1151AU321	MANUFACTURING TECHNOLOGY LAB	L	T	P	C
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1. **Preamble**

   This course provides an opportunity to demonstrate the techniques of metal casting processes, welding processes and various types of manufacturing processes.

2. **Pre-requisite**

1150ME101	Basic Mechanical Engineering

3. **Links to other courses**

   - Engineering Metrology and Measurements

4. **Course Educational Objectives**

   Students undergoing this course are expected to

   - To understand the various manufacturing processes and machining related to casting, forming, joining of metals, molding processes materials

5. **Course Outcomes**

   Upon the successful completion of the course, learners will be able to

CO Nos.	Course Outcomes	Level of learning domain (Based on revised Bloom's)
C01	Demonstrate preparation ofmoulds for casting applications	S3
CO2	Demonstrate various lathe operations.	S3
CO3	Demonstrate different deformation processes of manufacturing.	S3
C04	Demonstrate various welding processes	S3

6. **Correlation of COs with Programme Outcomes :**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	H	L	H	L	H	L				L	L		H	H
CO2	H	L	H	L	H	L				L	L		M	H

H- Strong; M-Medium; L-Low

7. **List of Experiments**

1. Preparation of Sand Mould With Solid & Split Pattern.
2. Preparation of Sand Mould With Loose Piece Pattern.
3. Preparation of Sand Mould With Core.
4. Eccentric Turning Operation in a Lathe.
5. Taper Turning Using Compound Rest in a Lathe.
6. Thread Cutting and Knurling Operation in a Lathe.
7. Boring and Internal Thread Cutting in a Lathe.
8. Arc Welding
9. Gas Welding.
10. Study of Brazing Process.
11. Study of Injection Molding Process.

TOTAL = 30 periods