



M.TECH (Mechanical Engineering) Dr. B. C. Roy Engineering College, Durgapur

**CURRICULUM FOR FOUR SEMESTER FULL TIME COURSE**

**FIRST SEMESTER**  
TOTAL CREDIT UNIT= 25

THEORY						
Sl. No.	Subject Code	Subject	Contact Hours per Week			Credit Unit
			L	T	P	
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

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



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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
<p align="center"><b>**** Electives to be chosen from list of elective subjects on page 3</b> <u>PRACTICAL</u></p>						
6	MME 291	Advanced Machine Design Laboratory.	0	0	4	2
<p align="center"><b>SESSIONAL</b></p>						
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

**Total Credit Unit of the course: 100**



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**LIST OF COMPULSORY SUBJECTS**

Sl. No.	Subject Code	Subject
1	MM(ME)101	Advanced Engineering Mathematics
2	MME101	Advanced Dynamics of Machinery
3	MME 102	Advanced Production Methods
4	MME 201	Advanced Machine Design
5	MME 202	Production & Operation Management

**LIST OF ELECTIVE SUBJECTS**

<b>Elective - I</b>		
Sl. No.	Subject Code	Subject
1	MME 103A	Advanced Metal Cutting Theory
2	MME 103B	Production Tooling & Equipment
3	MME 103C	Advanced Machining Process
<b>Elective - II</b>		
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
<b>Elective - III</b>		
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
<b>Elective - IV</b>		
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
<b>Elective - V</b>		
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