

**Faculty of Technology**  
**B. Tech. Chemical and Electrochemical Engineering**  
**(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. Chemical and Electrochemical Engineering**  
**(R 2017) Semester – III**  
**EL8311 ENGINEERING CHEMISTRY 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.	Silica Crucible	1		
2.	Heating Mantle	1		
3.	Muffle Furnace	1		
4.	Hot air oven	1		
5.	Desiccators	1		
6.	Vacuum pump	1		
7.	Condensers	1		
8.	Mechanical Shaker	1		
9.	Conducting meter	1		
10.	Mantle Heater	1		
11.	Hot Plate	1		
12.	Bunsen Burners	1		
13.	Thermometer	1		
14.	Electronic Weighing balance	1		

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**(R 2017) Semester – III**  
**EE8362 BASIC ELECTRICAL AND ELECTRONICS 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.	D. C. Motor Generator Set	2		
2.	D.C. Shunt Motor	2		
3.	Single Phase Induction Motor	2		
4.	Ammeter A.C and D.C	20		
5.	Voltmeters A.C and D.C	20		
6.	Watt meters LPF and UPF	12		
7.	Resistors & Breadboards (Necessary Quantities)	20		
8.	Cathode Ray Oscilloscopes	4		
9.	Dual Regulated power supplies	6		
10.	A.C. Signal Generators	4		
11.	Communication system demonstration kits	2		
12.	Modulation and demodulation demo kits	2		
13.	ADC and DAC circuit demo kits	2		

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**(R 2017) Semester – IV**  
**CH8581 MECHANICAL OPERATIONS 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.	Sieve shaker	1		
2.	Leaf filter	1		
3.	Plate and Frame Filter Press	1		
4.	Sedimentation Jar	1		
5.	Jaw Crusher	1		
6.	Ball Mill / Pulverizer / Hammer Mill (Any one mill)	1		
7.	Cyclone Separator	1		
8.	Roll Crusher	1		
9.	Elutriator	1		
10.	Drop Weight Crusher	1		
11.	Test Sieves	1		
12.	Air Permeability apparatus	1		

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**(R 2017) Semester – IV**  
**CH8461 FLUID MECHANICS 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.	Viscometer	1		
2.	Venturi meter	1		
3.	Orifice meter	1		
4.	Rotameter	1		
5.	Weir and Notches	1		
6.	Open drum with orifice	1		
7.	Pipes and fittings	1		
8.	Helical and spiral coils	1		
9.	Centrifugal pump / Gear pump / Reciprocating	1		
10.	Packed column	1		
11.	Fluidized bed	1		

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**(R 2017) Semester – V**  
**EL8511 HEAT AND MASS TRANSFER 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.	Data Logger	1		
2.	Heat Exchanger	1		
3.	Condenser	1		
4.	Thermal conductivity measurement apparatus	1		
5.	Soxlet Extractor	1		
6.	Rotating Disc Contactor	1		
7.	Controllers of Temperature	1		
8.	Convection Apparatus	1		
9.	Emissivity measurement apparatus	1		
10.	Distillation Apparatus	1		
11.	Double pipe heat exchanger	1		
12.	Diffusion Apparatus	1		

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**(R 2017) Semester – V**  
**EL8512 CHEMICAL AND ELECTROCHEMICAL REACTION 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.	Batch reactor	1		
2.	Plug flow reactor	1		
3.	CSTR	1		
4.	Electrochemical batch reactor	1		
5.	Chemical Bath	1		
6.	CSTER	1		
7.	PFER	1		
8.	Packed bed reactor	1		

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**(R 2017) Semester – VI**  
**EL8612 COMPUTER APPLICATIONS IN 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.	MS Office (EXCEL) (user license)	10		
2.	MATLAB (user license)	5		
3.	ASPEN PLUS/HYSYS (user license)	10		



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**(R 2017) Semester – VI**  
**EL8613 CORROSION AND METAL FINISHING 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.	Electroplating Bath	1		
2.	Hull Cell Electroplating Bath	1		
3.	Sacrificial anode system	1		
4.	Rectifier	1		
5.	Galvanostatic polarization apparatus	1		

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**(R 2017) Semester – VII**  
**EL8711 ELECTROCHEMICAL AND ELECTRO METALLURGY 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.	Ion exchange apparatus	1		
2.	Electrochemical bath	1		
3.	Membrane Cell	1		
4.	Electrolytic Cell	1		
5.	Etching apparatus	1		
6.	Hull Cell	1		
7.	Packed bed resin column	1		

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**(R 2017) Semester – VII**  
**EL8712 PROCESS DYNAMICS AND CONTROL 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.	U tube manometer with controller	1		
2.	Interacting Tank	1		
3.	Non Interacting Tank	1		
4.	Open loop control system	1		
5.	Closed loop control system	1		
6.	ON/OFF controller	1		
7.	Control valve characteristics	1		
8.	Pressure Tuner	1		
9.	Temperature Tuner	1		
10.	Proportional Controller	1		
11.	Flow Transmitter	1		
12.	Level Transmitter	1		
13.	Cascade control system	1		