	ORG	ANIC	CHEMISTRY I									
1	Course Title:	ORGAN	IC CHEMISTRY I									
2	Course Code:	KIM201										
3	Type of Course:	Compuls	Compulsory									
4	Level of Course:	First Cyc	First Cycle									
5	Year of Study:	2	2									
6	Semester:	3										
7	ECTS Credits Allocated:	4.00										
8	Theoretical (hour/week):	4.00										
9	Practice (hour/week):	0.00										
10	Laboratory (hour/week):	0										
11	Prerequisites:											
12	Language:	Turkish										
13	Mode of Delivery:	Face to	face									
14	Course Coordinator:	Prof. Dr.	MUSTAFA TAVASLI									
15	Course Lecturers:	Prof. Dr.	GANİ KOZA									
16	Contact information of the Course Coordinator:											
17	Website:											
18	Objective of the Course:											
19	Contribution of the Course to Professional Development:											
20	Learning Outcomes:											
		1	Learning the basic organic chemistry terms									
		2	Realizing the general properties of organic compounds									
		3	Learning the risks about organic compounds (personal and environmental) and using the chemicals carefully									
		4	Learning the reactions of some main organic functional groups.									
		5	Understanding and being able to comment on the reaction mechanisms.									
		6	Being able to comment on the problems about organic chemistry and getting skills for solving the problems.									
		7										
		8										
		9										
		10										
21	Course Content:											
		Co	ourse Content:									
Week	Theoretical		Practice									

1	Carbon Compounds and Chemical Bonds Chemical Bonds: Ionic and covalent bonds Writing Lewis Structure Octet Rule and exceptions of the rule Formal Charge Resonance Molecular Orbital Theory Atomic Orbitals (s, p) Molecular Orbitals (?,?*, ?, **) sp3, sp2 and sp Hybridization Molecular Geometry Presentations of Molecular Formula Closed, Structural, Condensed, Iine, Three dimensional formulas At the end of the course problem solving			
2	Functional Groups Polar/apolar covalent bonds Intermolecular forces Unctional Groups: Alkanes, Alkenes and Alkynes Aromatic Compounds Alkyl Halides Alcohols and Ethers Amines Aldehide and Ketons Carboxylic Acids, Acid chlorides, Acid			
Activit	es	Number	Duration (hour)	Total Work Load (hour)
Theore	: ⊑lectromagnetic spectrum lical Hook rule			
Practica	als/Labs			
Self stu	dy Fangler i pineration Functional group regions			
Homew	rorks			
Project	? The Frequencies of Characteristic			
Field St				
Midtern	nexams Acids and Bases			
Others				
Final E	? Bonstea-Lowry Dennition PLewis Definition			
Total W	ork Load			
Total w	ork Load : The Strengmes of Acidity and Basicity (Na , ork pad/ 30 hr			
	Credit of the Course			4.00
	? Curve arrows ? The factors effecting the Acidity and Basidity ? Hybridization ? Inductive effect ? Resonance effect ? Diameter ? Positive atoms ? Solvent			

5	Alkanes: Nomenclature and Conformation • Straight and branched Alkanes: ? Nomenclature ? Structural Isomery ? Intermolecular Forces ? Conformational Analysis: Newman Projects / Sawtooth ? Ethane, propane and butane analyses	
6	Cycloalkanes: One cyclo, two cyclo and policyclo alkanes Nomenclature cis-/trans Isomery Ring stretching Conformational Analysis: Chair / Boat Cyclohexane, monosubstituted cyclohexane and di-substitutedcyclohexane analyses	
7	Stereochemistry	
8	? Determining the (R/S) Configuration ? Optical Activity ? Specific turning angle	
9	Enantiomers: Racemic Mixture Enantiomeric excess (e.e) Diastereoisomery: Diastereomeric excess (d.e.) Meso Compounds Fisher Projection Formulas Determining the (R/S) Configuration	
10	Reactions of Alkanes Radical Reactions: Homolytic Bond Breaking Radical Formation and Stability Reaction Mecanism Initiators, Growing and Termination Examples: Radicalic chlorination of methane Radicalic Addition of Hydrogen bromide to Alkanes Radicalic Polimerization of alkanes	
11	Reactions of Alkyl Halides • Nucleophilic Substitution (SN1/SN2) Reactions: ? Nucleophile, Electrophile and Leaving Groups ? Heterolytic bond breaking • SN2 Reaction: ? Reaction Kinetics ? Non-steady state (Walden Inversion) ? Stereochemistry ? Factors effecting the reaction rate ? The effects of Nucleophile, Electrophile, Leaving Group and Solvent	

		PQ1 PQ2	PO3	PO4	PQ5	PQ6	PQ7 F	Q8 PQ9	PQ1	PQ11	PQ12	PQ1	PQ14	PQ15	PQ16
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24	EC	TS/WO						DAW:C	<u> </u>	001:-	0.70	DD 2 :	00455		
Course		ent and Eva					ed in the								
Total								100.00							
	utior	of Final E	xam to	o Suc	cess G	rade		60.00							
Contrib Succes		n of Term (ade	Year)	Learn	ing Ac	tivities	s to	40.00							
Total							2	100.00							
Final Ex		-						60.00							
	work	-project)	0.00							
Quiz	II CX	alli)	0.00							
Midtern						ı	1	40.00							
		esment NING ACT	IVITIES	•		ı,	NUMBE	WEIGHT	•						
	Mat	erials:													
22	Tex	tbooks, Re	eferenc	es ar	nd/or O	ther									
	Alco • Cli alco • Ph • No • Re ? Tr ? Tr ? Tr ? Tr ? Tr ? Tr ? Tr ? Tr	chols assification phols assification phols aysical Properties actions: ansformat ansformat ansformat ansformat transformat transformat transformat transformat transformat transformat transformat transformat transformat transformat	perties e ion to a g to all ion to a ye SOC ion to a s with a d E1/E	alcoxy alkyl h kyl bro alkyl o Cl2 alkyl t TsCl, E2 rea	ylates valides omides chloride cosylate MsCl v	with be with so with es with es with es mit	ase HX PBr3 h sylates								
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12	? Ro ? No ? St ? Fa ? Th	N1 Reaction Eaction Kircon-steady tereochem actors effects oving Group	netics state (istry cting th of Nucl	ne rea leoph	action r ile, Ele	ate	ŕ								

25		CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS 1 PQ2 PQ3 PQ4 PQ5 PQ6 PQ7 PQ8 PQ9 PQ1 PQ11 PQ12 PQ1 PQ14 PQ15 PQ16														
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Contrib ution Level:	1	very	low		2 low	,	3	Med	ium		4 Hig	h		5 Ver	y High	l
	LO: Learning Objectives PQ: Program Qualifications															
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0