	UNIVERSITY OF EAST SARAJEVO Faculty of Technology Zvornik	
	Study programme: *Chemical Engineering and Technology*	
	Cycle I / Year III	

Course title	Methods of Food Products Analysis
Department	Department for Food Technology – Faculty of Technology Zvornik

Course code	**Course status**	**Semester**	**ECTS**
04-1-103-6	Compulsory	VI	7

Teacher	Milenko Smiljanić, PhD, associate 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_o**
Lectures	**Auditory exercises**	**Laboratory exercises**	**Lectures**	**Auditory exercises**	**Laboratory exercises**	**S_o**
3	0	3	45	0	45	1.33
3*15+0*15+3*15=90 hours			(3*15*1.33+0*15*1.33+3*15*1.33)=120 hours			
Total course workload 90 + 120 =210 hours per semester						

Learning outcomes	After finishing the course, students will be able to: 1. use standard and modern analytical techniques and methods in food analysis 2. correctly choose the appropriate methods of analysis 3. plan and perform various experiments related to the composition and properties of food 4. process and interpret the obtained results 5. independently solve problems in the food analysis laboratory.
Prerequisites	Analytical chemistry.
Teaching methods	Lectures, auditory and laboratory exercises, mid-term tests (colloquia).
Syllabus outline per week	1. Importance and analysis of food. Division of methods for food analysis. Chemical, biochemical, physical-chemical and sensory methods in food analysis. 2. Principle of selection of methods for food analysis. Elements for verification, validation and comparison of food analysis methods. 3. Food sampling for analysis. Sampling during official food control. 4. Methods of determining dry matter content in food. 5. Methods of determining the content of mineral substances in food. 6. Methods of determining the content of nitrogen substances. Determination of protein content. 7. Methods of determining the content of carbohydrates in food. 8. Methods of determining fat content in food. 9. Methods of determining vitamin content in food. 10. Methods of determining the content of food additives and toxic substances. Determination of mycotoxin residue content in food. 11. Methods for testing the quality and safety of meat and meat products. 12. Methods for testing the quality and safety of milk and milk products. 13. Methods for testing the quality and safety of fruits, vegetables and products. 14. Methods for testing the quality and safety of grain, flour and products. 15. Methods for testing the quality and safety of vegetable oils, fats of animal origin and products. Mid-term tests are taken after the 8th week and the 15th week. Semester verification is required after the 15th week.

Obligatory reading

Author	**Title, publisher**	**Year**	**Pages**
Marjanović, N.J.	Instrumentalne metode analize I/1 Metode razdvajanja Tehnološki fakultet, Banja Luka	2001	1-500
Vahčić, N., Hruškar, M., Marković, K.	Analitičke metode za određivanje osnovnih sastojaka u hrani, Praktikum, Prehrambeno tehnološki fakultet Osijek		1-74

Additional reading			
Author	**Title, publisher**	**Year**	**Pages**
AOAC	Official Methods of Analysis , 15th Edition, AOAC	1990	69-88, 312-334, 1045-1106
James, C.S.	Analytical Chemistry of Foods, Chapman&Hall, London	1995	1-176
Nielsen, S.S.	Handbook of food analysis, physical characterization and nutrient analysis	2005	505-508

	Type of student evaluation	**Grade points**	**Percentage**
Obligations, assessment methods and grading system	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		