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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 | Technological Systems and Safety |
| Level of study | ☒Bachelor ☐ Master’s ☐ Doctoral |
| Type of course | ☒ Obligatory ☐ Elective |
| Semester  | ☒ Autumn ☐Spring |
| Year of study  | Second year |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Ivan Krstić |
| Teaching mode |  ☒Lectures ☐Group tutorials ☐ Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☒ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Acquiring basic knowledge about technological systems with the purpose of minimizing their occupational and environmental impact by establishing critical points in relation to minimization of waste and released energy or prevention of degradation and threats to the occupational and living environment.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Systems and technological systems. Term, properties, and classification of systems. Technology and technological systems –term. Division and structure of technological systems. Energy balance of technological systems. Mechanical operations. Thermal operations. Diffusion operations. Mass transfer – term and modes. Selection of input and output elements of technological processes relevant for occupational and environmental safety. Selection of a technological process schematic. Selection of technological equipment. Selection of raw and auxiliary materials. Selection of energy. Selection of location for the technological process. Selection of chemical reactions in production technological systems. Technological systems as environmental pollution sources. Occupational safety and health in technological systems. Fire protection in technological systems. Integrated safety system in technological systems. |
| **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** | **20** |
| **Practical teaching** | **20 (term paper)** | **Oral examination** | **20** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |