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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 | Environmental Noise |
| Level of study | ⌧ Bachelor ☐ Master’s ☐ Doctoral |
| Type of course | ⌧ Obligatory ☐ Elective |
| Semester  | ☐ Autumn ⌧ Spring |
| Year of study  | IV |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Momir Praščević, Dragan Cvetković |
| Teaching mode |  ⌧ Lectures ☐Group tutorials ☐ Individual tutorials ⌧ Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Acquiring theoretical knowledge in the field of acoustic oscillations. Enabling students to identify the phenomenon of environmental noise, identify and describe environmental noise sources, and to evaluate noise and apply the acquired knowledge to the field of environmental engineering. Learning outcomes: understand physical laws of sound wave generation and propagation, calculate indoor and outdoor noise levels, calculate energy physiological quantities, measure, analyze, and asses noise level conditions; and implement current standards and regulations.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Theoretical lessons.** Wave equation. Wave types. Sound field types. Basic noise types. Division according to time and frequency of noise. Basic terminology and physical quantities for noise description. Outdoor noise generation and propagation. Point sources of noise. Sound pressure, intensity, and strength. Term, addition, and subtraction of noise levels. Subjective evaluation of noise strength. Energy physiological quantities. Indoor noise generation and propagation. Noise level in a diffuse sound field. Reverberation time. Noise level in spaces with high absorption coefficient. Sound isolation. Environmental noise sources – basic characteristics. Mechanisms of hearing organs and sound perception. Effects of noise on humans. Noise measurement. Measuring chain and basic measuring parameters. Selection of measuring points. Noise indicators. Allowed values. Noise assessment. Standards and regulations.**Practical lessons.** Calculus problems in noise and vibration. Measurement in the field provides students with practical skills for basic measurement, calculations, and analyses of obtained experimental results. |
| **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** |