

Guidance Plan

First Year

First Semester				Second Semester			
Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *	Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *
110108101	Calculus 1	3	–	110101102	Calculus 2	3	110108101
110102101	General Physics 1	3	110102101*				
110102103	General Physics Lab 1	1	–	110103107	Engineering Chemistry	3	–
110400101	Engineering Workshop	1	–	110103108	Engineering Chemistry Lab	1	110103107*
111405101	Arabic Language	3	Qualifier exam or 110405098	110102102	General Physics 2	3	110102101
–	University Requirement*1	3		111405110	English Language	3	Qualifier exam or 111405099
			–	110108112	Computer Programming	3	Qualifier exam or 110108099
Total		14		Total		16	

Second Year

First Semester				Second Semester			
Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *	Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *
110101201	Calculus 3	3	110101102	110101203	Ordinary Differential Equations	3	110101102
110401211	Statics	3	110108101 + 110102101	110402212	Strength of Materials	3	110401211
110402221	Thermodynamics 1	3	110103107 + 110102101	110402222	Thermodynamics 2	3	110402221
110400203	Ethics and Communication Skills	3	111405110	110402231	Dynamics	3	110401211
110400201	Manual Engineering Drawing	2	-	110403242	Probabilities and Statistics	3	110101102
–	University Requirement*2	3		110400202	Computer Aided Engineering Drawing	1	110400201
Total			17	Total			16

Third Year

First Semester				Second Semester			
Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *	Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *
110406260	Applied Mathematics	3	110101203	110402302	Engineering Measurements	3	110102102 + 110403242
110402310	Fluid Mechanics 1	3	110101203	110402313	Fluid Mechanics Lab	1	110402310
110402330	Strength of Materials Lab	1	110402212	110402324	Heat Transfer 1	3	110406260 + 110402221 + 110402310
110402303	Numerical Analysis	3	110108112 + 110101203	110403324	Manufacturing Processes 1	3	110400101 + 110402212
110403352	Properties of Materials	3	110103107	110409300	Electrical Machines Lab	1	(110409203 or 110406229) + 110102103
110406229	Electrical Circuits Fundamentals	3	110102102	–	Department Elective*1	3	–
				–	University Elective *1	3	–
Total		16		Total		17	

Fourth Year

First Semester				Second Semester			
Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *	Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *
110402325	Thermal Science Lab 1	1	110402222+ 110402324	110402434	Control Systems	3	110402433
110402433	Mechanical Vibrations	3	110406260 + 110402231	110402447	Machine Design 2	3	110402440 + 110402445 + 110402446
110402440	Theory of Machines	3	110406260 + 110402231	110402448	Dynamics of Machinery	2	110402440
110402445	Mechanical Drawing	1	110400202	110403325	Manufacturing Processes lab	1	110403224
110402446	Machine Design 1	3	110402330	110402426	Thermal Science Lab 2	1	110402324 + 110402325
–	Department Elective *2	3	–	–	Department Elective *3	3	–
–	University Elective *2	3	–	–	University Elective *3	3	–
Total			17	Total			16

Summer semester			
Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *
2004021599	Practical Training	-	The student should pass (112) credit hours from the curriculum

Fifth Year

First Semester				Second Semester			
Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *	Course No.	Course Title	Credit Hours	Prerequisite or Co-Requisite *
110402531	Finite Elements Method for Engineering Design	3	110406260+110402303+110402447	110402549	Computer Aided Design	2	110402446
110402542	Electromechanical Systems	3	110402440 + 110406229	110402561	Internal Combustion Engines	2	110402222
110402551	HVAC	2	110402324	110402573	Graduation Project 2	2	110402572
110402535	Vibration and Control Lab	1	110402434	–	Department Elective *5	3	–
110402572	Graduation Project 1	1	The student must pass at least (120) credit hours from the curriculum which must include 110402222, 110402310, and 110402446.	–	University Elective *5	3	–
–	Department Elective *4	3	–				
–	University Elective *4	3	–				
Total		16		Total		12	