ANALYTICAL CHEMISTRY I

1	Course Title:	ANALYTICAL CHEMISTRY I	
2	Course Code:	KIM2001	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	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. BELGİN İZGİ	
15	Course Lecturers:	Prof.Dr. MEHMET HALUK TÜRKDEMİR Prof. Dr. Saliha ŞAHİN Prof. Dr. Elif TÜMAY ÖZER Doç. Dr. Ümran SEVEN ERDEMİR	
16	Contact information of the Course Coordinator:	Prof. Dr. Belgin İZGİ belgin@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	The aim of this course is to give basic principles and concepts (concentration, dilution, precipitation, complex formation reactions, basic electrochemistry, evaluation of data, etc.) chemical reaction in solution.	
19	Contribution of the Course to Professional Development:	It provides the basis for the place and applications of basic analytical knowledge in the field of Chemistry	
20	Learning Outcomes:		
		1	Knows fundamental chemical analysis methods.
		2	Dominated by the accounts of concentration in aqueous solution chemistry.
		3	Can choose and explore a qualitative analysis method.
		4	Evaluate the results of the analysis in terms of accuracy and precision.Can practice chemical analysis method in laboratory.
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21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	What is analytical chemistry? Analytical chemistry, chemicals, supplies and basic operations	

2	The use of spreadsheets in analytical chemistry, calculations in analytical chemistry	
3	Errors in chemical analysis	
4	Aqueous solutions and chemical equilibrium	
5	Aqueous solutions and chemical equilibrium	
6	Effects of electrolytes on chemical equilibrium	
7	Solution of equilibrium problems in complex systems	
8	Midterm and Solution of equilibrium problems	
9	Solution chemistry: acid-base reactions	
10	Solution chemistry: acid-base reactions	
11	Solution chemistry: precipitation reactions	
12	Solution chemistry: redox reactions	
13	Midterm and redox reactions	
14	Solution chemistry: redox reactions	

22	Textbooks, References and/or Other Materials:	1] Kılıç, E. ve Yılmaz, H. (Çeviri editörleri), (Skoog, D.A.; West, D.M.; Holler, F.J. ve Crouch, S.R.), Analitik Kimya Temel İlkeler 1. Cilt, Bilim Yayıncılık, 8. Baskı, 2007, Ankara. [2] Gündüz, T. Kantitatif Analiz Ders Kitabı, Gazi Kitabevi, 7. Baskı, 2003. Ankara. [3] R.Kellner, J.M. Mermet, M.Otto, H.M. Widmer, 1997 "

23	Assesment			Activites	Number	Duration (hour)	Total Work Load (hour)
	TERM LEARNING ACTIVITIES	**NUMBE**	**WEIGHT**				
	Midterm Exam and preperation	2	40.00	Theoretical	14	2.00	28.00
	Homework-project	0	0.00	Practicals/Labs	14	2.00	28.00
	Midterm exams	3	100.00	Midterm Exam and preperation	1	2.00	28.00
	Success Grade			Homeworks	0	0.00	0.00
	Total		100.00	Projects	0	0.00	0.00
				Home work-project	0	0.00	0.00
				Field Studies	0	0.00	0.00
				Midterm exams	1	16.00	16.00
				Others	0	0.00	0.00
				Final Exams	1	20.00	20.00
				Total Work Load			120.00
				Total work load/ 30 hr	100.00		4.00
				ECTS Credit of the Course			4.00
				Course	Relative evaluation is applied.		

24	**ECTS / WORK LOAD TABLE**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0

ÖK4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications					
Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**