

MECHATRONICS ENGINEERING CURRICULUM – INTAKE 35

LEVEL 01					
SEMESTER 01					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
ME 1103	Workshop Technology	C	3	-	
ME 1112	Engineering Drawing	C	2	-	
CE 1102	Fundamentals of Civil Engineering	C	2	-	
EE 1102	Fundamentals of Electrical Engineering	C	2	-	
ET 1102	Basic Electronics	C	2	-	
MA 1103	Mathematics	C	3	-	
IT 1012	Basic Computer Programming and	C	2	-	
DL 1131	English: Basic Study Skills (Engineering)	C	-	1	
MS 1014	Military Studies	C			4
MA 1112	Mathematical Software	C	2		
EN 1111	Sinhala/Tamil for Beginners	C		1	
	Semester Credits		18	2	4
SEMESTER 2					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
MC 1202	Analog Electronics	C	2		
ME 1202	Fundamentals of Thermodynamics	C	2		
ME 1212	Engineering Materials	C	2		
ME 1222	Applied Mechanics	C	2		
CE 1222	Structural Mechanics I	C	2		
CE 1232	Fluid Mechanics I	C	2		
ET 1203	Theory of Electricity	C	3		
MA 1203	Calculus	C	3		
DL 2141	English: Advanced Study	C		1	
MS 1024	Military Studies	C			4
	Semester Credits		18	1	4

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LEVEL 02					
SEMESTER 3					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
MC 2112	Digital Electronics	C	2		
ME 2102	Computer Aided Drafting	C	2		
ME 2123	Manufacturing Systems	C	3		
ME 2132	Dynamics of Mechanical Systems	C	2		
ET 2103	Signals and Systems	C	3		
EE 2102	Electrical Machines & Drives I	C	2		
EE 2122	Electrical Measurements & Electronic Instrumentations	C	2		
MA 2103	Advanced Calculus	C	3		
DL 3151	English: Writing & Speaking	C		1	
MS 2032	Strategic & Defence Studies	C			2
MS 2044	Military Studies	C			4
	Semester Credits		19	1	6
SEMESTER 4					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
MC 2202	Programming for Mechatronic Systems	C	2		
MC 2212	Sensors and Actuators	C	2		
ME 2203	Physical Metallurgy	C	3		
ME 2213	Control Systems Engineering	C	3		
ME 2233	Mechanics of Machines	C	3		
ET 2223	Microprocessors, Microcontrollers & Embedded Systems	C	3		
MA 2203	Numerical Methods & Complex Variables	C	3		
DL 4161	English: Research Writing Skills	C		1	
MS 2052	Presentation Skill Development Project	C			2
MS 2064	Military Studies	C			4
ME 2211	Industrial Visits & Report Writing	C		1	
ME 2021	Field specific software (Solid works/FEA)	C		2	
EN 2XX2	Humanities Elective I	E		2	
EN 2XX2	Humanities Elective II	E		2	
MC 2012	Mini Project			2	
	Semester Credits		19	10	6

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LEVEL 03					
SEMESTER 5					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
MC 3102	Mechatronic System Design	C	2		
ET 3142	Digital Signal Processing	C	2		
ME 3113	Advanced Control Systems	C	3		
ME 3123	Machine Elements in Design	C	3		
CE 3142	Professional Ethics	C	2		
MA 3102	Applied Statistics	C	2		
MF 3122	Principles of Management	C	2		
	Semester Credits		16		
SEMESTER 6					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
MC 3202	Principles of Automation	C	2		
MC 3213	Mechatronic Design Project	C	3		
MC 3222	Fundamentals of Robotics	C	2		
ME 3202	Ballistic Engineering (only for officer cadets)	C	2		
ME 3212	Entrepreneurship for Engineers (Only for day scholars)				
ME 3262	Research Methodology	C	2		
EE 3223	Power Electronics and Applications I	C	3		
MF 3112	Business Economics & Financial Accounting	C	2		
	Semester Credits		16		
INDUSTRIAL TRAINING					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
ME 3016	Industrial Training	C		6	
	Semester Credits			6	

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LEVEL 04					
SEMESTER 7					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
MC 4102	Advanced Automation	C	2		
MC 4112	Advanced Robotics and Manipulators	C	2		
MC 4122	Intelligent Systems Control	C	2		
ME 4112	Industrial Project Management	C	2		
ME 4206	Research Project	C	*		
ME 4XX2	Technical Elective I	E	2		
MA 4102	Operational Research	C	2		
MF 4112	Human Resource Management & Industrial Relations	C	2		
	Semester Credits		14		
* Continued in Semester 8					
SEMESTER 8					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
MC 4206	Research Project	C	6		
MC 4202	Non-linear Control Systems	C	2		
ME 4223	Industrial Engineering	C	3		
ME 4XX2	Technical Elective II	E	2		
LW 4252	Commercial & Industrial Law	C	2		
	Semester Credits		15		
GRAND TOTAL			135	16	20
SEMESTER 9					
CODE	MODULE	CREDITS			
		Category	GPA	NGPA	MGPA
MS 9074	Advanced Military Training	C			15
	Semester Credits				15
GRAND TOTAL			135	20	35

MECHATRONICS ENGINEERING CURRICULUM – INTAKE 35

TECHNICAL AND HUMANITIES ELECTIVE SUBJECTS				
CODE	MODULE	Category	GPA	Type
ME 4123	Solid Mechanics	E	2	Technical Elective I
EE 4152	Power Electronics and Applications II			
ET 4103	Machine learning			
ME 4422	Advanced Vibration & Dynamics	E	2	Technical Elective II
ET 4243	Internet of Things			
ET4273	Deep Learning			
EN 2012	Art & Tradition	E	2	Humanities Electives
EN 2022	Photography			
	International Relations			
EN 2032	Human Rights	E	2	
EN 2042	History and Development of Engineering			
EN 2052	Psychology for Engineers			