



Course ID: HOB125	Course name: FUNDAMENTALS OF ORGANIC CHEMISTRY		
Cycle: FIRST	Year: FIRST	Semester: II	ECTS credits: 6
Course status: MANDATORY		Total course hours: 90 Lectures: 45 Laboratory: 45	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-		
Course aims:	Training students to understand and acquire the basic knowledge of major functional groups in organic chemistry in the framework of the classical approach to the classification of organic compounds, as well as the introduction to the basic elements of important biomolecules, products of primary metabolism.		
Thematic course units:	<ol style="list-style-type: none">1. Structure and bonding in organic compounds.2. Methods for separation and purification of organic compounds.3. Qualitative elemental analysis of the organic compound.4. Types of organic reactions.5. The most important functional groups in organic compounds.6. Naming organic compounds.7. Hydrocarbons: alkanes, alkenes, alkynes.8. Aromatic hydrocarbons.9. Halogenated organic compounds: haloalkanes and halobenzenes.10. Alcohols. Thiols. Phenols. Ethers. Thioethers.11. Aldehydes and ketones12. Carboxylic acids and their derivatives (chlorides, anhydrides, esters and amides).13. Organic compounds with nitrogen: aliphatic and aromatic amines.14. Heterocycles.15. Alkaloids.16. Primary metabolites (carbohydrates, lipids, proteins, nucleic acids)		
Learning outcomes:	Knowledge: Acquisition of basic knowledge about the reactions of organic compounds that are considered systematically according to the type of compounds, with reference to biologically important representatives in each class of compounds. Skills: Students will be able to design and perform basic		

	<p>experiments in the practicum of organic chemistry, as well as accurately record and analyze the results of such experiments.</p> <p>Competences: Demonstrate a basic understanding of the principles of organic chemistry for effective problem solving in everyday life and in science using acquired skills.</p>																																													
Teaching methodology:	Auditory lectures, laboratory exercises																																													
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>10</td> <td>5</td> </tr> <tr> <td>3. Midterms</td> <td>45</td> <td>25</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> <tr> <th colspan="3">Scores and grading</th> </tr> <tr> <th>Score</th> <th>Grade (B&H)</th> <th>Grade (ECTS)</th> </tr> <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	10	5	3. Midterms	45	25	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"> Vollhardt, K.P.C., Schore, N.E. (2004) <i>ORGANSKA HEMIJA: struktura i funkcija</i>, IV izdanje, Data status, Beograd Maksimović, M., Čavar, S., Vidic, D. (2009) <i>PRAKTIKUM IZ OSNOVA ORGANSKE HEMIJE</i>, PMF, Sarajevo, 2009. <p>Supplementary literature:</p> <ol style="list-style-type: none"> Pine, S.H., Hendrickson, J.B., Cram, D.J., Hammond, G.S. (2004) <i>ORGANSKA KEMIJA</i>, Školska knjiga – Zagreb. Maksimović, M., Čopra-Janićijević, A., Vidic, D., Topčagić, A., Klepo, L., Dizdar, M., Čulum D. (2019) <i>OSNOVE ORGANSKE HEMIJE – Zbirka zadataka</i>, PMF, Sarajevo. Maksimović, M. (2003) <i>KARBOHIDROGENI - Zadaci i rješenja iz organske hemije</i>, PMF, Sarajevo. 																																													

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