

1. Course Description

COURSE DESCRIPTION FORM		
Course Code and Title	CHE448 Organic Technologies	
Course Semester	8	
Catalog Description (Content) of the Course	Carbonization of coal and coal chemicals, Petroleum and petroleum products, Soap and detergents, Sugar Industry, Pulp and Paper Industry, Production of chemical fibers, Dyes and their applications.	
Main Textbook	Shreve, R.N., Brink, J.A., “Chemical Process Industries”, McGraw Hill, 1977	
Supporting Textbooks	• Moulijn, J.A., Makkee, M., Van Diepen, A., “Chemical Process Technology”, John Wiley&Sons, 2001. • Kent, J.A. “Riegels Handbook of Industrial Chemistry”, Ninth Edition, Chapman&Hall, 1992. • Berg, F.J., Jong, W.A., “Introduction to Chemical Process Technology”, Delf University Press, Delf, 1983.	
Course Credit (ECTS)	4	
Prerequisites of the Course (Compulsory attendance should be indicated here.)	There is no prerequisite or co-requisite for this course	
Type of the Course	Elective	
Instruction Language of the Course	English	
Object and Target of the Course	Operating a variety of organic chemical production processes to learn and become informed about.	
Learning Outcomes of the Course	To introduce the some of the organic based processes used in the conversion of chemical raw materials to useful products Better understanding of the basic principles and properties of organic processes. To facilitate the students adaptability to the industrial environment	
Mode of Delivery	The mode of delivery of this course is face to face	
Weekly Schedule of the Course	1. Week	Carbonization of coal and coal chemicals
	2. Week	Carbonization of coal and coal chemicals
	3. Week	Petroleum and petroleum products
	4. Week	Petroleum and petroleum products
	5. Week	Soaps
	6. Week	Detergents
	7. Week	Sugar Industry
	8. Week	Pulp and Paper Industry
	9. Week	Pulp and Paper Industry
	10. Week	Production of chemical fibers

	11. Week	Production of chemical fibers			
	12. Week	Intermediates, dyes and their applications			
	13. Week	Intermediates, dyes and their applications			
	14. Week	Student presentations			
Educative Activities <i>(Credit will be determined based on the time given for these activities. Should be filled carefully.)</i>	Theoretical Study Hours of Course Per Week Searching in Internet and Library Preparing Reports Preparing Presentation Presentation Mid-Term and Studying for Mid-Term Final and Studying for Final				
Assessment Criteria		Quantity	Total Contribution (%)		
	Midterm	2	50		
	Homework				
	Assignment				
	Projects	1	10		
	Practice				
	Quiz				
	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	14	3	42
		Searching in Internet and Library	1	5	5
		Preparing Reports	1	5	5
		Preparing Presentation	1	5	5
		Presentation	1	1	1
		Mid-Term and Studying for Mid-Term	2	15	30
		Final and Studying for Final	1	15	15
		Total work load			124
		Total work load/25			4.12
		ECTS of the course			4

Course's Contribution To Program	No	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 information technologies effectively.	X				
	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**

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