



Course ID: HOB105	Course name: CHEMISTRY OF NATURAL PRODUCTS – SELECTED TOPICS		
Cycle: SECOND	Year: FIRST	Semester: I	ECTS credits: 4
Course status: ELECTIVE	Total course hours: 60 Lectures: 30 Laboratory: 30		
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	NO		
Course aims:	The aim of this course is to introduce the student with the various methods of isolation, identification and synthesis of specific classes of natural products.		
Thematic course units:	<ol style="list-style-type: none">1. The main biosynthetic pathways of terpenoids and alkaloids2. Specific methods of separation (GC and HPLC chiral chromatographic enantioseparation)3. Isolation and determination of the total content of phenols and phenolic acids and antioxidant capacity4. Synthesis and biosynthesis of natural products and their use as phytoterapeutic agents5. Sesquiterpene lactones6. Natural products as potential anti-cancer drugs7. Natural products as enzyme inhibitors		
Learning outcomes:	Knowledge: The student is able to isolate and analyze selected natural products, as well as to use and search scientific literature related to this field.		
Teaching methodology:	Classroom lectures and 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			

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

	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

Literature²:	Mandatory literature:
	<ol style="list-style-type: none"> 1. Ikan, R. (2008) Selected Topics in the Chemistry of Natural Products, World Scientific Publishing Co. Pte. Ltd 2. Dewick, P.M. (2002) Medicinal Natural Products – A Biosynthetic Approach, Second Edition, Wiley. 3. Tringali, C. (2001) Bioactive Compounds from Natural Sources Isolation, characterisation and biological properties, Taylor & Francis
	Supplementary literature:
	<ol style="list-style-type: none"> 1. Kaufman, P. B., Cseke, L. J., Warber, S. Duke, J. A., Brielmann, H. L. (2000) Natural products from plants, CRC Press LLC

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