

16ME103 WORKSHOP PRACTICE

Hours Per Week :

L	T	P	C
-	-	3	2

Total Hours :

L	T	P	WA/RA	SSH/HSB	CS	SA	S	BS
-	-	45	-	-	-	20	-	-



Course Description and Objectives :

This course is aimed to impart knowledge and provide hands-on experience in Carpentry, Fitting, Tinsmithy, Blacksmithy and House wiring. In addition it also provides knowledge on various manufacturing processes such as Foundary, Welding, Machine Shops and CNC Machines.

Course Outcomes :

The student will be able to:

- identify various tools connected to the trades such as Carpentry, Fitting, Tinsmithy, Blacksmithy and House wiring.
- fabrication of wooden joints and understand joining of metals.
- make metal joints and sheet metal work.
- make metal tools like knives, needles, swords, arrows etc.

SKILLS:

- ✓ *Prepare wooden and metal furniture.*
- ✓ *Electrical wiring and power supply in residences.*
- ✓ *Make funnels, trays, locker, steel almirahs etc.*
- ✓ *Fabrication of various agriculture tools, hooks, axes, axels, rims etc.*
- ✓ *CNC machines and various machining operations and processes.*

ACTIVITIES:

- o *To make wooden joints like Mortise and Tenon joint, T-lap Joint which are used to prepare a wooden furniture.*
- o *To prepare metal joints and metal sheet products like V-Joint and trays by using mild steel flats and Galvonised iron sheets.*
- o *Trials on electrical circuit connections.*

EXERCISES IN THE FOLLOWING TRADES :

1. Carpentry.
2. Fitting.
3. Tin smithy and Black smithy.
4. House wiring.
5. Foundry and welding (Demonstration).
6. Machine shop and CNC (Demonstration).

Note: *In each trade, the student has to perform at least two jobs.*

TEXT BOOKS:

1. S K Hazra Choudhury, "Elements of workshop Technology", 11th edition, Media Promoters, 1997.
2. Gopal T V, Kumar T and Murali G, "A first course on workshop practice: Theory, Practice and Work Book", Suma Publications, Chennai, 2005.
3. Venkatachalapathy V S, "First year Engineering Workshop Practice", Ramalinga Publications, Madurai, 1999.