

2012 Undergraduate Curriculum for Measuring & Control Technology and Instrumentations (I)

Course Number	Course Title	Assessment	Credits	Instruction Hour Allocation					Credits Distribution for Semesters																Responsible Unit
				Total Hrs	Lec	Lab	Practice	Recitation	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		
0001973	Chemistry and Environment	Exam	2	32	32				2					0										College of Environmental and Energy Engineering	
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 Sciences	
0001908	Linear Algebra (Engineering)	Exam	3	54	48			6	3															College of Applied Sciences	
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	
0002784	Fundamentals of National Defense	General Assessment	2	32	32							2												Students' Affairs Office	
0000009	College English (Band Three)	Exam	4	64	64							4												College of Foreign Languages	
0006457	Fundamentals of Chinese Sociology	Exam	4	64	48		16					4												School of Marxism	
0000013	Physical Education-3	General Assessment	1	32	32							1												Department of Physical Education	
0000073	University Physics I-2	Exam	4	64	64							4												College of Applied Sciences	
0000010	College English (Band Four)	Exam	4	64	64									4										College of Foreign Languages	
0000014	Physical Education-4	General Assessment	1	32	32									1										Department of Physical Education	
0004361	Introduction to Philosophy	Exam	3	48	48									3										School of Marxism	
0003333	Probability and Statistics (Engineering)	Exam	3	54	50			4								3								College of Applied Sciences	
University Requirements		Sub-total	61	1074	962		32	80	17.5	0	17.5	2	13	0	8	0	3								
0000066	Engineering Graphics V	Exam	3	48	48				3															College of Mechanical Engineering & Applied Electronics Technology	

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									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		
0007072	Freshmen Seminar Course	General Assessment	1	16	8		8		1														College of Mechanical Engineering & Applied Electronics Technology		
0001931	Engineering Mechanics III	Exam	5.5	88	84	4					5.5												College of Mechanical Engineering & Applied Electronics Technology		
0003832	Mechanical Manufacture III	Exam	4	64	64							4											College of Mechanical Engineering & Applied Electronics Technology		
0007112	Fundamentals of C Programming Language	Exam	3	48	32	16						3											College of Computer Science		
0007223	Electric & Electronic Technology-1	Exam	2	32	28			4						2									College of Mechanical Engineering & Applied Electronics Technology		
0002291	Fundamentals of Mechanical Design V	Exam	5	80	62	8		10						5									College of Mechanical Engineering & Applied Electronics Technology		
0007476	Engineering Optics-1	Exam	3	48	44	4								3									College of Mechanical Engineering & Applied Electronics Technology		
0007224	Electric & Electronic Technology-2	Exam	4	64	64										4								College of Mechanical Engineering & Applied Electronics Technology		
0000329	The Theory of Error and Data Processing	General Assessment	2	32	28	4									2								College of Mechanical Engineering & Applied Electronics Technology		
0006176	The Basis of Control Engineering III	Exam	3	48	44	4									3								College of Mechanical Engineering & Applied Electronics Technology		
0007477	Engineering Optics-2	Exam	3	48	40	8									3								College of Mechanical Engineering & Applied Electronics Technology		
0002062	Measurement and Control Circuit	Exam	2	32	24	8											2						College of Mechanical Engineering & Applied Electronics Technology		
0007225	Electric & Electronic Technology-3	Exam	2	32	32												2						College of Mechanical Engineering & Applied Electronics Technology		
0006178	Technology of Measurement	Exam	3	48	40	8											3						College of Mechanical Engineering & Applied Electronics Technology		
0007478	Computer Vision and Image Processing	General Assessment	2	32	26	6											2						College of Mechanical Engineering & Applied Electronics Technology		
Discipline Requirements		Sub-total	47.5	760	668	70	8	14	4		5.5		7		10		12								
0003796	Laboratory of Chemistry and Environment	General Assessment	0.5	12			12		0.5														College of Environmental and Energy Engineering		
0004747	Machine Shop Training B	General Assessment	2	60			60				2												College of Mechanical Engineering & Applied Electronics Technology		
0003389	Practice of Engineering Graphics IV	General Assessment	3	90	48	10		32			3												College of Mechanical Engineering & Applied Electronics Technology		
0004964	Physics Laboratory (Engineering)-1	General Assessment	1	24	2	22					1												College of Applied Sciences		
0003087	Practices of National Defense	General Assessment	1	30			30					1											Students' Affairs Office		
0004965	Physics Laboratory (Engineering)-2	General Assessment	1.5	36			36					1.5											College of Applied Sciences		
0003833	Curriculum Design of Mechanical Manufacture III	General Assessment	2	60			60							2									College of Mechanical Engineering & Applied Electronics Technology		
0007069	Social Practices	General Assessment	2	48			48								2								School of Marxism		

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									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		
0001301	Course Teaching Outline of Course Fundamentals of Machine Design I	General Assessment	3	90			90								3								College of Mechanical Engineering & Applied Electronics Technology		
0007227	Cognitive Practice	General Assessment	1	30			30								1								College of Mechanical Engineering & Applied Electronics Technology		
0003935	Course Design on Virtual Instrument	General Assessment	2	60			60								2								College of Mechanical Engineering & Applied Electronics Technology		
0007740	Practice of Geometric Precision Measurement	General Assessment	1	24		24									1								College of Mechanical Engineering & Applied Electronics Technology		
0007230	Practice of Electric & Electronic Technology	General Assessment	1	24		24									1								College of Mechanical Engineering & Applied Electronics Technology		
0007229	Electric & Electronic Technology Course Design	General Assessment	2	60			60										2						College of Mechanical Engineering & Applied Electronics Technology		
0006183	Comprehensive Course Design of Measurement Technology	General Assessment	2	60	2		58										2						College of Mechanical Engineering & Applied Electronics Technology		
0007231	Professional Practice	General Assessment	4	120			120												4				College of Mechanical Engineering & Applied Electronics Technology		
0007232	Senior Project Proposal	General Assessment	1	30			30													1			College of Mechanical Engineering & Applied Electronics Technology		
0009021	Senior Project	General Assessment	16	480			480															16	College of Mechanical Engineering & Applied Electronics Technology		
Practical Requirements		Sub-total	46	1338	52	80	1174	32	0.5	0	6	1	1.5	0	2	6	3	0	4	4	1	16			
Discipline Electives			2	32	32																2		College of Mechanical Engineering & Applied Electronics Technology		
Major Requirements			8	128	128																8		College of Mechanical Engineering & Applied Electronics Technology		
Major Electives			4	64	64																4		College of Mechanical Engineering & Applied Electronics Technology		
GEESEM:EM			8	128	128									4		4									
General Education Electives			8	128	128													4		4					
Electives		Sub-total	30	480	480									4		4		4		18					
Total for Theoretical Instruction			138.5	2314	2110	70	40	94	21.5		23	2	20		22		19		13		18				
Total for Practical Instruction			46	1338	52	80	1174	32	0.5	0	6	1	1.5	0	2	6	3		4	4	1		16		
Innovation Requirements			4	96			96						1		1		1		1						
Total			188.5	3748	2162	150	1310	126	22	0	29	3	22.5	0	25	6	23	0	18	4	19	0	16		

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

2012 Undergraduate Curriculum for Measuring & Control Technology and Instrumentations (II)

Course Number	Course Title	Assessment	Credits	Instruction Hour Allocation					Credits Distribution for Semesters																Responsible Unit
				Total Hrs	Lec	Lab	Practice	Recitation	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		
0006175	Signal System and Signal Processing	General Assessment	2	32	32																				College of Mechanical Engineering & Applied Electronics Technology
Discipline Electives		Sub-total	2	32	32																				
0000618	Technology of Intelligentized Instruments	General Assessment	2	32	24	8																			College of Mechanical Engineering & Applied Electronics Technology
0001555	Precision Instrument Design	General Assessment	2	32	30	2																			College of Mechanical Engineering & Applied Electronics Technology
0002534	Photoelectric Technology I	General Assessment	2	32	28	4																			College of Mechanical Engineering & Applied Electronics Technology
0003830	The Computer Measuring and Controlling System (Self-learning)	General Assessment	2	32	14		18																		College of Mechanical Engineering & Applied Electronics Technology
0003320	C51 and Computer Control Technology	General Assessment	2	32	18	14																			College of Mechanical Engineering & Applied Electronics Technology
0004069	High-Speed Broad Design(Self-learning)	General Assessment	2	32	24	8																			College of Mechanical Engineering & Applied Electronics Technology
0004063	Advanced Engineering Practice	General Assessment	4	64	38	20		6																	College of Mechanical Engineering & Applied Electronics Technology
0004507	Technology of Precision Measurement (Chinese/English)	General Assessment	2	32	28	4																			College of Mechanical Engineering & Applied Electronics Technology
Major Requirements		Sub-total	18	288	204	60	18	6																	
0002054	Techniques of Non-Destructive Testing (Chinese/English)	General Assessment	2	32	28	4																			College of Mechanical Engineering & Applied Electronics Technology
0002538	Computer Aided Mechanical Design I	General Assessment	2	32	20		12																		College of Mechanical Engineering & Applied Electronics Technology
0002821	Technique of Mechanical Reliability(Self-learning)	General Assessment	2	32	32																				College of Mechanical Engineering & Applied Electronics Technology
0003819	Robotics Fundamentals	General Assessment	2	32	26		6																		College of Mechanical Engineering & Applied Electronics Technology
0004062	Field Bus Technology I	General Assessment	2	32	26	6																			College of Mechanical Engineering & Applied Electronics Technology
0004064	Remote Fault Diagnosis of the Equipment	General Assessment	2	32	28	4																			College of Mechanical Engineering & Applied Electronics Technology
Major Electives		Sub-total	12	192	160	14	18																		

Vice-Director:

Vice-President:

Date:

Date: