



First Year Teaching Scheme

Admission Year 2026-27

**Diploma in
Mechatronics Engineering**

Faculty of Engineering & Technology

Parul University

Vadodara, Gujarat, India

Semester – 1

				Teaching Scheme			Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
				(Hours / Week)										
NCrF Credit Level	Subject Code	Subject Name	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int.+Ext.	Int.+Ext.	
3.5	03063301PC01	Basic of Electrical and Electronics Engineering	4	3	2	-	20	50	20	60		40	20	150
	03069101BS01	Mathematics – I	4	3	-	1	20	-	20	60	-	40	-	100
	03069202BS01	Basic Physics	4	3	2	-	20	50	20	60	-	40	20	150
	03061601ES02	Foundation of IT and Web Design Application	2	-	4	-	-	100	0	0	-	0	50	100
	03063401ES01	Elements of Mechanical Engineering	4	3	2	-	20	50	20	60	-	40	20	150
	03060001HM01	Fundamental of Communication Skills	1	-	2	-	-	50	-	-	-	-	20	50
	03061601UE02	Internet of Things: Concepts & Application	3	2	2	-	20	50	20	60	-	40	20	150
	03061701UE01	Energy Conservation	3	3	-	-	20	-	20	60	-	40	-	100
	03062301UE01	Basic Aircraft Science	3	3	-	-	20	-	20	60	-	40	-	100
	03061901UE01	Introduction to Robotics & Automation	3	3	-	-	20	-	20	60	-	40	-	100
	03061601UE01	Programming with Python	3	2	2	-	20	50	20	60	-	40	20	150
	03061501UE01	Pollution Prevention and Control Techniques	3	3	-	-	20	-	20	60	-	40	-	100
	03061501MC01	Environmental Science	0	1	-	-	20	-	20	-	-	16	-	40
	Total credits			20										

Lect - Lecture, Tut - Tutorial, Lab - Lab, T - Theory, P - Practical, CE - CE, T - Theory, P - Practical

Theory Passing % : 40 Practical Passing % : 50

Semester – 2

NCrF Credit Level	Subject Code	Subject Name	Credit	Teaching Scheme			Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
				(Hours / Week)	Lect	Lab	Tut	T	P	CE	T	P	Int.+Ext.	
3.5	03063302PC02	Basic Mechatronics Workshop	2	-	4	-	-	50	-	-	50	-	50	100
	03069102BS01	Mathematics – II	4	3	-	1	20	-	20	60	-	40	-	100
	03061502ES01	Applied Mechanics	4	3	2	-	20	50	20	60	-	40	20	150
	03061901ES02	Engineering Graphics	3	1	4	-	20	100	20	60	-	40	0	150
	03063402ES01	Fundamentals of Programming	3	2	2	-	20	50	20	60	-	40	-	150
	03060002HM01	Verbal Ability	2	1	2	-	20	50	20	60	-	40	20	150
	03060002MC01	Universal Human Value	0	1	-	-	20	-	20	-	-	16	-	40
	03061902UE02	Plant Layout and Fire Safety	3	3	-	-	20	-	20	60	-	40	-	100
	03061702UE01	Introduction to Electrical Safety & Management	3	2	2	-	20	50	20	60	-	40	20	150
	03061802UE01	E-Waste Management	3	3	-	-	20	-	20	60	-	40	-	100
	03061502UE01	Disaster Management	3	3	-	-	20	-	20	60	-	40	-	100
	03061902UE01	Industrial Safety & Risk Management	3	3	-	-	20	-	20	60	-	40	-	100
	03061601UE03	Digital Marketing	3	3	-	-	20	-	20	60	-	40	-	100
		Total credits	21											

Lect - Lecture, Tut - Tutorial, Lab - Lab, T - Theory, P - Practical, CE - CE, T - Theory, P - Practical

Theory Passing % : 40 Practical Passing % : 50