

Academic Study Plan for Mechanical and Industrial Engineering Department –Plan (136)

Level								Units	
3rd	Course Code		MATH 105	PHY 103	GE 101	GE 102	GE 103		17
	Course Name	University Requirement	Differential Calculus	General Physics	Fundamentals of Engineering Technology	Fundamentals of Engineering Drawing	Engineering Mechanics (Statics)		
	Units/hours	2 (2-0-0)	3 (3-1-0)	4 (3-1-2)	2 (1-0-2)	3 (1-0-4)	3 (3-1-0)		
	<i>Pre-requisites</i>	-	-	-	-	-	-		
4th	Course Code	MATH 106	MATH 107	GE 108	GE 105	ME 111	ME 121		17
	Course Name	Integral Calculus	Algebra and Analytical Geometry	Engineering Mechanics (Dynamics)	Chemistry	Mechanical Measurements	Mechanical Engineering Drawing		
	Units/hours	3 (3-1-0)	3 (3-1-0)	3 (3-1-0)	3 (3-1-0)	2 (1-1-2)	3 (1-0-4)		
	<i>Pre-requisites</i>	<i>MATH 105</i>	-	<i>GE 103</i>	-	<i>GE 101</i>	<i>GE 102</i>		
5th	Course Code		MATH 204	ME 212	ME 251	ME 243	ME 231		17
	Course Name	University Requirement	Differential Equations	Manufacturing Processes	Material Engineering	Machine Dynamics	Thermodynamics I		
	Units/hours	2 (2-0-0)	3 (3-1-0)	3 (2-1-2)	3 (2-1-2)	3 (3-1-0)	3 (3-1-0)		
	<i>Pre-requisites</i>	-	<i>MATH 106, MATH 107</i>	<i>CE 101</i>	<i>GE 103</i>	<i>GE 108</i>			
6th	Course Code	STAT 201	EE 210	ME 222	ME 232	ME 242	ME 252		17
	Course Name	Statistics and Probability	Electrical and Electronic Circuits.	Machine Elements Design	Mechanics of Materials	Mechanical Vibrations	Thermodynamics II		
	Units/hours	3 (3-1-0)	3 (3-1-0)	3 (2-1-3)	3 (3-1-0)	3 (3-1-0)	2 (2-1-0)		
	<i>Pre-requisites</i>	-	-	<i>ME 121, Co ME232</i>	<i>ME 251</i>	<i>ME 243</i>	<i>ME 231</i>		
7th	Course Code		GE 306	CEN 307	ME 323	ME 343	ME 353	EE 398	18
	Course Name	University Requirement	Engineering Report Writing	Computer Programming for Mechanical Engineering.	Mechanical Design	System Dynamics	Fluid Mechanics	Electrical Machines	
	Units/hours	2 (2-0-0)	2 (2-0-0)	3 (2-0-2)	3 (2-1-3)	2 (2-1-0)	4 (3-1-2)	2 (2-1-0)	
	<i>Pre-requisites</i>	-	<i>STAT 201</i>	-	<i>ME 222</i>	<i>ME 242</i>	<i>ME 252</i>	<i>EE 210</i>	

Mechanical Power Track

8th	Course Code		MATH 254	ME 344	ME 354	ME 355	ME 356	ME 357	18
	Course Name	University Requirement	Numerical Methods	Automatic Control	Heat Transfer	Refrigeration & Air conditioning	Turbulent flow	Membrane Desalination processes	
	Units/hours	2 (2-0-0)	3 (3-1-0)	2 (2-1-0)	3 (3-1-0)	3 (2-1-2)	3 (3-1-0)	2 (2-1-0)	
	Pre-requisites	-	MATH 204	ME 343-ME 353	ME 353	CO ME 354	ME 353	CO ME 354	
9th	Course Code		GE 407	ME 458	ME 459	ME 46X	ME 493	ME 498	16
	Course Name	University Requirement	Engineering Economy	Turbo Machines	Internal Combustion Engines	Elective (1)	Mechanical Power Lab.(1)	Senior Design I	
	Units/hours	2 (2-0-0)	2 (2-1-0)	3 (3-1-0)	3 (3-1-0)	3 (3-1-0)	1 (0-0-2)	2 (1-0-2)	
	Pre-requisites	-	-	ME 356	ME 252	XXX	ME 111	-	
10th	Course Code		GE 408	ME 460	ME 46X	ME 46X	ME 494	ME 499	16
	Course Name	University Requirement	Engineering Project Management	Power Plants	Elective (2)	Elective (3)	Mechanical Power Lab.(2)	Senior Design II	
	Units/hours	2 (2-0-0)	2 (2-1-0)	3 (3-1-0)	3 (3-1-0)	3 (3-1-0)	1 (0-0-2)	2 (1-0-2)	
	Pre-requisites	-	GE 407	ME 354	XXX	XXX	ME 493	ME 498	

Industrial Engineering Track

8th	Course Code		MATH 254	ME 344	ME 354	ME 371	ME 372	ME 373	18
	Course Name	University Requirement	Numerical Methods	Automatic Control	Heat Transfer	Industrial Operations Research I	Quality Management	Reliability & Maintenance Engineering	
	Units/hours	2 (2-0-0)	3 (3-1-0)	2 (2-1-0)	3 (3-1-0)	3 (3-1-0)	3(3-1-0)	2 (2-1-0)	
	Pre-requisites	-	MATH 204	ME 343-ME 353	ME 353	MATH 107	STAT 201	STAT 201	
9th	Course Code		GE 407	ME 474	ME 475	ME 4XX	ME 495	ME 498	16
	Course Name	University Requirement	Engineering Economy	Industrial Operations Research II	Computer Aided Design & Manufacturing	Elective (1)	Work Study Lab	Senior Design I	
	Units/hours	2 (2-0-0)	2 (2-1-0)	3 (3-1-0)	3 (2-1-2)	3 (3-1-0)	1 (0-0-2)	2 (1-0-2)	
	Pre-requisites	-	-	ME 371	ME 212 – ME 323	XXX	ME 111	-	
10th	Course Code		GE 408	ME 476	ME 4XX	ME 4XX	ME 496	ME 499	16
	Course Name	University Requirement	Engineering Project Management	Industrial Operations Management	Elective (2)	Elective (3)	Human Factors Engineering Lab	Senior Design II	
	Units/hours	2 (2-0-0)	2 (2-1-0)	3(3-1-0)	3 (3-1-0)	3 (3-1-0)	1 (0-0-2)	2 (1-0-2)	
	Pre-requisites	-	GE 407	MATH 107	XXX	XXX	ME 495	ME 498	

Design and Production Engineering Track

8th	Course Code		MATH 254	ME 344	ME 354	ME 313	ME 333	ME 345	18
	Course Name	University Requirement	Numerical Methods	Automatic Control	Heat Transfer	Material Removal Processes	Materials Selection in Design and Manufacturing	Fault Diagnosis of Mechanical Systems	
	Units/hours	2 (2-0-0)	3 (3-1-0)	2 (2-1-0)	3 (3-1-0)	3(2-1-2)	3(2-1-2)	2 (1-1-2)	
	Pre-requisites	-	MATH 204	ME 343, ME 353	ME 353	ME 212, ME 232	ME 212, ME 232	ME 343, ME 232	
9th	Course Code		GE 407	ME 424	ME 414	ME 43X	ME 491	ME 498	16
	Course Name	University Requirement	Engineering Economy	Computer Aided Design	Metal Forming Processes	Elective (1)	Design and Production Lab (1)	Senior Design I	
	Units/hours	2 (2-0-0)	2 (2-1-0)	3 (2-0-3)	3(2-1-2)	3 (2-1-2)	1 (0-0-2)	2 (1-0-2)	
	Pre-requisites	-	-	ME 323	ME 212, ME 232	ME 232	ME 111	-	
10th	Course Code		GE 408	ME 415	ME 42X	ME 41X	ME 492	ME 499	16
	Course Name	University Requirement	Engineering Project Management	Computer Aided Manufacturing	Elective (2)	Elective (3)	Design and Production Lab (2)	Senior Design II	
	Units/hours	2 (2-0-0)	2 (2-1-0)	3(2-1-2)	3(2-1-2)	3 (2-1-2)	1 (0-0-2)	2 (1-0-2)	
	Pre-requisites	-	GE 407	ME 212, ME 424	ME 212, ME 323	XXX	ME 491	ME 498	

Univ. Req. = 12	College Req. = 42	Dept. Req. = 54	Track Req. = 28	Total = 136 units
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