

2012 Undergraduate Curriculum for Biotechnology ( 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		
0004311	Ethical Conduct and Fundamentals of Law	Exam	3	48	32	0	16		3															School of Marxism	
0000011	Physical Education-1	General Assessment	1	32	32	0	0		1															Department of Physical Education	
0000007	College English (Band One)	Exam	4	64	64	0	0		4															College of Foreign Languages	
0001903	Calculus (Engineering)-1	Exam	5.5	99	64	0	0	35	5.5															College of Applied Sciences	
0004312	Modern Chinese History	Exam	2	32	32	0	0				2													School of Marxism	
000012	Physical Education-2	General Assessment	1	32	32	0	0				1													Department of Physical Education	
0000008	College English (Band Two)	Exam	4	64	64	0	0				4													College of Foreign Languages	
0000072	University Physics I-1	Exam	4	64	64	0	0				4													College of Applied Sciences	
0001904	Calculus (Engineering)-2	Exam	5.5	99	64	0	0	35			5.5													College of Applied Sciences	
0002784	Fundamentals of National Defense	General Assessment	2	32	32	0	0					2												Students' Affairs Office	
0004361	Introduction to Philosophy	Exam	3	48	48	0	0						3											School of Marxism	
0000013	Physical Education-3	General Assessment	1	32	32	0	0						1											Department of Physical Education	
0000009	College English (Band Three)	Exam	4	64	64	0	0						4											College of Foreign Languages	
0000073	University Physics I-2	Exam	4	64	64	0	0						4											College of Applied Sciences	
0006457	Fundamentals of Chinese Sociology	Exam	4	64	48	0	16								4									School of Marxism	
0000014	Physical Education-4	General Assessment	1	32	32	0	0								1									Department of Physical Education	
0000010	College English (Band Four)	Exam	4	64	64	0	0								4									College of Foreign Languages	
0007667	Programming with Visual Basic (Chinese/English)	General Assessment	2	32	32	0	0										2							College of Life Science and Bioengineering	
University Requirements		Exam	55	966	864	0	32	70	13.5		16.5	2	12		9		2								
0007158	Freshmen Seminar Course	General Assessment	2	32	32	0	0		2															College of Life Science and Bioengineering	
0006251	Medical Chemistry I-1	Exam	4	64	64	0	0		4															College of Life Science and Bioengineering	
0004653	General Biology	Exam	3	48	48	0	0		3															College of Life Science and Bioengineering	

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				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
0006252	Medical Chemistry I-2	Exam	4	64	64	0	0				4													College of Life Science and Bioengineering
0006281	Medical ChemistryI-3	Exam	4	64	64	0	0						4											College of Life Science and Bioengineering
0007197	Biochemistry-1	Exam	3	48	48	0	0						3											College of Life Science and Bioengineering
0007196	Biostatistics	Exam	3	48	48	0	0								3									College of Life Science and Bioengineering
0007198	Physiology	General Assessment	3	48	48	0	0								3									College of Life Science and Bioengineering
0004652	Biochemistry-2	Exam	2	32	32	0	0								2									College of Life Science and Bioengineering
0005630	Molecular Biology	Exam	2	32	32	0	0								2									College of Life Science and Bioengineering
0004657	Microbiology	Exam	3	48	48	0	0										3							College of Life Science and Bioengineering
0004656	Cell Biology	Exam	3	48	48	0	0										3							College of Life Science and Bioengineering
0006255	Genetics	Exam	3	48	48	0	0											3						College of Life Science and Bioengineering
Discipline Requirements		Sub-total	39	624	624	0	0		9		4		7		10		6		3					
0004746	Machine Shop Training A	General Assessment	1	30	0	30	0		1															College of Mechanical Engineering & Applied Electronics Technology
0007115	Cognitive Practice	General Assessment	1	30	0	0	30		1															College of Life Science and Bioengineering
0004964	Physics Laboratory (Engineering)-1	General Assessment	1	24	2	22	0				1													College of Applied Sciences
0007199	Medical Chemistry Experiment I	General Assessment	1.5	36	0	36	0				1.5													College of Life Science and Bioengineering
0003087	Practices of National Defense	General Assessment	1	30	0	0	30					1												Students' Affairs Office
0004965	Physics Laboratory (Engineering)-2	General Assessment	1.5	36	0	36	0						1.5											College of Applied Sciences
0007200	Medical Chemistry Experiment II	General Assessment	1.5	36	0	36	0						1.5											College of Life Science and Bioengineering
0007069	Social Practices	General Assessment	2	48	0	0	48									2								School of Marxism
0007201	Experiments in Physiology	General Assessment	1.5	36	0	36	0									1.5								College of Life Science and Bioengineering
0007202	Experiments in Biochemistry	General Assessment	2	48	0	48	0									2								College of Life Science and Bioengineering
0007203	Experiments in Microbiology	General Assessment	1.5	36	0	36	0										1.5							College of Life Science and Bioengineering
0007204	Experiments in Cell Biology	General Assessment	2	48	0	48	0										2							College of Life Science and Bioengineering
0007205	Experiments in Food Inspection	General Assessment	1.5	36	0	36	0											1.5						College of Life Science and Bioengineering

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				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
0007187	Professional Practice	General Assessment	4	120	0	0	120												4				College of Life Science and Bioengineering	
0007206	Experiments in Pharmacology	General Assessment	2	48	0	48	0													2			College of Life Science and Bioengineering	
0005237	Senior Project	General Assessment	16	480	0	0	480															16	College of Life Science and Bioengineering	
Practical Requirements		Sub-total	41	1122	2	412	708		2		2.5	1	3		3.5	2	3.5	0	1.5	4	2		16	
Discipline Electives			6	96	96	0	0										3		3					
Major Requirements			18	288	256	0	0	32							2		7		4		5			
Major Electives			6	96	96	0	0										2		2		2			
GEESEM:EM			4	64	64	0	0								2					2				
General Education Electives			14	192	192	0	0				2		2				4		2		4			
Electives		Sub-total	48	736	704	0	0	32			2		2		4		16		11		13			
Total for Theoretical Instruction			142	2326	2192	0	32	102	22.5		22.5	2	21		23		24		14		13			
Total for Practical Instruction			41	1122	2	412	708		2		2.5	1	3		3.5	2	3.5	0	1.5	4	2		16	
Innovation Requirements			4	96	0	0	96									1		2		2				
Total			187	3544	2194	412	836	102	24.5	0	25	3	24	0	26.5	2	27.5		17.5	4	17	0	16	

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

2012 Undergraduate Curriculum for Biotechnology ( 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		
0007207	Basic Bioengineering	Exam	3	48	48	0	0										3							College of Life Science and Bioengineering	
0007216	Instrumental Analysis (Chinese/English)	Exam	3	48	48	0	0											3						College of Life Science and Bioengineering	
Discipline Electives		Sub-total	6	96	96	0	0																		
0006262	SPSS and Its Application to Medicine (Self-learning)	General Assessment	2.0	32	0	0	0	32							2.0									College of Life Science and Bioengineering	
0004660	Introduction to Food Inspection	Exam	3.0	48	48	0	0										3.0							College of Life Science and Bioengineering	
0007208	Scientific Writing and Communication (Chinese/English)	General Assessment	1.0	16	16	0	0										1.0							College of Life Science and Bioengineering	
0007209	Drug Synthesis (Chinese/English)	Exam	3.0	48	48	0	0										3.0							College of Life Science and Bioengineering	
0007210	Immunology (Chinese/English)	Exam	2.0	32	32	0	0												2.0					College of Life Science and Bioengineering	
0004666	Pharmacolgy	Exam	2.0	32	32	0	0												2.0					College of Life Science and Bioengineering	
0004668	Bioinformatics	Exam	2.0	32	32	0	0														2.0			College of Life Science and Bioengineering	
0007211	Systems Biology	Exam	2.0	32	32	0	0														2.0			College of Life Science and Bioengineering	
0007212	Bioethics	General Assessment	1.0	16	16	0	0														1.0			College of Life Science and Bioengineering	
Major Requirements		Sub-total	18	288	256	0	0	32																	
0007213	Drug Quality Management	General Assessment	2.0	32	32	0	0										2.0							College of Life Science and Bioengineering	
0007214	Introduction to Computational Chemistry (Chinese/English)	Exam	2.0	32	32	0	0												2.0					College of Life Science and Bioengineering	
0007215	Advanced Biotechnology	Exam	3.0	48	48	0	0														3.0			College of Life Science and Bioengineering	
0006891	Food Toxicology	General Assessment	3.0	48	48	0	0														3.0			College of Life Science and Bioengineering	
0006258	Chemistry of Traditional Chinese Medicine and Experimental	General Assessment	2.0	32	32	0	0														2.0			College of Life Science and Bioengineering	
0004663	Chemical Biology	General Assessment	2.0	32	32	0	0														2.0			College of Life Science and Bioengineering	
Major Electives		Sub-total	14	224	224																				

Vice-Director:

Vice-President:

Date:

Date: