

**DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: **36** **M. Tech. (Production & Industrial Systems Engineering)**
 Department: **ME** **Mechanical and Industrial Engineering**
 Year: **II**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
Semester- I (Autumn)														
1.	MIN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.														
Semester-II (Spring)														
1.	MIN-701B	Dissertation Stage-II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										

Summary				
Semester	1	2	3	4
Semester-wise Total Credits	20	18	12	18
Total Credits	68			

Program Elective Courses (Production & Industrial Systems Engineering)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	MIN-500	Instrumentation and Experimental Methods	PEC	4	3	1	2/2	3	--	20	20	20	40	--
2.	MIN-573	Design for Manufacturability	PEC	4	3	1	0	3	--	25	--	25	50	--
3.	MIN-574	Maintenance Management	PEC	4	3	1	0	3	--	25	--	25	50	--
4.	MIN-575	Product Design and Development	PEC	4	3	1	0	3	--	25	--	25	50	--
5.	MIN-577	Industrial Automation	PEC	4	3	1	0	3	--	25	--	25	50	--
6.	MIN-578	Computer Aided Process Planning	PEC	4	3	1	0	3	--	25	--	25	50	--
7.	MIN-579	Information Systems and Data Management	PEC	4	3	1	0	3	--	25	--	25	50	--
8.	MIN-580	Welding Science	PEC	4	3	1	2/2	3	--	20	20	20	40	--
9.	MIN-581	Manufacturing Resources Management	PEC	4	3	1	0	3	--	25	--	25	50	--
10.	MIN-582	Flexible Manufacturing Systems	PEC	4	3	1	0	3	--	25	--	25	50	--
11.	MIN-583	Materials Management	PEC	4	3	1	0	3	--	25	--	25	50	--
12.	MIN-584	Operations Research	PEC	4	3	1	0	3	--	25	--	25	50	--
13.	MIN-585	Supply Chain Management	PEC	4	3	1	0	3	--	25	--	25	50	--
14.	MIN-586	Metal Forming	PEC	4	3	1	0	3	--	25	--	25	50	--
15.	MIN-587	Metal Casting	PEC	4	3	1	2/2	3	--	20	20	20	40	--
16.	MIN-588	Non-Traditional Machining Processes	PEC	4	3	1	2/2	3	--	20	20	20	40	--
17.	MIN-607	Processing of non-metals	PEC	4	3	1	0	3	--	25	--	25	50	--
18.	MIN-606	Numerical Methods in Manufacturing	PEC	4	3	1	0	3	--	25	--	25	50	--
19.	MIN-599	Surface engineering	PEC	4	3	1	2/2	3	--	20	20	20	40	--
20.	MIN-601	Additive manufacturing	PEC	4	3	1	0	3	--	25	--	25	50	--
21.	MIN-605	Friction and wear	PEC	4	3	1	0	3	--	25	--	25	50	--