
	<b>UNIVERSITY OF EAST SARAJEVO</b> Faculty of Technology Zvornik					
	<i>Study programme: Chemical Engineering and Technology</i>					
	<i>Study module: Food Technology</i>					
	Cycle I		Year IV			
<b>Course title</b>		TECHNOLOGY OF EDIBLE OILS AND FATS				
<b>Department</b>						
<b>Course code</b>		<b>Course status</b>		<b>Semester</b>	<b>ECTS</b>	
04-2-122-8		Elective		VIII	5	
<b>Teacher</b>		Zoran Petrović, PhD, Assoc. Prof.				
<b>Teaching assistant</b>		Zoran Petrović, PhD, Assoc. Prof.				
<b>Number of classes/ teaching workload (per week)</b>			<b>Individual student workload (in hours per semester)</b>			<b>Student workload coefficient S<sub>0</sub></b>
<b>Lectures</b>	<b>Auditory exercises</b>	<b>Laboratory exercises</b>	<b>Lectures</b>	<b>Auditory exercises</b>	<b>Laboratory exercises</b>	<b>S<sub>0</sub></b>
3	0	2	45	0	30	1.00
3*15+0*15+2*15=75 hours			(3*15*1+0*15*1+2*15*1)=75			
Total course workload 75 + 75 = 150 hours per semester						
<b>Learning outcomes</b>		<p>After finishing the course, students will be able to:</p> <ol style="list-style-type: none"> <li>1. understand the importance of oils and fats in the diet</li> <li>2. participate in the technological process of oilseed storage and the production of crude oils and fats</li> <li>3. participate in the process of refining crude vegetable oils</li> <li>4. apply analytical methods to assess the degree of oil oxidation and to determine the viability of oils and fats</li> <li>5. recognize the process of modification of oil and grease and the technology of production of special greases</li> <li>6. define control and critical control points of production.</li> </ol>				
<b>Prerequisites</b>						
<b>Teaching methods</b>		Lectures, experimental exercises, student visits to refineries, seminar paper.				
<b>Syllabus outline per week</b>		<ol style="list-style-type: none"> <li>1. Introduction. Chemical and physical properties of lipids and fatty acids.</li> <li>2. Raw materials, characteristics and storage in the production of vegetable oils and fats.</li> <li>3. Raw materials, characteristics and production of edible animal fats.</li> <li>4. Oil and fat extraction.</li> <li>5. Oil and fat refining.</li> <li>6. Chemical, physical and optical properties of oils and fats.</li> <li>7. Principles and techniques of oil hydrogenation.</li> <li>8. Principles and fractionation techniques of oils and fats.</li> <li>9. Principles and techniques of interesterification of oils and fats.</li> <li>10. Technology of production of margarine and related products.</li> <li>11. Technology of production of mayonnaise and similar products.</li> <li>12. Production technology of confectionery fats.</li> <li>13. Packaging of oils and fats.</li> <li>14. Nutritive value of oils and fats.</li> <li>15. Product safety and quality assessment.</li> </ol>				
<b>Obligatory reading</b>						
<b>Author</b>		<b>Title, publisher</b>		<b>Year</b>	<b>Pages</b>	
Grujić, R.		Tehnologija ulja i masti, Tehnološki fakultet, Banja Luka		1994	1-255	
<b>Additional reading</b>						
<b>Author</b>		<b>Title, publisher</b>		<b>Year</b>	<b>Pages</b>	
Gupta, S.K.		Technological Innovations in Major Oil Crops, Volume 2, Springer New York, USA		2012	1-322	
Gunstone, D.F.		Vegetable Oils in Food Technology: Composition, Properties and Uses, Second Edition, Wiley Blackwel, Oxford, UK		2011	1-322	
<b>Obligations,</b>		<b>Type of student evaluation</b>			<b>Grade</b>	<b>Percentage</b>

assessment methods and grading system			points	
	Pre-exam obligations			
	Attendance		6	6 %
	Mid-term test (Colloquium) 1		20	20 %
	Mid-term test (Colloquium) 2		20	20 %
	Laboratory exercises		24	24 %
	Final examination			
	Final examination		30	30 %
Total		100	100 %	
<b>Web page</b>	www.tfzv.ues.rs.ba			
<b>Date</b>	2023			