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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 | Physics |
| Level of study | ⌧ Bachelor ☐ Master’s ☐ Doctoral |
| Type of course | ⌧ Obligatory ☐ Elective |
| Semester  |  ☐ Autumn ⌧ Spring |
| Year of study  | I |
| Number of ECTS allocated | 7 |
| Name of lecturer/lecturers | Momir Praščević |
| Teaching mode |  ⌧ Lectures ☐Group tutorials ☐ Individual tutorials ⌧ Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Acquiring knowledge in physics necessary to take specialised courses in the later years of study. Students’ introduction to fundamental physical principles and laws necessary for the analysis of processes and phenomena in the fields of occupational safety and environmental protection. Learning outcomes: solve specific experimental and calculus problems in physics, connect fundamental data from various areas of classical physics and apply them, understand physical laws in order to apply them in occupational and environmental engineering.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Introduction to physics. Kinematics. Dynamics. Work, power, and energy. Rigid body dynamics. Statics. Gravity. Oscillatory and wave motion. Elasticity. Fluid statics. Fluid dynamics. Heat and temperature. Thermodynamics. Electrostatics. Electric current in solids, liquids, and gases. Magnetic field in a vacuum. Magnetic properties of matter. Electromagnetic induction. Optics. Geometric optics. Optical instruments.Laboratory work is in keeping with the areas covered in theoretical lessons, whereby students are trained in basic measuring, calculations, and analyses of obtained experimental results. Calculus exercises also follow theoretical lessons and thus contribute to a better understanding of the material and complement the acquired knowledge. |
| **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** | **10** | **Oral examination** | **20** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |