Mapping of Courses to Program Outcomes (PO), Knowledge Profile (WK), Complex Engineering Problem (WP) and Engineering Activities (EA)

Tick (X) on appropriate column

Core Courses Offered to Mechatronic Engineering Programme				Program Outcomes												Knowledge Profile								Complex Engineering Problem							Engineering Activities					
				Engineering knowledge	Problem Analysis	Design/ development of solutions	Investigation	Modern Tool Usage	The Engineer and Society	Environment and Sustainability	Ethics	Individual and Team work	Communication	Project Management and Finance	Lifelong learning	Theory-based natural sciences	Conceptual-based mathematics	Engineering fundamentals	Engineering Specialist knowledge	Engineering Design	Engineering practice (technology)	Role of engineering in society	Research literature	Depth of knowledge required	Range of conflicting requirements	Depth of analysis required	Familiarity of issues	Extent of applicable codes	Extent of stakeholder involvement	Interdependence	Range of resources	Level of interactions	Innovation	Consequences to society and the environment	Familiarity	
Year	Sem	Code	Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WP1	WP2	WP3	WP4	WP5	WP6	WP7	EA1	EA2	EA3	EA4	EA5	
1	1	EUM113	Engineering Calculus	X	X											X	X	X						X												
		EMD101	Engineering Drawing					X							X						X															*Offered by Mechanical School
		EEM102	Mechatronic Engineering Practice					X					X								X			X			X				X	X	X	X	X	
		EEE105	Circuit Theory I	X	X													X	X					X	X	X	X									
		EEE123	Computer Programming for Engineers		X	X									X				X	X				X	X	X	X									
		EEM101	Principles and Mechanics of Materials	X	X											X	X	X						X												
	2	EUM114	Advanced Engineering Calculus	X	X											X	X	X	X					X												
		EEE125	Basic Circuit Lab			X						X	X	X						X				X	X	X	X				X	X	X	X	X	
		EEE130	Digital Electronic I		X				X									X					X		X	X	X									
		EMM102	Static	X	X													X																		*Offered by Mechanical School
		EEE133	Electronic Devices & Circuit	X						X						X		X				X		X	X	X	X									
2	1	EEE232	Complex Analysis		X		X										X						X	X	X	X	X									
		EEM242	Mechatronic Laboratory I			X					X	X	X						X	X		X		X	X	X	X				X	X	X	X	X	
		EEE241	Analog Electronics I	X					X									X				X		X	X	X	X									
		EEE228	Signal and System	X	X													X						X	X	X	X									
2		EEM223	Thermofluids	X	X											X		X				X		X												
	2	EEM253	Mechatronic Design I	X		X		X					X						X	X	X			X			X	X		X	X	X	X	X	X	
		EEE226	Microprocessor I			X					X	X			X					X		X		X				X	X							
		EEK260	Electrical Machines	X	X	X										X	X	X						X	X											
		EEM222	Fundamentals of Dynamics & Mechanism	X	X	X												X	X	X				X	X	X	X									
3	1	EEM355	Mechatronic System	X	X														X					X	X	X										
		EEK361	Power Electronics	X	X	X		X								X	X	X						X	X											
		EEE350	Control System		X		X	X										X			X		X	X	X	X	X									
		EEE382	Probability & Engineering Statistics			X			X											X		X		X	X	X	X									
		EEM353	Mechanical Engineering Design	X	X	X						X	X					X	X	X	X			X		X	X					X			X	
3	2	EEM323	Instrumentation & Measurement System	X	X	X		X				X				X	X	X	X	X				X		X		X								
		EEE354	Digital Control System		X		X	X											X		X		X	X						X						
		EUP222	Engineer in Society	X			X		X		X	X		X					X			X	X	X												*Offered by Civil School
		EEM344	Mechatronic Laboratory II				X				X	X	X						X			X	X	x							X	X	X	X	X	
		EEM343	Robotics	X	X	X		X		X							X	X	X	X	X	X		X		X	X									
	SB	EEL303	Industrial Training						X			X		X	X			X		X	X	X		X	X			X	X		X	X	X		X	
4	1	EEM441	Instrumentation & Control Laboratory			X	X	X			X	X	X						X	X	X	X	X	X		X					X	X	X	X	X	
		EEM422	Machine Vision	X		X		X											X	X				X						X						
4		EEM425	Mechatronic System Design			X			X	X		X	X	X	X					X		X		X	X	X	X		X	X	X	X	X	X	X	
	2	EEM499	Undergraduate Project				X		X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		EEM421	Quality Techniques		X	X				X				X		X				X	X	X					X		X							
			Elective Courses																																	
3	2	EEM348	Principle of Intelligent Systems	X	X			X								X	X		X		X			X				X								
		EEM354	Manufacturing Management & Technology		X	X		X					X		X	X	X	X		X	X			X	X	X	X				X					
4	1	EEE332	Communication			X					X									X		X		X				X	X							
		EEM423	Reliability Engineering	X	X	X													X	X				X	X	X	X									
		EEM424	Design of Experiments		X	X	X			X				X					X	X		X	X	X	X	X	X									
		EEE453	Control System Design			X		X													X	X		X						X						
		EEE430	Software Engineering		X		X			X									X			X	X	X						X						