



Course ID: HAH232	Course name: ANALYTICAL CHEMISTRY II		
Cycle: FIRST	Year: SECOND	Semester: III	ECTS credits: 6
Course status: MANDATORY		Total course hours: 105 Lectures: 30 Laboratory: 75	
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:	-		
Course aims:	Acquisition of basic knowledge and laboratory skills from the field of quantitative analytical chemistry – gravimetric analysis		
Thematic course units:	<ol style="list-style-type: none">1. Quantitative chemical analysis - General2. Errors in quantitative chemical analysis3. Standard deviation, calculations4. Confidence Interval, Q-, F-, and T-tests, calculations5. Sampling and sample preparation, type of sample6. Analytical balances, principles of weighing, weighing by difference7. Result errors, Significant figures8. Moisture content in a sample, influence of humidity and temperature9. Sample dissolution and digestion10. Knowledge Test11. Precipitation gravimetry12. Colloidal and crystalline precipitates, precipitation from homogeneous solution13. Coprecipitation14. Separation by precipitation15. Gravimetric analysis calculations		
Learning outcomes:	The student will be able to: <ul style="list-style-type: none">- define and explain the principles of gravimetric analysis in analytical chemistry,- calculate basic statistical parameters (mean, median, mode, standard deviation) and tests (t-test and F test),- perform gravimetric analysis		

Teaching methodology:	Lectures (oral presentation of teachers - presentations) and laboratory exercises (practical work)																																													
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>1. Class attendance</td> <td>5</td> <td>3</td> </tr> <tr> <td>2. Class activities *</td> <td>15</td> <td>8</td> </tr> <tr> <td>3. Midterms</td> <td>40</td> <td>22</td> </tr> <tr> <td>4. Final exam</td> <td>40</td> <td>22</td> </tr> <tr> <td>Total</td> <td>100</td> <td>55</td> </tr> </tbody> </table> <p>* Class activity is scored through the engagement of students in exercises.</p> <table border="1"> <thead> <tr> <th colspan="3">Scores and grading</th> </tr> <tr> <th>Score</th> <th>Grade (B&H)</th> <th>Grade (ECTS)</th> </tr> </thead> <tbody> <tr> <td>< 55</td> <td>5</td> <td>F, FX</td> </tr> <tr> <td>55-64</td> <td>6</td> <td>E</td> </tr> <tr> <td>65-74</td> <td>7</td> <td>D</td> </tr> <tr> <td>75-84</td> <td>8</td> <td>C</td> </tr> <tr> <td>85-94</td> <td>9</td> <td>B</td> </tr> <tr> <td>95-100</td> <td>10</td> <td>A</td> </tr> </tbody> </table>	Grading criteria			Criteria	Maximal score	Required score	1. Class attendance	5	3	2. Class activities *	15	8	3. Midterms	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
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Literature²:	<p>Mandatory literature:</p> <ol style="list-style-type: none"> J. Savić - M. Savić, (1989), Osnovi analitičke hemije, Klasične metode, Svjetlost, Sarajevo <p>Supplementary literature:</p> <ol style="list-style-type: none"> D.A. Skoog, D.M. West, F.J. Holler, (1999), Osnovi analitičke kemije, šesto izdanje (englesko), prvo izdanje (hrvatsko), Školska knjiga, Zagreb; D. Harvey, (2000), Modern Analytical Chemistry, De Pauw University, McGRAW-HILL HIGHER EDUCATION; Praktikum iz Analitičke hemije II -osnovi gravimetrijske analize, Interna skripta 																																													

¹ 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

² 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