

ADVANCED COORDINATION CHEMISTRY

1	Course Title:	ADVANCED COORDINATION CHEMISTRY	
2	Course Code:	KIM6047	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	2	
6	Semester:	3	
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:	There is no course prerequisite.	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. RAHMIYE AYDIN	
15	Course Lecturers:	-	
16	Contact information of the Course Coordinator:	rahmiye@uludag.edu.tr 0224 2941729	
17	Website:		
18	Objective of the Course:	Maximize coordination chemistry knowledge of students and advanced topics related to the coordination chemistry are given. Recognition of the aims of coordination compounds.	
19	Contribution of the Course to Professional Development:	make use of theoretical and practical knowledge acquired in the field of coordination chemistry.	
20	Learning Outcomes:		
		1	Will have advanced knowledge on coordination compounds.
		2	Explain the structures of coordination compounds.
		3	Interpret spectroscopic properties of coordination compounds.
		4	Explain applications of coordination compounds.
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Bonding in coordination chemistry		
2	Valence-bond theory of coordination compounds		
3	Crystal field theory of coordination compounds		

4	Ligand field theory of coordination compounds	
5	Spectroscopic properties of coordination compounds	
6	Electronic properties of coordination compounds	
7	The Orgel diagram	
8	Tanabe-Sugona diagrams	
9	Repetition of previous lessons and midterm	
10	Reactions of coordination compounds	
11	Reactions of coordination compounds	
12	Applications of coordination compounds	
13	Applications of coordination compounds	
14	Applications of coordination compounds	

22	Textbooks, References and/or Other Materials:	[1] Coordination Chemistry Volume I, A.E. Martell, [2] Coordination Chemistry Volume II, A.E. Martell [3] Advanced Inorganic Chemistry, F.A. Cotton, G. Wilkinson, [4] Inorganic Chemistry, D.F. Shriver, P.W. Atkins, [5] Inorganic Chemistry: Principles of Structure and
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Activities			Number	Duration (hour)	Total Work Load (hour)
Theoretical			14	3.00	42.00
23 Assessment					
Practicals/Labs			0	0.00	0.00
Self study and preparation	R		14	3.00	42.00
Homeworks			0	0.00	0.00
Quiz	0	0	0	0.00	0.00
Field Studies			0	0.00	0.00
Final Exam	1	50	1	45.00	45.00
Others			0	0.00	0.00
Contribution of Term (Year) Learning Activities to Success Grade			50	45.00	45.00
Total Work Load					219.00
Contribution of Final Exam to Success Grade			50.00		5.80
Total work load/ 30 hr					
ECTS Credit of the Course					6.00

Measurement and Evaluation Techniques Used in the Course	Written exams, multiple-choice tests and presentation.
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24	ECTS / WORK LOAD TABLE
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	4	4	4	5	5	1	1	2	2	4	0	0	0	0	0	0
ÖK2	4	4	4	5	5	1	1	2	2	4	0	0	0	0	0	0
ÖK3	4	4	4	5	5	1	1	2	2	4	0	0	0	0	0	0

ÖK4	4	4	4	5	5	1	1	2	2	4	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			