**19ME12P3- ENGINEERING WORKSHOP**

(Common to ME & CE)

I B.Tech II Semester

(With effect from 2019-20)

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| Course Category | Engineering Science | Credits | 1 |
| Course type | Practical | Lecture- Tutorial-Practical | 0+0+ 2 |
| Prerequisite | No Prerequisite | Sessional Evaluation:  External Exam Evaluation:  Total Marks:  External Exam Duration: | 40  60  100  3 hrs |

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| **Course Objectives** | 1. To understand the usage of work shop tools and prepare the models in the trades such as carpentry, fitting, sheet metal & foundry. 2. To understand the usage of wiring tools and to execute house wiring connections. 3. To understand and demonstrate the usage of tools of welding, black smithy and machine tools. | |
| **Course Outcomes** | After completing the course the student 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 | |
| **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, SaravanaPandian, Vikas publishers,2007. | |