	ORG	BANIC	CHEMISTRY								
1	Course Title:	ORGAN	IC CHEMISTRY								
2	Course Code:	KIM2433	3								
3	Type of Course:	Compuls	llsory								
4	Level of Course:	First Cyc	le								
5	Year of Study:	2	2								
6	Semester:	3									
7	ECTS Credits Allocated:	4.00	4.00								
8	Theoretical (hour/week):	3.00									
9	Practice (hour/week):	0.00									
10	Laboratory (hour/week):	0									
11	Prerequisites:	None									
12	Language:	Turkish									
13	Mode of Delivery:	Face to f	ace								
14	Course Coordinator:	Doç. Dr.	AYHAN YILDIRIM								
15	Course Lecturers:										
16	Contact information of the Course Coordinator:	Prof. Dr. Ayhan YILDIRIM yildirim@uludag.edu.tr 0 224 29 41 771									
17	Website:										
18	Objective of the Course:	The aim of the course is to teach the basic concepts and topics in organic chemistry, to develop the students' ability to solve organic chemistry problems and to enable students to develop their ability to use organic chemistry in molecular biology and genetics studies.									
19	Contribution of the Course to Professional Development:										
20	Learning Outcomes:										
		1	Learning basic organic chemistry terms								
		2	Comprehending the general properties of organic compounds								
		3	Learning stereochemistry and three dimensional structures of organic and biomolecules and drawing related structures								
		4	Writing organic reactions and their mechanisms								
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		10									
21	Course Content:										
		Co	ourse Content:								
Week	Theoretical		Practice								

1	Chemical bonds and molecular structures The importance of organic chemistry, chemical bond types, Lewis structures, formal load, VBT, MOT, hybridization, VSEPR			
2	Functional groups, molecular formulas, intermolecular forces, resonance Dipole moment, molecular polarity, intermolecular forces, H-bond and its effects, London distribution forces, representations of organic molecules, line bonds, compacted formulas, three dimensional structures, functional groups, resonance			
3	Organic acids and bases Acid-base definitions, curve arrows, Ka and pKa constants of organic acids, stabilization of anions in organic acids, ARIO (atom, resonance, inductive effect, otbital)			
4	Alkanes and cycloalkanes Nomenclature of alkanes and cycloalkanes, special and systematic nomenclature, IUPAC rules, bicyclic structures, structure isomers, functional group isomers, sources and use of alkanes, properties, combustion reactions, Newman projection, free radical reactions			
5	Conformation analysis and stereochemistry			
Activit	es	Number	Duration (hour)	Total Work Load (hour)
Theore	iemantiomers, diastereomers, Cahn-Ingold-	14	3.00	42.00
Practic	als/Labs	0	0.00	0.00
Self stu	<b>አለዲኮራ ያ<sup>r</sup> ዩቡዌርቲቨዊ</b> s, syntheses and reactions	14	3.00	42.00
Homew	vorks	0	0.00	0.00
Project	industrial synthesis methods, stereoisomers	0	0.00	0.00
Field S	tudies	0	0.00	0.00
Midierr	n exams	1	12.00	12.00
Others		0	0.00	0.00
Final E	Carbocation cvcles. hvdration.	1	24.00	24.00
Total V	/ork Load			120.00
Total w	nychologination, halogenation, syn- and anti-			4.00
ECTS (	Credit of the Course			4.00
8	Substitution reactions Alkyl halides, SN2 and SN1 mechanisms, Substitution reactions in biological systems			
9	Alcohols, ethers, epoxides, thiols Properties of alcohols, ethers, epoxides and thiols, their properties and nomenclature, usage areas, synthesis methods, reactions, spectroscopic properties			
10	Aldehydes and ketones Natural compounds containing aldehyde and ketone groups, structure and properties of aldehydes and ketones, nomenclature,			

11	Arom Benze aroma	atic com ene strue aticity, H	pounds cture, r ückel r	s iomen ule, N	iclature	e, d Fros	st											
	benzy comp	/lic react ounds, s	ions, o pectro	ther re	e comp eaction c prope	s of a rties	s, romati	с										
12	Carbo Carbo struct nome esters spect	oxylic ac oxyl grou ure and enclature s, anhyd roscopic	ds and ps in n proper , synth rides, a prope	l their atural ties, a esis a amides rties	derivat compo cidity, nd read s, nitrile	tives ounds ounds ctions es,	,											
13	IR, 1H spect IR spe analy spect UV-V analy struct	H NMR a roscopic ectrosco sis, 1H N roscopy IS spect sis, GC- ture anal	nd 130 metho py and IMR ar and or roscop MS spe ysis	C NMF ods, G orgar nd 130 ganic y and ecrom	R, UV-\ C-MS nic stru C NMR structu organie etry an	/IS cture re ana c strue d orga	alysis, cture anic											
14	Orgar Carbo struct	nic chem phydrate tural prop	istry of s, prote perties	f biom eins, li and s	olecule pids, n ome re	es ucleic actior	acids Is	,										
22	Textb Mater	ooks, Ro rials:	eferenc	es an	d/or Of	ther		G. Org J. M Co P. R. Org	<ul> <li>G. Solomons and C. Fryhle (Ed. G. Okay and Y. Yıldırır), Organik Kimya, Literatür Yayınları, 2002.</li> <li>J. McMurry, Organic Chemistry, Brooks/Cole Publishing Comp., 1992.</li> <li>P. Y. Bruice, Organic Chemistry, Prentice Hall, 2001.</li> <li>R. J. Fessenden and J. S. Fessenden (Ed. T. Uyar), Organik Kimya, Güneş Kitabevi, 1992.</li> </ul>									
23 TERM L	Asses EARN	ING ACT	IVITIES			N	UMBE	WE	IGHT									
	_					R												
Mildtern	n Exar	n				1		40.	00									
Home y	work-n	roject				0		0.0	0.00									
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ÖK4	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib1 very low2 lowutionLevel:							3	Medi	um		4 Hig	h	5 Very High			