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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Occupational Safety in Niš |
| **GENERAL INFORMATION** |
| Study program  | Environmental Protection |
| Study Module (if applicable) | / |
| Course title | Mathematical statistics in safety |
| Level of study | ☒Bachelor ☐ Master’s ☐ Doctoral |
| Type of course | ☒ Obligatory ☐ Elective |
| Semester  | ☐ Autumn ☒Spring |
| Year of study  | II |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Miomir Stanković |
| Teaching mode |  ☒Lectures ☒Group tutorials ☒ Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Acquisition of elementary knowledge in probability theory. Acquisition of knowledge in mathematical statistics necessary for the comprehension of specialized courses in the later years of study.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Fundamentals of probability theory (event algebra, probability, independence, total probability formula, and Bayes’ formula). Accidental variable. Multidimensional accidental variable. Independent accidental variables. Numerical properties of accidental variables. Prominent distributions of accidental variables (binomial distribution, Poisson distribution, uniform distribution, normal distribution, Student distribution, and  χ2 distribution). Elements of mathematical statistics (population, property, and distribution of property). Grouping centres and variability parameters. Sample. Plotted and interval evaluations of property parameters. Testing of statistical hypotheses. Regression and correlation. |
| **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** | **40** |
| **Practical teaching** | **20** | **Oral examination** | **-** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |