

# IC141P Product Realization Technology Lab

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Credits: 2-0-3-4

Prerequisite: Consent of the faculty member

Students intended for: B.Tech

Elective or Core: Core

Semester: Even/Odd

## Course content:

- Facing and turing on mild steel rod on lathe machine (MS1) 3 Lectures
- To make a groove on lathe machine (MS2) 3 Lectures
- Taper turing operation on lathe machine (MS3) 3 Lectures
- To perform boring operation on lathe machine (MS4) 3 Lectures
- To perform knurling and threading operation on lathe machine (MS5) 3 Lectures
- Face and Peripheral milling operation on Milling machine (MS6) 3 Lectures
- Drilling, reaming and tapping in MS piece (FS1) 3 Lectures
- To make V-matching joint of mild steel (FS2) 3 Lectures
- To make V butt joint in horizontal position (WS1) 3 Lectures
- To make V butt joint in vertical position (WS2) 3 Lectures
- To perform gas welding operation (WS3) 3 Lectures
- Shearing, bending, and soldering of GI sheet (TS1) 3 Lectures
- To make a mould and core and assemble it (FDS1) 3 Lectures
- Product Realization : Mini Project 6 Lectures

## Suggested Books

Materials and Processes in Manufacturing, E. Paul DeGarmo, J.T. Black, R. A. Kohser, Prentice Hall of India Pvt. Ltd.- New Delhi (ISBN 81-203-1243-0) 1997  
Manufacturing Engineering and Technology, S. Kalpakjain, S.R. Schmid, Pearson Education, New Delhi, (ISBN 81-7808-157-1) 2000  
Fundamentals of Modern Manufacturing, Mikell P. Grover, John Willey and Sons Inc (ISBN 0-471-40051-3) 2002  
Processes and Materials of Manufacturing, R.A. Lindberg, Prentice Hall India Ltd. (ISBN 81-203-0663-5) 1990  
Manufacturing Technology (Vol 1 and 2), P.N. Rao, Tata McGraw Hill New Delhi (ISBN 0074631802) 1998