



Course ID: HDAH24	Course name: SELECTED CHAPTERS OF ANALYTICAL CHEMISTRY											
Cycle: THIRD	Year: FIRST	Semester: II	ECTS credits: 15									
Course status: ELECTIVE		Total course hours: 90 Lectures: 45 Seminars: 45										
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs [do not enter names in this section. Leave the wording as indicated in this section]											
Prerequisite for enrollment:	- Basic Chemistry courses											
Course aims:	Introduction to the latest achievements in Analytical Chemistry											
Thematic course units:	Methods of induced coupled plasma (ICP) and ion chromatography (IC) will be individually elaborated through the following course units: Basic principles of analytical signal generation. Factors affecting the analytical signal. Grouping techniques according to the significant factors on which signal generation is based. Comparative advantages over related techniques. Instrumentation: sample preparation and introduction, excitation and separation system, interferences, focusing, sensitivity, detection. Coupled systems. Application to the analysis of complex materials.											
Learning outcomes:												
Teaching methodology:	Lectures, writing and presentation of seminar papers.											
Assessment methods and grading system¹:	<table border="1"><thead><tr><th colspan="3">Grading criteria</th></tr><tr><th>Criteria</th><th>Maximal score</th><th>Required score</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr></tbody></table>			Grading criteria			Criteria	Maximal score	Required score			
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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

	1. Seminar I	35	19
	2. Seminar II	35	19
	3. Final exam	30	17
	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. Daniel C. Harris, Quantitative Chemical Analysis, 1999, W.H. Freeman and Company, New York 2. Claudia Eith, Maximilian Kolb, Andreas Seubert, Kai Henning Viehweger, Practical Ion Chromatography, 2001-02, Methrom Ltd, Switzeland 3. Yan Luo, Elemental Analysis by High Resolution ICP-MS, 2007, Material Research Institute 4. Publicirani radovi o primjeni i inoviranju studiranih metoda <p>Supplementary literature:</p> <ol style="list-style-type: none"> 1.Skoog, Douglas A., Holler, F. James, Crouch, Stanley R. Herausgeber: Niessner, Reinhard (Hrsg.) Instrumentelle Analytik, 2013, Springer-Verlag Berlin Heidelberg 3.R.Kellner, J.M. Mermet, M. Otto, H.M. Widmer, Analytical Chemistry, 1997, Wiley-VCh, New York 4.Scientific journals from the area of Analytical Chemistry 		

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