

K L E F
Department of Mechanical Engineering
M.Tech – Machine Design 2019-20 Course Structure

First Year (First Semester):

S. No.	Course Code	Course Title	Periods			Contact Hours	Credits
			L	T	P		
1	18 ME 5117	Design Methods	4	0	0	4	4
2	18 ME 5118	Design with Advanced materials	3	0	0	3	3
3	18 ME 5119	Theory of Elasticity and Plasticity	3	1	0	4	4
4	18 ME 5120	Modeling & Analysis-1 (CAD)	4	0	2	6	5
5		Elective-1	3	0	0	3	3
6		Elective-2	3	0	0	3	3
7	18 IE 5149	Seminar	0	0	4	4	2
Total			20	1	6	27	24

First Year (Second Semester):

S. No.	Course Code	Course Title	Periods			Contact Hours	Credits
			L	T	P		
1	18 ME 5221	Mechanical Vibrations	3	0	0	3	3
2	18 ME 5222	Design for Optimization	3	1	0	4	4
3	18 ME 5223	Advanced strength of materials	3	1	0	4	4
4	18 ME 5224	Modeling & Analysis-2 (FEM)	4	0	2	6	5
5		Elective-3	3	0	0	3	3
6		Elective-4	3	0	0	3	3
7	18 IE 5250	Term Paper	0	0	4	4	2
Total			19	2	6	27	24

Second Year (Third Semester & Fourth Semester)

S.N O.	Course Code	Course Title	Periods			Contact Hours	Credits
			L	T	P		
1.		Major Project	0	0	72	-	36
Total Credits			0	0	72	-	36

ELECTIVE COURSES:

Elective – 1						
1	18 ME 51I1	Precision and Quality Engineering	3	0	0	3
2	18 ME 51I2	Advanced Mechanisms	3	0	0	3
3	18 ME 51I3	Concurrent Engineering	3	0	0	3
Elective – 2						
1	18 ME 51J1	Design of Pressure Vessels and Plates	3	0	0	3
2	18 ME 51J2	Tribological System Design	3	0	0	3
3	18 ME 51J3	Product Design and Development	3	0	0	3
Elective – 3						
1	18 ME 52K1	Mechanics of Composite Materials	3	0	0	3
2	18 ME 52K2	Machine Tool Design	3	0	0	3
3	18 ME 52K3	Fracture Mechanics	3	0	0	3
Elective – 4						
1	18 ME 52L1	Engineering Noise & Control	3	0	0	3
2	18 ME 52L2	Engineering Failure Analysis and prevention	3	0	0	3
3	18 ME 52L3	Design for Manufacturing, Assembly and Environment	3	0	0	3