	UNIVERSITY OF EAST SARAJEVO Faculty of Technology Zvornik	
	Study programme: *Chemical Engineering and Technology*	
	Cycle I / Academic year II	

Course title	**Organic Chemistry**
Department	Department for Chemistry

Course code	**Course status**	**Semester**	**ECTS**
	Obligatory	IV	7

Teacher	Ljubica Vasiljević, PhD, full professor
Teaching assistant	Milenko Aćimović, BSc, teaching assistant

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**
4	0	2	60	0	30	1.33
4*15 + 0*15 + 2*15 =90 hours			4*15*1.33 + 0*15*1.33 + 2*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. distinguish the basic groups of organic compounds 2. understand the structure of basic classes of organic compounds 3. understand the relationship between physical and chemical properties of organic compounds 4. understand the importance and role of representatives of the most important groups of organic compounds 5. understand the basic principles of their reactivity and the mechanism of reactions of their functional groups important for the food and chemical industry 6. correctly apply the basic principles of work in the organic laboratory.
Prerequisites	No prerequisites.
Teaching methods	Lectures, laboratory exercises, mid-term tests (colloquia).
Syllabus outline per week	1. Introduction. Importance of organic chemistry for technology engineers. Basic principles of organic chemistry and systematics of organic compounds. 2. Hydrocarbons. Alkanes, alkenes, alkadienes, alkynes and alicyclic hydrocarbons. 3. Aromatic hydrocarbons. Organic halides. Alkyl, alkenyl and aryl halides. 4. Organic oxygen compounds. Alcohols, phenols and ethers. 5. Organic compounds of sulfur and nitrogen. 6. Carbonyl compounds. Aldehydes, ketones, quinones and their derivatives. 7. Carbohydrates, classification, structural characteristics. 8. Carboxylic acids. Saturated and unsaturated aliphatic and alicyclic monocarboxylic acids. Aromatic and dicarboxylic acids. Knowledge test (Mid-term test/Colloquium I, ...). 9. Carboxylic acid derivatives. Chlorides, anhydrides, esters, amides and nitriles. 10. Substituted acids. Halogen and oxy-substituted acids. 11. Keto- and amino-substituted acids. 12. Proteins, nomenclature and chemical properties. 13. Lipids, structure and physicochemical properties. 14. Metallo-organic compounds 15. Heterocyclic compounds of nitrogen, oxygen and sulfur. Knowledge test (Mid-term test/Colloquium II, ...) Tests are envisaged after the 8th week and the 15th week.

Obligatory reading

Author	**Title, publisher**	**Year**	**Pages**
Piletić, M.V., Milić, B.L., Đilas, S.M. and Čanadanović-Brunet, J.M.	Organic Chemistry, Faculty of Technology, Novi Sad	2013	1-449

Piletić, M.V., Milić, B.L., Đilas, S.M.	Organic Chemistry II, Faculty of Technology, Novi Sad	1993	1-383
Morrison, R., Boyd, R.	Organic Chemistry, Translation, SNL, Zagreb	1979	1-1265

Additional reading			
Author	**Title, publisher**	**Year**	**Pages**
Piletić, M.V., Milić, B.L., Đilas, S.M.	Organic Chemistry I, Faculty of Technology, Novi Sad	1992	1-400
Wolhardt, K.P.C., Schore, N.E.	Translated by Sholaja, B.A. Organic Chemistry, Hajdigraf, Belgrade,	1996	1-775
Jovanović, B., Antonović, D., Petrović, S., Uščumlić, G., Mijin, D.	Collection of tasks in organic chemistry, TMF, Belgrade,	2000	1-448
Milić, B.L., Đilas, S.M., and Čanadanović-Brunet, J.M.,	Experimental Organic Chemistry, Faculty of Technology, Novi Sad, 2001 1-178	2001	1-178
Todorović, M., Lazarević, Z.	Practicum in Organic Chemistry, Faculty of Technology Zvornik,	2002	1-156
Graham Solomons, T.W., Fryhle, C.B.,	Organic Chemistry, John Wiley, Inc. New York,	1998	1-625

	Type of student evaluation	Grade points	Percentage
Obligations, assessment methods and grading system	Pre-exam obligations		
	Attendance	6	6%
	Laboratory exercises	20	20%
	Mid-term test/Colloquium 1	22	22 %
	Mid-term test/Colloquium 2	22	22%
	Final examination		
	Final examination (oral)	30	30 %
	Total	100	100 %
Webpage	www.tfzv.ues.rs.ba		
Date	2023		