Study Plan of the Program of Mechanical Engineering (1438 H)

		Credit	Contact			
Course ID	Course Title	Hours	Hours	Pre-requisite		
	First Year: First Term					
11030116	English (1)	3	18	-		
11010101	Islamic Culture (1)	2	2	-		
32000200	Introduction to	2	2	_		
32000200	Engineering			-		
32000300	Calculus (1)	3	3	-		
31022210	General Chemistry	4	5	-		
32040222	Engineering Drawing (1)	2	4	-		
11010113	Voluntary Service (1)	•	•	-		
First Year: Second Term						
11030216	English (2)	3	18	English (1)		
31031201	General Physics (1)	4	5	-		
32000303	Calculus (2)	3	3	Calculus (1)		
11020107	Quran	2	2	-		
11010111	Islamic Culture (2)	2	2			
32030231	Architectural drawing	1	2	-		
11010123	Voluntary Service (2)			-		
	Second	Year: First To	erm			
32050301	Fundamentals of Electrical Engineering	3	4	General Physics(1)		
32021201	Computer Programming (1)	3	4	-		
32000202	Engineering Math. (1)	3	3	Calculus (2)		
32000100	Special English Language	2	2	English (2)		
32000206	Engineering Economics	2	2	-		
32000102	Fundamentals of Workshop Engineering	1	2	-		
11020204	Healthy culture	1	1	-		
Second Year: Second Term						
32000301	Engineering Math. (2)	3	3	Calculus (2)		
32021202	Computer Programming (2)	3	4	Computer Programming (1)		
32011202	Statics	3	3	-		

32000204 Engineering Statistics 3 3 Calculus (2)	_		•			
Management 2 2 Economics	32000204	Engineering Statistics	3	3	Calculus (2)	
Second	32000404		2	2		
Third Year: First Term	32000101		2	2	-	
32042301			Year: First Te	rm		
32042301	222222	Engineering Math.			Engineering	
Production Technology 3	32000302		3	3		
Technology September Sep		B 1 11			Fundamentals of	
Statics Statics Statics Statics Statics Statics Statics (1)	32042301		3	4	Workshop	
32041301 Thermodynamics (1) 3 3 3 General physics (1)		Technology			Engineering	
Second Part Second Term	32042303	Dynamics	3	3	Statics	
11 12 13 14 15 15 15 15 15 15 15	22044204	The second on select (4)	2	2	General physics	
Math. 2 Math. 2	32041301	inermodynamics (1)	3	3	(1)	
Math. 2 Statics Strength of Materials 3 4 Statics	22044205		2	4	Engineering	
Third Year: Second Term	32041305	Fluid Mechanics (1)	3	4	Math. 2	
32041409 Numerical Analysis 3 3 Engineering Math. 2	32042305	Strength of Materials	3	4	Statics	
Numerical Analysis 3 3 Math. 2		Third Ye	ear: Second T	erm		
32042302 Computer Aided Mech. Drawing 3 5 Engineering drawing (1) 32042304 Engineering Materials 1 3 3 Strength of Materials 32041302 Thermodynamics (2) 3 3 Thermodynamics (1) 32041304 Heat Transfer (1) 3 3 Fluid Mechanics (1) 32041304 Meas. Instruments and Calib. Fundamentals of Electrical Engineering 32000400 Summer training (1) 2 - Fourth Year: First Term 32041401 Heat Transfer 2 3 4 Heat Transfer (1) 32042407 Vibrations and Automation 3 4 Dynamics 32042409 Machining and Forming Technology 2 2 Production Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 Heat Transfer (1)	22044400	NI	2	2	Engineering	
Mech. Drawing 3 5 drawing (1) 32042304 Engineering Materials 1 3 3 Strength of Materials 32041302 Thermodynamics (2) 3 3 Thermodynamics (1) 32041304 Heat Transfer (1) 3 3 Fluid Mechanics (1) 32041310 Meas. Instruments and Calib. 3 4 Fundamentals of Electrical Engineering 32000400 Summer training (1) 2 - Fourth Year: First Term 32041401 Heat Transfer 2 3 4 Heat Transfer (1) 32042407 Vibrations and Automation Automation 3 4 Dynamics 32042409 Machining and Forming Technology 2 2 Production Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1)	32041409	Numerical Analysis	3	3	Math. 2	
32042302 Mech. Drawing 3 5 drawing (1) 32042304 Engineering Materials 1 3 3 Strength of Materials 32041302 Thermodynamics (2) 3 3 Thermodynamics (1) 32041304 Heat Transfer (1) 3 3 Fluid Mechanics (1) 32041310 Meas. Instruments and Calib. 3 4 Fundamentals of Electrical Engineering 32004000 Summer training (1) 2 - Fourth Year: First Term 32041401 Heat Transfer 2 3 4 Heat Transfer (1) 32042407 Vibrations and Automation Automation 3 4 Dynamics 32042409 Machining and Forming Technology 2 2 Production Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1)	22042202	Computer Aided	2	F	Engineering	
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Materials 1	22042204	Engineering	2	2	Strength of	
Thermodynamics (2) 3 3 (1) 32041304 Heat Transfer (1) 3 3 Fluid Mechanics (1) Meas. Instruments and Calib. 3 4 Fluid Mechanics (1) Fourth Year: First Term 32041401 Heat Transfer 2 3 4 Heat Transfer (1) 32042407 Vibrations and Automation Automation Forming Technology 32042409 Machine Design 1 3 3 Production Technology 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 Heat Transfer (1) Fourth Year: Second Term	32042304	-	3	3	Materials	
32041304 Heat Transfer (1) 3 3 Fluid Mechanics (1) Meas. Instruments and Calib. 3 4 Fundamentals of Electrical Engineering 32000400 Summer training (1) 2 - Fourth Year: First Term 32041401 Heat Transfer 2 3 4 Heat Transfer (1) 32042407 Automation 3 4 Dynamics Machining and Forming Technology 2 2 Production Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1)	22041202	The same 1 (2)	2	2	Thermodynamics	
Meas. Instruments and Calib. 32041310 Meas. Instruments and Calib. 32000400 Summer training (1) 32041401 Heat Transfer 2 Vibrations and Automation Machining and Forming Technology 32042405 Machine Design 1 32042402 Operations Research Meat Transfer (1) 3	32041302	Thermodynamics (2)	3	3	(1)	
Meas. Instruments and Calib. 3 4 Fundamentals of Electrical Engineering 32000400 Summer training (1) 2 - Fourth Year: First Term 32041401 Heat Transfer 2 3 4 Heat Transfer (1) 32042407 Vibrations and Automation 3 4 Dynamics 32042409 Machining and Forming Technology 4 2 2 Production Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1)	22041204		2	2	Fluid Mechanics	
Meas. Instruments and Calib. 3200400 Summer training (1) 2 - Fourth Year: First Term 32041401 Heat Transfer 2 3 4 Heat Transfer (1) 32042407 Vibrations and Automation 3 4 Dynamics Machining and Forming Technology 4 Production Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing Management 32042402 Operations Research 3 3 Heat Transfer (1) Fourth Year: Second Term	32041304	Heat Transfer (1)	3	3	(1)	
32041310 and Calib. 3 4 Electrical Engineering 32000400 Summer training (1) 2 - Fourth Year: First Term 32041401 Heat Transfer 2 3 4 Heat Transfer (1) 32042407 Vibrations and Automation 3 4 Dynamics 32042409 Machining and Forming Technology 2 2 Production Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1)			3	4	Fundamentals of	
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32041401Heat Transfer 234Heat Transfer (1)32042407Vibrations and Automation34Dynamics32042409Machining and Forming Technology22Production Technology32042405Machine Design 133Computer Aided Mech. Drawing32042402Operations Research33Engineering Management32041523Renewable Energy33Heat Transfer (1)Fourth Year: Second Term	32000400	Summer training (1)	2	-		
32042407Vibrations and Automation34Dynamics32042409Machining and Forming Technology22Production Technology32042405Machine Design 133Computer Aided Mech. Drawing32042402Operations Research33Engineering Management32041523Renewable Energy33Heat Transfer (1)Fourth Year: Second Term	Fourth Year: First Term					
