

PROGRAMME STRUCTURE

for

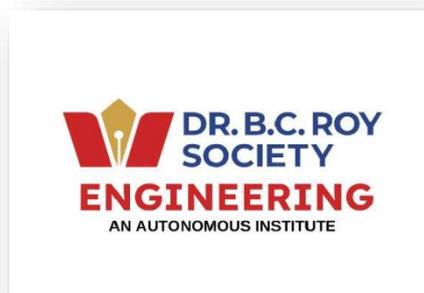
MASTER OF TECHNOLOGY

in

MECHANICAL ENGINEERING

(Applicable from the academic session 2024-2025)

Approved by BOS(ME) dt 18.5.2025
& Academic Council, Agenda 02.04
dt 23.4.2025



Dr. B. C. Roy Engineering College

An Autonomous Institution

Approved by: All India Council for Technical Education (AICTE)

*Affiliated to: Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly Known as -WBUT)*

Jemua Road, Durgapur, West Bengal, India, 713206

Semester Wise Break Up of Credit (New Autonomous Structure)

Sem1	Sem2	Sem3	Sem4	Total
25	25	25	25	100

S. No.	Category	Breakup of Credits (Actual) As per Proposed Autonomous Structure
1.	Basic Science Courses	4
2.	Professional core course	22
3.	Professional Elective specialization/branch courses relevant to chosen	20
4.	Project work, seminar in industry or appropriate work place/ academic and research institutions in India/abroad	54
Total Credits		100

CURRICULUM FOR FOUR-SEMESTER FULL-TIME M.TECH PROGRAMME

Programme Code: 624

Programme: M.Tech in Mechanical Engineering

Year (Semester): 1st Year (1st Semester)

Sl. No.	Course Category	Course Code (2024-25)	Course Code (2025-26 onwards)	Course Name	L	T	P	Type	Credit
1	BS	MM(ME)101	MEM-101	Advanced Engineering Mathematics	4	0	0	T	4
2	PC	MME 101	MEM-102	Advanced Dynamics of Machinery	4	0	0	T	4
3	PC	MME 102	MEM-103	Advanced Production Methods	4	0	0	T	4
4	PE	MME 103A MME 103B MME 103C	MEM-104 to MEM-106	Elective - 1	4	0	0	T	4
7	PE	MME 104A MME 104B MME 104C MME 104D	MEM-107 to MEM-110	Elective - 2	4	0	0	T	4
11	PC	MME 191	MEM-191	Advanced Manufacturing Laboratory	0	0	4	P	2
12	PC	MME 192	MEM-192	Material Testing Laboratory	0	0	4	P	2
13	PW	MME 181	MEM-181	Seminar-I	0	0	2	S	1
Total (1st Semester)									25

Year (Semester): 1st Year (2nd Semester)

Sl. No.	Course Category	Course Code (2024-25)	Course Code (2025-26 onwards)	Course Name	L	T	P	Type	Credit
1	PC	MME 201	MEM-201	Advanced Machine Design	4	0	0	T	4
2	PC	MME 202	MEM-202	Production & Operation Management	4	0	0	T	4
3	PE	MME 203A MME 203B MME 203C MME 203D	MEM-203 to MEM-206	Elective-3	4	0	0	T	4
7	PE	MME 204A MME 204B MME 204C MME 204D	MEM-207 to MEM-110	Elective-4	4	0	0	T	4
11	PE	MME 205A MME 205B MME 205C MME 205D	MEM-211 to MEM-214	Elective-5	4	0	0	T	4
15	PC	MME 291	MEM-291	Advanced Machine Design Laboratory.	0	0	4	P	2
16	SEM	MME 281	MEM-281	Seminar-II	0	0	2	S	1
17	VIV	MME 282	MEM-282	Comprehensive Viva Voce	0	0	0	S	2
Total (2nd Semester)									25

Year (Semester): 2nd Year (3rd Semester)

Sl. No.	Course Category	Course Code	Course Name	L	T	P	Type	Credit
1	PW	MEM-381	Project & Thesis (Phase-I)	0	0	12	S	20
2	SEM	MEM-382	Seminar & Viva-Voce	0	0	0	S	5

Total (3rd Semester)

25

Year (Semester): 2nd Year (4th Semester)

Sl. No.	Course Category	Course Code	Course Name	L	T	P	Type	Credit
1	PW	MEM-481	Project & Thesis (Phase-II)	0	0	12	S	20
2	SEM	MEM-482	Seminar & Viva-Voce	0	0	0	S	5

Total (4th Semester)

25

TOTAL CREDIT POINTS: 100

LIST OF ELECTIVE PAPERS

Elective – 1							
Course Code	Course Name	L	T	P	Type	Credit	
MEM-104	Advanced Metal Cutting Theory	4	0	0	T	4	
MEM-105	Production Tooling & Equipment	4	0	0	T	4	
MEM-106	Advanced Machining Process	4	0	0	T	4	

Elective – 2							
Course Code	Course Name	L	T	P	Type	Credit	
MEM-107	Numerical Method & Optimization Technique	4	0	0	T	4	
MEM-108	Advanced CAD/CAM	4	0	0	T	4	
MEM-109	Production Planning & Control	4	0	0	T	4	
MEM-110	Conduction and Radiation Heat Transfer	4	0	0	T	4	

Elective - 3						
Course Code	Course Name	L	T	P	Type	Credit
MEM-203	Design of Material Handling Equipment	4	0	0	T	4
MEM-204	Theory of Elasticity & Plasticity	4	0	0	T	4
MEM-205	Design & Performance of Machine tool	4	0	0	T	4
MEM-206	Advanced Welding Technology	4	0	0	T	4

Elective - 4						
Course Code	Course Name	L	T	P	Type	Credit
MEM-207	Advanced Robotics	4	0	0	T	4
MEM-208	Engineering Fracture Mechanics	4	0	0	T	4
MEM-209	Finite Element Method in Engineering	4	0	0	T	4
MEM-210	Composite Material & Structure	4	0	0	T	4

Elective - 5						
Course Code	Course Name	L	T	P	Type	Credit
MEM-211	Advanced Metrology	4	0	0	T	4
MEM-212	Value & Ethics in Industrial management	4	0	0	T	4
MEM-213	Statistical Process Control	4	0	0	T	4
MEM-214	Engineering System & Control	4	0	0	T	4