

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

M.Tech (Nanotechnology) with effect from 2019

Course Structure

I- SEMESTER

S.No.	Code	Subject	L	T	P	Credits	Marks
1	NT101	Introduction to Nano materials and Applications	3	-	-	3	100
2	NT102	Synthesis of Nano materials	3	-	-	3	100
3	Program Elective - I NT103	NT1031 Thin film Science and Technology	3	-		3	100
		NT1032 Nanomaterials for Energy Systems					
		NT1033 Nano Photonics & Plasmonics					
4	Program Elective – II NT104	NT1041 Nano Fluidics	3	-	-	3	100
		NT1042 Nanoscopic Dielectric and Ferroelectric materials					
		NT1043 Carbon Nanostructures and Applications					
5	NT105	Research Methodology and IPR	2	-	-	2	100
6	NT106	Nanomaterials Synthesis Lab	-	-	4	2	100
7	NT107	Nanomaterials Simulation Lab	-	-	4	2	100
8	NT108	Writing skills for Scientific Communication	2	-	-	0	100
		Total	16	0	8	18	800

II - SEMESTER

S.No.	Code	Subject	L	T	P	Credits	Marks	
1	NT201	Nano Material Characterization Techniques	3	-	-	3	100	
2	NT202	Nano Sensors and its Applications	3	-	-	3	100	
3	Program Elective - III NT203	NT2031	3	-		3	100	
		NT2032						Biomedical Nanotechnology
		NT2033						Nano Composites and Applications
4	Program Elective – IV NT204	NT2041	3	-	-	3	100	
		NT2042						Nanoscale Magnetic Materials and Devices
		NT2043						MEMS and NEMS
		Multifunctional Nanomaterials						
5	NT205	Nanomaterials Characterization Lab	-	-	4	2	100	
6	NT206	Advanced Nanotechnology Lab	-	-	4	2	100	
7	NT207	Mini Project with Seminar	-	-	4	2	100	
9	NT208	Personality development through life-enlightenment skills	2	-	-	0	100	
		Total	14	0	12	18	800	

III – SEMESTER

S.No.	Code	Subject		L	T	P	Credits	Marks
1	Program Elective - V NT301	NT3011	MOOCS	3	-	-	3	100
		NT3012	Societal impact of Nanotechnology					
		NT3013	Nano Electronics					
2	Open Elective NT302			3	-	-	3	100
3	NT303	Dissertation Phase 1		-	-	2	10	
		Total		6	0	2	16	200

Open Elective NT 302 Waste to / Energy by School of renewable Energy

Open Electives to other Depts

1. Nanotechnology and its Engineering Applications
2. Nano Sensors and Applications
3. NEMS and MEMS
4. Nanotechnology for energy systems

IV- SEMESTER

S.No.	Code	Subject	L	T	P	Credits	Marks
1	NT401	Dissertation Phase 2	-	-	32	16	200
		Total	0	0	32	16	200