Automation 3 4 Dynamics Machining and Forming Technology 32042409 Machine Design 1 3 3 Computer Aided Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1)	32041401	Heat Transfer 2	3	4	Heat Transfer (1)	
Automation Machining and Forming Technology Machine Design 1 3 3 Computer Aided Mech. Drawing Operations Research 3 3 Engineering Management Research Second Term	22042407	Vibrations and	2	4	Dynamics	
Forming Technology 32042409 Forming Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing Mech. Drawing 5 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8	32042407	Automation	3	4	Dynamics	
Forming Technology 32042405 Machine Design 1 3 3 Computer Aided Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1) Fourth Year: Second Term	22042400	Machining and	2	2	Production	
32042405 Machine Design 1 3 Mech. Drawing 32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1) Fourth Year: Second Term	32042409	Forming Technology	۷	<u> </u>	Technology	
32042402 Operations Research 3 3 Engineering Management 32041523 Renewable Energy 3 3 Heat Transfer (1) Fourth Year: Second Term	22042405	Machina Dasign 1	2	2	Computer Aided	
32042402 Operations Research 3 Management 32041523 Renewable Energy 3 Heat Transfer (1) Fourth Year: Second Term	32042405	iviaciline Design 1	ა 	3	Mech. Drawing	
32041523 Renewable Energy 3 3 Heat Transfer (1) Fourth Year: Second Term	32042402	Operations Research	2		Engineering	
Fourth Year: Second Term	32042402		J		Management	
	32041523	Renewable Energy	3	3	Heat Transfer (1)	
32041529 Fluid Machinery 3 3 Heat Transfer (1)						
	32041529	Fluid Machinery	3	3	Heat Transfer (1)	

		7			
32042503	Quality Control	2	2	Engineering Statistics	
32042404	Machine Design 2	3	3	Machine Design 1	
32042516	Num. Cont. Operating Machines	2	2	and Machining Forming Technology	
32041412	Energy Management	2	2	Heat Transfer (1)	
32041408	Internal Combustion Engine	3	4	Heat Transfer (1)	
32000500	Summer training (2)	2	-		
	Fifth \	ear: First Te	rm		
	Air Cond. and				
32041501	Refrigeration 1	3	4	Heat Transfer 2	
32042515	Automatic Control	3	4	Vibrations and Automation	
-	elective courses (1)	3	3		
-	elective courses (2)	3	3		
32041533	Graduation Project - Part (1)	2	2	Passing 123 credit hours	
Fifth Year: Second Term					
32041502	Power Plants	3	3	Heat Transfer 2	
32042528	Robots	3	3	Automatic Control	
32041534	Graduation Project- Part (2)	2	2	Graduation project-part (1)	
-	elective courses (3)	3	3		
-	elective courses (4)	3	3		
	` '	Electives	<u>'</u>		
32041519	Air Conditioning and Refrigeration (2)	3	3	Air Cond. and Refrigeration 1	
32041520	Fluid Mechanics (2)	3	3	Fluid Mechanics (1)	
32041536	Aerodynamics	3	3	Fluid Mechanics (1)	
32041522	Gas Dynamics	3	3	Fluid Mechanics (1)	
32041537	Solar Energy	3	3	Heat Transfer 2	
32041525	Heat Exchanger Design	3	3	Heat Transfer 2	
32041527	Internal Combustion Engine (2)	3	3	Heat Transfer 2	
32041404	Energy Conversion Systems	3	3	Thermodynamics 2	
32041538	Water Desalination	3	3	Heat Transfer (2)	

32042520	Nontraditional	3	3	and Machining
	Machining			Forming Tech.
32042521	Non Destructive	3	3	and Machining
	Testing)	3	Forming Tech.
22042522	Dies Design	3	3	Machine Design
32042522				2
22042522	Engineering Materials (2)	3	3	Engineering
32042523				Materials 1
	Powder Forming Technology	3		Machining and
32042524			3	Forming
				Technology
22042525	Machine Tool Design	3	3	Machine Design
32042525				2
	Nontraditional Measurements	3	3	Meas.
32042526				Instruments and
				Calib.
32042527	Production Planning	3	3	Engineering
				Management
32041407	Metrology	3	3	Meas.
				Instruments and
				Calib.