PH	YSICAL CHEMISTRY	OF AT	OM AND MOLECULAR SYSTEMS						
1	Course Title:	PHYSIC	AL CHEMISTRY OF ATOM AND MOLECULAR SYSTEMS						
2	Course Code:	KIM5002	2						
3	Type of Course:	Compuls	sory						
4	Level of Course:	Second	Cycle						
5	Year of Study:	1							
6	Semester:	2							
7	ECTS Credits Allocated:	6.00							
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	face						
14	Course Coordinator:	Prof. Dr.	BEYHAN ERDEM						
15	Course Lecturers:								
16	Contact information of the Course Coordinator:	Prof. Dr. gbeyhan 0224 294	Beyhan Erdem @uludag.edu.tr 12864						
17	Website:								
18	Objective of the Course:	Have students comprehend all the physicochemical properties of atoms and molecular systems are related to present properties and analysing the properties make students understand every material behavior easily in detail.							
19	Contribution of the Course to Professional Development:	Understanding the basic topics of Phisical Chemistry of Atom and Molecular Systems course, associating with current issues and explaining.							
20	Learning Outcomes:								
		1	Comprehending physicochemical properties of atoms and molecules are related to present properties.						
		2	Understanding the behavior of materials for every chemical environment.						
		3	Comprehending the incapability of cllasical theories to understand the nature of materials.						
		4							
		5							
		6							
		7							
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		10							
21	Course Content:								
		ourse Content:							
Week	Theoretical		Practice						
1	Incapability of classical theories								
2	Compton Effect								
3	Photoelectric effect								

4	Black body radiation and Laws of Planck																
5	Applicability conditions for the real gases and the ideal gas laws						t										
6	Wave mechanics principles																
7	The absorption and emission properties of hydrogen and hydrogen-like atoms																
8	Bonding theories and types of chemical bonds																
9	Repetition of previous lessons																
10	Dielectric properties																
11	Molecular diffraction																
12	Polarization																
13	Molecular geometry and rotational motions																
14	Interm	olec	cular	and ir	tramo	olecula	r intera	action	s								
22	Textbooks, References and/or Other Materials:						1) 2) Ve 3) Die	 M. Cebe, Fizikokimya II. Uludağ Üniversitesi,1995 Jaenicke,W., physikalische chemie, George Thieme Verlap, Stuttgart, 1970 Hease,R., Thermodynamic Elektrochemisher Systeme, Dietrich Steinkoff Verlag, Darmstadt, 1972 									
23 Assesment																	
Activite	Activites							Number			Dura	Duration (hour)			Total Work Load (hour)		
Theoretical						0.94			3.00	3.00			42.00				
Practica	Practicals/Labs								0			0.00	0.00			0.00	
Self stu	Self study and preperation						יי ר	14			6.00			84.00			
Homew	omeworks							11			5.00	5.00			55.00		
Brojects	ninpution of Term (Year) Learning Activities to								0.00			0.00	0.00			0.00	
Field St	Id Studies						(0			0.00			0.00			
Midterm	erm exams						ŢŢ				0.00			0.00			
Others	lers							0			0.00			0.00			
	asurement and Evaluation Techniques Used in the						eci	Classic exam			2.00	2.00			2.00		
Total W	al Work Load									183.00							
Total wo	ital work load/ 30 hr													6.10			
ECTS C	CTS Credit of the Course												6.00				
25	25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS																
	PG)1 F	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1	4	()	4	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	()	5	0	0	0	0	0	3	3	0	0	0	0	0	0
ÖK3	4	0	C	4	0	0	0	0	0	0	0	0	0	0	0	0	0
			L	.O: L	.earr	ning C)bjec	tives	s F	PQ: P	rogra	ım Qu	alifica	tions	5	-	-

Contrib	1 very low	2 low	3 Medium	4 High	5 Very High
ution					
Level:					