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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Occupational Safety in Niš |
| **GENERAL INFORMATION** |
| Study program  | Communal System Managemant |
| Study Module (if applicable) | / |
| Course title | **Air Quality Management** |
| Level of study |  ☐ Bachelor  ☒ Master’s ☐ Doctoral |
| Type of course |  ☐ Obligatory ☒ Elective |
| Semester  |  ☐ Autumn ☒ Spring |
| Year of study  | **I** |
| Number of ECTS allocated | **4** |
| Name of lecturer/lecturers | **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)** |
| *Establishment of inter‐developmental, interspatial, and intertemporal connection between air pollution and its risk to the environment and the health of the exposed population in order to validly monitor and evaluate air quality.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| *Theoretical lessons.* Atmospheric states and processes – Composition and structure of the atmosphere, Air circulation, Circulation of natural air components; Air pollution sources – Anthropogenic and natural phenomena affecting the composition and natural processes in the atmosphere; Homogeneous and heterogeneous processes in the atmosphere, Chemical reactions of standard atmospheric pollutants; Local and global effects of tmospheric pollution; Toxic effect of atmospheric pollutants – Air pollution effects on humans, animals, and plants; nteractions between pollution sources, pollutants, and their environmental impact; Goals of air quality monitoring – Pollutant emission, Creation of an emissions registry; Procedures of ambient air pollutant concentration control, Planning of air quality monitoring network; Risk analysis for ambient air pollution; Legal framework – Applied methodologies in air quality assessment, Air quality assessment in EU countries (EU regulations), Local standards for air quality assessment in certain European countries, Air quality assessment by the U.S. EPA, NAAQO, and Russia, WHO guidelines for air quality, National standard for air quality monitoring. *Practical lessons.* Risk analysis for ambient air pollution – Application of mathematical models for air pollution risk assessment. Emission control procedures – Planning of air quality monitoring network. Procedures and methods for establishing air pollutant concentration levels in ambient air – Selection of pollutants to be included in the program of urban air quality monitoring. Selection of areas in which to measure concentrations. Standard methods of ambient air ampling in order to analyze concentrations. Determination of frequency and duration of monitoring pollutant concentrations in urban ambient air. Devisal of action plans. |
| **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** |