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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 | Risk Management in Energetics |
| 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 | Ljiljana Živković, Miomir Raos |
| 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 master modern techniques of risk management in the energy sector. Training students for identification, analysis, assessment and management of risks in the energy industry, as well as their practical implementation with the aim to reduce human and material losses. The outcome of the course is training students for independent and teamwork in all stages of risk management projects in the energy industry. The ability to apply already acquired knowledge in practice and the application of feedback in the process of risk management. Proper reporting.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Theoretical basis for risk analysis in energetics. Approaches to risk analysis. Existing standards of risk analysis in the energy industry. Project management of risk analysis (risk identification, risk assessment procedures, risk control methods, risk reporting methods). Quantitative risk analysis (defining and distinguishing the concepts of probability and unpredictability, deterministic and stochastic risk assessment in energetics). Decision analysis and risk analysis. Probability and probability distributions. The central limit theorem (CLT). Bayes’ theorem. Determination of probability distributions for input parameters in risk assessment. Experiences and limitations.   |
| **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** | **30** |
| **Practical teaching** | **40** | **Oral examination** | **30** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |