

**Table 5.2** Course specification

Type and level of studies: Bachelor			
<b>Course name:</b> Chromatography in environmental analysis			
Course status: Elective			
Number of ECTS credits: 6			
Requirement: None			
<b>Course aim</b>			
Introducing students to chromatographic methods and their application in environmental analysis.			
<b>Course outcome</b>			
Training students to independently apply chromatographic techniques in the analysis of the environment, starting from sample preparation to providing reports on the performed chromatographic analysis.			
<b>Course content</b>			
<i>Theory</i>			
Fundamentals of chromatographic analysis. Preservation of environmental samples and preparation techniques for chromatographic analysis. Basics of gas chromatography. Detectors in gas chromatography. Basics of liquid chromatography. Detectors in liquid chromatography. Application of chromatographic techniques in qualitative and quantitative analysis of the environment.			
<i>Practice:</i>			
Different sample preparation techniques for chromatographic analysis of environmental samples. Chromatographic analysis - optimization of chromatographic conditions, analysis, data acquisition using software. Standard addition methods. Internal standard methods. Quality control in chromatographic analysis and good laboratory practice.			
<b>Literature</b>			
1. J. Molnar Jazić, A. Tubić: Material from lectures in electronic form (e-learning support service – Moodle, PMF, Novi Sad).			
2. B. Dalmacija, I. Ivančev-Tumbas: Analiza vode - kontrola kvaliteta, tumačenje rezultata, Prirodno-matematički fakultet, Departman za hemiju, 2004, str. 248-277. (In Serbian language)			
3. B. Dalmacija: Kontrola kvaliteta voda, Prirodno-matematički fakultet, Departman za hemiju, 2001. (In Serbian language)			
4. B. Dalmacija: Kontrola kvaliteta vode u okviru upravljanja kvalitetom, Univerzitet u Novom Sadu, Prirodno-matematički fakultet, Depratman za hemiju, 2000. (In Serbian language)			
5. M. Kaštelan-Macan: Kemijska analiza u sustavu kvalitete, Školska knjiga Zagreb, 2003. (In Serbian language)			
6. S.M. Milosavljević: Strukturne instrumentalne metode, Hemijski fakultet Beograd, 1994. Additional literature (In Serbian language)			
<i>Additional literature</i>			
1. Relevant scientific papers in the field.			
2. Application notes-Agilent Technologies.			
<b>Number of classes of active teaching:</b> 6(90)			Other classes
Lectures: 3 (45)	Practice:	OFT: 3(45)	SRW:
<b>Teaching methods</b>			
Lectures, laboratory work and seminar			
<b>Assessment of knowledge (maximum of 100 points)</b>			
<b>Pre-exam obligations</b>	<b>Points</b>	<b>Final exam</b>	<b>points</b>
activity during lecture classes	5	written exam	30
practical teaching	35	oral exam	20
colloquia	10		