| *The aim of the course is to introduce all students with equipment and hydropower plants. The course is targeting the theoretical and practical aspects of design and construction of hydropower plants.*  |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** |
| 1) Classification of hydropower plants. 2) Types of hydropower plants. 3) Classification: dam schemes, diversion scheme, combined scheme. 4) Types according to the position and construction of the powerhouse: the over ground hydropowerplants, underground hydropower plant, complex systems. 5) Energy characteristics of hydropower plants. Hydropower equipment. 6) Pumping stations. Classification of pumping stations: pumping stations for pressure boosting, pump stations for water supply, sewage pumping stations, water pumping stations for thermal power plants, irrigation pump stations, drainage pumping stations, Pumps for underground mines and surface mining. 7) equipment at pumping stations. 8) Compressor substation. |
| **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** |
| **Lecture (participation)**  | **5**  | **Written Examination** | **0\* (50)** |
| **Homework** | **5** | **Oral Examination** | **Max. 50**  |
| **Project work** | **40** | **Overall Sum** | **100** |
| **\*** **Refers to students who have already gained points by completing pre-exam requirements** |