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| **Study program:** Doctoral academic studies **-** Chemistry |
| **Course title:** Monitoring of polluting substances (H342C) |
| **Name of lecturer/lecturers:** Tatjana D. Anđelković  |
| **Type of course:** elective |
| **Number of ECTS allocated:** 10 |
| **Course objectives** Introducing students to the elements of environmental monitoring, water, air and soil quality in accordance with requirements, regulations, and in accordance with good laboratory practice and quality control. Introducing students with the development of a sampling strategy and sample preparation. |
| **Course outcomes** The student uses standard environmental quality control procedures, determines the quality of the environment and uses different types of monitoring. |
| **SYLLABUS***Lectures*Sampling as part of environmental monitoring (characteristics of the environment, sampling locations, samples types, sampling strategy, quality control, measurement units, data report). Statistics and geostatistics in environmental monitoring. Automatic data acquisition. Soil sampling. Groundwater sampling (location and monitoring of wells). Surface water monitoring (parameters water quality, water sampling equipment). Air monitoring (emission standards, air quality, direct quality measurement, air sampling).  |
| **References**1. J. Artiola, L. Pepper, M. Brusseau, Environmental Monitoring and Characterization, Elsevier, 2004.2. E. P. Popek, Sampling & Analysis of Environmental Chemical Pollutants. A Complete Guide, Academic Press, 20033. Serija elektronskih nastavnih materijala razvijenih u okviru ERASMUS+ NETCHEM projekta (<http://mdl.netchem.ac.rs/course/view.php?id=11>). |
| **Active teaching classes** | **Lectures:** 105 | **Laboratory work:** / |
| **Teaching mode:** interactive lectures, seminar, consultations |
| **ASSESSMENT METHODS AND CRITERIA (Max 100 points)** |
| seminar - 20 points; project presentation - solving the given problem - 30 points; oral exam - 50 points |