

**Course Title: MANUFACTURING  
ENGINEERING TECHNIQUES (LAYOUT,  
PROCESS FLOW/CHARTS, MATERIAL  
HANDLING, & AUTOMATION)**

**Course Code: MMF 119 (T)**

**Course Background / Summary:**

Manufacturing engineering is a discipline of engineering dealing with different manufacturing practices and the research and development of systems, processes, machines, tools, and equipment. Dealing with a machine that turns raw materials into a new product. This field also deals with the integration of different facilities and systems for producing quality products (with optimal expenditure) by applying the principles of physics and the results of manufacturing systems studies, such as the following:

- Layout planning
- Process flow
- Material handling
- Automation

Manufacturing engineers develop and create physical artifacts, production processes, and technology. It is a vast area that includes the design and development of products. The manufacturing engineering discipline has very strong overlaps with mechanical engineering, industrial engineering, electrical engineering, electronic engineering, computer science, materials management, and operations management. Manufacturing engineers' success or failure directly impacts the advancement of technology and the spread of innovation.

**Course Objectives:**

- Describe the characteristics, benefits, and importance of Manufacturing Techniques
- Group manufactured products into product families
- Establish an improvement model for the actual case study
- Develop the skills necessary to create from Manufacturing Engineering Technique
- Understand how to create an effective implementation plan
- Select an appropriate product family within your facility with which to begin

**Target Audience:**

- Machines Operators & Machines Suppliers
- Teaching staff (including vocational & technical teachers)
- Industrial workers

**Course Duration: 3 Days**



## Course Contents

**1.0 Introduction to Manufacturing Engineering Technique**

**4.0 Production Engineering**  
• Process Flow

**2.0 Industrial Engineering**  
• Layout Planning

**5.0 Production Engineering**  
• Process Flow

**3.0 Industrial Engineering**  
• Material Arrangement and Handling

**6.0 Application into Organization**