PROGRAMME STRUCTURE

for

MASTER OF TECHNOLOGY

in

MECHANICAL ENGINEERING

(Applicable from the academic session 2024-2025)

Approved by BOS(ME) dt 5.11.2024 &
Academic Council, Agenda-01.02, dt
21.11.2024

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 PROGRAMME

FIRST SEMESTER
TOTAL CREDIT UNIT= 25

Sl. No.	Subject Code	Subject	Contact Hours per Week			Credit Unit
			L	T	P	
THEORY						
1	MM(ME)101	Advanced Engineering Mathematics	3	1	0	4
2	MME 101	Advanced Dynamics of Machinery	4	0	0	4
3	MME 102	Advanced Production Methods	4	0	0	4
4	MME 103A MME 103B MME 103C	Elective-I	4	0	0	4
5	MME 104A MME 104B MME 104C MME 104D	Elective-II	4	0	0	4
Total Theory			19	1	0	20
PRACTICAL						
6	MME 191	Advanced Manufacturing Laboratory	0	0	4	2
7	MME 192	Material Testing Laboratory	0	0	4	2
SESSIONAL						
8	MME 181	Seminar-I	0	0	2	1
Total Practical			0	0	10	5
Total :						25

SECOND SEMESTER
TOTAL CREDIT UNIT= 25

		THEORY				

Sl. No.	Subject Code	Subject	Contact Hours per Week			Credit Unit
			L	T	P	
1	MME 201	Advanced Machine Design	4	0	0	4
2	MME 202	Production & Operation Management	4	0	0	4
3	MME 203A MME 203B MME 203C MME 203D	Elective-III	4	0	0	4
4	MME 204A MME 204B MME 204C MME 204D	Elective-IV	4	0	0	4
5	MME 205A MME 205B MME 205C MME 205D	Elective-V	4	0	0	4
		Total Theory	20	0	0	20
		PRACTICAL				
6	MME 291	Advanced Machine Design Laboratory.	0	0	4	2
		SESSIONAL				
7	MME 281	Seminar-II	0	0	2	1
8	MME 282	Comprehensive Viva Voce	0	0	0	2
Total Practical			0	0	6	5
Total:						25

THIRD SEMESTER
TOTAL CREDIT UNIT= 25

Sl. No.	Subject Code	Subject	Contact Hours per Week			Credit Unit
			L	T	P	
1	MME 381	Project & Thesis (Phase-I)	-	-		20
2	MME 382	Seminar & Viva-Voce	4	0		5
Total: 25						

FOURTH SEMESTER
TOTAL CREDIT UNIT= 25

Sl. No.	Subject Code	Subject	Lecture	Sessional	Credit Unit
1	MME 481	Project & Thesis (Phase-II)	-	-	20
2	MME 482	Seminar & Viva-Voce	4	0	5
Total: 25					

LIST OF ELECTIVE SUBJECTS

Elective - I		
Sl. No.	**Subject Code**	**Subject**
1	MME 103A	Advanced Metal Cutting Theory
2	MME 103B	Production Tooling & Equipment
3	MME 103C	Advanced Machining Process
Elective - II		
Sl. No.	**Subject Code**	**Subject**
4	MME 104A	Numerical Method & Optimization Technique
5	MME 104B	Advanced CAD/CAM
6	MME 104C	Production Planning & Control
7	MME 104D	Conduction and Radiation Heat Transfer
Elective - III		
Sl. No.	**Subject Code**	**Subject**
8	MME 203A	Design of Material Handling Equipment
9	MME 203B	Theory of Elasticity & Plasticity
10	MME 203C	Design & Performance of Machine tool
11	MME 203D	Advanced Welding Technology
Elective - IV		
Sl. No.	**Subject Code**	**Subject**
12	MME 204A	Advanced Robotics
13	MME 204B	Engineering Fracture Mechanics
14	MME 204C	Finite Element Method in Engineering
15	MME 204D	Composite Material & Structure
Elective - V		
Sl. No.	**Subject Code**	**Subject**
16	MME 205A	Advanced Metrology
17	MME 205B	Value & Ethics in Industrial management
18	MME 205C	Statistical Process Control
19	MME 205D	Engineering System & Control