



Course ID: HOBII2	Course name: MODERN INSTRUMENTAL METHODS IN ORGANIC CHEMISTRY		
Cycle: SECOND	Year: FIRST	Semester: I	ECTS credits: 6
Course status: ELECTIVE	Total course hours: 90 Lectures: 60 Laboratory: 30		
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-		
Course aims:	The aim of the course is to introduce students with the techniques of identification of organic compounds using instrumental methods.		
Thematic course units:	1. Classification of spectroscopic methods 2. UV-Vis spectrophotometry 3. Infrared spectroscopy 4. Nuclear magnetic resonance spectroscopy 5. Mass spectrometry 6. Fluorescence spectroscopy, luminiscence, fluorescence and phosphorescence		
Learning outcomes:	<i>Knowledge:</i> Acquisition of knowledge about the principles of determining the structure of organic compounds using the most modern instrumental methods. <i>Skills:</i> Integration of spectral data (MS, IR and / or NMR) in solving the structure of organic compounds. <i>Competences:</i> The basic understanding of the principles of instrumental methods in organic chemistry.		
Teaching methodology:	Auditory lectures; Laboratory exercises		
Assessment methods and grading system¹:	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 (BiH)	Grade (ECTS)	
< 55	5	F, FX	

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

	55-64	6	E
	65-74	7	D
	75-84	8	C
	85-94	9	B
	95-100	10	A
	*oral exam after student successfully completes midterms		
Literature²:	<p>Mandatory literature:</p> <ol style="list-style-type: none"> 1. Field, L.D., Sternhell, S., Kalman, J.R. (2007) <i>Organic structures from spectra</i>, 3rd Ed., John Wiley & Sons, Inc 2. Bruno, T.J., Svoronos, P.D.N. (2006) <i>CRC handbook of fundamental spectroscopic correlation charts</i>, Taylor & Francis, Inc. 3. Silverstein, R.M., Webster, F.X., Kiemle, D.J. (2005) <i>Spectrometric identification of organic compounds</i>, John Wiley & Sons, Inc. <p>Supplementary literature:</p> <ol style="list-style-type: none"> 4. Shriner, R.L., Hermann, C.K.F., Morrill, T.C., Curtin, D.Y., Fuson, R.C. (2004) <i>The systematic identification of organic compounds</i>, 8th Ed. John Wiley & Sons, Inc 5. <i>Vogel's Textbook of Practical Organic Chemistry</i> (5th Ed), Prentice Hall, 1996 6. Laćan, M., Šuprina, M. (1976) <i>Spektrometrijske metode u organskoj hemiji</i>, Tehnološki fakultet Sveučilišta u Zagrebu. 		

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