

Mapping of CLO'S and PLO'S to curriculum

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Semester	Course Code	Course Title	Type of Course			PLO-01	PLO-02	PLO-03	PLO-04	PLO-05	PLO-06
			T	L	P						
1	GS-101	Math-I Calculus and Analytical Geometry	T	✓	✓		✓				
	GS-102	Applied Physics	T	✓	✓		✓				
	GS-103	Applied Calculus	T	✓	✓					✓	
	EN-101	Functional English	T								✓
	CS-101	Computer Systems and Programming	T	✓							
	ME-111	Engineering Drawing and Graphics	T	✓							
	GR-101	Arabic for Understanding Quran-I	T						✓		✓
	ME-111L	Engineering Drawing and Graphics Lab	L	✓		✓		✓			
	GS-102L	Applied Physics Lab	L		✓		✓				
	CS-101L	Computer Systems and Programming Lab	L			✓		✓		✓	
2	GS-104	Math-II Linear Algebra and Ordinary Differential Equations	T	✓	✓						
	EE-101	Electrical Engineering	T	✓							
	ME-121	Thermodynamics-I	T	✓	✓						
	ME-113	Engineering Mechanics-I: Statics	T	✓	✓						

	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	✓	✓		✓					

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's											
		PLO-01 Engineering Knowledge	PLO-02 Problem Analysis	PLO-03 Design and Development of Solutions	PLO-04 Investigation	PLO-05 Modern Tool Usage	PLO-06 The Engineer and Society	PLO-07 Environment and Sustainability	PLO-08 Ethics	PLO-09 Individual and Team Work	PLO-10 Communication	PLO-11 Project Management	PLO-12 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	✓	✓			✓							

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