

M.TECH - MECHATRONICS

First Year (First Semester):

S. No.	Course Code	Course Title	Periods			Contact Hours	Credits
			L	T	P		
1	15 ME 5101	Fundamentals of Mechatronics	3	2	0	4	4
2	15 ME 5102	Advanced Engineering Mathematics	3	2	0	4	4
3	15 ME 5103	Sensors and Actuators	3	2	0	4	4
4	15 ME 5104	Modeling and Simulation of Mechatronic Systems	3	0	2	4	4
5		Elective – 1	3	0	0	3	3
6		Elective - 2	3	0	0	3	3
7	15 IE 5149	Seminar	0	0	4	4	2
Total			18	4	8	30	24

First Year (Second Semester) :

S. No.	Course Code	Course Title	Periods			Contact Hours	Credits
			L	T	P		
1	15 EM 5205	Robotics: Advanced Concepts and Analysis	3	2	0	4	4
2	15 EM 5206	Control of Mechatronic Systems	3	2	0	4	4
3	15 EM 5207	Mechatronics Product Design	3	2	0	4	4
4	15 EM 5208	Precision Engineering	3	2	0	4	4
5		Elective – 3	3	0	0	3	3
6		Elective - 4	3	0	0	3	3
7	15 IE 5250	Term Paper	0	0	4	4	2
Total			18	4	8	30	24

Second Year (First & Second Semester) :

S.No	Course code	Course Title	Periods			Credits
			L	T	P	
1	15 IE 6050	Dissertation	0	0	72	36

ELECTIVE COURSES

S.No	Course code	Course Title	Periods			Credits
			L	T	P	
Elective-1						
1	15 ME 51A1	Signal Processing in Mechatronic Systems	3	0	0	3
2	15 ME 51A2	MEMS and NEMS	3	0	0	3
3	15 ME 51A3	Vehicle Dynamics and Multi-body Systems	3	0	0	3
Elective-2						
1	15 ME 51B1	Emerging Smart Materials for Mechatronics Applications	3	0	0	3
2	15 ME 51B2	Intelligent Visual Surveillance	3	0	0	3
3	15 ME 51B3	Microprocessors and Embedded Systems	3	0	0	3
Elective-3						
1	15 ME 52C1	Computational Fluid Dynamics	3	0	0	3
2	15 ME 52C2	Nonlinear Optimization	3	0	0	3
Elective-4						
1	15 ME 52D1	Industrial Automation	3	0	0	3
2	15 ME 52D2	Fuzzy Sets and Artificial Intelligence	3	0	0	3