

# Maulana Azad National Institute of Technology, Bhopal-462003

Scheme M.Tech (Full Time) (w.e.f.: July 2025)

Centre of Excellence in Product Design and Smart Manufacturing

M. Tech. in Smart Manufacturing (Full Time)

## First Semester

Course No.	Subject	Periods per week			Total Credits
		L	T	P	
SM 1101	Robotics and Automation	3	-	-	3
SM 1102	CAD for Smart Manufacturing	3	-	-	3
SM 1103	Mechatronic System Design	3	-	-	3
SM 1151-1169	Departmental Elective – I	3	-	-	3
SM 1151-1169	Departmental Elective – II	3	-	-	3
SM 1104	Modelling and Simulation Lab.	-	-	2	1
SM 1105	Smart Manufacturing Lab.I	-	-	2	1
SM 1106	Seminar-I	-	-	2	1
SM 1107	Minor Project-I	-	-	4	2
HS 1101	Communication Skills	2	-	-	0
Total Hours: 25 <b>Total Credits: 20</b>		Total Semester Credits:			20

## Second Semester

Course No.	Subject	Periods per week			Total Credits
		L	T	P	
SM 1201	Additive Manufacturing	3	-	-	3
SM 1202	Internet of Things	3	-	-	3
SM 1251-1269	Departmental Elective – III	3	-	-	3
SM 1251-1269	Departmental Elective – IV	3	-	-	3
	Open Elective	3	-	-	3
SM 1203	Additive Manufacturing Lab.	-	-	2	1
SM 1204	Smart Manufacturing Lab.II	-	-	2	1
SM 1205	Seminar-II	-	-	2	1
SM 1206	Minor Project-II	-	-	4	2
Total Hours: 25 <b>Total Cumulative Credits: 40</b>		Total Semester Credits:			20

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## Third Semester

Course No.	Subjects	Period per week			Total Credits
		L	T	P	
SM 2101	Project Phase-I	-	-	40	20
Total Hours: 40 <b>Total Cumulative Credits: 60</b>		Total Semester Credits			20

## Fourth Semester

Course No.	Subjects	Period per week			Total Credits
		L	T	P	
SM 2201	Project Phase-II	-	-	40	20
Total Hours: 40 <b>Total Cumulative Credits: 80</b>		Total Semester Credits			20

## List of Departmental Electives

Course No.	Subject	Course No.	Subject
SM 1151	Micro-electro Mechanical Systems	SM 1251	Soft Robotics
AI 1102	Machine Learning	SM 1252	Metrology and Computer Aided Inspection
SM 1152	Data Analytics	SM 1253	Finite Element Methods
SM 1153	Micro Machining	SM 1254	Entrepreneurship and Startup Creation
SM 1154	Creative Product Design	SM 1255	Sustainable Manufacturing
SM 1155	AI for Design and Manufacturing	SM 1256	Research Methodology
SM 1156	Nano Finishing Processes	SM 1257	Electronics Manufacturing Technology
SM 1157	CNC Technology and Programming	SM 1258	Cyber Physical Systems
SM 1158	Advanced Manufacturing Processes	SM 1259	Soft Computing Methods
		SM 1260	Material and Characterization for Additive Manufacturing

