

**Faculty of Technology**  
**M.Tech. Nano Science and Technology**  
**(R 2021) Semester – I**

<b>Course Code: NT4111</b>		<b>Course Title: Computation and Simulation Laboratory</b>
<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Required numbers (for batch of 25 students)</b>
1	Desktop computer systems with i5 processor	5 to 6 systems
2	Matlab software for computations	1 no
3	Scanning probe image processing software	1 no. (Free software)

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<b>Course Code: NT4112</b>		<b>Course Title: Nanomaterial Synthesis Laboratory</b>
<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Required numbers (for batch of 25 students)</b>
1	Hot air oven	2 no
2	Magnetic stirrer	6 to 8 nos.
3	Microwave oven	1 or 2 nos.
4	High temperature furnace	2 nos.
5	Autoclave	5 nos.
6	Spin coater	1 no.
7	Centrifuge system	3 no.
8	Weighing Balance	1 no.
9	Deep freezer	1 no.
10	Fuming hood	1 no.

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**(R 2021) Semester – II**  
**NT4211 Materials Structural Characterization Laboratory**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Required numbers (for batch of 25 students)</b>
<b>1</b>	High magnification Optical Microscopy (with computer)	1
<b>2</b>	Scanning Electron Microscope	1
<b>3</b>	Atomic force Microscope	1
<b>4</b>	X-ray Diffraction equipment	1

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**NT4212 PHYSICOCHEMICAL CHARACTERIZATION LABORATORY**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Required numbers (for batch of 25 students)</b>
1	Fourier Transform infrared Spectroscopy	1
2	Raman spectroscopy	1
3	Thermogravimetric Analysis equipment	1
4	Differential scanning calorimetry equipment	1
5	Ultra violet - visible light spectroscopy	1
6	Electro chemical equipment	1
7	Multi metre	10