



<b>Course ID:</b> HDOB32	<b>Course name: OXIDATIVE TRANSFORMATIONS OF POLYPHENOL COMPOUNDS</b>		
<b>Cycle: THIRD</b>	<b>Year: FIRST</b>	<b>Semester: II</b>	<b>ECTS credits: 15</b>
<b>Course status: ELECTIVE</b>	<b>Total course hours:</b> Lectures: Laboratory:		
<b>Teaching participants:</b>	<b>Teachers and associates with expertise in the field to which the subject belongs</b>		
<b>Prerequisite for enrollment:</b>	-		
<b>Course aims:</b>	Introducing students to the characterization, properties and mechanisms of oxidation reactions of natural polyphenolic compounds		
<b>Thematic course units:</b>	<ol style="list-style-type: none"><li>1. Oxidation reagents</li><li>2. Reactive oxygen species</li><li>3. Preparative oxidation methods</li><li>4. Oxidations in natural systems, enzymatic oxidation reactions</li><li>5. Oxidation of polyphenolic compounds</li><li>6. Polyphenolic compounds as antioxidants, reaction mechanisms</li><li>7. Antioxidant and prooxidative properties of polyphenolic compounds</li></ol>		
<b>Learning outcomes:</b>			
<b>Teaching methodology:</b>			
<b>Assessment methods and grading system<sup>1</sup>:</b>	<b>Grading criteria</b>		
	Criteria	Maximal score	Required score
	1. Class attendance		
	2. Class activities		
	3. Seminars	1 × 50	25
	4. Final exam	50	30
	Total	100	55
<b>Scores and grading</b>			
Score	Grade	Grade	

<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

	(B&H)	(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

  

<b>Literature<sup>2</sup>:</b>	<p>Mandatory literature:</p> <ol style="list-style-type: none"> <li>1. N. Smirnoff (2005) Antioxidants and Reactive Oxygen Species in Plants, Blackwell Publishing.</li> <li>2. M. Hudlicky (1990) Oxidations in Organic Chemistry, ACS.</li> <li>3. E. T. Denisov, I. B. Afanas'ev (2005) Oxidation and Antioxidants in Organic Chemistry and Biology, CRC Press.</li> <li>4. Scientific journals that follow the issue oxidative transformations of natural polyphenols (Free Radical Biology and Medicine, Journal of Medicinal Chemistry, Journal of American Chemical Society, International Journal of Chemical Kinetics, Journal of Organic Chemistry, Chemical Reviews, Food Chemistry, itd.).</li> </ol> <p>Supplementary literature:</p> <ol style="list-style-type: none"> <li>1.</li> </ol>
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<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