2021-2022 SUMMER KIM101E and KIM 101 OUTCOMES	MIDTERM																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Identify and apply atomic theories and useful relationships from the periodic table		+	+			+	+		+											
2. Make calculations with using stochiometry in chemical reactions				+			+	+		+		+		+					+	+
3. Solve different problems about liquid solutions and gases										+					+	+	+	+	+	+
4. Make applications about heat, work, enthalpy and internal energy	+				+								+							
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories											+									
6. Show the crystal structures of solids and skills to solve related problems																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)								+												
AVERAGE (OVER 100) **For KIM 101 : 60.8** **For KIM 101E: 61.6**																				

2021-2022 SUMMER KIM101E and KIM 101 OUTCOMES	FINAL																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	3	19	16	20	7	18	6	10	5	17	2	13	1	8	4	14	11	12	9	15
1. Identify and apply atomic theories and useful relationships from the periodic table	+							+												
2. Make calculations with using stochiometry in chemical reactions		+		+					+				+			+				
3. Solve different problems about liquid solutions and gases		+	+	+			+		+				+	+	+		+	+		
4. Make applications about heat, work, enthalpy and internal energy														+		+			+	
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories										+	+									
6. Show the crystal structures of solids and skills to solve related problems												+								
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration		+		+	+	+														+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)									+											+
AVERAGE (OVER 100) **For KIM 101 : 48.4** **For KIM 101E: 47.7**																				

2021-2022 SPRING KIM101 and KIM 101E OUTCOMES	MIDTERM																			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table					+	+	+											+		
2. Make calculations with using stochiometry in chemical reactions	+	+					+	+		+		+	+	+	+	+	+		+	
3. Solve different problems about liquid solutions and gases								+	+	+		+	+				+		+	
4. Make applications about heat, work, enthalpy and internal energy		+		+			+									+			+	
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories			+								+									+
6. Show the crystal structures of solids and skills to solve related problems																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																			+	
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)										+		+		+						
AVERAGE (OVER 100) **For KIM 101 : 44.7** **For KIM 101E: 50.3**																				

2021-2022 SPRING KIM101 and KIM 101E OUTCOMES	HOMEWORK 1									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+	+	+							
2. Make calculations with using stochiometry in chemical reactions	+			+	+	+	+	+		+
3. Solve different problems about liquid solutions and gases					+	+	+	+	+	+
4. Make applications about heat, work, enthalpy and internal energy										
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories										
6. Show the crystal structures of solids and skills to solve related problems										
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration							+	+		
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)						+	+	+		
AVERAGE (OVER 100) **For KIM 101 : 83.88** **For KIM 101E: 85.43**										

2021-2022 SPRING KIM101 and KIM 101E OUTCOMES	HOMEWORK 2									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table			+				+			
2. Make calculations with using stochiometry in chemical reactions	+		+							
3. Solve different problems about liquid solutions and gases	+	+						+		+
4. Make applications about heat, work, enthalpy and internal energy	+		+							
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories				+	+	+	+			
6. Show the crystal structures of solids and skills to solve related problems									+	
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration	+	+								
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)										
AVERAGE (OVER 100) **For KIM 101 : 59.26** **For KIM 101E: 60.28**										

2021-2022 SPRING KIM101 and KIM 101E OUTCOMES	FINAL																			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions		+				+		+	+		+									+
3. Solve different problems about liquid solutions and gases	+	+	+	+	+	+			+	+		+				+			+	+
4. Make applications about heat, work, enthalpy and internal energy						+					+							+		
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories							+							+						
6. Show the crystal structures of solids and skills to solve related problems																	+			
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration			+					+					+		+	+		+		
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)			+	+											+					+
AVERAGE (OVER 100) **For KIM 101 : 39.2** **For KIM 101E: 39.5**																				

