



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE STRUCTURE & SYLLABUS M.Tech ME for
CAD/ CAM Programme
(Applicable for batches admitted from 2019-2020)



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I SEMESTER

S.No	Course Code	Course Name	L	T	P	Credits
1	CA 101	Geometric Modeling	3	0	0	3
2	CA 102	Computer Aided Manufacturing	3	0	0	3
3	CA 103	Program Elective – 1	3	0	0	3
	CA 1031	Computational Methods in Engineering				
	CA 1032	Materials Technology				
	CA 1033	Mechanical Vibrations				
4	CA 104	Program Elective – 2	3	0	0	3
	CA 1041	Mechatronics				
	CA 1042	Industrial Robotics				
	CA 1043	Simulation of Manufacturing Systems				
5	CA 105	Advanced CAD Lab	0	0	4	2
6	CA 106	Advanced Manufacturing Lab	0	0	4	2
7	CA 107	Research Methodology and IPR	2	0	0	2
8	CA 108	Writing Skills for Scientific Communication	2	0	0	0
Total						18

II SEMESTER

S.No	Course Code	Course Name	L	T	P	Credits
1	CA 201	Theory of Elasticity and Plasticity	3	0	0	3
2	CA 202	Advanced Manufacturing Processes	3	0	0	3
3	CA 203	Program Elective – 3	3	0	0	3
	CA 2031	Advanced Finite Element Methods				
	CA 2032	Fracture mechanics				
	CA 2033	Product Design and Development				
4	CA 204	Program Elective – 4	3	0	0	3
	CA 2041	Materials Characterization Techniques				
	CA 2042	Optimization & Reliability				
	CA 2043	Additive Manufacturing				
5	CA 205	Material Characterization Lab	0	0	4	2
6	CA 206	Simulation of Manufacturing Systems Lab	0	0	4	2
7	CA 207	Mini Project With Seminar	2	0	0	2
8	CA 208	Personality development through life enlightenment skills	2	0	0	0
Total						18



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III SEMESTER

S.No	Course Code	Course Name	T	P	Credits
1	CA 301	Program Elective - 5	3	0	3
	CA 3011	Non destructive Evaluation			
	CA 3012	Quality engineering in manufacturing			
	CA 3013	Green Manufacturing			
	CA 3014	MOOCS/ NPTEL *			
2	CA 302	Open Elective	3	0	3
	CA 3021	Nano Technology			
	CA 3022	Optimization Techniques			
	CA 3023	Product Design and Manufacturing			
3		Project /Dissertation Phase-I	0	20	10
Total					16

*MOOCS/NPTEL certification courses as per the approved list of internal BoS at the time of registration.

IV SEMESTER

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