

M.Sc. Nanosciences and Technology

Program Structure

SEMESTER I						
No.	Course Category	Course Name	L	T	P	Credits
1	Theory	Foundations of Nanoscience: Concepts and Applications	4	0	0	4
2	Blended	Synthesis of Nanoparticles and Nanomaterials	3	0	2	5
3	Theory	Physicochemical Properties of Nanomaterials	4	0	0	4
4	Theory	Bionanotechnology- An Introduction	3	0	0	3
5	Theory	Quantum Mechanics	4	0	0	4
6	Theory	Bioethics and IPR	2	0	0	2
Total			20	0	2	22

SEMESTER II						
S. No.	Course Category	Course Name	L	T	P	Credits
1	Blended	Advanced Characterization of Nanomaterials	4	0	1	5
2	Theory	Carbon Nanomaterials and its Application	3	0	0	3
3	Theory	Introduction to Nanofabrication	3	0	0	3
4	Blended	Nanotoxicology and Biosafety	3	0	1	4
5	Theory	Electives From Bucket I	3	0	0	3
6	Theory	Scientific Writing	2	0	0	2
Total			18	0	2	20

SEMESTER III						
S. No.	Course Category	Course Name	L	T	P	Credits

1	Theory	Semiconductor Materials and their Applications	3	0	0	3
2	Blended	Polymers and Nanocomposites	4	0	1	5
3	Blended	Nanodevices and Biosensors	3	0	1	4
4	Theory	Bionanostructures-Applications & Perspectives	3	0	0	3
5	Theory	Advanced Nanobiotechnology	3	0	0	3
6	Theory	Electives from Bucket II	3	0	0	3
TOTAL			19	0	2	21

SEMESTER IV						
S. No.	Course Category	Course Name	L	T	P	Credits
1.	Practical	Dissertation & Viva	0	0	15	15
2.	Project	Project Proposal/ Research Paper	2	0	0	2
		TOTAL	2	0	15	17
TOTAL CREDITS (SEM I+II+III+IV)						80

Elective 1	Elective - II
Introduction to Python	Computation and Analytical Methods for Nanoscience
Nanomedicine and Drug Delivery	Industrial Nanotechnology
Environmental Nanotechnology	Biomedical Nanotechnology