2021-2022 FALL KIM101 and KIM 101E OUTCOMES	MIDTERM																			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table			+			+	+	+												
2. Make calculations with using stochiometry in chemical reactions	+	+			+		+						+				+		+	+
3. Solve different problems about liquid solutions and gases		+							+						+			+	+	+
4. Make applications about heat, work, enthalpy and internal energy										+							+			
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories			+	+							+	+				+				
6. Show the crystal structures of solids and skills to solve related problems																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration													+	+					+	
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)		+																		
AVERAGE (OVER 100) **For KIM 101 : 51.6** **For KIM 101E: 41.9**																				

2021-2022 FALL KIM101 and KIM 101E OUTCOMES	HOMEWORK 1									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table		+	+							
2. Make calculations with using stochiometry in chemical reactions	+			+	+	+	+	+	+	+
3. Solve different problems about liquid solutions and gases					+	+	+	+	+	+
4. Make applications about heat, work, enthalpy and internal energy										
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories										
6. Show the crystal structures of solids and skills to solve related problems										
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration				+						
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	+									
AVERAGE (OVER 100) **For KIM 101 : 90.3** **For KIM 101E: 89.8**										

2021-2022 FALL KIM101 and KIM 101E OUTCOMES	HOMEWORK 2									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table										
2. Make calculations with using stochiometry in chemical reactions										
3. Solve different problems about liquid solutions and gases					+		+			
4. Make applications about heat, work, enthalpy and internal energy	+	+								+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories			+	+						
6. Show the crystal structures of solids and skills to solve related problems						+			+	
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration		+						+		+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)					+			+		
AVERAGE (OVER 100) **For KIM 101 : 93.5** **For KIM 101E: 93.3**										

2021-2022 FALL KIM101 and KIM 101E OUTCOMES	FINAL																			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions	+	+	+	+													+	+	+	
3. Solve different problems about liquid solutions and gases	+	+		+	+						+	+	+	+	+	+	+			
4. Make applications about heat, work, enthalpy and internal energy						+	+													
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories								+	+											
6. Show the crystal structures of solids and skills to solve related problems										+										
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration		+	+															+	+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	+		+								+				+					
AVERAGE (OVER 100) For KIM 101 : 47.0 For KIM 101E: 41.9																				

2020-2021 SUMMER KIM101 and KIM 101E OUTCOMES	MIDTERM									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table		+		+						
2. Make calculations with using stochiometry in chemical reactions	+				+	+	+	+		
3. Solve different problems about liquid solutions and gases					+			+	+	
4. Make applications about heat, work, enthalpy and internal energy										+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories			+							
6. Show the crystal structures of solids and skills to solve related problems										
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration					+	+				+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)		+							+	
AVERAGE (OVER 100) **For KIM 101 : 57.8** **For KIM 101E: 55.4**										

2020-2021 SUMMER KIM101 and KIM 101E OUTCOMES	FINAL															
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table					+											
2. Make calculations with using stochiometry in chemical reactions				+	+		+	+	+			+			+	+
3. Solve different problems about liquid solutions and gases				+		+	+		+	+	+	+	+	+		+
4. Make applications about heat, work, enthalpy and internal energy					+											
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories	+															
6. Show the crystal structures of solids and skills to solve related problems			+													
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration		+				+	+	+		+	+	+			+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)				+										+		
AVERAGE (OVER 100) **For KIM 101 : 50.3** **For KIM 101E: 42.5**																

2020-2021 SPRING KIM101 and KIM 101E OUTCOMES	MIDTERM									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+	+	+							
2. Make calculations with using stochiometry in chemical reactions			+	+	+	+	+		+	
3. Solve different problems about liquid solutions and gases					+	+	+	+	+	
4. Make applications about heat, work, enthalpy and internal energy									+	
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories										+
6. Show the crystal structures of solids and skills to solve related problems										
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration						+	+		+	
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)			+	+	+					
AVERAGE (OVER 100) **For KIM 101 : 62.0** **For KIM 101E: 64.6**										

2020-2021 SPRING KIM101 and KIM 101E OUTCOMES	HOMEWORK 1									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+	+	+							
2. Make calculations with using stochiometry in chemical reactions					+	+	+	+		
3. Solve different problems about liquid solutions and gases							+	+	+	
4. Make applications about heat, work, enthalpy and internal energy										+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories				+						
6. Show the crystal structures of solids and skills to solve related problems										
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration										
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	+				+					
AVERAGE (OVER 100) **For KIM 101 : 72.5** **For KIM 101E: 75.0**										

2020-2021 SPRING KIM101 and KIM 101E OUTCOMES	HOMEWORK 2									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table										
2. Make calculations with using stochiometry in chemical reactions		+								+
3. Solve different problems about liquid solutions and gases	+		+		+	+	+	+	+	
4. Make applications about heat, work, enthalpy and internal energy		+								
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories										
6. Show the crystal structures of solids and skills to solve related problems				+						
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration								+	+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)							+	+		
AVERAGE (OVER 100) **For KIM 101 : 73.9** **For KIM 101E: 75.4**										

2020-2021 SPRING KIM101 and KIM 101E OUTCOMES	FINAL															
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+															
2. Make calculations with using stochiometry in chemical reactions		+		+	+	+	+				+		+			
3. Solve different problems about liquid solutions and gases		+	+	+	+	+		+	+	+				+	+	
4. Make applications about heat, work, enthalpy and internal energy				+					+			+				
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories	+															
6. Show the crystal structures of solids and skills to solve related problems													+			
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration			+			+	+				+	+				+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)						+		+							+	
AVERAGE (OVER 100) **For KIM 101 : 49.0** **For KIM 101E: 49.4**																

2020-2021 FALL KIM101 and KIM 101E OUTCOMES	MIDTERM									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+	+								
2. Make calculations with using stochiometry in chemical reactions		+	+		+	+	+	+	+	+
3. Solve different problems about liquid solutions and gases					+	+	+	+	+	+
4. Make applications about heat, work, enthalpy and internal energy										+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories				+						
6. Show the crystal structures of solids and skills to solve related problems										
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration										
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	+		+			+				
AVERAGE (OVER 100) **For KIM 101 : 60.8** **For KIM 101E: 55.5**										

2020-2021 FALL KIM101 and KIM 101E OUTCOMES	FINAL									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table			+						+	
2. Make calculations with using stochiometry in chemical reactions	+	+		+	+	+		+		
3. Solve different problems about liquid solutions and gases				+	+	+	+	+	+	+
4. Make applications about heat, work, enthalpy and internal energy										
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories			+							
6. Show the crystal structures of solids and skills to solve related problems	+									
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration		+		+	+				+	
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	+						+			+
AVERAGE (OVER 100) **For KIM 101 : 58.49** **For KIM 101E: 58.49**										

2019-2020 SUMMER KIM101 and KIM 101E OUTCOMES	FINAL									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table										
2. Make calculations with using stochiometry in chemical reactions	+	+								
3. Solve different problems about liquid solutions and gases		+	+							
4. Make applications about heat, work, enthalpy and internal energy				+						+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories					+					
6. Show the crystal structures of solids and skills to solve related problems						+				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration				+			+	+	+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)			+			+	+			
AVERAGE (OVER 100) **For KIM 101 : 38.06** **For KIM 101E: 33.37**										

2019-2020 SPRING KIM101 and KIM 101E OUTCOMES	Midterm																			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+	+	+	+	+		+													
2. Make calculations with using stochiometry in chemical reactions										+	+			+	+	+	+	+		
3. Solve different problems about liquid solutions and gases												+	+	+	+	+	+	+	+	+
4. Make applications about heat, work, enthalpy and internal energy																				
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories						+		+												
6. Show the crystal structures of solids and skills to solve related problems																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	+										+							+		+
AVERAGE (OVER 100) **For KIM 101 : 58.25** **For KIM 101E: 61.8**																				

2019-2020 SPRING KIM101 and KIM 101E OUTCOMES	Final														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table															
2. Make calculations with using stochiometry in chemical reactions															
3. Solve different problems about liquid solutions and gases	+	+					+	+	+	+	+			+	
4. Make applications about heat, work, enthalpy and internal energy			+	+											
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories					+	+									
6. Show the crystal structures of solids and skills to solve related problems															
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration			+	+			+		+	+	+	+	+	+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)		+					+		+		+				
AVERAGE (OVER 100) **For KIM 101 : 37.14** **For KIM 101E: 38.57**															

2019-2020 FALL KIM101 and KIM 101E OUTCOMES	Midterm I																			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+		+	+	+	+	+	+												
2. Make calculations with using stochiometry in chemical reactions		+								+	+	+	+		+	+	+	+	+	+
3. Solve different problems about liquid solutions and gases											+	+	+	+	+		+	+	+	+
4. Make applications about heat, work, enthalpy and internal energy																				
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories																				
6. Show the crystal structures of solids and skills to solve related problems																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)				+		+			+	+										
AVERAGE (OVER 100) **For KIM 101 : 63.2** **For KIM 101E: 56.5**																				

2019-2020 FALL KIM101 and KIM 101E OUTCOMES	MIDTERM II																			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table									+							+				
2. Make calculations with using stochiometry in chemical reactions	+																			
3. Solve different problems about liquid solutions and gases																+	+	+		
4. Make applications about heat, work, enthalpy and internal energy	+	+	+	+									+							
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories					+	+	+	+	+	+	+	+								
6. Show the crystal structures of solids and skills to solve related problems														+						
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration		+	+	+							+		+		+		+	+	+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)				+								+						+	+	+
AVERAGE (OVER 100) **For KIM 101 : 53.1** **For KIM 101E: 46,35**																				

2019-2020 FALL KIM101 and KIM 101E OUTCOMES	Final																			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions	+	+				+														
3. Solve different problems about liquid solutions and gases	+	+	+	+		+			+			+	+	+		+	+			
4. Make applications about heat, work, enthalpy and internal energy					+															+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories							+	+												
6. Show the crystal structures of solids and skills to solve related problems																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration						+			+	+	+	+	+	+	+	+	+	+	+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)		+	+					+	+											
AVERAGE (OVER 100) For KIM 101 : 50 For KIM 101E: 43.75																				

2018-2019 Summer KIM101 and KIM 101E OUTCOMES	Midterm I																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+	+		+	+	+	+	+		+	+									
2. Make calculations with using stochiometry in chemical reactions			+						+	+		+	+	+						
3. Solve different problems about liquid solutions and gases														+	+	+	+	+	+	+
4. Make applications about heat, work, enthalpy and internal energy																				
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories																				
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	+								+					+		+		+		+
AVERAGE(OVER 100) **For KIM 101 : 61.4** **For KIM 101E: 58.2**																				

Outcomes are given for Booklet A

2018-2019 Summer KIM101 and KIM 101E OUTCOMES	Midterm II																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions																				
3. Solve different problems about liquid solutions and gases																				
4. Make applications about heat, work, enthalpy and internal energy	+	+	+		+															
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories				+		+	+	+	+	+	+				+					
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions												+	+	+		+	+	+	+	+
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)		+	+									+	+	+			+	+		
AVERAGE(OVER 100) For KIM 101 : 45.9 For KIM 101E: 43.8																				

Outcomes are given for Booklet A

2018-2019 Summer KIM101 and KIM 101E OUTCOMES	Final																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+						+	+												
2. Make calculations with using stochiometry in chemical reactions								+												+
3. Solve different problems about liquid solutions and gases	+																			
4. Make applications about heat, work, enthalpy and internal energy		+							+						+					+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories			+								+		+							
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions					+					+				+		+				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration				+		+	+	+				+			+		+	+	+	
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)					+	+				+		+		+				+		
AVERAGE(OVER 100) **For KIM 101 : 41.15** **For KIM 101E: 44.85**																				

Outcomes are given for Booklet A

2018-2019 Spring KIM101 and KIM 101E OUTCOMES	Midterm I																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table		x	x	X			x	x	x	x	X		X							
2. Make calculations with using stochiometry in chemical reactions	x					x									x	x				
3. Solve different problems about liquid solutions and gases					x							X		x			x	x	x	X
4. Make applications about heat, work, enthalpy and internal energy																				
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories																				
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)																				
AVERAGE(OVER 100) **For KIM 101 : 55.6** **For KIM 101E: 57.25**																				

Outcomes are given for Booklet A

2018-2019 Spring KIM101 and KIM 101E OUTCOMES	**Midterm II**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions																				
3. Solve different problems about liquid solutions and gases																				
4. Make applications about heat, work, enthalpy and internal energy	x	x	x	x						x		x								
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories					x	x	x	x	x				X							
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions											x			x	x	x	x	x	x	X
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)																				
AVERAGE(OVER 100) **For KIM 101 : 48.4** **For KIM 101E: 47.25**																				

Outcomes are given for Booklet A

2018-2019 Spring KIM101 and KIM 101E OUTCOMES	**Final**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions												x								
3. Solve different problems about liquid solutions and gases	x	X																		
4. Make applications about heat, work, enthalpy and internal energy			X							x										
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories				x	x															
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions											x								x	x
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration						x	x	x	x				x	x	x	x	x	x		
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)																				
AVERAGE(OVER 100) **For KIM 101 : 42.85** **For KIM 101E: 44.35**																				

Outcomes are given for Booklet A

2018-2019 FALL KIM101 and KIM 101E OUTCOMES	**Midterm I**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	+									+					+	+	+	+	+	+
2. Make calculations with using stochiometry in chemical reactions		+	+	+	+	+	+	+	+											
3. Solve different problems about liquid solutions and gases					+		+	+	+		+	+	+	+						
4. Make applications about heat, work, enthalpy and internal energy																				
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories																				
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)					+															
AVERAGE(OVER 100) **For KIM 101 : 63.2** **For KIM 101E: 59.8**																				

Outcomes are given for Booklet A

2018-2019 FALL KIM101 and KIM 101E OUTCOMES	**Midterm II**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions																				
3. Solve different problems about liquid solutions and gases																				
4. Make applications about heat, work, enthalpy and internal energy						+	+										+	+	+	+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories	+	+	+	+	+															
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions								+	+	+	+	+	+	+	+	+				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)																				
AVERAGE(OVER 100) **For KIM 101 : 52.55** **For KIM 101E: 49.55**																				

Outcomes are given for Booklet A

2018-2019 FALL KIM101 and KIM 101E OUTCOMES	**Final**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions																				
3. Solve different problems about liquid solutions and gases								+			+		+				+			
4. Make applications about heat, work, enthalpy and internal energy									+											
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories		+																		
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions	+									+		+								
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration			+	+	+	+	+							+	+	+		+	+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)																				
AVERAGE(OVER 100) **For KIM 101 : 46.65** **For KIM 101E: 43.7**																				

Outcomes are given for Booklet A

2017-2018 Summer KIM101 and KIM 101E OUTCOMES	**1st Midterm**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	x	x	x	x	x	x	x	x	x				x							
2. Make calculations with using stochiometry in chemical reactions		x					x		x	x	x	x	x	x				x		
3. Solve different problems about liquid solutions and gases											x				x	x	x	x	x	x
4. Make applications about heat, work, enthalpy and internal energy																				
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories																				
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)					x			x	x	x						x	x			
AVERAGE(OVER 100) **For KIM 101 : 50.35** **For KIM 101E: 47.15**																				

2017-2018 Summer KIM101 and KIM 101E OUTCOMES	**2nd Midterm**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																				
2. Make calculations with using stochiometry in chemical reactions																				
3. Solve different problems about liquid solutions and gases					x				x											
4. Make applications about heat, work, enthalpy and internal energy	x	x	x	x																x
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories														x	x	x	x	x	x	
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions					x	x	x	x	x	x	x	x	x							
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	x			x			x				x									x
AVERAGE(OVER 100) **For KIM 101 : 46.0** **For KIM 101E: 39.6**																				

2017-2018 Summer KIM101 and KIM 101E OUTCOMES	Final																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table									x		x									
2. Make calculations with using stochiometry in chemical reactions			x			x											x			
3. Solve different problems about liquid solutions and gases						x														
4. Make applications about heat, work, enthalpy and internal energy							x			x							x			
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories											x	x				x				
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions					x		x						x					x	x	
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration	x	x	x	x				x						x	x		x			x
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)					x		x		x	x			x		x					
AVERAGE(OVER 100) For KIM 101 : 46.49 For KIM 101E: 45.3																				

Outcomes are given for Booklet A

2017-2018 Spring KIM101 and KIM 101E OUTCOMES	**1st Midterm**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	x	x	x	x				x										x		x
2. Make calculations with using stochiometry in chemical reactions					x	x	x						x		x	x	x		x	
3. Solve different problems about liquid solutions and gases					x				x	x	x	x		x	x	x				
4. Make applications about heat, work, enthalpy and internal energy																				
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories																				
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions																				
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)						x	x	x					x	x				x	x	
AVERAGE(OVER 100) **For KIM 101 : 59.1** **For KIM 101E: 59.9**																				

2017-2018 Spring KIM101 and KIM 101E OUTCOMES	**2nd Midterm**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table	x	x	x	x	x	x														
2. Make calculations with using stochiometry in chemical reactions								x												
3. Solve different problems about liquid solutions and gases													x							
4. Make applications about heat, work, enthalpy and internal energy								x	x	x		x								
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories	x	x	x	x	x	x	x				x									
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions														x	x	x	x	x	x	x
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																				
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)							x		x				x	x		x	x	x		x
AVERAGE(OVER 100) **For KIM 101 : 42.5** **For KIM 101E: 41.65**																				

2017-2018 Spring KIM101 and KIM 101E OUTCOMES	Final																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table		x																		
2. Make calculations with using stochiometry in chemical reactions			x															x		
3. Solve different problems about liquid solutions and gases			x			x														
4. Make applications about heat, work, enthalpy and internal energy									x	x		x								
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories															x	x			x	x
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions							x						x	x			x			
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration	x			x	x			x			x							x		
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)		x			x			x					x	x				x		
AVERAGE(OVER 100) For KIM 101 : 39.55 For KIM 101E: 41.15																				

Outcomes are given for Booklet A

2017-2018 Fall KIM101 and KIM 101E OUTCOMES	Midterm																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table			+								+								+	+	+	+		+	+
2. Make calculations with using stochiometry in chemical reactions			+				+	+	+	+	+														
3. Solve different problems about liquid solutions and gases								+		+		+	+												
4. Make applications about heat, work, enthalpy and internal energy														+	+	+	+	+					+		
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories	+	+		+	+	+																			
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions																									
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration																									
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)					+		+		+						+	+									
AVERAGE(OVER 100) For KIM 101 : 61 For KIM 101E: 52.29																									

Outcomes are given for Booklet A

2017-2018 Fall KIM101 and KIM 101E OUTCOMES	Final																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1. Identify and apply atomic theories and useful relationships from the periodic table																			+		+				
2. Make calculations with using stochiometry in chemical reactions									+				+												
3. Solve different problems about liquid solutions and gases																						+		+	
4. Make applications about heat, work, enthalpy and internal energy												+	+							+			+		+
5. Set up the three dimensional shape of molecular compounds with using their chemical bonding knowledge and some other bond theories				+															+						
6. Show the crystal structures of solids and to have knowledge about the physical properties of solutions	+	+	+		+				+							+	+	+							
7. Solve problems about thermodynamic, chemical equilibrium, acid and base concepts and concentration						+	+	+		+	+	+		+	+									+	+
8. Integrate their chemistry knowledge to their daily life with the real-world examples (examples relevant to the biological sciences, engineering and the environmental sciences)	+		+			+								+	+							+			
AVERAGE(OVER 100) **For KIM 101 : 49.8** **For KIM 101E: 43.6**																									

Outcomes are given for Booklet A