

SCHEME OF STUDY (wef July 2021)**First Semester:**

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
NT 511	Computational Methods	3	-	-	3
NT 512	Structure and Properties of Solids	3	-	-	3
NT 513	Properties of Nano Materials	3	-	-	3
NT 514	Processing and Fabrication of Nanostructures	3	-	-	3
HUM 511	Communication Skills	2	-	-	2
	Elective-1 (A)	3	-	-	3
	Elective-2 (A)	3	-	-	3
NT 515	Nanomaterials Synthesis Lab	-	-	2	1
NT 516	Seminar-1	-	-	2	1
Total Hours: 24 Total Credits: 22		Total Semester Credits			22

Second Semester:

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
NT 521	Nanostructure Characterization Techniques	3	-	-	3
NT 522	Properties of Low-dimensional System	3	-	-	3
NT 523	Instrumentation	3	-	-	3
	Elective-3 (A)	3	-	-	3
	Elective-4 (A)	3	-	-	3
	Elective-5 (C)	3	-	-	3
NT 524	Research Methodology	1	1	-	2
NT 525	Nanomaterials Characterization Lab.	-	-	2	1
NT 526	Seminar-2	-	-	2	1
Total Hours: 24 Total Credits: 44		Total Semester Credits			22

M Tech in Nanotechnology**Third Semester:**

Course No.	Subjects	Scheme of studies period per week			Total Credits
		L	T	P	
NT 611	Dissertation Phase - I	-	-	32	16
Total Hours: 32 Total Credits: 60		Total Semester Credits			16

Fourth Semester:

Course No.	Subjects	Scheme of studies period per week			Total Credits
		L	T	P	
NT 621	Dissertation Phase - II	-	-	40	20
Total Hours: 40 Total Credits: 80		Total Semester Credits			20

M Tech in Nanotechnology

List of Program Electives A		List of Open Electives C	
NT 551	Nano Fluids & Surfaces	ARP - 581	Introduction to Urban Planning
NT 552	Optoelectronics	BSE – 581	Bioprocess Engineering
NT 553	Photonic Materials	BSE – 582	Biophysics Tools and Techniques
NT 554	Nonlinear Dynamics	CHE – 581	Analytical Techniques
NT 555	General Theory of Relativity	CHE – 582	Green Technology & Processes
NT 556	Quantum Computing	CE – 581	Solid Waste Management
NT 557	Semiconductor Devices	CE – 582	Basic Concept of GIS
NT 558	Amorphous Materials	CE – 583	Road Safety
NT 559	Low Temperature Behavior of Materials	CSE – 581	Machine Learning
NT 560	Molecular Electronics & Biomolecules	CSE – 582	Advanced Data Structures and Algorithms
NT 561	Quantum Optics	EE – 581	Electric Machines & Applications
NT 562	Methods in Experimental Nuclear and Particle Physics	EE – 582	Control and Instrumentation
NT 563	Renewable Energy Technologies	ECE – 581	Introduction to Fuzzy Logic
NT 564	Soft Matter Physics	ECE – 582	Neural Networks and its Applications
NT 565	Computational Physics	EC - 581	Energy Resource Technologies
NT 566	Laser Technology	HUM – 581	Intellectual Property Rights for Engineers
NT 567	Nano Electronics	HUM – 582	Applied Psychology: Human Centered Design and Engineering
NT 568	Solar Photovoltaic Technology	MTH – 581	Advanced Operations Research
NT 569	Optical Sensors	MTH – 582	Computing Technologies
NT 570	Advanced Electromagnetic Theory	ME – 581	Value Engineering
NT 571	Molecular Structures	ME – 582	Design Thinking
NT 572	Advanced Magnetic Materials and their Applications	ME - 583	Mechatronics and NDT in Engineering
NT 573	Advanced Topics in Physics	MME – 581	Advanced Instrumentation Methods for Material Analysis
NT 574	Physics of Quantum Devices	MME – 582	Smart Materials and their Application
NT 575	Quantum Field Theory	MBA-581	Engineering Startup Management