




JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA


Kakinada-533003, Andhra Pradesh (India)

Comparison of Program Structure R16 with R19

Program Code	Program Name	Total No. of Courses		No of Subjects		Total Courses	Percentage %
		R19	R16	Added in (R19)	Deleted (R16)		
04	M.Tech (CAD/CAM)	33	27	13	9	24	73


Coordinator


REGISTRAR
J.N.T. University Kakinada
Kakinada-533003


HEAD
Mechanical HOD/Director Department
University College of Engineering,
J.N.T. University Kakinada
KAKINADA



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Kakinada-533003, Andhra Pradesh (India)

Comparison of Course Structure R16 with R19

Program Code: M.Tech(1D)04

Program Name: M. Tech – CAD/CAM

Year : I

Semester: I

R16						R19						Remarks		
Course code	Course name	L	T	P	C	Course code	Course name	L	T	P	C	New Course? (R19)	Deleted Course? (R16)	Content Revision %
CA 101	Industrial Robotics	4	0	0	3	CA 101	Geometric Modeling	3	0	0	3			
CA 102	Computer Aided Manufacturing	4	0	0	3	CA 102	Computer Aided Manufacturing	3	0	0	3			
CA 103	Special Manufacturing Processes	4	0	0	3	Program Elective – I CA 103	CA 1031	Computational Methods in Engineering	3	0	0	3		
					CA 1032		Materials Technology							
					CA 1033		Mechanical Vibrations							
CA 104	Geometric Modeling	4	0	0	3	Program Elective – II CA 104	CA 1041	Mechatronics	3	0	0	3		20
					CA 1042		Industrial Robotics							
					CA 1043		Simulation of Manufacturing Systems							
Elective	CA 1051	Computational Methods in	4	0	0	3	CA 105	Advanced CAD Lab	0	0	4	2		

I CA 105		Engineering													
	CA 1052	Mechanical Vibrations													
	CA 1053	Nano Technology													
Elec tive II CA 106	CA 1061	Design for Manufacturing & Assembly	4	0	0	3	CA 106	Simulation of Manufacturing Systems Lab	0	0	4	2	(2)Y ES	25	
	CA 1062	Mechatronics													
	CA 1063	Computer Aided Process Planning													
CA 107	Advanced CAD Lab		4	0	3	3	CA 107	Research Methodology and IPR	2	0	0	2	YES		
							CA 108	Writing Skills for Scientific Communication	2	0	0	0	YES		
						2 0	TOTAL					1 8	2	2	1

Program Code: M.Tech(1D)04

Program Name: M. Tech – CAD/CAM

Year : I

Semester: II

R16						R19						Remarks			
Course code	Course name	L	T	P	C	Course code	Course name	L	T	P	C	New Course? (R19)	Deleted Course? (R16)	Content Revision %	
CA 201	Modeling&Simulation of Manufacturing Systems	4	0	0	3	CA 201	Theory of Elasticity and Plasticity	3	0	0	3	YES			
CA 202	Optimization and Reliability	4	0	0	3	CA 202	Advanced Manufacturing Processes	3	0	0	3	YES			
CA 203	Computer Graphics	4	0	0	3	Program Elective – III CA 203	CA 2031	Advanced Finite Element Methods	0	0	3	3	YES	YES	
							CA 2032	Fracture mechanics							
							CA 2033	Product Design and Development							
CA 204	Advanced Finite Element Methods	4	0	0	3	Program Elective – IV CA 204	CA 2041	Materials Characterization Techniques	0	0	3	3	YES-2		
							CA 2042	Optimization & Reliability							
							CA 2043	Additive Manufacturing							
Elective III CA 205	CA 205 1	Quality Engineering in Manufacturing	4	0	0	3	CA 205	Material Characterization Lab	0	0	4	2	YES		
	CA 205 2	Fracture Mechanics													
	CA 205 3	Materials Technology													
Elective– IV TE 206	CA 206 1	Mechanics and Manufacturing Methods of Composites	4	0	0	3	CA 206	Advanced Manufacturing Lab	0	0	4	2	YES	3-YES	
	CA 206	Concurrent Engineering													

	2															
	CA 206 3	Intelligent Manufacturing Systems														
CA 207	Modeling and Analysis of Manufacturing Processes Lab		0	0	3	2	CA 207	Mini Project With Seminar	2	0	0	2	YES			
							CA 208	Value Education	2	0	0	0	YES			
						2 0	TOTAL						1 8	9	4	

Program Code: M.Tech(1D)04

Program Name:M.Tech –CAD/CAM

Year : Semester: III

R19	R20	Remarks
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Course code	Course name	L	T	P	C	Course code	Course name	L	T	P	C	New Course? (R19)	Deleted Course? (R16)	Content Revision %	
1	Seminar - I	0	0	3	2	Program Elective - v CA301	CA 3011	Non destructiveEvaluation	3	0	0	3	YES-2	YES	25
							CA 3012	Quality engineering							
							CA 3013	Green Manufacturing							
							CA 3014	MOOCS/ NPTEL *							
2	comprehensive viva voce				2	Open Elective CA 302	CA 3021	Nano Technology	3	0	0	3		YES	20
							CA 3022	Optimization Techniques							
							CA 3023	Product Design and Manufacturing							
3	Project Work - Part I				16	CA 303	Project /Dissertation Phase-I	0	0	2	10				
TOTAL					20	TOTAL					16	2	2		

Program Code: M.Tech(1D)04

Program Name:M.Tech – CAD/CAM

Year :

Semester: IV

R19					R20						Remarks			
Course code	Course name	L	T	P	C	Course code	Course name	L	T	P	C	New Course? (R19)	Deleted Course? (R16)	Content Revision %
1	Seminar -II	0	0	3	2	1	Project /Dissertation Phase-II	0	0	32	16		YES	
2	Project Work- Part II	0	0	0	18									
TOTAL					20	TOTAL							1	1