

**Faculty of Mechanical Engineering**  
**B.E. Industrial Engineering**  
**(R 2017) Semester – III**  
**ME8361 MANUFACTURING TECHNOLOGY 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.	Centre Lathes	7		
2.	Horizontal Milling Machine	1		
3.	Vertical Milling Machine	1		
4.	Shaper	1		
5.	Arc welding transformer with cables and holders	2		
6.	Oxygen and acetylene gas cylinders, blow pipe and other welding outfit	1		
7.	Moulding table , Moulding equipments	2		
8.	Sheet metal forming tools and equipments	2		

**Faculty of Mechanical Engineering**  
**B.E. Industrial Engineering**  
**(R 2017) Semester – III**  
**IE8361 WORK SYSTEM DESIGN 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.	Graphic tools for method study (1 sheet each per student)	30		
2.	Peg board	3		
3.	Stop watch	10		
4.	Walking rating (Stop watch)	2		
5.	Card dealing (Set Cards)	3		
6.	Assembly video loaded to the computers	3		

**Faculty of Mechanical Engineering**  
**B.E. Industrial Engineering**  
**(R 2017) Semester – III**  
**CE8481 STRENGTH OF MATERIALS 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.	UTM of minimum 400 kN capacity	1		
2.	Torsion testing machine	1		
3.	Izod impact testing machine	1		
4.	Hardness testing machine Rockwell	1		
5.	Vicker's / Brinell	1		
6.	Beam deflection test apparatus	1		
7.	Extensometer	1		
8.	Compressometer	1		
9.	Dial gauges	1		
10.	Le Chatelier's apparatus	2		
11.	Vicat's apparatus	2		
12.	Mortar cube moulds	10		

**Faculty of Mechanical Engineering**  
**B.E. Industrial Engineering**  
**(R 2017) Semester – IV**  
**CE8462 FLUID MECHANICS AND MACHINERY 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.	Orifice meter setup	1		
2.	Venturi meter setup	1		
3.	Rotameter setup	1		
4.	Pipe Flow analysis setup	1		
5.	Centrifugal pump/submersible pump setup	1		
6.	Reciprocating pump setup	1		
7.	Gear pump setup	1		
8.	Pelton wheel setup	1		
9.	Francis turbine setup	1		
10.	Kaplan turbine setup	1		

**Faculty of Mechanical Engineering**  
**B.E. Industrial Engineering**  
**(R 2017) Semester – IV**  
**ME8462 MANUFACTURING TECHNOLOGY 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.	Turret and Capstan Lathes	1		
2.	Horizontal Milling Machine	2		
3.	Vertical Milling Machine	1		
4.	Surface Grinding Machine	1		
5.	Cylindrical Grinding Machine	1		
6.	Radial Drilling Machine	1		
7.	lathe Tool Dynamometer	1		
8.	Milling Tool Dynamometer	1		
9.	Gear Hobbling Machine	1		
10.	Tool Makers Microscope	1		
11.	CNC Lathe	1		
12.	CNC milling machine	1		
13.	Gear Shaping machine	1		
14.	Centerless grinding machine	1		
15.	Tool and cutter grinder	1		

**Faculty of Mechanical Engineering**

**B.E. Industrial Engineering**

**(R 2017) Semester – V**

**AN8681 AUTOMATION 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.	CNC Lathe	1		
2.	CNC Milling Machine	1		
3.	Pick and Place Robot	1		
4.	PLC Trainer	1		

**Faculty of Mechanical Engineering**

**B.E. Industrial Engineering**

**(R 2017) Semester – V**

**IE8511 ERGONOMICS 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.	Tread mill with Heart rate measurement and Energy Expenditure Measurement	1		
2.	Ergo Cycle with Heart rate measurement and Energy Expenditure Measurement	1		
3.	Step Test Arrangement	1		
4.	Sound Meter	1		
5.	LUX meter	1		
6.	Height Measuring Tape and Weight Measuring Instrument.	1		

**Faculty of Mechanical Engineering**  
**B.E. Industrial Engineering**  
**(R 2017) Semester – VI**  
**IE8662 STATISTICAL APPLICATIONS AND OPTIMIZATION 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.	Personal computers	30		
2.	MS Excel (for all Users)	30		
3.	TORA (Open Source for all Users)	30		
4.	LINDO (for all Users)	30		
5.	C or Other equivalent Language (for all Users)	30		



**Faculty of Mechanical Engineering**  
**B.E. Industrial Engineering**  
**(R 2017) Semester – VII**  
**IE8761 DISCRETE SIMULATION 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.	Personal computers	30		
2.	C or Other equivalent Language (for all Users)	30		
3.	GPSS - (open source for all users)	30		