

**Faculty of Technology**  
**B. Tech. Plastics Technology**  
**(R 2017) Semester – II**  
**ME8261 COMPUTER AIDED DRAFTING AND MODELING LABORATORY**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Pentium IV computer or better hardware, with suitable graphics facility	30		
2.	Licensed software for Drafting and Modeling	30		
3.	Laser Printer or Plotter to print / plot drawings	2		

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**B. Tech. Plastics Technology**  
**(R 2017) Semester – III**  
**PT8361 CHEMICAL ENGINEERING LABORATORY**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Fluidized bed	1		
2.	Packed bed	1		
3.	Stop watch	2		
4.	Measuring cylinder (1 Lit)	2		
5.	Sieve shaker and sieve set	1		
6.	Ball mill	1		
7.	Jaw crusher	1		
8.	Electronic balance	1		
9.	Plastics tray	2		
10.	Friction pipe apparatus	1		
11.	Single speed centrifugal pump	1		
12.	Venturi meter apparatus	1		
13.	Orifice/mouth piece apparatus	1		
14.	Meter scale	2		
15.	Vernier caliper	2		
16.	Flow measuring meters	3		

17.	Thermometer	5		
18.	Tacho meter	1		
19.	Measuring jar (2 lit and 1 Lit each one)	2		
20.	Air compressor	1		
21.	Parallel and counter flow heat exchanger	1		
22.	Stephen Boltzman apparatus	1		
23.	Thermal conductivity Apparatus	1		

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**B. Tech. Plastics Technology**  
**(R 2017) Semester – III**  
**PL8311 PLASTICS IDENTIFICATION AND ANALYSIS LABORATORY**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Bunsen Burner	15		
2.	Electronic Balance	1		
3.	Thermostatic Water bath	2		
4.	Melting Point Apparatus	1		
5.	Retort Stand	15		
6.	Polymer Samples and Glasswares	15		

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**(R 2017) Semester – IV**  
**PT8461 MOULD MANUFACTURING TECHNOLOGY LABORATORY**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Shaping machine	2		
2.	Vertical milling machine	1		
3.	Horizontal milling machine	1		
4.	Lathe	10		
5.	Plain surface grinding machine	1		
6.	Bench grinder	2		
7.	Vernier caliper	2		
8.	Vernier height gauge	2		
9.	Vernier Depth Gauge	1		
10.	Micrometer	2		
11.	Sine bar	1		

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**B. Tech. Plastics Technology**  
**(R 2017) Semester – V**  
**PL8511 PLASTICS PROCESSING LABORATORY I**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Hand operated Injection Moulding Machine	1		
2.	Injection Moulding Semi Automatic	1		
3.	Extrusion Processes on Extruders	1		
4.	Compression moulding - Hand Operated	1		
5.	Blow Moulding and recording – Hand Operated	1		
6.	Scrap Grinding	1		
7.	Injection Moulding M/c.- Automatic	1		
8.	Compression & Transfer Moulding-Semi Automatic	1		
9.	Blow-Moulding Semi Automatic	1		
10.	Introduction to Maintenance	1		
11.	Introduction to Moulds, Tool Room Machines & Drawing Practice	1		

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**(R 2017) Semester – V**  
**PT8561 POLYMER PREPARATION LABORATORY**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Magnetic stirrer	10		
2.	Thermostatic water bath	2		
3.	Vacuum pump	1		
4.	Heating Mantle	8		
5.	Water distillation set up	1		
6.	Bunsen burner	15		
7.	Electronic balance	2		
8.	Air Oven	1		
9.	Melting point apparatus	1		
10.	Retard stand	15		
11.	Burette	15		
12.	Pipette	15		
13.	Funnel	15		

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**B. Tech. Plastics Technology**  
**(R 2017) Semester – VI**  
**PL8611 PLASTICS PROCESSING LABORATORY - II**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Automatic Injection Moulding M/C	1		
2.	Micro-Processor Controlled Injection	1		
3.	Extrusion Process on Blown Film Extruder Pipe/Tube Extruder	1		
4.	Compression & Transfer Moulding (Semi-Automatic)	1		
5.	Automatic Blow Moulding Machine	1		
6.	Thermoforming (Vacuum forming)	1		
7.	Rotational Moulding	1		
8.	Plastics-coating. Sealing, Welding & Screen-Printing	1		
9.	Moulds Study	1		
10.	FRP Demonstration Facility	1		
11.	Maintenance Work on Processing M/cs.	1		



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**(R 2017) Semester – VI**  
**PL8612 PLASTICS TESTING LABORATORY- I**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Melt Flow Index Tester	1		
2.	Universal testing machine	1		
3.	Tear strength tester	1		
4.	Impact strength tester	1		
5.	Dart Impact tester for Films and laminates	1		
6.	Shore A - Hardness tester	1		
7.	Shore D - Hardness tester	1		
8.	Rockwell Hardness tester	1		
9.	Barcol Hardness tester	1		
10.	Q-UV weatherometer	1		
11.	Melt Flow Index Tester	1		
12.	Injection moulding machine	1		
13.	Compression moulding machine	1		
14.	Two roll mill	1		
15.	Contour cutter	1		

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**(R 2017) Semester – VII**  
**PL8711 PLASTICS TESTING LABORATORY- II**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Universal testing machine	1		
2.	Tear strength tester	1		
3.	Impact strength tester	1		
4.	Abrasion resistance tester	1		
5.	Burst strength tester	1		
6.	Humidity chamber	1		
7.	Gas permeability tester	1		
8.	Hydrostatic bursting pressure tester	1		
9.	Reversion tester	1		
10.	Falling Dart Impact Tester for films and Pipes	1		
11.	Volume and Surface resistivity	1		
12.	Dielectric strength	1		
13.	Arc Resistance	1		
14.	Haze meter	1		

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**(R 2017) Semester – VII**  
**PL8712 CAD/CAM/CAE LABORATORY**  
**Requirements for a batch of 30 students**

<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Quantity required (R)</b>	<b>Quantity available (A)</b>	<b>Deficiency (R - A)</b>
1.	Computer Systems	30		
2.	2 D & 3D Modeling Software	30		
3.	Flow Simulation software	30		
4.	CNC Turning Center	2		
5.	CNC Machining Center	2		
6.	Printer	1		