COURSE STRUCTURE
AND DETAILED SYLLABI
for

M.Tech. Regular in
Mechanical Engineering
Effective from the Academic Year 2021-22

I M. Tech. (CAD/CAM) I Semester Proposed Course structure for the Academic Year 2021-22

S.No	Course Code	Course Name	L	T	P	Credits
		I Semester				
1	21MECC101	Geometric Modeling	3	0	0	3
2	21MECC102	Computer Aided Manufacturing	3	0	0	3
3		Program Elective – 1	3	0	0	3
	21MECC103A	Computational Methods in Engineering				
	21MECC103B	Materials Technology				
	21MECC103C	Mechanical Vibrations				
4		Program Elective – 2	3	0	0	3
	21MECC104A	Mechatronics				
	21MECC104B	Industrial Robotics				
	21MECC104C	Simulation of Manufacturing Systems				
5	21MECC155	Advanced CAD Lab	0	0	4	2
6	21MECC156	Advanced manufacturing Lab	0	0	4	2
7	21MECC157	Research Methodology and IPR	2	0	0	2
8	21MECC158	Writing Skills for Scientific Communication	2	0	0	0
		Total				18

I M. Tech. (CAD/CAM) II Semester Proposed Course structure for the Academic Year 2021-22

S.No	Course Code	Course Name	L	T	P	Credits
		II Semester				
1	21MECC201	Theory of Elasticity and Plasticity	3	0	0	3
2	21MECC202	Advanced Manufacturing Processes	3	0	0	3
3		Program Elective – 3	3	0	0	3
	21MECC203A	Advanced Finite Element Methods				
	21MECC203B	Fracture mechanics				
	21MECC203C	Product Design and Development				
4		Program Elective – 4	3	0	0	3
	21MECC204A	Materials Characterization Techniques				
	21MECC204B	Optimization & Reliability				
	21MECC204C	Additive Manufacturing				
5	21MECC255	Material Characterization Lab	0	0	4	2
6	21MECC256	Simulation of Manufacturing Systems Lab	0	0	4	2
7	21MECC257	Mini Project With Seminar	2	0	0	2
8	21MECC258	Personality development through life Enlightenment skills	2	0	0	0
		Total				18

II M. Tech. (CAD/CAM) III Semester Proposed Course structure for the Academic Year 2021-2022

S.No	Course Code	Course Name	T	P	Credits
		III SEMESTER			
1		Program Elective - 5	3	0	3
	21MECC301A	Non Destructive Evaluation			
	21MECC301B	Quality Engineering			
	21MECC301C	Green Manufacturing			
		MOOCS/ NPTEL [*]			
2		Open Elective	3	0	3
	21MECC302D	Nano Technology			
	21MECC302D	Optimization Techniques			
	21MECC302D	Product Design and Manufacturing			
3		Project /Dissertation Phase-I	0	20	10
		Total			16

III M. Tech. (CAD/CAM) IV Semester Proposed Course structure for the Academic Year 2021-2022

S.No	Course Code	Course Name	L	T	P	Credits
		IV SEMESTER				
1		Project /Dissertation Phase-II	0	0	32	16
		Total				16