
		<b>UNIVERSITY OF EAST SARAJEVO</b> Faculty of Technology Zvornik						
		<b>Study programme: Chemical Engineering and Technology</b>						
		Cycle I		Year IV				
<b>Course title</b>		OIL REFINING TECHNOLOGY						
<b>Department</b>		Department for Chemical Technologies– Faculty of Technology Zvornik						
Course code		Course status		Semester		ECTS		
04-2-060-8		Elective		VIII		4		
<b>Teacher</b>		Zoran Petrović, PhD, Assoc. Prof.						
<b>Teaching assistant</b>		Zoran Petrović, PhD, Assoc. Prof.						
Number of hours/ teaching workload (per week)			Individual student workload (in hours per semester)			Student workload coefficient S <sub>0</sub>		
Lectures	Auditory exercises	Laboratory exercises	Lectures	Auditory exercises	Laboratory exercises	S <sub>0</sub>		
2	0	2	30	0	30	1.00		
2*15+0*15+2*15=60 hours			(2*15*1+0*15*1+2*15*1)=60 hours					
Total course workload 60 + 60 = 120 hours per semester								
<b>Learning outcomes</b>		After finishing the course, students will be able to: <ol style="list-style-type: none"> <li>1. demonstrate and utilize basic knowledge of oil refining technologies</li> <li>2. master material and energy balances in oil refining</li> <li>3 demonstrate and utilize skills in control and management of key technological processes of oil refining</li> <li>4. master the basic testing methods and product quality standards</li> <li>5. master the methods of reducing the impact of the refining process oil on the environment</li> </ol>						
<b>Prerequisites</b>								
<b>Teaching methods</b>		Lectures, auditory exercises, experimental exercises, student visits to refinery, mid-term test, seminar						
<b>Syllabus outline per week</b>		<ol style="list-style-type: none"> <li>1. Basic facts about oil. Origin. Oil reserves. Preparation for transportation, processing and storage.</li> <li>2. Physical and chemical characteristics of crude oil and testing methods.</li> <li>3. Petroleum products. Composition, characteristics, quality standards and test methods.</li> <li>4. Primary oil refining processes (atmospheric and vacuum distillation).</li> <li>5. Thermal oil refining (viscosity breaking and coking).</li> <li>6. Catalytic cracking processes (fluidized bed cracking, hydrocracking).</li> <li>7. Reforming into gasoline.</li> <li>8. Hydrogen treatment of gasoline and middle distillates. (Mid-term test/Colloquium I)</li> <li>9. Treatment of acid gases and sulfur production.</li> <li>10. Alkylation processes.</li> <li>11. Isomerization and oligomerization processes</li> <li>12. Mixing of commercial products. Material balance.</li> <li>13. Base oil production processes.</li> <li>14. Fuel additives.</li> <li>15. Environmental aspects of oil refining. (Mid-term test/Colloquium II)</li> </ol>						
<b>Obligatory reading</b>								
Author		Title, publisher			Year	Pages		
Cerić, E.		Nafta, procesi i proizvodi, IBC, Sarajevo			2012	39-50, 79-221, 258-356		
Petrović, Z., Dugić, P., Aleksić, V.		Fizičko-hemijska ispitivanja u procesima organske industrije, Tehnološki fakultet Zvornik			2011	15-158		
<b>Additional reading</b>								
Author		Title, publisher			Year	Pages		
Meyers, R.A.		Handbook of Petroleum Refining Processes			1997	1.3-12.83		
<b>Obligations, assessment methods and grading system</b>		<b>Type of student evaluation</b>				<b>Grade</b>	<b>Grade points</b>	<b>Percentage</b>
		Pre-exam obligations						
		Attendance				6		6 %
		Mid-term test/Colloquium 1 exercises				10		10 %
Mid-term test/Colloquium 2 exercises				10		10 %		

	Mid-term test/Colloquium 1 theory	15	15 %
	Mid-term test/Colloquium 2 theory	15	15 %
	Laboratory exercises	14	14 %
	Final examination		
	Final examination (oral)	30	30 %
	Total	100	100 %
<b>Web page</b>	www.tfzv.ues.rs.ba		
<b>Date</b>	2023		