1. **Course Description**

COURSE DESCRIPTION FORM	
Course Code and Title	KM448 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	Turkish
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 — Intermediates 12. Week — Dyes and their applications 13. Week — Dyes and their applications 14. Week — Student presentations
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 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				

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