

<b>Subject Code: 1ET1000115</b>	<b>Subject Title: : WORKSHOP</b>
<b>Pre-requisite Subject</b>	-

**Course Objective:**

- This exercise also aims in inculcating respect for physical work and hard labor in addition to some amount of value addition by getting exposed to interdisciplinary engineering domains.
- Exposure to Industrial environment, work culture, hand tools and general purpose machine developing Creativity, Craft man skill, approach to work and planning capability.

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical	Credit	Theory		Practical		Total (T+P)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
-	-	2	1	-	-	-	20	20

Subject Contents			
Sr. No	Topic	Total Hours	Weight (%)
01	<b>Introduction:</b> Introduction about workshop and study about safety rules.	02	10
02	<b>Fitting:</b> Term work to include one job involving following operations: filing to size, one simple male- female joint, drilling and taping.	06	30
03	<b>Carpentry:</b> Use and setting of hand tools like cutting, filing, marking, saw, Try square, Gauge etc.	05	20
04	<b>Tin Smithy:</b> Use of sheet metal, working hand tools, cutting and bending.	02	10
05	<b>Plumbing:</b> Use of plumbing tools, spanners, wrenches, threading dies, demonstration of preparation of a domestic line involving fixing of a water tap and use of coupling, elbow, tee, and union etc.	02	10
06	<b>Welding:</b> Introduction to Gas welding, Arc Welding, and Resistance spot Welding. At least one welding should perform in each group.	02	10
07	<b>Introduction about Machine Shop:</b> Lathe Specification and Demonstration of various operations on Lathe Machine.	02	10

**Course Outcome:**

1. Students would understand the importance of hard work.
2. Students will expose on hand training regarding various practical applications like Fitting, Carpentry, Welding, Plumbing, Tin Smithy.
3. Practical method of explaining the core subject and the philosophy of the subject.

**Laboratory Practice:**

1. Students are required to prepare one job each in any three of the four shops viz. Fitting, Carpentry, Smithy and Tin smithy.

**References:**

1. A Course in Workshop Technology, Vol – I by **B. S. Raghuvanshi**, Dhanapat Rai and Sons.
2. Elements of Workshop Technology, Vol – I, **Hajara Choudhari**, Media Promoters & Publishers Pvt. Ltd.
3. Workshop Technology, Vol – I by **Gupta and Kaushik**, New Heights.
4. Workshop Technology, Vol – I, **Chapman**, The English Language Book Society.
5. Workshop Technology, Vol.-I by **H.S.Bawa**, TMH Publications, New Delhi.