Course ID: HOB301	**Course name: SELECTED SECONDARY METABOLITES**		
Cycle: FIRST	**Year: THIRD**	**Semester:** V	**ECTS credits: 2**
Course status: ELECTIVE		**Total course hours: 30** Lectures: 30	
Teaching participants:	**Teachers and associates with expertise in the field to which the subject belongs**		
Prerequisite for enrollment:	NO		
Course aims:	The objective of the course is for students to learn biochemical mechanisms of interactions of animals, plants and insects as a process of adaptation to the environmental conditions and the role of secondary metabolites in the environment. Students will acquire basic concepts of secondary metabolites as important agents against herbivores and microbes.		
Thematic course units:	1. Introduction, classification and origin of compounds as products of primary and secondary metabolism 2. Classes of natural products (terpenoids, alkaloids, flavonoids, coumarins, polyketides, fatty acids, steroids, phenylpropanoids ...) 3. Methods of isolation of natural products 4. Identification of natural products 5. Plants and biological adaptation to the environment. 6. The ecological role of secondary metabolites 7. Phytoalexins and phytotoxins. Allelopathy 8. Bioremediation 9. Xenobiotics 10. Natural products as biomarkers		
Learning outcomes:	Knowledge: The student distinguishes classes of secondary metabolites and knows their role in the environment and knows the basic methods for isolation and identification of secondary metabolites		
Teaching methodology:	Classroom lectures		

Assessment methods and grading system[1]:

Grading criteria			
	Criteria	Maximal score	Required score
1.	Class attendance	5	3
2.	Class activities	-	-
3.	Midterms	50	27
4.	Final exam	45	25
	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

Literature[2]:

Mandatory literature:

1. S. Petrović, D. Mijin, N. Stojanović, Hemija prirodnih organskih jedinjenja, Tehnološko-metalurški fakultet, Beograd, 2005
2. J. B. Harborne, Introduction to ecological biochemistry, Academic Press, 1994.
3. R. Ikan, Selected topics in the chemistry of natural products, World Scientific Publishing Co. Pte. Ltd., 2008

Supplementary literature:

[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