
		UNIVERSITY OF EAST SARAJEVO Faculty of Technology Zvornik					
		Study programme: Chemical Engineering and Technology					
		Cycle I		Year IV			
Course title		FUNCTIONAL FOOD AND NUTRICEUTICALS					
Department		Department for Food Technology – Faculty of Technology Zvornik					
Course code		Course status		Semester		ECTS	
04-2-114-7		Elective		VII		4	
Teacher		Vesna Gojković Cvjetković, PhD, assistant professor					
Teaching assistant		Vesna Gojković Cvjetković, PhD, assistant professor					
Number of hours/ teaching workload (per week)			Individual student workload (in hours per semester)			Student workload coefficient S ₀	
Lectures	Auditory exercises	Laboratory exercises	Lectures	Auditory exercises	Laboratory exercises	S ₀	
2	0	2	30	0	30	1.00	
2*15+0*15+2*15=60 hours			(2*15*1.00+0*15*1.00+2*15*1.00)=60 hours				
Total course workload 60 + 60=120 hours per semester							
Learning outcomes		After finishing the course, students will be able to: <ol style="list-style-type: none"> 1. demonstrate and utilize the knowledge of the role and use of nutraceuticals, 2. list individual groups of nutraceuticals (essential nutrients, natural metabolites of substances naturally present in food and substances of animal and plant origin) and the reasons for taking them, 3. define the principles of development and marketing of functional food, 4. demonstrate and utilize the knowledge of the importance of functional food in improving health, 5. demonstrate and utilize the knowledge of the legal provisions on nutraceuticals and functional food, 6. use professional and scientific literature. 					
Prerequisites							
Teaching methods		Lectures, auditory and laboratory exercises, mid-term tests (colloquia).					
Syllabus outline per week		<ol style="list-style-type: none"> 1. Introduction. Definition of functional food. 2. Legal regulations on functional food (EU, Bosnia and Herzegovina). 3. Functional ingredients (antioxidants, vitamins, minerals, dietary fibers). 4. Functional ingredients (fatty acids, phytosterols, inulin and others). 5. Dietary fibers as functional ingredients of food. 6. Functional fats. 7. Functional dairy products. 8. Functional treats. 9. Functional products with dietary fiber. 10. Probiotic and prebiotic functional food. 11. The role of functional food in the human body. 12. Development of functional ingredients. 13. Development of functional food (increase of macronutrients and micronutrients). 14. Technological procedures in the production of functional food (extraction, preservation and packaging). 15. Methods of analysis of functional food and nutraceuticals. <p>Mid-term tests are taken after the 8th week and the 15th week. Semester verification is required after the 15th week.</p>					
Obligatory reading							
Author		Title, publisher		Year	Pages		
Gibson, G.R., Williams, M.W		Functional foods. CRC Press, Woodhead Publishing Limited, Boca Raton, Boston, New York, Washington		2000	1-200		
Roberfroid, M.		Functional foods, Defining functional foods and associated claims, Woodhead Publishing		2011	3-22		

Additional reading				
Author	Title, publisher	Year	Pages	
Mandić, M.L.	Funkcionalna hrana, Interna skripta, Prehrambeno - Tehnološki fakultet, Osijek	2006	1-50	
Chadwick, R. i sar.	Functional Foods, Springer, Berlin	2003	1-216	
Mazza, G.	Functional Foods, CRC / Taylor and Francis, Boca Raton	1998	1-215	
Shi, J.	Functional Food Ingredients and Nutraceuticals – Processing Technologies, CRC / Taylor and Francis, Boca Raton	2007	269-340	
Obligations, assessment methods and grading system	Type of student evaluation		Grade points	Percentage
	Pre-exam obligations			
		Attendance	6	6 %
		Mid-term test I	25	25 %
		Mid-term test II	25	25 %
		Seminar paper	14	14 %
	Final examination			
		Final examination (oral)	30	30 %
Total		100	100 %	
Web page	www.tfzv.ues.rs.ba			
Date	2023			