

	GR-102	Arabic for Understanding Quran-II	T						√					√
	ME-112L	Workshop Practice Lab	L	√			√				√			
	EE-101L	Electrical Engineering Lab	L	√	√							√		
	ME-113L	Engineering Mechanics-I: Statics Lab	L				√					√		
3	GR-201	Pakistan Studies	T						√					
	ME-221	Thermodynamics-II	T		√		√							
	ME-211	Engineering Mechanics-II: Dynamics	T	√	√									
	ME-212	Mechanics of Materials-I	T	√	√									
	ME-222	Fluid Mechanics-I	T	√	√		√							
	EN-201	Communication Skills & Report Writing	T										√	
	ME-221L	Thermodynamics-II Lab	L		√		√							
	ME-211L	Engineering Mechanics-II: Dynamics Lab	L				√					√		
4	ME-213	Engineering Materials	T	√	√									
	EE-201	Electronics Engineering	T	√										
	GS-201	Statistics and Probability for Engineer	T	√	√									
	ME-215	Mechanics of Materials-II	T		√	√								
	ME-223	Fluid Mechanics-II	T	√	√									
	GR-202	Islamic Studies/Ethics	T								√			
	EE-201L	Electronics Engineering Lab	L	√	√							√		
	ME-215L	Mechanics of Materials-II Lab	L	√										
5	ME-223L	Fluid Mechanics-II Lab	L				√					√		
	ME-311	Machine Design and CAD-I	T	√	√		√							
	ME-312	Mechanics of Machines	T	√	√	√								
	ME-313	Manufacturing Processes	T	√	√		√							

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4xy															
ME-411	Mechanical Vibrations	T		√	√	√									
ME-4xy	Technical Elective-III	T	√	√											√
MS-4xy	Management Elective	T												√	
ME-499	Project														√
ME-411 L	Mechanical Vibrations Lab	L	√			√									

Mapping of CLO'S and PLO'S of Technical Electives

Course Code	Course Title	PLO-01	PLO-02	PLO-03	PLO-04	PLO-05	PLO-06	PLO-07	PLO-08	PLO-09	PLO-10	PLO-11	PLO-12
		Engineering Knowledge	Problem Analysis	Design and Development of Solutions	Investigation	Modern Tool Usage	The Engineer and Society	Environment and Sustainability	Ethics	Individual and Team Work	Communication	Project Management	Life Long Learning
ME-423	Renewable energy resources	√			√								
ME-412	Tribology	√											
ME-424	Computational fluid dynamics	√	√										
ME-425	Gas dynamics	√	√										
ME-426	Aerodynamics	√	√										
ME-416	Automation and robotics	√			√			√					
ME-431	Finite element method	√	√										
ME-434	Introduction to composite materials	√	√										
ME-422	Production engineering			√	√								
ME-419	Engineering optimization	√	√										
ME-414	Fracture mechanics	√	√		√								

