

ENGINEERING WORKSHOP

B.Tech. I Year I Sem.

Course Code: **ME108ES/ME208ES**

L T/P/D C

0 0/3/0 2

Pre-requisites: Practical skill

Course Objective:

- To Study of different hand operated power tools, uses and their demonstration.
- To gain a good basic working knowledge required for the production of various engineering products.
- To provide hands on experience about use of different engineering materials, tools, equipments and processes those are common in the engineering field.
- To develop a right attitude, team working, precision and safety at work place.
- It explains the construction, function, use and application of different working tools, equipment and machines.
- To study commonly used carpentry joints.
- To have practical exposure to various welding and joining processes.
- Identify and use marking out tools, hand tools, measuring equipment and to work to prescribed tolerances.

Course Outcomes: At the end of the course, the student will be able to:

- Study and practice on machine tools and their operations
- Practice on manufacturing of components using workshop trades including plumbing, fitting, carpentry, foundry, house wiring and welding.
- Identify and apply suitable tools for different trades of Engineering processes including drilling, material removing, measuring, chiseling.
- Apply basic electrical engineering knowledge for house wiring practice.

1. TRADES FOR EXERCISES:

At least two exercises from each trade:

- 1) Carpentry
- 2) Fitting
- 3) Tin-Smithy and Development of jobs carried out and soldering.
- 4) Black Smithy
- 5) House-wiring
- 6) Foundry
- 7) Welding
- 8) Power tools in construction, wood working, electrical engineering and mechanical engineering.

2. TRADES FOR DEMONSTRATION and EXPOSURE:

- Plumbing, Machine Shop, Metal Cutting (Water Plasma)

Text books:

- 1) Workshop Practice /B. L. Juneja / Cengage
- 2) Workshop Manual / K.Venugopal / Anuradha.

Reference books:

- 1) Work shop Manual - P.Kannaiah/ K.L.Narayana/ Scitech
- 2) Workshop Manual / Venkat Reddy/ BSP