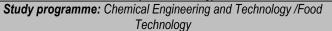
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UNIVERSITY OF EAST SARAJEVO

Faculty of Technology





Course title PRINCIPLES OF PRESERVATION

Department Department of Food Technology - Faculty of Technology

Course code	Course status	Semester	ECTS
TF-1-1-HIT-04-1-102-6-6-3-2	obligatory	VI	7

Teacher Dragan Vujadinović, PhD, Assistant Professor

Teaching assistant Milan Vukić, MSc, Senior Assistant

Number of classes/ teaching workload (per week)		Individual student workload (in hours per semester)			Student workload coefficient S _o		
Lectures	Auditory exercises	Laboratory exercises	Lecture	es	Auditory exercises	Laboratory exercises	S°
3	0	2	63		0	42	1,4
	3*15+0*15+2*15	5=75 hours			3 * 15 * 1.40 + 0	* 15 * 1.40 + 2 * 1	5 * 1.40 = 105 hours

Total course workload 75+ 105=180 hours per semester

Learning outcomes

The student will demonstrate knowledge / ability to:

1. understand the essence of endogenous and exogenous changes in unprocessed foods (spoilage) and that notice the factors that affect them;

Academic year III

- 2. understands the principles of biosis, anabiosis and abiosis in preventing the process of food spoilage;
- 3. understand the conditions under which different canning procedures can be optimized with the aimobtaining a microbiologically safe product of predetermined quality;
- 4. optimizes the technological process for the production of various food products

Prerequisits No prerequisits

Teaching methods Lectures, auditory and laboratory exercises, mid-term tests (colloquia).

- 1. Introduction. Food spoilage. Principles of food stability.
- 2. Food processing and canning as opposed to preserving the nutritional quality of foods.
- 3. Thermal preservation methods. Pasteurization. Sterilization.
- 4. Microwave heating.
- 5. Preservation at low temperatures.
- 6. Freezing.
- 7. Preservation by lowering water activists. Preservation by water abstraction (concentration).
- 8. Preservation by drying.

Syllabus outline per week

- 9. Biological canning.
- 10. Chemical methods of preservation.
- 11. Use of controlled and modified atmosphere in packaging and storage of food product.
- 12. Principles of minimum processing and processing of novel foods.
- 13. Application of ionizing radiation. High frequency energy conservation. Canning high hydrostatic pressure.
- 14. Ultrasonic preservation. Pulsed light preservation. Canning by a pulsating electric field.
- 15. Monitoring the efficiency of the conservation process.

Tests are envisaged after the 8th week and the 15th week.

Author	Title, publisher	Year	Pages
Veresh M.	Principles of food preservation.Faculty of Agriculture, Belgrade	2004.	1-200
Lovrić T.	Processes in the food industry with the basicsof Food Engineering, Hinus, Zagreb	2002.	1-300
Bhat R., Alias AK, Paliyath G	Progress in Food Preservation, JohnWiley & Sons, Ltd,UK	2012.	1-240

Additional reading								
Author		Title, publisher			Pages			
Rahman, MS		Handbook of food preservation - 2nd ed., Taylor &Francis Group, LLC, New York	2007		1-589			
Paul Singh, R.; Dennis R. Heldman		Introduction to Food Engineering Fourth Edition	2009		1-860			
Thomas O. and Nils B.		Minimal processing technologies in the food industry	2002		1-300			
		Type of student evaluation		ECTS	Percentage			
	Pre-exam obligations							
		Atten	6	6 %				
Obligations, assessment		Mid-tern	20	20 %				
		Mid-term Mid-term	20	20 %				
methods and	ethods and Laboratory exercises		ercises	24	24 %			
grading system								
	Final examin	nation						
	Final examination (oral)			30	30 %			
	Total				100 %			
Web page	www.tfzv.ue	es.rs.ba						
Date				•				