



**Subject Code: 09AE0101**

**Subject Name: Automobile Workshop**

**Semester – I/II**

**Diploma Branches in which this subject is offered:** Automobile Engineering.

**Objective:** Workshop training is a pillar of the real industrial situation which supports to grow and boost relevant technical hand skills required by the technician working in the various engineering trades and workshops. Irrespective of branch the use of workshop performs in day to day industrial as well domestic life helps to soften the problems.

**Credits Earned:** 2 Credits

**Course Outcomes:** After learning the course the students should be able to:

- Choice the appropriate tools essential for definite operation.
- Know applications of hand tools and power tools.
- Know the safety actions required to be taken while using the tools.
- Understand the processes of machine tools.
- Basic Introduction of automobile component.

**Pre-requisite of course:** NA.

#### **Teaching and Examination Scheme**

| Teaching Scheme (Hours) |          |           | Credits | Theory Marks |    |       | Tutorial/ Practical Marks |                | Total Marks |
|-------------------------|----------|-----------|---------|--------------|----|-------|---------------------------|----------------|-------------|
| Theory                  | Tutorial | Practical |         | ESE (E)      | IA | (CSE) | Viva (V)                  | Term work (TW) |             |
| 0                       | 0        | 4         | 2       | 00           | 30 | 20    | 25                        | 25             | 100         |



**Contents:**

| <b>Sr.no</b> | <b>Content</b>   | <b>Total hrs.</b> | <b>% weightage</b> |
|--------------|--|-------------------|--------------------|
| 1            | Introduction:<br>1.1 Sketch general workshop layout.<br>Workshop layout<br>Importance of various sections/shops of workshop<br>Types of jobs done in respective shop<br>Follow preliminary safety rules in workshop<br>General safety rules and work procedure in workshop | 02                | 5                  |
| 2            | Prepare the simple jobs as per specification using fitting tools.  | 8                 | 15                 |
| 3            | Prepare the simple job as per specification using carpentry tools.   | 8                 | 15                 |
| 4            | Prepare the simple jobs as per specification using proper metal joining and cutting method.  | 8                 | 15                 |
| 5            | Prepare the simple job as per specification using tin smithy tools.  | 06                | 10                 |
| 6            | Prepare the simple job as per specification using pipe fitting tools   | 06                | 10                 |
| 7            | Important concept of Views and know about different major parts of the cars/bike   | 7                 | 10                 |
| 8            | Engine Parts assembling and disassembling  | 10                | 20                 |

**References:**

1. Mechanical Workshop Practice, K C John PHI Learning,
2. Workshop Technology Vol. I and II by Raghuvanshi B S Dhanpat Rai and Sons 1998,
3. Workshop Technology by Chapman W A J & Arnold E Viva low priced student edition,
4. Workshop Practices, H S Bawa,
5. Workshop Practices and Materials B J Black CRC Press,

**List of Jobs/Experiments:**

1. To know and gain worth of mechanical engineering in diverse fields of engineering
2. Fitting job
3. Carpentry job
4. Welding job



5. Tin Smithy job
6. Plumbing Job
7. Understanding of automobile component
8. Assembling & disassembling of engine.

**Instructional Method:**

- a. The internal evaluation will be done on the basis of continuous evaluation of students in the laboratory.
- b. Practical examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

**List of Open Source Software/learning website:**

1. <https://www.udemy.com/automotive-101/>