

Table 5.2 Course specification

Type and level of studies: Bachelor			
Course name:			
Course status: obligatory			
Number of ECTS credits: 9			
Requirement: none			
Course aim			
The course is designed to develop the student's understanding of environmental quality parameters and analytical methods used most frequently in environmental quality assessment. It acquaints students with guidelines of good laboratory practice.			
Course outcome			
By the end of the course students will be able to			
<ul style="list-style-type: none"> • Choose appropriate analytical method for environmental quality control • Apply chromatographic and spectrometric analytical methods for analysis of environmental samples in line with principles of good laboratory practice. • Recognize and analyse analytical errors • Use computer in data analysis and reporting 			
Course content			
<i>Theory-</i> Environmental quality assessment- influencing factors, parameters. Samples (air, water, soil, biota). Sample storage, conservation and preparation. Application of spectroscopic methods. Application of chromatographic methods. Coupled techniques. Analytical method characteristics. Analytical errors. Overview of use of analytical methods for analysis of inorganic and organic parameters.			
<i>Practical classes</i> - Sample preparation. Spectroscopy. Chromatography. Basic calculations and data analysis.			
Literature			
<ol style="list-style-type: none"> 1. B. Dalmacija: Kontrola kvaliteta voda, Prirodno-matematički fakultet, Departman za hemiju, 2001. 2. B. Dalmacija i I. Ivančev-Tumbas: Analiza vode - kontrola kvaliteta, tumačenje rezultata, Prirodno-matematički fakultet, Departman za hemiju, 2004, str. 248-277. 3. B. Dalmacija: Kontrola kvaliteta vode u okviru upravljanja kvalitetom, Univerzitet u Novom Sadu, Prirodno-matematički fakultet, Depratman za hemiju, 2000. 4. M. Kaštelan-Macan (2003) Kemijska analiza u sustavu kvalitete, Školska knjiga Zagreb 5. Skoog, D.A., West D.M., Holler F.J. Osnove analitičke kemije, Školska knjiga Zagreb, 1999, selected chaters 6. J. Đuković, V. Bojanić: Aerozagađenje, D.P. Institut zaštite i ekologije, Banja Luka, 2000. 7. P. Sekulić, R. Kastori, V. Hadžić: Zaštita zemljišta od degradacije, Naučni institut za ratarstvo i povrtarstvo, Novi Sad, 2003. 8. Š. Đarmati: Zagađenje vazduha, Viša politehnička škola, Beograd, 2005. 			
Internal material from lectures and escercises			
Number of classes of active teaching			Other classes
Lectures: 3 (45)	Practice: 2 (30)	OFT: 3 (45)	
Teaching methods			
Lectures, practice, colloquia			
Assessment of knowledge (maximum of 100 points)			
Pre-exam obligations	Points	Final exam	points
activity during lecture classes	5	written exam	50
practical teaching	30		
colloquia	15	