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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Occupational Safety in Niš |
| **GENERAL INFORMATION** |
| Study program  | Environmental Engineering |
| Study Module (if applicable) | / |
| Course title | Technogenic risk management |
| Level of study | ☐Bachelor ☐ Master’s ☒ Doctoral |
| Type of course | ☐ Obligatory ☒ Elective |
| Semester  | ☒ Autumn ☐Spring |
| Year of study  | Second year |
| Number of ECTS allocated | 10 |
| Name of lecturer/lecturers | Ivan Krstic |
| Teaching mode | ☒Lectures ☐Group tutorials ☐ Individual tutorials☐Laboratory work ☐ Project work ☐ Seminar☐Distance learning ☐ Blended learning ☒ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Students will acquire knowledge necessary for the analysis of technological processes with regard to the minimization of waste materials and energy released; in other words, preventing degradation and environmental threats, and will be able to apply of methods, methodologies and procedures for collecting and processing data and presenting the results of the effect of technological processes on the environment.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Fundamentals of risk management in technological systems. Identification of hazards. Exposure assessment, characterization and classification of risk. Risk impact assessment in technological systems. The balancing of technological systems as an element of risk assessment (mass, energy and exergy analyses). Choice of technological processes and operations for the development of systems in accordance with the optimizing principles of material‐energy flows and environmental pollution. The development of the principles of wasteless technologies. Perception of the risk situation of environmental pollution from technological systems and creating models. Models for defining exposure to risk situations. |
| **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** | **-** | **Written examination** | **-** |
| **Practical teaching** | **100 (term paper 2\*50)** | **Oral examination** | **-** |
| **Teaching colloquia** | **-** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |