SUBJECT NO-ME29201, SUBJECT NAME- INTRODUCTION TO BASIC MANUFACTURING PROCESSES

LTP- 0-0-3,CRD- 2

SYLLABUS :-

1. Turning a cylindrical job according to a drawing that involves the following operations- straight turning, taper turning, grooving, threading. (2 classes) 2. Milling a cylindrical job to hexagonal shape using indexing head. 3. Making a CNC programme for a cylindrical job and executing the same in a CNC lathe. 4. Making a CNC programme for a flat job and executing the same in a CNC machining centre. 5. Machining a square/triangular hole in a Die sinking EDM 6. Cutting a conductive workpiece in wire EDM. 7. Lap and butt joining of low carbon steel using manual metal arc welding (2 classes) method. 8. Butt joining of low carbon steel using gas welding method. 9. Demonstration of moulding tools and mould making. 10. Hands on experiments on sand moulding with a self core pattern. 11. Experiment on casting of an aluminium component by sand moulding. Reference books: De'Garmo, E. Paul, Process and Materials Manufacturing A. Ghosh and A. K. Mallik, Manufacturing Science, East West Press, New Delhi P. N. Rao, Manufacturing Technology - Foundry, Forming and Welding | Volume1, McGraw Hill - 279 -Page 6 of 7P. N. Rao Manufacturing Technology : Metal Cutting and Machine Tools | Volume 2, McGraw Hill Kalpakkjain, Manufacturing Engineering and Technology, Pearson Education O. P. Khanna, Welding Technology P. I. Jain, Principles of Foundry Technology