

Table 5.2 Course specification

Type and level of studies: Bachelor			
Course name: Air protection			
Course status: obligatory			
Number of ECTS credits: 8			
Requirement: none			
Course aim			
Introducing students to the characteristics of the atmosphere and pollutants. Introduction to the control of air quality and process waste gases.			
Course outcome. To obtain the necessary knowledge on the composition and characteristics of the atmosphere, as well as on major pollutants and sources of air pollution, methods of determining and controlling emissions. Training for organizing the control of pollutant emissions in practice and the protection of air.			
Course content			
<p><i>Theory.</i> The study of the composition and properties of the atmosphere, as well as the major air pollutants. Defining natural and anthropogenic (stationary and mobile) sources of air pollution, the basic processes in the atmosphere, the sources and consequences of the presence of ozone in the troposphere, the sources and characteristics of aerosols. Analysis of macro-effects of air pollution. Management of particulate matter and emission of gaseous pollutants. The study of the management and control of emissions of pollutants. Legal regulations of air protection.</p> <p><i>Practical classes:</i> Qualitative and quantitative characterization of the most important pollutants emitted into the atmosphere using conventional (volumetry and gravimetry) and modern analytical instrumental methods (UV spectrophotometry, gas chromatography and atomic absorption spectrophotometry). Interpretation of results. Environmental Air Quality Analysis. Computational exercises related to the relevant area.</p>			
Literature			
<ol style="list-style-type: none"> 1. J. Agbaba: Predavanja iz predmeta - Zaštita vazduha, PMF, Novi Sad, 2016 - dostupna preko Moodle servisa Prirodno-matematičkog fakulteta u Novom Sadu.. 2. J. Đuković, V. Bojanić: Aerozagađenje, D.P. Institut zaštite i ekologije, Banja Luka, 2000. 3. Š. Đarmati: Zagađenje vazduha, Viša politehnička škola, Beograd, 2005. 4. J. Đuković: Hemija atmosfere, Rudarski institut, Beograd, 2001. <p><i>Additional literature</i></p> <ol style="list-style-type: none"> 1. D. Veselinović, I. Gržetić, Š. Đarmati, D. Marković: Stanja i procesi u životnoj sredini, Fakultet za fizičku hemiju, Beograd, 1995. 2. V. Rekalić: Analiza zagađivača vazduha i vode, Tehnološko-metalurški fakultet, Beograd, 1989. 3. J.D. Jacobs: Introduction to atmospheric chemistry. Princeton University Press, 1999. 4. R.E. Altwicker i saradnici: 5 poglavlje: Air pollution. CRC Press LLC, 1999. 5. J.H. Seinfeld, S.N. Pandis: Atmospheric Chemistry and Physics – From Air Pollution to Climate Change, John Wiley & Sons, Inc., 1998. 6. P.V. Hobbs: Introduction to Atmospheric Chemistry, Cambridge University Press, 2000. 			
Number of classes of active teaching 6 (90)			Other classes
Lectures: 3 (45)	Practice: 3 (45)	OFT:	
SRW:			
Teaching methods. Lectures, laboratory exercises, AV exercises and consultations.			
Assessment of knowledge (maximum of 100 points)			
Pre-exam obligations	Points	Final exam	points
activity during lecture classes	10	written exam	30
practical teaching	20	oral exam	20
Colloquia (1 colloquium)	20		