# 20ME11P2 - ENGINEERING WORKSHOP

**(Common to EEE, CSE, IT and AI&DS)**

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| Course Category: | Engineering Science | Credits: | 1.5 |
| Course Type: | Practical | Lecture-Tutorial-Practical: | 0-0-3 |
| Prerequisite: | No Prerequisite | Sessional Evaluation:Univ. Exam Evaluation:Total Marks: | 4060100 |
| Objectives: | * To understand the usage of work shop tools and prepare the models in the trades such as carpentry, fitting, sheet metal & foundry.
* To understand the usage of wiring tools and to execute house wiring connections.
* To understand and demonstrate the usage of tools of welding, black smithy and machine tools.
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| Course Outcomes | Upon successful completion of the course, the students will be able to: |
| CO1 | Identify, Distinguish and Choose the tools of various trades (carpentry, fitting, sheet metal, foundry, wiring, welding, black smithy and machine tools). |
| CO2 | Demonstrate and Describe the usage of tools of various trades (carpentry, fitting, sheet metal, foundry, wiring, welding, black smithy and machine tools). |
| CO3 | Documenting the procedure adopted while preparing the model. |
| Course Content | 1. **Carpentry**: Half Lap, Mortise and Tenon and Bridle joint.
2. **Fitting:** Square, V, half round and dovetail fittings.
3. **Tin-Smithy:** Tray, cylinder, hopper, cone.
4. **House-wiring:** One lamp controlled by one switch, Two lamps (bulbs) controlled by two switches independently, Stair - case connection, Two lamps controlled by one switch in series, Two lamps controlled by on switch in parallel and Water pump connected with single phase starter.
5. **Foundry**: single-piece pattern and Two- piece pattern.

**TRADES FOR DEMONSTRATION:** 1. Machine Tools.
2. Welding.
3. Black Smithy.
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| Text Books | **TEXT BOOKS:**1. Engineering Work shop practice for JNTU, V. Ramesh Babu, VRB Publishers Pvt. Ltd, 2009
2. Work shop Manual / P. Kannaiah / K. L. Narayana/ SciTech Publishers,2004
3. Engineering Practices Lab Manual, Jeyapoovan, Saravana Pandian, Vikas publishers, 2007.
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