Curriculum for B.Sc. Engineering Honours Degree Programme
Mechatronic Systems Engineering Stream-Department of Mechanical Engineering [2015 batch]

Module Code	Module Name	Category	Lectures hrs/week	Lab/ Assignments hrs/weeks	Credits		Norm		Evaluation (%)	
					GPA	NGPA	GPA	NGPA	CA	WE
Semester 1										
ME1032	Mechanics	C	2.0	3/4	2.0	-			20	80
CE1022	Fluid Mechanics	C	2.0	3/4	2.0	-			20	80
CS1032	Programming Fundamentals	C	2.0	3/1	3.0	-			60	40
EE1012	Electrical Engineering	C	2.0	3/4	2.0	-			20	80
EL1012	Language Skill Enhancement I	C	1.0	3/1	1.0	-			20	80
MA1013	Mathematics	C	3.0	1/1	3.0	-			20	80
MN1012	Engineering in Context	C	2.0	-	-	1.0			30	70
MT1022	Properties of Materials	C	2.0	3/4	2.0	-	15.0	1.0	20	80
				Total for Semester 1			15.0	1.0		
Semester 2										
ME1100	Mechanics of Materials I	C	1.5	3/2	2.0	-			30	70
ME1090	Engineering Drawing & Computer Aided Modelling	C	2.0	3/1	3.0	-			100	-
ME1052	Fundamentals of Engineering Thermodynamics	C	2.5	3/2	3.0	-			30	70
ME1070	Manufacturing Technology	C	1.0	3/1+3/2(A)	-	2.5			100	-
ME2040	Fundamentals of Mechatronics	C	1.0	3/1	2.0	-			40	60
EL1022	Language Skill Enhancement II	C	-	3/1	1.0	-			30	70
EN1802	Basic Electronics	C	2.0	3/4	2.0	-			40	60
MA1023	Methods of Mathematics	C	3.0	1/1	3.0	-			30	70
MT1812	Engineering Materials	C	1.5	3/2	2.0	-	18.0	2.5	30	70
MN1030	Entrepreneurship Skill Development	O	0.5	3/2	-	1.0	0.0	0.0	100	-
				Total for Semester 2			18.0	2.5		
Semester 3										
ME2010	Fluid Dynamics	C	2.5	3/2	3.0	-			30	70
ME2023	Manufacturing Engineering I	C	3.0	3/1	4.0	-			30	70
ME2092	Mechanics of Machines I	C	3.5	3/2	4.0	-			30	70
EE2803	Applied Electricity	C	1.5	3/2	2.0	-	22.0	0.0	30	70

Module Code	Module Name	Category	Lectures hrs/week	Lab/Assignments hrs/weeks	Credits GPA	Credits NGPA	Norm GPA	Norm NGPA	Evaluation (%) CA	Evaluation (%) WE
EN2852	Applied Electronics	C	1.5	3/2	2.0	-			40	60
MA2013	Differential Equations	C	2.0	-	2.0	-			30	70
MA2023	Calculus	C	2.0	-	2.0	-			30	70
ME2260	Embedded Systems	C	2.0	3/1	3.0	-			40	60
CS2882	Object Oriented Programming Using C++	O	2.0	3/1	3.0	-			30	70
MN1030	Entrepreneurship Skill Development	O	0.5	3/2	-	1.0	0.0	0.0	100	-
					Total for Semester 3		22.0	0.0		
Semester 4										
ME2050	Mechanics of Machines II	C	2.5	3/2	3.0	-			30	70
ME2060	Mechanics of Materials II	C	3.5	3/2	4.0	-			30	70
ME2160	Introduction to Automotive Engineering	C	1.5	3/2	2.0	-			30	70
ME2170	Manufacturing Engineering II	C	3.5	3/2	4.0	-			40	60
ME2080	Design of Machine Elements	C	2.0	3/1	3.0	-			40	60
ME2280	Sensors/Actuators and Smart Systems	C	2.0	3/1	3.0	-			40	60
MA2033	Linear Algebra	C	2.0	-	2.0	-	21.0	2.0	30	70
ME2920	Social Community Project - Mechatronics	C	1.0	3/1	-	2.0			100	-
CH2803	Process Engineering	O	1.5	3/2	2.0	-			30	70
MA2053	Graph Theory	O	2.0	-	2.0	-			30	70
MN2010	Entrepreneurial Leadership	O	1.5	3/2	2.0		0.0	0.0	50	50
					Total for Semester 4		21.0	2.0		

Module Code	Module Name	Category	Lectures hrs/week	Lab/Assignments hrs/weeks	Credits		Norm		Evaluation (%)	
					GPA	NGPA	GPA	NGPA	CA	WE
Semester 5										
ME3240	Control Systems	C	2.0	3/1	3.0	-			40	60
ME3022	Fluid Power Systems & Machinery	C	3.5	3/2	4.0	-			30	70
MA3013	Applied Statistics	C	2.0	-	2.0	-			30	70
MN3042	Business Economics and Financial Accounting	C	2.5	3/2	3.0	-			30	70
MA3023	Numerical Methods	C	2.0	-	2.0	-	21.0	0.0	30	70
ME3260	Mechatronic System Design Project	C	3.0	3/1	4.0	-			100	0
ME3270	Virtual Instrumentation	C	2.0	3/1	3.0	-			40	60

Module Code	Module Name	Category	Lectures hrs/week	Lab/Assignments hrs/weeks	Credits GPA	Credits NGPA	Norm GPA	Norm NGPA	Evaluation (%) CA	Evaluation (%) WE
MN3010	Multidisciplinary Design Innovation and Venture Creation	O	1.5	3/2	2.0	-			50	50
MN3052	Industrial Management and Marketing	O	2.5	3/2	3.0	-	0.0	0.0	30	70
					Total for Semester 5		21.0	0.0		
ME3992	Industrial Training	C	-	-	-	6.0	0.0	6.0		
							0.0	6.0		
Semester 6										
ME3911	Project Methodology and Communication	C	1.5	3/2	-	2.0	0.0	2.0	100	-
ME4202	Design/Research Project**	C	-	-	2.0	-	2.0	0.0	100	-
DE2xxx	Humanities Elective I*	E			2.0	-	2.0	0.0		
DE2xxx	Humanities Elective II*	E			2.0	-	2.0	0.0		-
					Total for Semester 6		6.0	2.0		

Module Code	Module Name	Category	Lectures hrs/week	Lab/Assignments hrs/weeks	Credits		Norm		Evaluation (%)	
					GPA	NGPA	GPA	NGPA	CA	WE
Semester 7										
ME4202	Design/Research Project**	C	-	-	4.0	-			100	-
ME4310	Micro/Nano Electro Mechanical Systems and Nanotechnology	C	2.0	3/1	3.0	-			40	60
ME4090	Industrial Automation	C	2.0	3/1	3.0	-			60	40
MN4900	Professional Ethics	C	1.0	-	-	1.0				
ME4903	Industrial Visits and Guest Lectures II	C	-	3/2	-	0.5	10.0	1.5	100	-
ME4242	Energy Technology & Environment	E	2.5	3/2	3.0	-			30	70
ME4332	Computer Aided Design & Manufacture	E	3.0	3/1	4.0	-			30	70
MN4122	Human Resource Management and Industrial Relations	E	2.0	-	2.0	-			30	70
ME4452	Industrial Project Management	E	3.5	3/2	4.0	-			40	60
ME4710	Aircraft Technology	E	2.5	3/2	3.0	-			30	70
ME4422	Energy Conservation	E	2.5	3/2	3.0	-			40	60
MA4013	Linear Models & Multivariate Statistics	E	3.0	-	3.0	-			30	70
MA4033	Time Series & Stochastic Process	E	3.0	-	3.0	-			30	70
ME4620	Biomedical Engineering Applications	E	2.5	3/2	3.0	-	6.0	0.0	30	70

Code	Module										
MN3020	Entrepreneurship Business Basics	O	2.0	3/1	3.0	-				50	50
MN4030	Strategic Enterprise Management	O	1.5	3/2	2.0	-				40	60
MN4042	Technology Management	O	1.5	3/2	2.0	-	0.0	0.0		30	70
					Total for Semester 7		16.0	1.5			
Semester 8											
ME4180	Intelligent Systems	C	2.0	3/1	3.0	-				40	60
ME4190	Robotics and Autonomous Systems	C	2.0	3/1	3.0	-				40	60
ME4202	Design/Research Project**	C	-	-	4.0	-	10.0	0.0		100	-
ME4392	Advanced Aspects of Manufacturing	E	2.5	3/2	3.0	-				30	70
ME4662	Die and Mould Design	E	2.5	3/2	3.0	-				30	70
ME4072	Industrial Engineering	E	3.5	3/2	4.0	-				30	70
ME4672	Control Systems Design	E	2.5	3/2	3.0	-				30	70
ME4632	Automotive Engineering	E	3.5	3/2	4.0	-				30	70
ME4652	Marine Engineering & Naval Architecture	E	3.5	3/2	4.0	-				30	70
ME4432	Computational Fluid Dynamics	E	2.5	3/2	3.0	-				50	50
ME4472	Computer Aided Engineering	E	2.5	3/2	3.0	-				30	70
MA4043	Neural Network and Fuzzy Logic	E	3.0	-	3.0	-	6.0	0.0		30	70
MN4072	Small Business Management Entrepreneurship	O	1.5	3/2	2.0	-				30	70
MN4010	Business Plan Development	O	1.5	3/2	2.0	-				70	30
MN4170	Global Entrepreneurship	O	1.5	3/2	2.0	-	0.0	0.0		40	60
					Total for Semester 8		16.0	0.0			
					Total for the programme		135.0	15.0			
							150.0				

*   *Compulsory elective modules selected from a basket*

**   *Module continued in three semesters:6, 7 and 8 and the results are counted at the end of Semester 08 only*