



Laboratory Brief Overview

University/Institute: NED University of Engineering and Technology

Department: Metallurgical Engineering

Lab Name: Manufacturing Processes Lab

Lab In-Charge: Engr. Dr. Muhammad Ali Siddiqui

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Lab Overview

The Manufacturing Processes Lab is designed to provide hands-on experience with various metalworking processes. Our lab is equipped with state-of-the-art facilities to support research and development in materials processing and manufacturing.

Equipment

Equipment Name	Research / Teaching Applications
Heat Treatment Furnaces	Enables heat treatment of metals, including annealing, hardening, and tempering. High-Temperature Furnace supports high-temperature processing of materials.
Investment Casting Setup	Allows for precise casting of complex geometries.
Forging Setup	Includes hand forging and rolling equipment for shaping metals.

Milling Machine

Supports milling and machining of complex geometries.

Lathe

Enables turning and shaping of cylindrical parts.

Research Applications / Areas

Our Manufacturing Processes Lab supports research and development in materials science, mechanical engineering, and related fields, enabling researchers to:

- Develop and optimize manufacturing processes
- Investigate material properties and behavior during processing
- Create complex geometries and structures
- Improve product quality and performance

With its comprehensive range of equipment and facilities, our lab provides a valuable resource for researchers and engineers seeking to advance their understanding of manufacturing processes