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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | Faculty of Occupational Safety in Niš | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | Occupational Safety | | |
| Study Module (if applicable) | | | | / | | |
| Course title | | | | Techical System Maintenance | | |
| Level of study | | | | ☒ Bachelor ☐ Master’s ☐ Doctoral | | |
| Type of course | | | | ☐ Obligatory ☒ Elective | | |
| Semester | | | | ☐ Autumn ☒Spring | | |
| Year of study | | | | Third Year | | |
| Number of ECTS allocated | | | | 6 | | |
| Name of lecturer/lecturers | | | | Zarko Jankovic | | |
| Teaching mode | | | | ☒Lectures ☐Group tutorials ☐ Individual tutorials  ☐Laboratory work ☐ Project work ☐ Seminar  ☐Distance learning ☐ Blended learning ☒ Other**(**term paper) | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *Acquiring knowledge about processes of technical system maintenance in the function of equipment safety and prevention of technological process failures. Students will acquire theoretical and practical knowledge about equipment maintenance, technical system maintenance, methods of maintenance, and safety.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| General considerations of technical system maintenance. Development of maintenance. Importance, goals, and principles of technical system maintenance. Maintenance system structure. Methods and strategies of maintenance. Maintenance planning (maintenance as a function of business system). Maintenance and life‐cycle costs. Maintenance organization. Maintenance logistics. Technical system failures (classification and types of failures). Failure diagnostic methods. Indicators of maintenance suitability (factors of maintenance suitability). Analysis of maintenance suitability prediction. Maintenance as a function of safety. Maintenance system management. Maintenance strategies. Maintenance methodologies (maintenance according to reliability, total productive maintenance, maintenance according to work). Basic maintenance system concepts (corrective and preventive). Modern maintenance concepts (statebased  preventive maintenance, time‐based preventive maintenance, expert maintenance systems, total productive maintenance, self‐maintenance). Preventive maintenance costs. Maintenance quality. Maintenance system optimization. Administrative procedures of maintenance. Information systems in maintenance management.  Analysis of maintenance processes of various technical systems in companies (how they are realized in practice). | | | | | | |
| **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** | | | **10** |
| **Practical teaching** | **25** | | **Oral examination** | | | **30** |
| **Teaching colloquia** | **25** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |