

Maulana Azad National Institute of Technology, Bhopal – 462003
Mechanical Engineering Department

M. Tech. (Industrial Engineering and Management)

M.TECH (IEM) FULL TIME SCHEME- wef July 2024

FIRST SEMESTER

Course No	Subject	Periods per week			Total Credits
		L	T	P	
IEM24511	Work System Design and Ergonomics	3	-	-	3
IEM24512	Supply Chain Management	3	-	-	3
IEM24513	Production and Operations Management	3	-	-	3
IEM24551-24565&ME24524	Department Elective -1	3	-	-	3
	Department Elective -2	3	-	-	3
SM24514	Modelling and Simulation Laboratory	-	-	2	1
AR24513	Automation and Robotics Laboratory I	-	-	2	1
IEM24515	Seminar – I	-	-	2	1
IEM24516	Minor Project-1 (Self Learning)				2
Total Hours – 23		Semester Credits			20
Total Credits – 20					

- Communication Skill will be Audit Course of 2 credits which will not be counted in SGPA/CGPA calculation

SECOND SEMESTER

Course No	Subject	Periods per week			Total Credits
		L	T	P	
IEM24521	Decision Modeling	3	-	-	3
IEM24522	Principles and Practices of Management	3	-	-	3
IEM24551-24565&ME24524	Department Elective -3	3	-	-	3
	Department Elective -4	3	-	-	3
	Open Elective	3	-	-	3
IEM24523	Decision Modeling Laboratory	-	-	2	1
ID24523	Product Development Laboratory	-	-	2	1
IEM24524	Seminar – II	-	-	2	1
IEM24525	Minor Project-2 (Self Learning)				2
Total Hours – 23		Semester Credits			20
Total Credits – 40					

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THIRD SEMESTER

Course No	Subject	Periods per week			Total Credits
		L	T	P	
IEM24611	Dissertation Phase –I	-	-	40	20
Total Hours – 40 Total Credits – 60		Semester Credits			20

FOURTH SEMESTER

Course No	Subject	Periods per week			Total Credits
		L	T	P	
IEM24621	Dissertation Phase –II	-	-	40	20
Total Hours – 40 Total Credits – 80		Semester Credits			20

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List of Department Electives		List of Open Electives	
IEM24551	Marketing Management	ARP24581	Introduction to Urban Planning
IEM24552	Production Planning and Control	BSE24581	Bioprocess Engineering
IEM24553	Lean Manufacturing	BSE24582	Biophysics Tools and Techniques
IEM24554	Reliability, Availability and Maintainability Engineering	CHE24581	Analytical Techniques
IEM24555	Green Logistics	CHE24582	Green Technology & Processes
IEM24556	Total Quality Management	CE24581	Solid Waste Management
IEM24557	ERP and MIS	CE24582	Basic Concept of GIS
IEM24558	Maintenance Management	CE24583	Road Safety
IEM24559	Entrepreneurship & Start up Creation	CSE24581	Machine Learning
IEM24560	Concurrent Engineering	CSE24582	Advanced Data Structures and Algorithms
IEM24561	Design of Experiments	PHY24581	Nanotechnology and Nanoscience
IEM24562	Organizational Behavior	EE24581	Electric Machines & Applications
IEM24563	Industrial Design and Processes	EE24582	Control and Instrumentation
IEM24564	Financial Management and Accounting	ECE24581	Introduction to Fuzzy Logic
IEM24565	Industrial safety and Environment Management System	ECE24582	Neural Networks and its Applications
ME24524	Research Methodology	EC24581	Energy Resource Technologies
		HUM24581	Intellectual Property Rights for Engineers
		HUM24582	Applied Psychology: Human Centered Design and Engineering
		MTH24581	Advanced Operations Research
		MTH24582	Computing Technologies
		MME24581	Advanced Instrumentation Methods for Material Analysis
		MME24582	Smart Materials and their Application
		MBA24581	Engineering Startup Management