



Course ID: HAH411	Course name: CHEMICAL AND GEOCHEMICAL ANALYSIS OF SOIL		
Cycle: FIRST	Year: FOURTH	Semester: VII	ECTS credits: 3
Course status: ELECTIVE		Total course hours: 60 Lectures: 30 Laboratory: 30	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-		
Course aims:	Acquiring knowledge of soil and analytical skills for soil analysis.		
Thematic course units:	<ul style="list-style-type: none">- Introduction, general terms- Main substrate and pedogenesis- Soil as a three-phase system (states of matter)- Inorganic and organic components of the soil- Reactions in the soil, the interaction: soil – water – air- Physical properties of soil- Chemical properties of the soil- Soil sampling, preparation of soil samples for analysis- Acidity of soil- Fertility of soils, macro and micro nutrition elements in the soil- Humus, soil adsorption complex- Physiologically active forms of nitrogen, phosphorus and potassium- Geochemical parameters, metals mobility through the soil profile- Contamination of soil- Legislation, standards of soil quality, systematic of soil		
Learning outcomes:	Acquired knowledge of soil and analytical skills for soil analysis.		
Teaching methodology:	Theoretical and practical teaching		

Assessment methods and grading system¹:	Grading criteria		
	Criteria	Maximal score	Required score
	1. Class attendance	5	3
	2. Class activities	15	8
	3. Midterm	40	22
	4. Final exam	40	22
	Total	100	55
	Scores and grading		
	Score	Grade (B&H)	Grade (ECTS)
	< 55	5	F, FX
	55–64	6	E
	65–74	7	D
75–84	8	C	
85–94	9	B	
95–100	10	A	
Literature²:	<p>Mandatory literature:</p> <ol style="list-style-type: none"> 1. T. Muhić-Šarac, J. Huremović, Hemija i kvalitet tla, PMF, Sarajevo, 2015. <p>Supplementary literature:</p> <ol style="list-style-type: none"> 1. Husnija Resulović, Hamdija Čustović, Pedologija, Univerzitet u Sarajevu, 2002. 2. M. Jakovljević, M. Pantović, Hemija zemljišta i vode, Naučna knjiga, Beograd, 1991. 3. Robin Gill, Modern analytical geochemistry, LOGMAN, Singapore, 1997. 4. Jelena Savić, Momir Savić, Osnovi analitičke hemije, Klasične metode, Svjetlost, Sarajevo, 1989. 5. Silikatna analiza, Interna skripta, PMF, Sarajevo. 		

¹The grading structure for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught as per Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton

²The Senate of the higher education institution, as an institution, or the Council of the organizational unit of the higher education institution, as a public institution, determines by a special decision, which is published on its website before the beginning of the academic year obligatory, mandatory and recommended textbooks and manuals, as well as other recommended literature based on which exams are prepared and taken as per Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton