2012 Undergraduate Curriculum for Applied Chemistry (Ⅰ)

Course Number	Course Title	Assessment	Credits	Instruction Hour Allocation					Credits Distribution for Semesters															Responsible Unit
				Total Hrs	Lec	Lab	Practice	Recita-tion	1	Ⅰ	2	Ⅱ	3	Ⅲ	4	Ⅳ	5	Ⅴ	6	Ⅵ	7	Ⅶ	8	
									19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	16 W	
0004312	Modern Chinese History	Exam	2	32	32				2															School of Marxism
0000011	Physical Education-1	General Assessment	1	32	32				1															Department of Physical Education
0000007	College English (Band One)	Exam	4	64	64				4															College of Foreign Languages
0001903	Calculus (Engineering)-1	Exam	5.5	99	64			35	5.5															College of Applied Science
0001908	Linear Algebra (Engineering)	Exam	3	54	48			6	3															College of Applied Science
0004311	Ethical Conduct and Fundamentals of Law	Exam	3	48	32		16				3													School of Marxism
0000012	Physical Education-2	General Assessment	1	32	32						1													Department of Physical Education
0000008	College English (Band Two)	Exam	4	64	64						4													College of Foreign Languages
0000072	University Physics I-1	Exam	4	64	64						4													College of Applied Sciences
0001904	Calculus (Engineering)-2	Exam	5.5	99	64			35			5.5													College of Applied Sciences
0006457	Fundamentals of Chinese Sociology	Exam	4	64	48		16						4											School of Marxism
0002784	Fundamentals of National Defense	General Assessment	2	32	32							2												Students' Affairs Office
0000013	Physical Education-3	General Assessment	1	32	32								1											Department of Physical Education
0000009	College English (Band Three)	Exam	4	64	64								4											College of Foreign Languages
0000073	University Physics I-2	Exam	4	64	64								4											College of Applied Sciences
0003333	Probability and Statistics (Engineering)	Exam	3	54	50			4					3											College of Applied Sciences
0004361	Introduction to Philosophy	Exam	3	48	48										3									School of Marxism
0000014	Physical Education-4	General Assessment	1	32	32										1									Department of Physical Education
0000010	College English (Band Four)	Exam	4	64	64										4									College of Foreign Languages
University Requirements		**Sub-total**	**59**	**1042**	**930**		**32**	**80**	**15.5**		**17.5**	**2**	**16**		**8**									
0007075	Freshmen Seminar Course	General Assessment	1	16	16				1															College of Environmental and Energy Engineering
0000063	Organic Chemistry Ⅱ	Exam	4	64	64				4															College of Environmental and Energy Engineering

Course Number	Course Title	Assessment	Credits	Instruction Hour Allocation					Credits Distribution for Semesters															Responsible Unit
				Total Hrs	Lec	Lab	Practice	Recita-tion	1	Ⅰ	2	Ⅱ	3	Ⅲ	4	Ⅳ	5	Ⅴ	6	Ⅵ	7	Ⅶ	8	
									19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	16 W	
0000066	Engineering Graphics Ⅴ	Exam	3	48	48				3															Mechanical Engineering and Applied Electronics Technology
0000330	Fundamentals of C Programming Language	General Assessment	3	48	32	16					3													College of Computer Science
0002225	Analytical Chemistry Ⅱ	Exam	4	64	64								4											College of Environmental and Energy Engineering
0005739	Organic Chemistry-1	Exam	3	48	48								3											College of Environmental and Energy Engineering
0005740	Organic Chemistry-2	Exam	3	48	48										3									College of Environmental and Energy Engineering
0005741	Physical Chemistry-1	Exam	3	48	48										3									College of Environmental and Energy Engineering
0002226	Unit Operation Ⅰ	Exam	4.5	72	72												4.5							College of Environmental and Energy Engineering
0005742	Physical Chemistry-2	Exam	3	48	48												3							College of Environmental and Energy Engineering
0006167	Principles and Technology of Fine Organic Synthesis Ⅰ	Exam	2.5	40	40												2.5							College of Environmental and Energy Engineering
0005744	Chemical Technology	Exam	2.5	40	40														2.5					College of Environmental and Energy Engineering
0005745	Catalysis Chemistry	Exam	2.5	40	40														2.5					College of Environmental and Energy Engineering
Discipline Requirements		**Sub-total**	**39**	**624**	**608**	**16**			**8**		**3**		**7**		**6**		**10**		**5**					
0004761	Inorganic Chemistry Ⅱ Experiments	General Assessment	1.5	36		36			1.5															College of Environmental and Energy Engineering
0004746	Machine Shop Training A	General Assessment	1	30			30		1															College of Mechanical Engineering &Applied Electronics
0005753	Analytical Chemistry Experiments Ⅰ	General Assessment	1.5	36		36							1.5											College of Environmental and Energy Engineering
0002567	Practice of Engineering Graphics	General Assessment	2	60	60						2													College of Mechanical Engineering &Applied Electronics
0004964	Physics Experiments (Engineering) -1	General Assessment	1	24	2	22					1													College of Mechanical Engineering &Applied Electronics
0003087	Practices of National Defense	General Assessment	1	30			30					1												Students' Affairs Office
0004965	Physics Experiments (Engineering) -2	General Assessment	1.5	36		36							1.5											College of Applied Science
0007069	Social Practices	General Assessment	2	48			48									2								School of Marxism
0005754	Organic Chemistry Ⅰ	General Assessment	1.5	36		36										1.5								College of Environmental and Energy Engineering
0005757	Chemistry Major Experiments Ⅱ-1	General Assessment	2	48		48									2									College of Environmental and Energy Engineering
0005375	Cognitive Practice	General Assessment	1	30			30				1													College of Environmental and Energy Engineering
0003806	Unit Operation Experiments Ⅰ	General Assessment	1.5	36		36											1.5							College of Environmental and Energy Engineering

Course Number	Course Title	Assessment	Credits	Instruction Hour Allocation					Credits Distribution for Semesters															Responsible Unit
				Total Hrs	Lec	Lab	Practice	Recita-tion	1	Ⅰ	2	Ⅱ	3	Ⅲ	4	Ⅳ	5	Ⅴ	6	Ⅵ	7	Ⅶ	8	
									19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	16 W	
0005755	Physical Chemistry Experiments Ⅰ	General Assessment	1.5	36		36											1.5							College of Environmental and Energy Engineering
0005756	Course Design of Unit Operation Ⅱ	General Assessment	2	60		0	60										2							College of Environmental and Energy Engineering
0007407	Chemistry Major Experiments Ⅱ-2	General Assessment	2	48		48											2							College of Environmental and Energy Engineering
0007408	Chemistry Major Experiments Ⅱ-3	General Assessment	2.5	60		60													2.5					College of Environmental and Energy Engineering
0007409	Professional Practice	General Assessment	4	120			120													4				College of Environmental and Energy Engineering
0005234	Senior Project	General Assessment	16	480			480																16	College of Environmental and Energy Engineering
Practical Requirements		**Sub-total**	**45.5**	**1254**	**62**	**394**	**798**		**2.5**		**4**	**1**	**3**		**2**	**3.5**	**7**		**2.5**	**4**			**16**	
Discipline Electives			2	32	32														2					
Major Requirements			20	320	312	8											6		8		6			
Major Electives			4	64	64														2		2			
GEESEM:EM			6	96	96														2		4			
General Education Electives			10.5	168	168								2		4.5		2		2					
Electives		**Sub-total**	**42.5**	**680**	**672**	**8**							**2**		**4.5**		**8**		**16**		**12**			
Total for Theoretical Instruction			140.5	2346	2210	24	32	80	23.5		20.5	2	25		18.5		18		21		12			
Total for Practical Instruction			45.5	1254	62	394	798		2.5		4	1	3		2	3.5	7		2.5	4			16	
Innovation Requirements			4	96				96													4			
Total			**190**	**3696**	**2272**	**418**	**830**	**176**	**26**		**24.5**	**3**	**28**		**20.5**	**3.5**	**25**		**23.5**	**4**	**16**		**16**	

Notation: GEESEM:EM is the abbreviation for General Education Electives for Science and Engineering Majors: Economics and Management.

2012 Undergraduate Curriculum for Applied Chemistry (Ⅱ)

Course Number	Course Title	Assessment	Credits	Instruction Hour Allocation					Credits Distribution for Semesters															Responsible Unit
				Total Hrs	Lec	Lab	Practice	Recita-tion	1	Ⅰ	2	Ⅱ	3	Ⅲ	4	Ⅳ	5	Ⅴ	6	Ⅵ	7	Ⅶ	8	
									19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	16 W	
0005746	Mordern Chemistry	General Assessment	2	32	32														2					College of Environmental and Energy Engineering
0005728	Introduction to Energy	General Assessment	2	32	32																2			College of Environmental and Energy Engineering
Discipline Electives		**Sub-total**	**4**	**64**	**64**																			
0001680	Modern Instrumental Analysis	Exam	2	32	24	8											2							College of Environmental and Energy Engineering
0005752	Specialized English for Chemistry and Chemical Engineering	General Assessment	2	32	32												2							College of Environmental and Energy Engineering
0002254	Information Retrieval in Chemical Science and Engineering (Self-	General Assessment	2	32	32												2							College of Environmental and Energy Engineering
0007410	Applications of Computers in Chemistry (Chinese/English)	General Assessment	2	32	32														2					College of Environmental and Energy Engineering
0002258	Chemical Separation Technology	Exam	2	32	32														2					College of Environmental and Energy Engineering
0005747	Applied Electrochemistry (Chinese/English)	Exam	2	32	32														2					College of Environmental and Energy Engineering
0005749	Introduction to Green Chemistry	Exam	2	32	32														2					College of Environmental and Energy Engineering
0006149	Additives Chemistry and Their Applications Ⅰ	Exam	2	32	32																2			College of Environmental and Energy Engineering
0003223	Fine Chemicals Chemistry Ⅰ	Exam	2	32	32																2			College of Environmental and Energy Engineering
0005750	Environmental Catalysis	Exam	2	32	32																2			College of Environmental and Energy Engineering
Major Requirements		**Sub-total**	**20**	**320**	**312**	**8**																		
0005748	Inorganic Preparation Chemistry	Exam	2	32	32														2					
0005220	Structural Chemistry	General Assessment	2	32	32														2					College of Environmental and Energy Engineering
0000818	Membrane Separation Technology	General Assessment	2	32	32														2					College of Environmental and Energy Engineering
0000824	Extraction and Applications of Natural Products	Exam	2	32	32																2			College of Environmental and Energy Engineering
0003224	Biochemical Reaction Engineering	Exam	2	32	32																2			College of Environmental and Energy Engineering
0003220	Medicinal Chemistry	Exam	2	32	32																2			College of Environmental and Energy Engineering

Course Number	Course Title	Assessment	Credits	Instruction Hour Allocation					Credits Distribution for Semesters															Responsible Unit
				Total Hrs	Lec	Lab	Practice	Recita-tion	1	Ⅰ	2	Ⅱ	3	Ⅲ	4	Ⅳ	5	Ⅴ	6	Ⅵ	7	Ⅶ	8	
									19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	18 W	3 W	19 W	0 W	16 W	
Major Electives		Sub-total	12	192	192																			

Vice-Director: **Vice-President:**

Date: **Date:**