

Department of Freshman Engineering

Basic Workshop

Course Code	20ES1153	Year	I	Semester	I
Course Category	Engineering Science	Branch	ME	Course Type	Lab
Credits	3	L-T-P	1-0-4	Prerequisites	Nil
Continuous Internal Evaluation	15	Semester End Evaluation	35	Total Marks	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>Familiarity with different types of woods and tools used in wood working and make following joints</p> <ol style="list-style-type: none"> Half – Lap joint. Mortise and Tenon joint. Corner Dovetail joint or Bridle joint. 	CO1, CO2
2	<p>Familiarity with different types of tools used in sheet metal working, Developments of following sheet metal job from GI sheets</p> <ol style="list-style-type: none"> Tapered tray Conical funnel Elbow pipe 	CO1, CO2
3	<p>Familiarity with different types of tools used in fitting and do the following fitting exercises</p> <ol style="list-style-type: none"> V-fit Dovetail fit Semi-circular fit Bicycle tire puncture and change of two wheeler tire 	CO1, CO2
4	<p>Familiarities with different types of basic electrical circuits and make the following connections</p> <ol style="list-style-type: none"> Preparation of a circuit for Parallel and series connection. Preparation of a circuit for Go down lighting using Two-way switch to connect tube light. Soldering of wires 	CO1, CO3

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5	<ol style="list-style-type: none">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.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.3. Exploring MS-Word and sample tasks. Document creation and editing text documents in your web browser using Google docs.	CO4
Learning Resources		
Text Books		
<ol style="list-style-type: none">1. Work shop Manual - P.Kannaiah/ K.L.Narayana/ Scitech Publishers.2. Workshop Manual / Venkat Reddy/ BS Publications/Sixth Edition.		