

### PRODUCTION TECHNOLOGY LAB

**Course Objective: To impart hands-on practical exposure on manufacturing processes and equipment.**

Minimum of 12 Exercises need to be performed

#### **I. METAL CASTING:**

1. Pattern Design and making - for one casting drawing.
2. Sand properties testing - for strength and permeability
3. Mould preparation, Melting and Casting

#### **II WELDING:**

1. Gas welding
2. Gas cutting
3. Manual metal arc welding - Lap & Butt Joints
4. TIG/MIG Welding
5. Resistance Spot Welding
6. Brazing and soldering

#### **III METAL FORMING AND POWDER METALLURGY:**

1. Blanking & Piercing operations and study of simple, compound and progressive dies.
2. Deep drawing and extrusion operations.
3. Bending and other operations
4. Basic powder compaction and sintering

#### **IV PROCESSING OF PLASTICS:**

1. Injection Moulding
2. Blow Moulding

#### **Course outcomes:**

Attending the laboratory the students shall be able to

1. To apply some of the manufactures process directly in the industry for preparation of complicated jobs.
2. At the end of the lab learn preparation of various jobs using various manufacturing process
3. The student will be trained to implement similar features in preparation of jobs can be extended to implement in the preparation of complicated jobs