WORKSHOP/MANUFACTURING PRACTICES
[As per Choice Based Credit System (CBCS) scheme]
SEMESTER – I/II

Course Code	**18WMPL17/18WMPL27**	**CIA Marks**	**40**
Number of Lecture Hours/Week	**4 (1L + 3P)**	**SEE Marks**	**60**
Total Number of Lecture Hours	**56**	**Exam Hours**	**03**

CREDITS – 2.5

Course objectives:

- **To impart knowledge and skill to use tools, machines, equipment, and measuring instruments.**
- **Expose the students to the concept of fitting, welding soldering, and development of sheet metal components.**
- **Expose them to recent developments in power tools.**

Module-1

1. Use of Hand Tools: V-block, Marking Gauge, Files, Hack Saw, Drills, Taps; minimum 3 models involving triangular, square and semicircular joint.
2. Welding: Study of electric arc welding tools &equipments, Models: Butt Joint, Lap Joint, T joint & L-joint.
3. Sheet Metal & Soldering Work: Development & Soldering of the models: frustum of cone,prism (Hexagon & Pentagon), and funnel.

Module-2

1. Study & Demonstration of power tools like power drill, power hacksaw, portable hand grinding, cordless screw drivers, production air tools, wood cutter, etc., used in Mechanical Engineering (Demonstration purpose only).

Course outcomes:

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

- **Demonstrate and produce different types of fitting models and appreciate the importance of fitting in mechanical engineering.**
- **Gain knowledge of development of sheet metal models and understand its applications.**
- **Perform soldering ofsheet metal and welding of plates.**
- **Understand the Basics of Workshop practices.**
- **Understand the recent advances in power tools.**

Scheme of Examination:

Fitting Model / Sheet Metal Work: **50 Marks**

(50% of the batch to be given Fitting and remaining 50% to be given Sheet metal work including Soldering)

Welding: 30 Marks

Viva voce: 20 Marks

Total:100 Marks

Ref Book:

1. Elements of Workshop Technology:Vol. I:Manufacturing Processes, S. K. HajraChoudhury, A. K. HajraChoudhury,15th Edition Reprinted 2013,Media Promoters &Publishers Pvt Ltd., Mumbai.

Note: No mini drafters and drawing boards required. Drawings (Developments) can be done on sketch sheets using scale, pencil and Geometrical Instruments.