

<b>Study Programme: Environmental Engineering And Occupational Safety Engineering</b>			
<b>Course Unit Title: Analysis and Assessment of Air Quality</b>			
<b>Course Unit Code: Z482</b>			
<b>Name of Lecturer(s): Radonić Jelena, Turk-Sekulić Maja</b>			
<b>Type and Level of Studies: bachelor</b>			
<b>Course Status (compulsory/elective): elective</b>			
<b>Semester (winter/ summer): summer</b>			
<b>Language of instruction: english</b>			
<b>Mode of course unit delivery (face-to-face/distance learning): face-to-face</b>			
<b>Number of ECTS Allocated: 6</b>			
<b>Prerequisites: none</b>			
<b>Course Aims:</b>			
-To introduce the methods of air sampling, to the students;			
-To develop knowledge about qualitative and quantitative analysis of pollutants in ambient air;			
-To introduce the contemporary methods for identifying sources of emission and population health risk assessment, to the students.			
<b>Learning Outcomes:</b>			
After completing the course and passing the exam, the student will be able to:			
- Use the methods of air sampling;			
- Perform qualitative and quantitative analysis of pollutants in ambient air;			
- Identify sources of emission of pollutants in ambient air;			
- Assess population health risk.			
<b>Syllabus.</b>			
Active air sampling - equipment, modules and preparation of modules for sampling, sampling procedures. Evaluation of the results of analysis and calculation of air pollutants concentration.			
Passive air sampling - a theory of passive sampling, modules and module preparation for sampling, the use of different design passive samplers for monitoring of organic pollutants in the air. Indoor air sampling methods. The sampling of the suspended particles and precipitate, volatile organic compounds, inorganic oxides and formaldehyde. Preparation of samples for analysis. Instrumental methods of analysis. Methods of identification of emission sources. Assessment of risk of exposure to high concentrations of air pollutants. Control of emissions of pollutants into the atmosphere.			
<b>Required Reading:</b>			
Relevant literature in English, tbd			
<b>Weekly Contact Hours: 2</b>	<b>Lectures: 3</b>	<b>Practical work: 0</b>	
<b>Teaching Methods:</b>			
Lectures. Laboratory and calculation exercises. Consultations - individual and collective. During the semester, students are obliged to attend lectures and exercises, to pass colloquiums in a number of experimental exercises. After successfully realized examination prerequisites, students take the final exam.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Attendance			
Computer exercises			
Tests (4x)			

