1. Course Description

COURSE DESCRIPTION FORM	
Course Code and Title	CHEM276 ORGANIC CHEMISTRY
Course Semester	4
Catalog Description Content) of the Course	Chemical Bonding, Aliphatic and Aromatic Compounds and Their Reactions, Stereochemistry, Free Radicals
Main Textbook	Atkins R.C., Carey F.A., Organic Chemistry
Supporting Textbooks	Hart, H., Craine L.E., Hart, D.J., Hadad, C.M., Organic Chemistry. Solomons G. and Fryhle C. ,(Organic Chemistry. Fessenden R. T., Fessenden J. S. and Logue W. M., Organic Chemistry.
Course Credit (ECTS)	5
Prerequisites of the Course (Compulsory attendance should be indicated here.)	There is no prerequisite or co-requisite for this course. Compulsory attendance
Type of the Course	Compulsory, theoretic
Instruction Language of the Course	English
Object and Target of the Course	To learn basic properties of organic compounds and their behavior in organic reactions. Learning chemistry knowledge with the experiments. Understanding the relationship between daily life and chemicals.
Learning Outcomes of the Course	Student, who passed the course satisfactorily: 1. will gain a knowledge about chemical bonding 2. will know the structures of aliphatic and aromatic organic compounds 3. will gain a knowledge about the reactions of aliphatic and aromatic organic compounds 4. will gain a knowledge about stereochemistry 5. will gain a knowledge about free radicals
Mode of Delivery	The mode of delivery of this course is face to face
Weekly Schedule of the Course	**1. Week** Chemical Bonding **2. Week** Alkanes and Cycloalkanes **3. Week** Alcohols and Alkyl Halides **4. Week** Alkenes and Alkynes I. Structure and Preparation **5. Week** Alkenes and Alkynes II. Reactions **6. Week** Aromatic Compounds **7. Week** Stereochemistry **8. Week** Nucleophilic Substitution **9. Week** Free Radicals **10. Week** Alcohols, Ethers and Phenols **11. Week** Aldehydes and Ketones **12. Week** Carboxylic Acids **13. Week** Carboxylic Acid Derivatives **14. Week** Amines..
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 Presentation Mid-Term and Studying for Mid-Term Final and Studying for Final
Assessment Criteria	

	Quantity	**Total Contribution (%)**

Midterm	2	30
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		70

Workload of the Course

Activity	Total Week Count	Weekly Duration (in hour)	Total Workload in Semester
Theoretical Study Hours of Course Per Week	14	4	56
Practicing Hours of Course Per Week	0	0	0
Reading	0	0	0
Searching in Internet and Library	12	2	24
Designing and Applying Materials	0	0	0
Preparing Reports	0	0	0
Preparing Presentation	0	0	0
Presentation	6	2	12
Mid-Term and Studying for Mid-Term	6	2	12
Final and Studying for Final	6	3	18
Other	0	0	0
Total work load			122
Total work load/25			4.88
ECTS of the course			5

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,	X				

		make effective presentations						
	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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