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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 | | | | Air Quality Monitoring and Management | | |
| 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 | | | | Nenad Živković, Amelija Djordjević | | |
| Teaching mode | | | | ☒ Lectures ☐Group tutorials ☐ Individual tutorials  ☐Laboratory work ☐ Project work ☐ Seminar  ☐Distance learning ☐ Blended learning ☐ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *Studying modern methods for the assessment of air quality, strategies of ambient air pollutant monitoring and principles of air quality management based on monitoring.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| Monitoring and management: The term and the indicators of air quality. Monitoring and measuring air quality indicators. Air quality assessment methods. Monitoring system planning: The role of monitoring. Monitoring objectives. Functions. Air quality assurance and air quality control. Air monitoring network plans.  Monitoring strategies of certain pollutants: carbon monoxide, ozone, nitrogen dioxide, suspended particulate matter (PM10, PM2,5, PM1, benzene, polycyclic aromatic hydrocarbons, lead, atmospheric cadmium). Monitoring systems: Elements and functions of the system. Types of monitoring systems (centralized and distributed). Monitoring levels (organizational, local, national, international). Critical analysis of the existing monitoring systems. Software for air quality monitoring. Quality modeling and decision‐making: Air quality and pollution sources ‐ from assessment to management. Ambient air quality modelling. Atmospheric dispersion pollution. Receptor‐based models. Statistical models. Personal exposure models. Decision based on air quality indicator monitoring. Decision support software. | | | | | | |
| **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** | | | **60** |
| **Practical teaching** |  | | **Oral examination** | | | **40** |
| **Seminary work** |  | |  | | |  |
| **Teaching colloquia** |  | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |