

<b>Course Title:</b> KİM208A - Analytical Chemistry II							<b>Department Name:</b> Department of Secondary Education Science and Mathematics Teaching Chemistry Teaching Program			
Term	Teaching Methods							Credits		
	Lecture	Prtc.	Lab.	Project Res.		Other	Total	Credit	ECTS Credit	
4	56	28	-	-		141	225	5	9	
<b>Language</b>	Turkish									
<b>Compulsory / Elective</b>	Compulsory									
<b>Prerequisites</b>	None									
<b>Course Description</b>	The theory of neutralization titrations, titration curves for complex acid base reactions The application of neutralization titrations, precipitation reactions, complex formation titrations, introduction to electrochemistry, the applications of standard electrode potentials, the applications of oxidation-reduction titrations									
<b>Course Objectives</b>	Giving fundamental concepts of analytical chemistry such as neutralization, precipitation, complex formation and oxidation-reduction titrations									
<b>Learning Outcomes and Competencies</b>	Understanding of fundamental concepts of analytical chemistry such as neutralization, precipitation, complex formation and oxidation-reduction titrations and interpreting different titration curves									
<b>Textbook and/or References</b>	1. Analitik Kimya, D.A. Skoog, D.M. West, F.J. Holler, (Çev. Editörleri, E. Kılıç, F. Köseoğlu), Bilim Yayıncılık, 2000, Ankara									
<b>Assessment Criteria</b>							<b>If any mark as (X)</b>	<b>Percent (%)</b>		
	<b>Midterm Examinations</b>						X	40		
	<b>Quizzes</b>						-	-		
	<b>Homeworks</b>						-	-		
	<b>Projects</b>						-	-		
	<b>Term Paper</b>						-	-		
	<b>Laboratory work</b>						-	-		
	<b>Other</b>						-	-		
	<b>Final Exam</b>						X	60		
<b>Instructors</b>	Prof.Dr.Ziya KILIÇ ( <a href="mailto:zkilic@gazi.edu.tr">zkilic@gazi.edu.tr</a> ) Prof. Dr. Fitnat KÖSEOĞLU ( <a href="mailto:fitnat@gazi.edu.tr">fitnat@gazi.edu.tr</a> ) Assoc. Prof. Dr. Güler EKMEKCI ( <a href="mailto:guler@gazi.edu.tr">guler@gazi.edu.tr</a> )									
<b>Week</b>	<b>Topics</b>									
1	The theory of neutralization titrations; Problems									
2										
3	Titration curves for complex acid base reactions; Problems									
4										
5	The application of neutralization titrations; Problems									
6										
7	Precipitation reactions; Problems									
8	Midterm exam									
9	Complex formation titrations; Problems									
10										

<b>11</b>	Introduction to electrochemistry
<b>12</b>	The applications of standard electrode potentials; Problems
<b>13</b>	
<b>14</b>	The applications of oxidation-reduction titrations; Problems

<b>Course Title:</b> KİM212A - Inorganic Chemistry II						<b>Department Name:</b> Department of Secondary Education Science and Mathematics Teaching Chemistry Teaching Program		
Term	Teaching Methods						Credits	
	Lecture	Prtc.	Lab.	Project/Field Study	Other	Total	Credit	ECTS Credit
4	56	0			144	200	4	8
<b>Language</b>	Turkish							
<b>Compulsory / Elective</b>	Compulsory							
<b>Prerequisites</b>	None							
<b>Course Description</b>	Introduction to coordination chemistry, nomenclature of coordination compounds structure and isomerism of coordination compounds, valence bond theory, crystal field theory, ligand field theory, organo metallic chemistry, inorganic reaction mechanism							
<b>Course Objectives</b>	Giving bonding theories to explain the structure of coordination compounds							
<b>Learning Outcomes and Competencies</b>	Understanding the theory that can be used to explain the structure of coordination compounds.							
<b>Textbook and/or References</b>	1. -İnorganik Kimya, Miessler, G.L., Tarr, D.A., Palme yayıncılık, 2002, Ankara. 2. -Anorganik Kimya, Özkar, S.,Gazi Kitabevi, 2005, Ankara. 3. Anorganik Kimya, Shriver, D.F., Atkins,P.W.,Bilim Kitabevi, 2003, Ankara. 4. -Anorganik Kimya, Ölmez, H., Yılmaz,V.T.,Furkan Kitabevi, 2004,Samsun							
<b>Assessment Criteria</b>							<i>If any mark as (X)</i>	<b>Percent (%)</b>
	<b>Midterm Examinations</b>						X	40
	<b>Quizzes</b>						-	-
	<b>Homeworks</b>						-	-
	<b>Projects</b>						-	-
	<b>Term Paper</b>						-	-
	<b>Laboratory work</b>						-	-
	<b>Other</b>						-	-
	<b>Final Exam</b>						X	60
<b>Instructor(s)</b>	Assoc. Prof. Dr.Yüksel TUFAN ( <a href="mailto:ytufan@gazi.edu.tr">ytufan@gazi.edu.tr</a> )							
<b>Week</b>	<b>Topics</b>							
1	History of coordination compounds, Alfred Werner and coordination compounds							
2	Nomenclature of coordination compounds, isomerism in coordination chemistry,							
3	coordination numbers and structures							
4	Bonding theories in coordination chemistry							
5	Valence bond theory of coordination compounds, hybridization in coordination							
6	chemistry							
7	Crystal field theory, crystal field splitting , colors of coordination compounds,							
8	spektrochemical series, John-Teller effect							
9	Ligand field theory, back bonding,							
10	ligand field stabilization energy							
11	Organo metallic chemistry, organic ligands,							
12	18 electron rule, CO and other ligands,							
13	Inorganic reaction mechanism, substitution reactions,							



<b>Course Title:</b> KİM210A - Analytical Chemistry Laboratory II							<b>Department Name:</b> Department of Secondary Education Science and Mathematics Teaching Chemistry Teaching Program			
Term	Teaching Methods							Credits		
	Lecture	Prtc.	Lab.	Project Res.		Other	Total	Credit	ECTS Credit	
4	-	-	112	-		-	112	2	4	
<b>Language</b>	Turkish									
<b>Compulsory / Elective</b>	Compulsory									
<b>Prerequisites</b>	None									
<b>Course Description</b>	<p>-Giving general knowledge for qualitative analysis methods.</p> <p>-Gravimetric Determinations (determination of sulfate and iron)</p> <p>-Acid-base neutralization (determination of NaOH with HCl)</p> <p>-Precipitation titrations (determination of chloride by Mohr Method)</p> <p>-Oxidation-reduction titrations(determination of iron(II) by <math>KMnO_4</math> and copper(II) by iodometric method)</p> <p>-Analysis by compleximetric titration (determination of Calcium and magnesium by EDTA)</p>									
<b>Course Objectives</b>	Done semi-micro level quantitative analysis with gravimetric and volumetric analysis methods.									
<b>Learning Outcomes and Competencies</b>	Can be learning quantitative analysis with gravimetric and volumetric methods.									
<b>Textbook and/or References</b>	<ol style="list-style-type: none"> <li>Yarı Mikro Kalitatif Analiz, Gündüz T, Ankara Üni. Basımevi, 1985, Ankara</li> <li>Kalitatif Analiz, Somer G. Türker A.R. ve arkadaşları, Bizim Büro Basımevi, 1997, Ankara</li> </ol>									
<b>Assessment Criteria</b>								<i>If any, mark as (X)</i>	Percent (%)	
	<b>Midterm Examinations</b>							-		
	<b>Quizzes</b>							x	20	
	<b>Homeworks</b>							-	-	
	<b>Projects</b>							-	-	
	<b>Term Paper</b>							-	-	
	<b>Laboratory work</b>							x	20	
	<b>Other</b>							-	-	
	<b>Final Exam</b>							x	60	
<b>Instructors</b>	Prof.Dr.Ziya KILIÇ ( <a href="mailto:zkilic@gazi.edu.tr">zkilic@gazi.edu.tr</a> ) Prof. Dr. Fitnat KÖSEOĞLU ( <a href="mailto:fitnat@gazi.edu.tr">fitnat@gazi.edu.tr</a> ) Assoc. Prof. Dr. Güler EKMEKCI ( <a href="mailto:guler@gazi.edu.tr">guler@gazi.edu.tr</a> )									
<b>Week</b>	<b>Topics</b>									
<b>1</b>	Brief introduction about qualitative analysis methods.									

2	Gravimetric Determinations (determination of sulfate)
3	
4	
5	Gravimetric Determinations (determination of iron)
6	
7	Gravimetric Determinations (determination of nickel)
8	
9	Acid-base neutralization (determination of NaOH with HCl)
10	Precipitation titrations (determination of chloride by Mohr Method)
11	Oxidation-reduction titrations(determination of iron(II) by $\text{KMnO}_4$ )
12	Oxidation-reduction titrations (determination of copper(II) by iodometric method)
13	Analysis by compleximetric titration (determination of calcium and magnesium by EDTA)
14	<b>General discussion</b>

<b>Course Title:</b> KİM 214A - Inorganic Chemistry Laboratory								<b>Department Name:</b> Department of Secondary Education Science and Mathematics Teaching Chemistry Teaching Program			
Term	Teaching Methods							Credits			
	Lecture	Prtc.	Lab.	Project Res.		Other	Total	Credit	ECTS Credit		
4		-	28	-		-	28	1	2		
<b>Language</b>	Turkish										
<b>Compulsory / Elective</b>	Compulsory										
<b>Prerequisites</b>	None										
<b>Course Description</b>	Structure of compounds, synthesis of gases, isomerism in Coordination chemistry, main group elements compounds, synthesis of coordination compounds										
<b>Course Objectives</b>	Understanding the properties of main and transition elements.										
<b>Learning Outcomes and Competencies</b>	Synthesis of main group elements compounds and coordination compounds										
<b>Textbook and/or References</b>	1. Microscale in Inorganic Chemistry, John Wiley, New York, 1991										
<b>Assessment Criteria</b>								<b>Adet</b>	<b>Yüzde</b>		
	<b>Midterm Examinations</b>							1	20		
	<b>Quizzes</b>							-	-		
	<b>Homeworks</b>							-	-		
	<b>Projects</b>							-	-		
	<b>Term Paper</b>							-			
	<b>Laboratory work</b>							-	40		
	<b>Other</b>							-	-		
<b>Final Exam</b>							1	40			
<b>Course Category by Content (%)</b>	<i>Mathematics</i>							10			
	<b>General chemistry concepts</b>							10			
	<b>Inorganic Chemistry</b>							30			
	<b>Lab</b>							50			
<b>Instructors</b>	As.Prof.Dr.Yüksel TUFAN( ytufan@gazi.edu.tr)										
<b>Week</b>	<b>Topics</b>										
1	Lewis dot structure and VSEPR										
2	Symmetry and Point groups										
3	Solid state										
4	Less soluble silver salts										

<b>5</b>	Activity order
<b>6</b>	Synthesis of interhalogen compounds
<b>7</b>	Midterm exam
<b>8</b>	Synthesis of gases
<b>9</b>	PH measurements of oxides
<b>10</b>	Bonding isomerism
<b>11</b>	Geometric isomerism
<b>12</b>	Crystal water determination in Cupper sulphate
<b>13</b>	Magnetism
<b>14</b>	Compensation experiments

<b>Course Title:</b> KİM202G - Turkish Language-II						<b>Department Name:</b> Department of Secondary Education Science and Mathematics Teaching Chemistry Teaching Program		
Term	Teaching Methods						Credits	
	Lecture	Prtc.	Lab.	Project/Field Study	Other	Total	Credit	ECTS Credit
4	28	0	0		22	50	2	2
<b>Language</b>	Turkish							
<b>Compulsory / Elective</b>	Compulsory							
<b>Prerequisites</b>	None							
<b>Course Description</b>	Development and evaluation of oratory skills, important aspects for the correct pronunciation of Turkish : diction , correct grammar , correct punctuation , correct toning ; text based practice ; talking disorders and their corrections; dialogs; techniques to improve oratory skills ; preparing speeches for important dates and management of their contents ; body language ; the factors which effect the oratory skills ; poem reading techniques ; studies related to panels, forums , symposiums and conferences COMPREHENSION TECHNIQUES : reading comprehension, various reading skills and techniques, reading and note taking , critical reading , transferring what was read, relation between reading and other learning techniques , improving the reading speed and efficiency , listening comprehension , listening and note taking , critical listening , improving listening efficiency , relation between listening and other learning techniques							
<b>Course Objectives</b>	The primary objective of the course is to furnish the students with good oratory skills and make them conscious about the importance of the mother tongue .							
<b>Learning Outcomes and Competencies</b>	At the end of the this course the students learn the secrets of fluent and effective speech .							
<b>Textbook and/or References</b>	<ol style="list-style-type: none"> <li>1. Yazılı Ve Sözlü Anlatım Şerif Aktaş, Osman Gündüz</li> <li>2. Sözlü Anlatım Hüseyin Ağca</li> <li>3. Sözlü Ve Yazılı Anlatım Etkinlikleri Yavuz Bayram</li> <li>4. Konuşma Eğitimi Suat Taşer</li> <li>5. Okuma Sanatı Emin Özdemir</li> </ol>							
<b>Assessment Criteria</b>							<b>Varsa (X) olarak işaretleyiniz</b>	<b>Yüzde (%)</b>
	<b>Midterm Examinations</b>						X	40
	<b>Quizzes</b>						-	-
	<b>Homeworks</b>						-	-
	<b>Projects</b>						-	-
	<b>Term Paper</b>						-	-
	<b>Laboratory work</b>						-	-
	<b>Other</b>						-	-
	<b>Final Exam</b>						X	60
<b>Instructors</b>								

<b>Week</b>	<b>Topics</b>
<b>1</b>	The techniques used for efficient and correct speech , diction and its importance , training of the voice
<b>2</b>	Use of body language , factors important for the correct pronunciation of Turkish
<b>3</b>	Speaking mistakes , correct grammar, toning and punctuation ,
<b>4</b>	Text reading studies , poem reading techniques
<b>5</b>	Preparing speeches for important days
<b>6</b>	Preparing speeches for important days
<b>7</b>	Mid term
<b>8</b>	Arrangement of the content of the speech, oral expression types , the factors effecting the oral skills
<b>9</b>	Speaking in front of an audience , conference , speech, panel , open discussion , forum and symposium studies .
<b>10</b>	Comprehension and comprehension techniques
<b>11</b>	Reading , various reading skills and techniques , the factors which hinder effective reading
<b>12</b>	Critical reading , transferring what was read , improving the speed and quality of reading
<b>13</b>	Listening , listening comprehension , transferring , various listening skills and techniques, the factors which hinder effective listening
<b>14</b>	Listening and note taking , critical listening , improving the efficiency of listening

<b>Course Title:</b> KİM206M - Classroom Management						<b>Department Name:</b> Department of Secondary Education Science and Mathematics Teaching Chemistry Teaching Program		
Term	Teaching Methods						Credits	
	Lecture	Prtc.	Lab.	Project/Field Study	Other	Total	Credit	ECTS Credit
4	28	0			22	50	2	2
<b>Language</b>		Turkish						
<b>Compulsory / Elective</b>		Compulsory						
<b>Prerequisites</b>		None						
<b>Course Description</b>		Social and psychological factors which effect the student behaviors, classroom medium and group interaction , classroom management and disciplinary actions , time management in the classroom , class room organization , motivation , communication , starting a new term , creation of a positive medium for the effective learning , behavioral problems encountered in the class room and precautions to be taken against them .						
<b>Course Objectives</b>		The objective of this course is to equip the pre service teachers with the skills to provide a positive social, physiological and physical medium in the classroom to facilitate an effective learning process .						
<b>Learning Outcomes and Competencies</b>		The outcomes of this course can be summarized as follows : -being acquainted with the basic approaches and their principles in classroom management -being aware of the factors which effect the students' behavior and developing strategies against them . - being furnished with effective communications skills , capable of applying them in the classroom -realizing the importance of classroom rules , developing new rules , creation of motivating conditions , taking precautions against adverse behavior - active time management -establishing positive relations with parents						
<b>Textbook and/or References</b>		<ol style="list-style-type: none"> <li>1. Aksoy, N. (2001). 'Sınıf Yönetimi ve Disiplin Modellerinin Dayandığı Temel Yaklaşımlar'. Kuram ve Uygulamada Eğitim Yönetimi, 7 (25)</li> <li>2. Sınıf Yönetimi (2004).(editör Emin Karıp) Pegem Yayınları, Ankara.</li> <li>3. Sınıf Yönetimi (2004). (Zeki Kaya)Pegem Yayınları, Ankara.</li> <li>4. Başar, Hüseyin. (2002). Sınıf Yönetimi. Anı Yayıncılık, Ankara</li> <li>5. Aydın, Ayhan. (2000). Sınıf Yönetimi. Baran Ofset</li> <li>6. Çelik, Vehbiç (2002). Sınıf Yönetimi ve Disiplini. AnıYayınları</li> <li>7. Alanla ilgili diğer yayınlar</li> </ol>						
<b>Assessment Criteria</b>							<b>Varsa (X) olarak işaretleyiniz</b>	<b>Yüzde (%)</b>
		<b>Midterm Examinations</b>					X	30
		<b>Quizzes</b>					-	-
		<b>Homeworks</b>					-	-
		<b>Projects</b>					-	-
		<b>Term Paper</b>					X	10

	<b>Laboratory work</b>	-	-
	<b>Other</b>	-	-
	<b>Final Exam</b>	X	60
<b>Instructors</b>			
<b>Week</b>	<b>Topics</b>		
<b>1</b>	Introduction of the objectives of the course , determination of the prior knowledge about the subject , introduction of the class room management		
<b>2</b>	Introduction of the basic approaches for class room management		
<b>3</b>	The basic factors effecting the students' behaviors : Social factors, psychological factors , developmental factors .		
<b>4</b>	Class room rules , their importance , their development and implementation		
<b>5</b>	Arrangement of the learning and teaching medium and the related parameters		
<b>6</b>	Communication in the class , the factors which hinder it and the steps taken to prevent them .		
<b>7</b>	Class room motivation concepts		
<b>8</b>	Management of class room assignments and home works, means to improve the efficiency of home works , the points which should be taken into account when giving home works, assessment of the home works		
<b>9</b>	The management of students' behaviors and means of eliminating adverse behaviors		
<b>10</b>	Time management in the class room , waiting time and transitions		
<b>11</b>	School-parents relations , parents' expectations , the way of improving the collaborating school parents interactions		
<b>12</b>	Solution of the conflicts among the students , the reasons behind them, arbitration and problem solving		
<b>13</b>	Revision and evaluation of the course		
<b>14</b>	One week is allocated for the midterm exam		

<b>Course Title:</b> KİM204G - Computer II						<b>Department Name:</b> Department of Secondary Education Science and Mathematics Teaching Chemistry Teaching Program		
Term	Teaching Methods						Credits	
	Lecture	Prtc.	Lab.	Project/Field Study	Other	Total	Credit	ECTS Credit
4	28	28	-	-	19	75	3	3
<b>Language</b>	Turkish							
<b>Compulsory / Elective</b>	Compulsory							
<b>Prerequisites</b>	None							
<b>Course Description</b>	Programing Language-FORTRAN, Hyper Text Markup Language-HTML, WEB Site Design, Program of Data Base and its Applications							
<b>Course Objectives</b>	Teaching the use of computers in chemistry							
<b>Learning Outcomes and Competencies</b>	The students will come out equipped with sufficient computer using skills for their future careers							
<b>Textbook and/or References</b>	-Computing for beginners, Karagülle, İ., Pala, Z., Türkmen Kitabevi, 1999, İstanbul in Turkish)							
<b>Assessment Criteria</b>							<i>If any, mark as (X)</i>	<b>Percent (%)</b>
	<b>Midterm Examinations</b>						x	20
	<b>Quizzes</b>						-	-
	<b>Homeworks</b>						x	20
	<b>Projects</b>						-	-
	<b>Term Paper</b>						-	-
	<b>Laboratory work</b>						-	-
	<b>Other</b>						-	-
	<b>Final Exam</b>						x	60
<b>Instructors</b>	Assis.Prof.Dr. M.Akif ŞENELT (senelt@gazi.edu.tr)							
<b>Week</b>	<b>Topics</b>							
1	Programming language, algorithm, flow sheet,							
2								
3	FORTRAN programming language, commands, statements							
4								
5	Programming applications with FORTRAN language							
6								
7	Hyper text markup language-HTML commands, preparing of source file							
8	Midterm exam							
9	Preparation of a WEB site, splitting the site, using the site							
10								
11	Applications of WEB site design							
12	Programming Data Base							
13	Create Data Base and applications							
14								