

## Department of Freshman Engineering

## Basic Workshop

<b>Course Code</b>	20ES1252	<b>Year</b>	I	<b>Semester</b>	II
<b>Course Category</b>	Engineering Science	<b>Branch</b>	ECE	<b>Course Type</b>	Lab
<b>Credits</b>	3	<b>L-T-P</b>	1-0-4	<b>Prerequisites</b>	Nil
<b>Continuous Internal Evaluation</b>	15	<b>Semester End Evaluation</b>	35	<b>Total Marks</b>	50

**Course Outcomes**

Upon successful completion of the course, the student will be able to

CO1	Study and practice on basic hand tools and their operations. (L3)
CO2	Practice on manufacturing of components using workshop trades including Tin smithy, fitting and carpentry. (L3)
CO3	Apply basic electrical engineering knowledge for house wiring and soldering practice. (L3)
CO4	Demonstrate basic concepts of software installations, operating systems and networking. (L3)

**Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:High, 2: Medium, 1:Low)**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	2	2	2			3		2	2	3	2
CO2	3	2				2			3		2	2	3	2
CO3	3	2				2			3		2	2	3	2
CO4	3	2	2	2	2	2			3		2	2	3	2

**Syllabus**

Unit No.	Syllabus	Mapped CO's
1	<p><b>Familiarity with different types of woods and tools used in wood working and make following joints</b></p> <ol style="list-style-type: none"> <li>Half – Lap joint.</li> <li>Mortise and Tenon joint.</li> <li>Corner Dovetail joint or Bridle joint.</li> </ol>	CO1, CO2
2	<p><b>Familiarity with different types of tools used in sheet metal working, Developments of following sheet metal job from GI sheets</b></p> <ol style="list-style-type: none"> <li>Tapered tray</li> <li>Conical funnel</li> <li>Elbow pipe</li> </ol>	CO1, CO2
3	<p><b>Familiarity with different types of tools used in fitting and do the following fitting exercises</b></p> <ol style="list-style-type: none"> <li>V-fit</li> <li>Dovetail fit</li> <li>Semi-circular fit</li> <li>Bicycle tire puncture and change of two wheeler tire</li> </ol>	CO1, CO2
4	<p><b>Familiarities with different types of basic electrical circuits and make the following connections</b></p> <ol style="list-style-type: none"> <li>Preparation of a circuit for Parallel and series connection.</li> <li>Preparation of a circuit for Go down lighting using Two-way switch to connect tube light.</li> <li>Soldering of wires</li> </ol>	CO1, CO3

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5	<ol style="list-style-type: none"><li>1. Students have to be given a PC which does not boot due to improper assembly or defective peripherals. They should identify the problem and fix it to get the computer back to working condition.</li><li>2. Installation of MS-Windows and Linux. Connection of LAN and access the Internet, Configuration of TCP/IP setting and access of websites and email.</li><li>3. Exploring MS-Word and sample tasks. Document creation and editing text documents in your web browser using Google docs.</li></ol>	CO4
<b>Learning Resources</b>		
Text Books		
<ol style="list-style-type: none"><li>1. Work shop Manual - P.Kannaiah/ K.L.Narayana/ Scitech Publishers.</li><li>2. Workshop Manual / Venkat Reddy/ BS Publications/Sixth Edition.</li></ol>		