



Course ID: HDOB23	Course name: SELECTED BIOANALYTICAL METHODS		
Cycle: THIRD	Year: FIRST	Semester: II	ECTS credits: 15
Course status: ELECTIVE		Total course hours: 90 Lectures: 45 Laboratory: 45	
Teaching participants:	Teachers and associates with expertise in the field of bioanalytical chemistry		
Prerequisite for enrollment:	-		
Course aims:	Familiarize the students with modern bioanalytical techniques of quantification of simple biomolecules and complex macromolecules (proteins, lipoproteins, DNA, RNA).		
Thematic course units:	Optical tests for determination of catalytic concentration of the enzymes. Application of fluorimetry in biochemical analyses. Application of luminometry in biochemical analyses. Luminiscent immunochemistry. Application of chromatography methods (HPLC-ED, HPLC-UV/VIS, HPLC-Fl). Bioanalytical chemistry of signal substances, neurotransmitters and neuromodulators. Methods for isolation of DNA and RNA.		
Teaching methodology:	Classroom lectures and laboratory exercises.		
Assessment methods and grading system¹:	Grading criteria		
	Criteria	Maximal score	Required score
	1. Class attendance		
	2. Class activities		
	3. Seminars	20	11
	4. Midterms	40	22
	5. 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	

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

	85-94	9	B
	95-100	10	A
Literature²:	<p>Mandatory literature:</p> <ol style="list-style-type: none"> Štraus, B., Stavljenić-Rukavina, A., Plavšić, F., et al. (1997) <i>Analitičke tehnike</i>, Medicinska naklada Zagreb. Wilson, K., Walker, J. (2000) <i>Practical Biochemistry</i>, 5th ed., Cambridge University Press, United Kingdom, <p>Supplementary literature:</p> <ol style="list-style-type: none"> Tymoczka, J.L., Stryer, L.W.H., Berg, J.M. (2005) <i>Biochemistry</i>, 5th ed., Freeman and Company/New York. Baynes, J.W., Dominiczak, M.H. (2005) <i>Medical Biochemistry</i>, 2nd ed., Elsevier, Mosby; Philadelphia, Edinburgh, London, NY, Oxford, St. Louis, Sydney, Toronto. 		

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