

<b>Course ID:</b> HAH476	Cour	Irse name: CHEMISTRY AND QUALITY OF SOIL				
Cycle: FIRST	Year	: FOURTH	Semester: VII	ECTS credits: 5		
Course status: ELECTIVE			<b>Total course hours:</b> Lectures: 30 Laboratory: 45	75		
Teaching participants:		Teachers and associates with expertise in the field to which the subject belongs <sup>[do not enter names in this section. Leave the</sup> wording as indicated in this section]				
Prerequisite for enrollment:		-				
Course aims:		Acquiring b processes, th impact on s analysis	asic knowledge abou ne appearance of heavy soil quality, as well as	it soil composition, soil metals in the soil, and the s laboratory skills in soil		
Thematic course u	nits:	<ul> <li>analysis</li> <li>1. Introduction, general terms; texture - mechanical composition of soil and soil structure</li> <li>2. Soil as a heterogeneous, three-phase system</li> <li>3. Inorganic components of soil; organic components of soil</li> <li>4. Processes in soil</li> <li>5. Physical properties of soil</li> <li>6. Chemical properties of soil</li> <li>7. Soil adsorption complex</li> <li>8. Mobility of metals in soil profiles</li> <li>9. Knowledge test</li> <li>10. Soil sampling, preparation of soil for analysis</li> <li>11. Soil acidity</li> <li>12. Soil fertility, macro and micro nutrition elements in soil</li> <li>13. Physiologically active forms of nitrogen, phosphorus, and potassium</li> <li>14. Treatment of polluted soils</li> <li>15. National legislation</li> </ul>				
Learning outcomes	:	The student will be able to: - explain soil composition and soil processes, - state the parameters that define soil quality, - explain the mobility and accessibility of heavy metals in soil, - assess soil quality based on experimentally determined				

## Form SP2

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	values of individual soil quality parameters.				
Teaching methodology:	Lectures (oral presentation of teachers - presentations) and laboratory exercises (practical work)				
Assessment methods and grading system <sup>1</sup> :	Criteria         1. Class attendance         2. Class activities*         3. Midterms         4. Final exam         Total         *Class activity is sccored throug         Score  <	Grading criteria Maximal score 5 15 40 40 100 gh the engagement of stud res and grading Grade (B&H) 5 6 7	Required score 3 8 22 22 55 lents in exercises Grade (ECTS) F, FX E D		
	<u>75-84</u> <u>85-94</u> 95-100	8 9 10	<u>С</u> В А		
Literature <sup>2</sup> :	<ul> <li>Mandatory literature: <ol> <li>T. Muhić-Šarac, J. Huremović, Hemija i kvalitet tla, PMF, Sarajevo, 2015.</li> </ol> </li> <li>Supplementary literature: <ol> <li>Kabata-Pendias A. Trace Elements in Soils and Plants. Boca Raton, London, New York, Washington, DC: CRC Press LLC; 2011.</li> <li>Sposito G. The Chemistry of Soils. Oxford University press; 2008.</li> <li>Resulović H., Čustović H. Pedologija: opšti dio. Sarajevo: Poljoprivredno-prehrambeni fakultet; 2002.</li> <li>Jakovljević M., Pantović M. Hemija zemljišta i vode. Pagarad. Naučna knjiga: 1001</li> </ol> </li> </ul>				

<sup>&</sup>lt;sup>1</sup> The 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

 $<sup>^2</sup>$  The 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