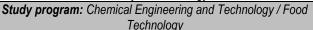
UNIVERSITY OF EAST SARAJEVO

Faculty of Technology





II cycle of studies MICROBIOLOGICAL METHODS FOR FOOD ANALYSIS Course title Department Department of Food Technology - Faculty of Technology

Course code		Status	Semester	ECTS	
TF-1-2-HIT-02-2-062-1-6-2-2		elective	I	6	
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Teacher	Dragan Vujadinović, PhD, Assistant Professor
Associate	Vesna Gojković, MSc, Senior Assistant

Fund of class	sses / teaching lo	oad (weekly)	Individual student workload (in semester hours)			Student workload coefficient S _o	
Р	AV	LV	Р	AV	LV	S₀	
2	0	2	45	0	45	1.50	
total teaching load (in hours, semester) 2 * 15 + 0 * 15 + 2 * 15 = 60 h				total student workload (in hours, semester) 2 * 15 * 1.50 + 0 * 15 * 1.50 + 2 * 15 * 1.50 = 90			

Total workload of the course (teaching + student): 60 + 90 = 150 hours semester

Learning	
outcomes	

Student will show knowledge / abilities to:

1. understand characteristics of different groups of microorganisms important for production and control 2. consider what impact they can have on product quality:

Academic year I

- 3. masters the methods of their isolation and identification. 4. examines the microbiological correctness of the product;
- 5. evaluate the obtained results independently and in a group discussion;
- 6. develops critical and creative thinking about the material of the module;

Conditionality

Syllabus outline

per week

Teaching methods Lectures, laboratory work

- 1. Introduction to microbiological methods of food analysis. Bacteria and fungi as indicators of quality and food safety.
- 2. Characteristics of different groups of microorganisms necessary for quality control and quality
- 3. Properties of microorganisms on the basis of which they can be separated and identified in food.
- 4. Legislation. Ordinance on microbiological criteria for food.
- 5. Microbiological methods and bases for identification and isolation of different groups of microorganisms.
- 6. Conformational biochemical and immunochemical microbiological tests.
- 7. Determination of the total number of aerobic and anaerobic microorganisms.
- 8. Determination of sporogenic and lipolytic bacteria.
- 9. Identification and isolation of coliform bacteria.
- 10. Determination and identification of psychotrophic and thermoresistant microorganisms.
- 11. Methods of determination and identification of acidogenic and osmophilic microorganisms.
- 12. Microbiological procedures for identification and determination of halophilic and proteolytic bacteria.
- 13. Determination and identification of yeasts and molds.
- 13. Basic methods and procedures for isolation and identification of pathogenic bacteria.
- 14. Microbiological control methods in food production.
- 15. Methods for qualitative and quantitative determination of mycotoxins. Maximum allowable concentration (MAC) of mycotoxins.

Obligatory literature					
Author / s	Title of publication, publisher	Year	Pages (from-to)		
Radulović, Z., Petrušić, M.	Microbiological methods of food analysis, Faculty of	2011	1-152		
	Agriculture, University of Belgrade, Belgrade, Serbia.				
SI. Glasnik BIH 11/13.	Ordinance on microbiological criteria for food	2013	31-52		
Sanchias, AV, Allaert, VC, As-	Practicum in food microbiology, University of Lleida,	2001	1-113		
Almenar, I. VI., Sala, MN,	Catalonia-Spain, University of Banja Luka, University				
Torres, GM	of Tuzla				
Sarić Z.	Practicum in microbiology, Science, Belgrade.	1992	1-199		
Supplementary literature					
Author / s	Publication title, publisher	Year	Pages (from-to)		

Microbes. Info		http://www.microbes.info/resources/General%20Microbi ology/			-	
Fernandes, R.		Microbiology handbook, Fish and seafood, Leatherhead Food International Ltd and Royal Society of Chemistry, UK	2009		1-270	
Roberts, D., Green	wood, M.	Practical Food Microbiology, third edition, Blackwell Publishing Ltd, USA	2003		1-290	
	Type of student work evaluation			Points	Percentage	
	Pre-examination obligations					
Obligations	attendance at lectures / exercises			6	6%	
Obligations,	colloquium 1			20	20%	
assessment methods and	colloquium 2			20	20%	
grading system	Laboratory exercises			24	24%	
grauning system						
	Final exam (oral)			30	30%	
	TOTAL			100	100%	
Website	www.tfzv.	ues.rs.ba		·		
Date						