



Course ID: HOB106	Course name: SYNTHESIS OF BIOACTIVE COMPOUNDS - 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:	-		
Course aims:	The aim of this course is to acquaint students with the basic principles of synthesis of bioactive compounds		
Thematic course units:	Introduction to the synthetic chemistry of bioactive compounds Stages of research - from idea to production Examples of the synthesis of organic compounds with different biological activity: - Anticancer compounds - Antibiotics - Antifungal compounds - Compounds against influenza - Compounds against cardiovascular disease and disease of metabolism - Compounds against diseases of the central nervous system The use of microorganisms in the synthesis of bioactive compounds		
Learning outcomes:	Knowledge: Acquiring knowledge about bioactive compounds with different biological activity and ways of their synthesis. Skills: Ability to perform various stages of research into the synthesis of bioactive compounds, from idea creation to synthesis. Competences: Introduce students to modern trends in the synthesis of bioactive compounds.		
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			
Score	Grade (B&H)	Grade (ECTS)	

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

	< 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:	<p>Mandatory literature:</p> <ol style="list-style-type: none"> 1. Johnson, D.S., Li, J.J. (2007) The art of drug synthesis, Yohn Wiley & Sons 2. Čeković, Ž. (2006) Principi organske sinteze, Naučna knjiga Beograd. 3. Silverman, R. (2004) The Organic Chemistry of Drug Design and Drug Action, 2nd Ed. Academic Press <p>Supplementary literature:</p> <ol style="list-style-type: none"> 1. Faber, K. (1997) Biotransformations in organic chemistry, 3rd ed. Springer-Verlag 2. Scientific articles 		

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