

2012 Undergraduate Curriculum for Mechanical Engineering & Automation (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		
0001973	Chemistry and Environment	Exam	2	32	32				2															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		17.5	2	13		8		3								

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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
0000066	Engineering Graphics V	Exam	3	48	48				3															College of Mechanical Engineering & Applied Electronics Technology
0007072	Freshmen Seminar Course	General Assessment	1	16	10		6		1															College of Mechanical Engineering & Applied Electronics Technology
0000205	Theoretical Mechanics III	Exam	3.5	56	48			8			3.5													College of Mechanical Engineering & Applied Electronics Technology
0002570	Theoretical Mechanics VIII	General Assessment	1	16	12	4						1												College of Mechanical Engineering & Applied Electronics Technology
0000163	Mechanics of MaterialsIII	Exam	4	64	56	8						4												College of Mechanical Engineering & Applied Electronics Technology
0007145	Mechanical Manufacturing A	Exam	3.5	56	56							3.5												College of Mechanical Engineering & Applied Electronics Technology
0007112	Fundamentals of C Programming Language	Exam	3	48	32	16						3												College of Computer Science
0001918	Mechanics of Materials V	General Assessment	1.5	24	12	12								1.5										College of Mechanical Engineering & Applied Electronics Technology
0007223	Electric & Electronic Technology-1	Exam	2	32	28			4							2									College of Mechanical Engineering & Applied Electronics Technology
0006174	Course Teaching Outline of Mechanism and Machine Theory II	Exam	3	48	44			4							3									College of Mechanical Engineering & Applied Electronics Technology
0006708	Fluid Mechanics	Exam	2	32	24			8									2							College of Mechanical Engineering & Applied Electronics Technology
0007224	Electric & Electronic Technology-2	Exam	4	64	64												4							College of Mechanical Engineering & Applied Electronics Technology
0006173	Machine Design I	Exam	3.5	56	51			5									3.5							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
0007148	Mechanical Manufacturing B	Exam	3.5	56	54			2									3.5							College of Mechanical Engineering & Applied Electronics Technology
0006367	Asis of Heat Energy Engineering	Exam	2	32	25	2		5											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
Discipline Requirements		Sub-total	48.5	776	680	54	6	36	4		3.5		11.5	0	6.5		16		7					
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 GraphicsIV	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

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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
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
0007069	Social Practices	General Assessment	2	48			48									2								School of Marxism
0007226	Course Teaching Outline of Experiments on Mechanism and Machine Theory	General Assessment	1	24		24									1									College of Mechanical Engineering & Applied Electronics Technology
0007066	Manufactural Engineering Practice A	General Assessment	2	60			60								2									College of Mechanical Engineering & Applied Electronics Technology
0006182	Course Teaching Outline of Course Design of Mechanism and Machine Theory III	General Assessment	2	60			60									2								College of Mechanical Engineering & Applied Electronics Technology
0007227	Cognitive Practice	General Assessment	1	30			30									1								College of Mechanical Engineering & Applied Electronics Technology
0007228	Experiment on Machine Design	General Assessment	1	24		24											1							College of Mechanical Engineering & Applied Electronics Technology
0001304	Course Teaching Outline of Course Design of Machine Design II	General Assessment	2	60			60										2							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
0007804	Manufactural Engineering Practice B	General Assessment	2	60			60												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	48	1392	52	140	1168	32	0.5		6	1	1.5	0	3	5	4		6	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			6	96	96										2		4							
General Education Electives			8	128	128														4		4			

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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
Electives		Sub-total	28	448	448										2		4		4		18			
Total for Theoretical Instruction			137.5	2298	2090	54	38	116	21.5		21	2	24.5		16.5		23		11		18			
Total for Practical Instruction			48	1392	52	140	1168	32	0.5	0	6	1	1.5		3	5	4		6	4	1		16	
Innovation Requirements			4	96			96						1		1		1		1					
Total			189.5	3786	2142	194	1302	148	22		27	3	27		20.5	5	28		18	4	19		16	

