# DIPLOMA IN MECHANICAL & AUTOMOBILE ENGINEERING LAB FACILITY

#### **Workshop (DPME-1009/1017)**

#### 1. Brief Description of the Lab

This lab is common for Diploma 1<sup>st</sup> year students of all engineering discipline. In this lab the students is expected to learn the critiques of basic process required to manufacturing a product through demonstration and practice. After completion of this course the students will be able to manufacture the simple product of their own choice. This laboratory is comprised of five shops namely: Lathe machine shop, Paint shop, Welding Shop, and Sheet Metal Shop.

#### 2. Equipment Used in the Lab

Lathe machine, Gas welding setup, Electric Arc Welding Setup, Wood working Lathe, Vices and stakes, Setup to perform soldering.

#### 3. Photograph



**Sheet Metal and Soldering Shop** 

#### **Lathe Machine shop**



#### **Profile of the LabIn-charge**

Mr. Siddharth is Assistant Professor in Diploma in Mechanical Engineering, University Polytechnic. He has done his M.Tech. In Manufacturing Technology & Automation from MDU Rohtak, Haryana.

#### **Applied Mechanics lab (DPME2006)**

#### 1. Brief Description of the Lab

This lab is in the curriculum of third semester of Diploma in Mechanical, Automobile & Civil Engineering. In this lab the students are expected to learn the critiques of basic Mechanics. In Applied Mechanics students are exposed to learn about to calculate various types of forces acting on a machine with the help of free body diagram using analytical methods.

### 2. Equipment Used in the Lab

Simply supported beam, Force table, Worm and Worm wheel, Simple Screw jack, Jib Crane, Wheel and Axle.

#### 3. Photograph









## 4. Profile of the LabIn-charge



Mr. Anil Kumar is a Lecturer in Machine Designdivision of University Polytechnic. He has done his M.tech. in Machine Designfrom MDU Rohtak, Haryana.

#### **MANUFACTURING PROCESS LAB (MEE243)**

#### 1. Brief Description of the Lab

This lab is in the curriculum of third semester of B. Tech. 2st year students of mechanical engineering discipline. In this lab the students is expected to learn the basics of casing and welding through practical exposure. The objective of this course is to carry out exercise in foundry shop and welding shop. On completion of this course, the students will be able to produce simple cast components, join the metals using different welding techniques and to carry out exercise using different welding techniques.

#### 2. Equipment Used in the Lab

Tilting Furnace, Strength Testing Machine for sand mould, Permeability Testing Apparatus, TIG Welding Machine, MIG Welding Machine

#### 3. Photograph



**Lathe Machine Shop** 

#### 4. Profile of the Labln-charge



Mr. Siddharth is a Assistant Professor in Diploma in Mechanical Engineering, University Polytechnic. He has done his M.tech. in Manufacturing Technology & Automation from MDU Rohtak, Haryana

## Mechanics of Solid Lab (DPME)

### 1. Brief Description of the Lab

Strength of material laboratory is methodology to supplement the theoretical knowledge gained in Mechanics of Solid and Strength of Materials with practical testing under variable loads. This would enable the student to have a clear understanding of mechanical properties of the standardsamples.

## 2. Equipment Used in theLab

Impact testing machine, Spring Test, Hardness testing Machine,

## 3. Photograph





## 4. Profile of the LabIn-charge



Mr. Sushil Singh is Lecturer at University Polytechnic, Galgotias University, Greater Noida (U.P.), India. He received his Master degree from FHIATS, Prayagraj, India. He has 12 years teaching and researchexperiences.

### **Thermal Engineering Lab (DPME2007)**

### 1. Brief Description of the Lab

A well equipped thermal engineering systems lab to carry out experiments independently. This lab caterstotheneedsofB.Tech.MechanicalEngineeringandB.Tech.AutomobileEngineering programmes.Thereare05experimentalsetupsavailableinthelaboratory.

## 2. Equipment Used in theLab

CentrifugalBlowerTestrig, Multistageaircompressor, Vapourcompression, refrigeration system test rig, Air conditioning test rig, Four cylinder four stroke petrol engine to perform MorseTest

#### 3. Photograph



Thermal Engineering lab

## 4. Profile of the LabIn-charge



Mr. Sushil Singh is Lecturer at University Polytechnic, Galgotias University, Greater Noida (U.P.), India. He received his Master degree from FHIATS, Prayagraj, India. He has 12 years teaching and researchexperiences