

Mechatronics Engineering

Study Plan:

#	LEVEL 1					
1	Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
2	MATH 1050	Differential Calculus	3	(3,2,0)		
3	ENGL 1210	Reading Skills	3	(3,3,0)		
4	ENGL 1220	Writing Skills	3	(3,3,0)		
5	IC101	Introduction to Islamic Culture	2	(2,0,0)		
6	PHYS 1010	General Physics (I)	4	(3,1,1)		
	Total		15	(14,9,1)		

	Level 2					
#	Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
1	ENGL 1230	Conversation and listening skills	3	(3,3,0)		
2	ARAB 101	Language Skills	2	(2,0,0)		
3	MATH 1060	Integral Calculus	3	(3,2,0)	MATH 1050	
4	CT 1400	Computer Skills	3	(2,0,1)		
5	MC 1400	Communications Skills	2	(2,0,0)		
6	ENGL 1604	English for Technical Purposes	3	(3,3,0)		
	Total		16	(15,8,1)		

Level 3						
#	Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
1	CHEM 1010	General Chemistry	4	(3,1,1)		
2	PHYS 1040	General Physics (II)	4	(3,1,1)	PHYS 1010	
3	GEU 1011	Introduction to Engineering	2	(2,1,0)		
4	MATH 1070	Algebra & Analytic Geometry for Engineers	3	(3,1,0)	MATH 1050	
5	GEU 1090	Computer Programming in Engineering	3	(1,0,2)		
6	ISL 102	Islamic and Building of Society	2	(2,0,0)		
Total			18	(14,4,4)		

Level 4					
Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
MTE 2101	Engineering Mechanics	4	(4,1,0)	PHYS 1040 MATH 1060 MTE 1070	
GEU 2610	Engineering Professional Communications	2	(1,0,1)	ENGL 1210	
MTE 2050	Engineering Statistics	3	(2,1,1)	MATH 1060	
MTE 2030	Differential and Integral Calculus for Engineers	3	(3,1,0)	MATH 1060 MATE 1070	
MTE 2111	Materials Engineering		(2,1,1)	CHEM1010 PHYS1040	
MTE 2301	Programming for Mechatronics Eng.	2	(1,1,1)	GEU 1090	
Total		17	(13,5,4)		

	Level 5					
#	Cour se Code	Title	Credit	Hours	Pre- requisite	Co-requisite
1	MTE 2401	Computer Aided Drawing	3	(1,0,2)		
2	MTE 2040	Differential Equations for Engineers	3	(3,1,0)	MTE 2030	
3	MTE 2121	Rigid body Dynamics	2	(2,1,0)	MTE 2101	
4	MTE 2131	Manufacturing Processes	3	(2,1,1)	MTE 2111	
5	MTE 2141	Thermo-Fluids	4	(3,1,1)	PHYS 1040	
6	MTE 2201	Electric Circuits	3	(2,1,1)		
	Total		18	(13,5,5)		

	Level 6					
#	Cour se Code	Title	Credit	Hours	Pre- requisite	Co-requisite
1	MTE 3010	Numerical Methods for Engineering	3	(2,1,1)	MTE 2040	
2	MTE 3301	Artificial Intelligence	2	(2,1,0)	MTE 2301	
3	MTE 3401	System Dynamics & Vibration	4	(4,1,0)	MTE 2040 MTE 2121 MTE 2301	
4	MTE 3201	Electromecahnical Energy Conversion	3	(2,1,1)	MTE 2201	
5	MTE 3211	Electronic Circuits	3	(2,1,1)	MTE 2201	
6	MTE 3221	Signals and Systems	2	(2,1,0)	MTE 2201	
	Total		17	(14,6,3)		

	Level 7					
#	Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
1	ISL 103	Economic System in Islam	2	(2,0,0)		
2	MTE 3231	Digital Electronics and Microcontroller Application	3	(2,1,1)	MTE 3211	
3	MTE 3241	Electric Drives and Power Electronics	3	(2,1,1)	MTE 3211	
4	MTE 3251	Automatic Control Systems	4	(3,1,1)	MTE 3401 MTE 3221	
5	MTE 3111	Mechanics of Machinery	3	(2,1,1)	MTE 2121	
6	MTE 3121	Mechanical Design 1	3	(3,1,0)	MTE 2111	
	Total		18	(14,5,4)		

	Level 8					
#	Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
1	MTE 4301	Embedded Systems	3	(2,1,1)	MTE 3231	
2	MTE 4101	Mechanical Design 2	3	(2,1,1)	MTE 3121 MTE 3111	
3	MTE 4111	Computer Integrated Manufacturing	3	(2,1,1)	MTE 2131	
4	MTE 4401	Sensors & Industrial Instrumentation	3	(2,1,1)	MTE 3231	
5	MTE 4411	Robotics	4	(3,1,1)	MTE 3401	
6	GEU 4010	Engineering Economy	2	(2,1,0)		
	Total		18	(13,6,5)		

	Level 9 (Field-Training)					
#	Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
1	MTE 4***	Elective Course	3	(3,1,0)		
2	MTE 4***	Elective Course	3	(3,1,0)		
3	MTE 4***	Elective Course	3	(3,1,0)		
4	MTE 4980	Senior Design Project (1)	3	(1,0,2)	132 Cr. Hr.	
5	MTE 9990	Practical Training	1	----	112 Cr. Hr.	
	Total		13	(10,3,2)		

	Level 10					
#	Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
1	GEU 4020	Engineering Project Management	2	(2,1,0)	GEU 4010	
2	ARAB 103	Arabic Editing	2	(2,0,0)		
3	ISL 106	Prophetic Biography	2	(2,0,0)		
4	MTE 4431	Industrial Automation	3	(2,1,1)	MTE 3241 MTE 4401	
5	MTE 4***	Elective Course	3	(3,1,0)		
6	MTE 4990	Senior Design Project (2)	3	(1,0,2)	MTE 4980	
7	MTE 4930	Seminars in Mechatronics Engineering	1	(0,0,1)		
	Total		16	(12,3,4)		
		Total Credit Hours	166			

Level 9 (Coop-Training)					
Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
MTE 4980	Senior Design Project (1)	3	(1,0,2)	132 Cr. Hr.	
MTE 9999	Coop-Training	10	----	112 Cr. Hr.	

Level 10					
Course Code	Title	Credit	Hours	Pre-requisite	Co-requisite
GEU 4020	Engineering Project Management	2	(2,1,0)	GEU 4010	
ARAB 103	Arabic Editing	2	(2,0,0)		
ISL 106	Prophetic Biography	2	(2,0,0)		
MTE 4431	Industrial Automation	3	(2,1,1)	MTE 3241 MTE 4401	
MTE 4***	Elective Course	3	(3,1,0)		
MTE 4990	Senior Design Project (2)	3	(1,0,2)	MTE 4980	
MTE 4930	Seminars in Mechatronics Engineering	1	(0,0,1)		
Total		16	(12,3,4)		
Total Credit Hours		166			