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

2012 Undergraduate Curriculum for Mechanical Engineering & Automation (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		
0003824	Fluid Transmission and Control	General Assessment	2	32	28	4															2			College of Mechanical Engineering & Applied Electronics Technology	
Discipline Electives		Sub-total	2	32	32																				
0000615	Numerical Control Technology	General Assessment	2	32	30		2														2			College of Mechanical Engineering & Applied Electronics Technology	
0000618	Technology of Intelligentized Instruments	General Assessment	2	32	24	8															2			College of Mechanical Engineering & Applied Electronics Technology	
0002534	Photoelectric Technology I	General Assessment	2	32	28	4															2			College of Mechanical Engineering & Applied Electronics Technology	
0000988	Modern Design Methodology	General Assessment	2	32	28	4															2			College of Mechanical Engineering & Applied Electronics Technology	
0004507	Technology of Precision Measurement (Chinese/English)	General Assessment	2	32	28	4															2			College of Mechanical Engineering & Applied Electronics Technology	
0001555	Precision Instrument Design	General Assessment	2	32	30	2															2			College of Mechanical Engineering & Applied Electronics Technology	
0002041	CAM and Auto Programming (Chinese/English)	General Assessment	2	32	16		16														2			College of Mechanical Engineering & Applied Electronics Technology	
0002049	Three Dimensional Model Design	General Assessment	2	32	24	8															2			College of Mechanical Engineering & Applied Electronics Technology	
0002051	Mechanical Design and Analysis of Robot	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology	
0002524	Finite Element Method and Ansys	General Assessment	2	32	22	10															2			College of Mechanical Engineering & Applied Electronics Technology	
0002816	Introduction of Safety Engineering (Chinese/English)	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology	
0003291	Manufacturing Engineering Hyphology (Self-learning)	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology	
0003312	Data Structures IV	General Assessment	2	32	24	8															2			College of Mechanical Engineering & Applied Electronics Technology	
0003314	Technology and Application of Database	General Assessment	2	32	26	6															2			College of Mechanical Engineering & Applied Electronics Technology	
0003320	C51 and Computer Control Technology	General Assessment	2	32	18	14															2			College of Mechanical Engineering & Applied Electronics Technology	
0006379	Computer Aided Structural Analysis II	General Assessment	2	32	20	12															2			College of Mechanical Engineering & Applied Electronics Technology	
0003373	Elastic, Plastic and Fracture Mechanics I	General Assessment	2	32	30	2															2			College of Mechanical Engineering & Applied Electronics Technology	
0003823	The Equipments for Machine Manufacturing	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology	
0003830	The Computer Measuring and Controlling System (Self-learning)	General Assessment	2	32	14		18														2			College of Mechanical Engineering & Applied Electronics Technology	
0004059	MEMS and Its FabricationTechnology I (Self-learning)	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology	

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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
0004061	Automatic System Design I	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology
0004063	Advanced Engineering Practice	General Assessment	4	64	38	20		6													4			College of Mechanical Engineering & Applied Electronics Technology
0004067	Modern Switch Power Supply (Chinese/English)	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology
0004069	High-Speed Broad Design(Self-learning)	General Assessment	2	32	24	8															2			College of Mechanical Engineering & Applied Electronics Technology
0005173	Numerical Analysis in Mechanical Engineering	General Assessment	2	32	18	14															2			College of Mechanical Engineering & Applied Electronics Technology
0005463	Intelligent Control Technology (Self-learning)	General Assessment	2	32	26	6															2			College of Mechanical Engineering & Applied Electronics Technology
0005661	Power Electronic Technology I	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology
0006705	Advanced Solid-phase Joining Technology	General Assessment	2	32	26	6															2			College of Mechanical Engineering & Applied Electronics Technology
0006706	Advanced Liquid-Phase Joining Technology	General Assessment	2	32	30		2														2			College of Mechanical Engineering & Applied Electronics Technology
0006707	Electrical Towage Control Systems	General Assessment	2	32	26	6															2			College of Mechanical Engineering & Applied Electronics Technology
Major Requirements		Sub-total	62	992	806	142	38																	
0002538	Computer Aided Mechanical Design I	General Assessment	2	32	20		12														2			College of Mechanical Engineering & Applied Electronics Technology
0002821	Technique of Mechanical Reliability (Self-learning)	General Assessment	2	32	32																2			College of Mechanical Engineering & Applied Electronics Technology
0003819	Robotics Fundamentals(Chinese/English)	General Assessment	2	32	26		6														2			College of Mechanical Engineering & Applied Electronics Technology
0004062	Field Bus Technology I	General Assessment	2	32	26	6															2			College of Mechanical Engineering & Applied Electronics Technology
0004064	Remote Fault Diagnosis of the Equipment	General Assessment	2	32	28	4															2			College of Mechanical Engineering & Applied Electronics Technology
0002054	Techniques of Non-Destructive Testing (Chinese/English)	General Assessment	2	32	28	4															2			College of Mechanical Engineering & Applied Electronics Technology
0005669	Software Engineering II	General Assessment	2	32	30			2													2			College of Mechanical Engineering & Applied Electronics Technology
Major Electives		Sub-total	14	224	190	14	18	2																

Vice-Director:

Vice-President:

Date:

Date: