

COURSE DESCRIPTION FORM

Course Code and Title	CHEM278 ORGANIC CHEMISTRY LABORATORY		
Course Semester	4		
Catalog Description Content) of the Course	Purification methods in organic chemistry and syntheses of some organic compounds		
Main Textbook	Atkins, Carey, Organic Chemistry		
Supporting Textbooks	Hart, Craine and Hart, Organic Chemistry. Solomons and Fryhle, Organic Chemistry. Fessenden, Fessenden and Logue, Organic Chemistry.		
Course Credit (ECTS)	2		
Prerequisites of the Course (Compulsory attendance should be indicated here.)	There is no prerequisite or co-requisite for this course. It is compulsory to do all experiments.		
Type of the Course	Compulsory, Laboratory		
Instruction Language of the Course	English		
Object and Target of the Course	To learn the basic laboratory techniques used for separation and purification of organic compounds in chemical engineering applications, to provide the theoretical and practical knowledge together, to learn and apply the importance of organic chemistry on the daily life.		
Learning Outcomes of the Course	Student, who passed the course satisfactorily: 1. can provide and apply the theoretical and practical knowledge together, 2. learn and apply the importance of organic chemistry on the daily life, 3. learn separation and purification techniques in organic chemistry		
Mode of Delivery	The mode of delivery of this course is face to face		
Weekly Schedule of the Course	1. Week: Laboratory preparation 2. Week: Recrystallization 3. Week: Determination of melting point 4. Week: Obtaining of Limonen 5. Week: Synthesis of 2-Methyl-2-butene 6. Week: Midterm 7. Week: Cannizaro Reaction 8. Week: Synthesis of Iodoform 9. Week: Synthesis of Isopentyl acetate 10. Week: Synthesis of soap 11. Week: Make-up 12. Week: Make-up 13. Week: Make-up 14. Week: Make-up		
Educative Activities (Credit will be determined based on the time given for these activities. Should be filled carefully.)	Practising Hours of Course Per Week Searching in Internet and Library Preparing Reports Mid-Term and Studying for Mid-Term Final and Studying for Final		
Assessment Criteria		Quantity	Total Contribution (%)
	Midterm	1	60
	Homework	0	0
	Assignment	0	0
	Projects	0	0
	Practice	0	0
	Quiz	0	0
	Contribution of In-		60

Workload of the Course		Activity	Total Week Count	Weekly Duration (in hour)	Total Workload in Semester
		Theoretical Study Hours of Course Per Week	0	0	0
		Practicing Hours of Course Per Week	14	2	28
		Reading	0	0	0
		Searching in Internet and Library	4	1	4
		Designing and Applying Materials	0	0	0
		Preparing Reports	10	1	10
		Preparing Presentation	0	0	0
		Presentation	0	0	0
		Mid-Term and Studying for Mid-Term	4	1	4
		Final and Studying for Final	4	1	4
		Other	0	0	0
		Total work load			50
		Total work load/25			2
		ECTS of the course			2

Course's Contribution To Program	No	Program Çıktıları	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. (Realistic constraints and conditions may include factors such as economic and environmental issues, sustainability, manufacturability, ethics, health, safety issues, and social and political issues, according to the nature of the design.)				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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