## **Basic Workshop**

| Course<br>Code                        | 19ES1153             | Year                           | I     | Semester        | I   |
|---------------------------------------|----------------------|--------------------------------|-------|-----------------|-----|
| Course<br>Category                    | Engineering Sciences | Branch                         | ME    | Course Type     | Lab |
| Credits                               | 1.5                  | L-T-P                          | 0-0-3 | Prerequisites   | Nil |
| Continuous<br>Internal<br>Evaluation: | 25                   | Semester<br>End<br>Evaluation: | 50    | Total<br>Marks: | 75  |

|        | Course Outcomes  |  |  |  |  |  |
|--------|--|--|--|--|--|--|
| Upon s | Upon successful completion of the course, the student will be able to                  |  |  |  |  |  |
| CO1    | Apply wood working skills in real world applications                                   |  |  |  |  |  |
| CO2    | Build different parts with metal sheets in real world applications.                    |  |  |  |  |  |
| CO3    | Apply fitting operations in various applications.                                      |  |  |  |  |  |
| CO4    | Apply different types of basic electric circuit connections and demonstrate soldering. |  |  |  |  |  |

| C   | Contribution of Course Outcomes towards achievement of Program Outcomes & |     |     |     |     |     |     |     |     |      |      |      |      |      |
|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
|     | Strength of correlations (H:High, M: Medium, L:Low)                       |     |     |     |     |     |     |     |     |      |      |      |      |      |
|     | PO1   | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
| CO1 | Н   |     |     |     |     | L   |     |     | Н   |      | L    |      | Н    |      |
| CO2 | Н   |     |     |     |     | L   |     |     | Н   |      | L    |      | Н    |      |
| CO3 | Н   |     |     |     |     | L   |     |     | Н   |      | L    |      | Н    |      |
| CO4 | Н   |     |     |     |     | L   |     |     | Н   |      | L    |      | Н    |      |

|                        | Syllabus   |              |  |  |
|------------------------|--|--------------|--|--|
| Job Type               | Contents   | Mapped<br>CO |  |  |
| Wood<br>Working        | Familiarity with different types of woods and tools used in wood working and make following joints i) Half – Lap joint. ii) Mortise and Tenon joint. iii) Corner Dovetail joint or Bridle joint. | CO1          |  |  |
| Sheet Metal<br>Working | Familiarity with different types of tools used in sheet metal working, Developments of following sheet metal job from GI sheets i) Tapered tray ii) Conical funnel ii) Elbow pipe                | CO2          |  |  |
| Fitting                | Familiarity with different types of tools used in fitting and do the following fitting exercises i) V-fit ii) Semi-circular fit iii) Bicycle tire puncture and change of two wheeler tire        | CO3          |  |  |
| Electrical             | Familiarities with different types of basic electrical circuits and make the following connections   | CO4          |  |  |

| Wiring | <ul><li>i) Preparation of a circuit for Parallel and series connection.</li><li>ii) Preparation of a circuit Go down lighting using Two way switch and tube light.</li><li>iii) Soldering of wires</li></ul> |  |
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|   | Learning Resources  |
|---|---|
| , | Text Books  |
|   | 1. Work shop Manual - P.Kannaiah/ K.L.Narayana/ Scitech Publishers. |
| 1 | 2. Workshop Manual / Venkat Reddy/ BS Publications/Sixth Edition    |