

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

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

## Mechanical Power Track

<b>8<sup>th</sup></b>	<b>Course Code</b>		<b>MATH 254</b>	<b>ME 344</b>	<b>ME 354</b>	<b>ME 355</b>	<b>ME 356</b>	<b>ME 357</b>	<b>18</b>
	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	
<b>9<sup>th</sup></b>	<b>Course Code</b>		<b>GE 407</b>	<b>ME 458</b>	<b>ME 459</b>	<b>ME 46X</b>	<b>ME 493</b>	<b>ME 498</b>	<b>16</b>
	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	-	
<b>10<sup>th</sup></b>	<b>Course Code</b>		<b>GE 408</b>	<b>ME 460</b>	<b>ME 46X</b>	<b>ME 46X</b>	<b>ME 494</b>	<b>ME 499</b>	<b>16</b>
	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

<b>8<sup>th</sup></b>	<b>Course Code</b>		<b>MATH 254</b>	<b>ME 344</b>	<b>ME 354</b>	<b>ME 371</b>	<b>ME 372</b>	<b>ME 373</b>	<b>18</b>
	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	
<b>9<sup>th</sup></b>	<b>Course Code</b>		<b>GE 407</b>	<b>ME 474</b>	<b>ME 475</b>	<b>ME 4XX</b>	<b>ME 495</b>	<b>ME 498</b>	<b>16</b>
	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	-	
<b>10<sup>th</sup></b>	<b>Course Code</b>		<b>GE 408</b>	<b>ME 476</b>	<b>ME 4XX</b>	<b>ME 4XX</b>	<b>ME 496</b>	<b>ME 499</b>	<b>16</b>
	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

<b>8<sup>th</sup></b>	<b>Course Code</b>		<b>MATH 254</b>	<b>ME 344</b>	<b>ME 354</b>	<b>ME 313</b>	<b>ME 333</b>	<b>ME 345</b>	<b>18</b>
	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	-	<i>MATH 204</i>	<i>ME 343, ME 353</i>	<i>ME 353</i>	<i>ME 212, ME 232</i>	<i>ME 212, ME 232</i>	<i>ME 343, ME 232</i>	
<b>9<sup>th</sup></b>	<b>Course Code</b>		<b>GE 407</b>	<b>ME 424</b>	<b>ME 414</b>	<b>ME 43X</b>	<b>ME 491</b>	<b>ME 498</b>	<b>16</b>
	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	-	-	<i>ME 323</i>	<i>ME 212, ME 232</i>	<i>ME 232</i>	<i>ME 111</i>	-	
<b>10<sup>th</sup></b>	<b>Course Code</b>		<b>GE 408</b>	<b>ME 415</b>	<b>ME 42X</b>	<b>ME 41X</b>	<b>ME 492</b>	<b>ME 499</b>	<b>16</b>
	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	-	<i>GE 407</i>	<i>ME 212, ME 424</i>	<i>ME 212, ME 323</i>	<i>XXX</i>	<i>ME 491</i>	<i>ME 498</i>	

<b>Univ. Req. = 12</b>	<b>College Req. = 42</b>	<b>Dept. Req. = 54</b>	<b>Track Req. = 28</b>	<b>Total = 136 units</b>
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