

**M.TECH – NANOTECHNOLOGY
(TWO YEAR FULL TIME)
REGULATION 2008**

SEMESTER – I

Subject code	Subject Title	L	T	P	C
YNT101	Fundamentals of Nanotechnology	3	1	0	4
YNT102	Quantum Mechanical Phenomena in nanostructures	3	1	0	4
YNT103	Properties of Nanophase Materials	3	1	0	4
YNT104	Processing and Fabrication of Nanostructures	3	1	0	4
YNT105*	Elective – I	3	0	0	3
YNT106*	Elective – II	3	0	0	3
YNT107	Computer Simulation Lab – I	0	0	3	3
YNT108	Nanotechnology Lab – I	0	0	3	3

Total Credits – 28

SEMESTER – II

Subject code	Subject Title	L	T	P	C
YNT201	Advanced Nanomaterials characterization techniques	3	1	0	4
YNT202	Semiconductor Nanostructures and Devices	3	1	0	4
YNT203	Nanotechnology for Energy Systems	3	1	0	4
YNT204	Applied Nanotechnology	3	1	0	4
YNT205*	Elective - III	3	0	0	3
YNT206*	Elective - IV	3	0	0	3
YNT207	Nanotechnology Lab – II : Analytical	0	0	3	3
YNT208	Nanotechnology Lab - II : Simulation	0	0	3	3

Total credits – 28

LIST OF ELECTIVES

Subject code	Subject Title	L	T	P	C
YNT105* Elective-I					
YNT105A	Molecular Biology	3	0	0	3
YNT105B	Mathematical Modelling	3	0	0	3
YNT105C	Basic of Computer Programming and Computation numerical analysis	3	0	0	3
YNT105D	Nanomanipulation & Assembly	3	0	0	3
YNT106* Elective-II					
YNT106A	Bio-Physics	3	0	0	3
YNT106B	Molecular Nano electronics	3	0	0	3
YNT106C	Biosensors & Biomarkers	3	0	0	3
YNT106D	Nano particles, Micro-organisms & Biomaterial Hybrid Systems	3	0	0	3
YNT205* Elective - III					
YNT205A	Photonic materials and Devices	3	0	0	3
YNT205B	Nanophotonics	3	0	0	3
YNT205C	Nanostructured Molecular Material and Devices	3	0	0	3
YNT205D	Biomedical Optics	3	0	0	3
YNT206* Elective – IV					
YNT206A	Micro Electromechanical System: Design and applications	3	0	0	3
YNT206B	Nanofluid Dynamics	3	0	0	3
YNT206C	Carbon nanotubes and functional structures	3	0	0	3
YNT206D	Social Dimensions of Nanotechnology	3	0	0	3

SEMESTER – III

Subject code	Subject Title	L	T	P	C
YNT301	Project Work (Phase I)	0	0	25	10

Total Credits - 10

SEMESTER – IV

Subject code	Subject Title	L	T	P	C
YNT401	Project Work (Phase II)	0	0	25	12

Total Credits – 12

