

1. Course Description

COURSE DESCRIPTION FORM				
Course Code and Title	KM460 PETROLEUM TREATMENT TECHNOLOGY			
Course Semester	8			
Catalog Description (Content) of the Course	Formation, production and composition of crude oils. Refinery operations. Crude oil distillation, hydro-treating, refining, catalytic cracking, lube oil units etc. Refinery wastes.			
Main Textbook	Hengstebeck, R.J., "Petroleum Processing", McGraw Hill, 1989. •Kuleli, Ö., "Petrol Arıtım Teknolojisi", Çağlayan Kitabevi, 1981. •Yorulmaz, Y., "Petrol İşleme Teknolojisi ve Rafineri Üniteleri" ODTÜ Müh.Fak. Yayın No:71, 1983			
Supporting Textbooks	Hengstebeck, R.J., "Petroleum Processing", McGraw Hill, 1989. •Kuleli, Ö., "Petrol Arıtım Teknolojisi", Çağlayan Kitabevi, 1981. •Yorulmaz, Y., "Petrol İşleme Teknolojisi ve Rafineri Üniteleri" ODTÜ Müh.Fak. Yayın No:71, 1983			
Course Credit (ECTS)	4			
Prerequisites of the Course (Compulsory attendance should be indicated here.)	-			
Type of the Course	Elective			
Instruction Language of the Course	Turkish			
Object and Target of the Course	To introduce the basic processes of petroleum treatment technology.			
Learning Outcomes of the Course	1. Knowledge access to any research 2. Individual ability to work			
Mode of Delivery	Face to face			
Weekly Schedule of the Course	1. Week : Formation, production and composition of petroleum 2. Week: Structure of refinery and its processes 3-4. Week: Distillation of crude oil 5. Week: Naphta hydrogenation unit 6-7. Week: Cracking and catalytical cracking 8. Week: Cracking and catalytical cracking 9-10. Week: Reforming and other oxidizing processes 11. Week: Facilities and finishing processes 12. Week: Production of lubricating oil, waxes and asphalts 13. Week: Refinery wastes 14. Week: Refinery wastes			
Educative Activities (Credit will be determined based on the time given for these activities. Should be filled carefully.)	Theoretical Study Hours of Course Per Week Mid-Term and Studying for Mid-Term Final and Studying for Final			
Assessment Criteria		Quantity	Total Contribution (%)	
	Midterm	2	60	
	Homework	0	0	
	Assignment	0	0	
	Projects	0	0	
	Practice	0	0	
	Quiz	0	0	
	Contribution of In-term Studies to Overall Grade		60	
	Contribution of Final Examination to Overall Grade		40	
	Attendance			

Workload of the Course	Activity		Total Week Count	Weekly Duration (in hour)	Total Workload in Semester				
	Theoretical Study Hours of Course Per Week		12	3	36				
	Mid-Term and Studying for Mid-Term		2	20	40				
	Final and Studying for Final		1	20	20				
	Total work load				96				
	Total work load/25				3.84				
	ECTS of the course				4				
	Number	Program Outcomes	1	2	3	4	5		
	1	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied information in these areas to model and solve engineering problems.				X			
	2	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.			X				
	3	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.			X				
	4	Ability to devise, select, and use modern techniques and tools needed for engineering practice; ability to employ			X				

			information technologies effectively.						
	5		Ability to design and conduct experiments, gather data, analyze and interpret results for investigating engineering problems.			X			
	6		Ability to work efficiently in intra-disciplinary teams.		X				
	7		Ability to work efficiently in multi-disciplinary teams;			X			
	8		Ability to work individually.		X				
	9		Ability to communicate effectively in Turkish/English, both orally and in writing; Ability to write effective reports and comprehend written reports, make effective presentations,			X			
	10		prepare design and production reports, give and receive clear and intelligible instructions.			X			
	11		Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.			X			
	12		Awareness of professional and ethical responsibility.		X				
	13		Information about business life practices such as project management, risk management, and change management.			X			

	14	Information about awareness of entrepreneurship, innovation, and sustainable development.		X				
	15	Knowledge about contemporary issues and the global and societal effects of engineering practices on health, environment, and safety.			X			
	16	Knowledge about awareness of the legal consequences of engineering solutions.	X					
	17	Knowledge on standards used in engineering practice.	X					
Name of Lecturer(s) and Contact Information		Prof.Dr.Nuray OKTAR, oktarnuray@gmail.com						