



मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल-462003
MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL – 462003
B.Tech. Scheme of Study (Branch: Mechanical Engineering)
Session 2025-26 Onwards

First Year Credits (Cumulative) 41

B.Tech. Third Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
MCMT2001	Applied Numerical Methods	3	1	-	4
ME2101	Engineering Thermodynamics	3	-	-	3
ME2102	Mechanics of Materials	3	-	-	3
ME2103	Material Science and Engineering	3	-	-	3
ME2104	Mechanism of Machines	3	-	-	3
ME2105	Mechanics of Materials Lab.	-	-	2	1
ME2106	Material Characterization Lab.	-	-	2	1
ME2107	Mechanism of Machines Lab.	-	-	2	1
ME2108	Professional Practices	-	2	-	2
ME2109	Entrepreneurship and IPR	3	-	-	3
ME2102	Minor-1“Mechanics of Materials”	3	-	-	3*
Total Hours = 27		18	3	6	24
Total Credits (Cumulative): 65					
NC2151	National Cadet Corps III	1	5	1	7
Total Credits (Cumulative): 11					

B.Tech. Fourth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
EE2209	Electrical Engineering and Machines	3	-	2	4
ME2201	Engineering and Mechanical Drawing with CAD	2	1	2	4
ME2202	Fluid Mechanics & Fluid Power	3	-	-	3
ME2203	Manufacturing Processes & Total Productive Maintenance	3	1	-	4
ME2204	Mechanical, Electrical and Electronics Measurements	3	-	2	4
ME2205	Fluid Mechanics & Fluid Power Lab	-	-	2	1
ME2206	Internship/Industrial Training	-	-	2	1
ME2207	Manufacturing Processes Lab	-	-	2	1
ME2203	Minor-2 “Manufacturing Processes & Total Productive Maintenance”	3	-	-	3*
Total Hours= 28		14	2	12	22
Total Credits (Cumulative): 87					
NC2251	National Cadet Corps IV	2	-	1	3
Total Credit (Cumulative): 14					


14/5/26



मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल-462003
MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL – 462003
B.Tech. Scheme of Study (Branch: Mechanical Engineering)
Session 2025-26 Onwards

B.Tech. Fifth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
EC3155	Digital Communications and Industrial Instrumentation	1	-	2	2
ME3101	Machine Design-1	3	1	-	4
ME3102	Turbo Machines	3	-	-	3
ME3103	Machining Processes and CNC Systems with PLC and HMI	3	1	-	4
ME3104	Industrial Drives, Sensors and Process Control Systems	2	-	-	2
ME3151- ME3159	Departmental Elective-1(A)	3	-	-	3
ME3105	Machining Processes and CNC Systems with PLC and HMI Lab	-	-	4	2
ME3106	Industrial Drives, Sensors and Process Control Systems Lab	-	-	4	2
ME3107	Power Generation Lab.	-	-	2	1
ME3103	Minor-3: "Machining Processes and CNC Systems with PLC and HMI"	3	-	-	3*
Total Hours = 29		15	2	12	23
Total Credits (Cumulative): 110					
NC3151	National Cadet Corps V	1	5	1	7
Total Credits (Cumulative): 21					

B.Tech. Sixth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CS3099	Data Structures and Algorithm	3	-	-	3
ME3201	Heat and Mass Transfer	3	-	-	3
ME3202	Machine Design-2	3	-	-	3
ME3203	Automation & Robotics	3	-	-	3
ME3251 – ME3259	Departmental Elective-2(A)	3	-	-	3
ME3204	Heat and Mass Transfer Lab.	-	-	2	1
ME3205	Automation Lab	-	-	4	2
ME3206	Robotics Lab	-	-	6	3
ME3201	Minor-4 "Heat and Mass Transfer"	3	-	-	3*
Total Hours = 27		15	0	12	21
Total Credits (Cumulative): 131					
NC3251	National Cadet Corps VI	2	-	1	3
Total Credits (Cumulative): 24					

Handwritten signature and number 1415726



मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल-462003
MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL – 462003
B.Tech. Scheme of Study (Branch: Mechanical Engineering)
Session 2025-26 Onwards

B.Tech. Seventh Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
ME4101	Refrigeration and Air Conditioning	3	-	-	3
ME4102	Industrial Engineering & Operations Research	2	-	-	2
ME4151- ME4157	ProgramMEElective-3(A)	3	-	-	3
ME4161- ME4166	ProgramMEElective-4(A)	3	-	-	3
	Open Elective-1(C)	3	-	-	3
ME4103	Refrigeration and Air Conditioning Lab.	-	-	2	1
ME4104	Project Based Learning Lab	-	-	8	4
	Minor-5 “Any one Program ME Elective from above”	3	-	-	3*
Total Hours = 24		14	-	10	19
Total Credits (Cumulative): 150					

B.Tech. Eight Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
ME4251- ME4256	ProgrammeElective-5(A) (NPTEL/SWAYAM Courses Only)	3	-	-	3
ME4261- ME4267	ProgrammeElective-6(A) (NPTEL/SWAYAM Courses Only)	3	-	-	3
ME4201/ ME4202	Project / Internship	-	-	16	8
ME4203	General Proficiency	-	-	-	1
Total Hours = 22		6	-	16	15
Total Credits (Cumulative): 165					

Dr
14/11/26



मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल-462003
MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL – 462003
B.Tech. Scheme of Study (Branch: Mechanical Engineering)
Session 2025-26 Onwards

LIST OF DEPARTMENT ELECTIVES

Department Elective-1(A)

S. No.	Course Number	Subject
1.	ME3151	Automobile Engineering
2.	ME3152	Gas Dynamics
3.	ME3153	Gas Turbines and Jet Propulsion
4.	ME3154	Theory of Elasticity and Plasticity
5.	ME3155	An Introduction to Microfluidics
6.	ME3156	Engineering Management
7.	ME3157	Materials Handling
8.	ME3158	Fundamentals of Design Methods
9.	ME3159	Statistical Quality Control

Department Elective-2(A)

S. No.	Course Number	Subject
1.	ME3251	Theory of Vibrations
2.	ME3252	Advanced Mechanics of Materials
3.	ME3253	Fracture Mechanics and Failure Analysis
4.	ME3254	Internal Combustion and Hybrid Engines
5.	ME3255	Product Design and Development
6.	ME3256	Supply Chain Management
7.	ME3257	Material Management
8.	ME3258	Engineering Optimization
9.	ME3259	Mechanical Behaviour of Materials


1415726



मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल-462003
MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL – 462003
B.Tech. Scheme of Study (Branch: Mechanical Engineering)
Session 2025-26 Onwards

Department Elective-3(A)

S. No.	Course Number	Subject
1.	ME4151	Energy Conversion Systems
2.	ME4152	Design of Heat Exchangers
3.	ME4153	Additive Manufacturing Technologies
4.	ME4154	Wind Energy Technology
5.	ME4155	Nano Manufacturing
6.	ME4156	Lean Practice in Modern Manufacturing
7.	ME4157	Micro-Electromechanical Systems (MEMS)


14/5/26



मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल-462003
MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL – 462003
B.Tech. Scheme of Study (Branch: Mechanical Engineering)
Session 2025-26 Onwards

Department Elective-4(A)

S. No.	Course Number	Subject
1.	ME4161	CAD/CAM
2.	ME4162	Smart Materials
3.	ME4163	Solar Energy
4.	ME4164	Computational Fluid Dynamics and Heat Transfer
5.	ME4165	Accounts and Financial Planning
6.	ME4166	Organizational Behaviour

Department Elective-5(A)

S. No.	Course Number	Subject
1.	ME4251	Marketing Management
2.	ME4252	Advanced Production Engineering
3.	ME4253	Advanced Machine Design
4.	ME4254	Non-Conventional Energy Sources
5.	ME4255	Energy Audit Carbon Sequestration
6.	ME4256	Advanced Operations Research

Department Elective-6(A)

S. No.	Course Number	Subject
1.	ME4261	Industrial Tribology
2.	ME4262	Composite Materials
3.	ME4263	Computational Methods
4.	ME4264	Total Quality Management
5.	ME4265	Mechanics of Composite Materials
6.	ME4266	Sustainable Supply Chain Management
7.	ME4267	Analysis and Design of Mechanical Control System

 14/5/26