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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Occupational Safety in Niš |
| **GENERAL INFORMATION** |
| Study program  | Occupational Safety Engineering  |
| Study Module (if applicable) | / |
| Course title | Integrated Safety systems |
| 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 | Vlastimir Nikolić, Snežana Živković |
| Teaching mode |  ☒Lectures ☒Group tutorials ☒ Individual tutorials ☐Laboratory work ☒ Project work ☒ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Acquiring scientific competence, academic skills and creative abilities for integrated occupational safety problem‐solving.**An integrated safety system is a unique system that interacts or covers, partially or completely, the following systems and processes: quality system, technical systems, occupational safety systems, fire and environmental protection systems, technological processes, planning processes, risk assessment, maintenance, monitoring and verification (monitoring and audits), training, organizational learning, change management, emergency response, reporting and documentation, as well as the process of managing resources (human, intellectual, material, financial). An integrated safety system integrates the technical systems with human resources, and provides a documented risk management. Management of integrated safety system includes organizational structure, responsibilities, procedures, processes, informations and resources needed that all activities relating to the protection of people, preservation of the working and living environment and preventing capital and operating losses are efficiently and effectively carried out. Modern approach to safety systems integration means that it is not treated as an independent unit, but to be inherently included in any organizational process making an integrated safety system important for organizations in order to efficiently use safety resources.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Theoretical lessons covers topics: The concept of integrated safety system; Risk‐based system analysis of safety; Process‐based approach to integration. Basic elements of integration of planning process, quality management, risk assessment, maintenance, monitoring and verification (monitoring and audits), training, organizational learning, change management, emergency response, reporting and documentation, as well as the process of managing resources (human, intellectual, material, financial); Standards of system and software engineering and systems for risk reduction; Performance and criteria for interoperability and integration of safety systems. Modelling and simulation of systems risk in an organization; Life cycle models of an integrated safety system; Models for interactive team management of an integrated safety system; Tools for support to interactive teamwork and decision‐making.Practical lessons are carried out through activities on study research work, seminars, scientific and professional papers and projects. |
| **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** | **35** |
| **Seminar** | **10** | **Oral examination** | **30** |
| **Teaching colloquia** | **20** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |