

Course Title	Course Code	Credit Hours
Engineering Workshop	AE-110	0-2

Textbook:

- John R. Walker, “Modern Metal Working”, Goodheart Willcox Publishers

Reference Book/Materials:

- S. F. Krar, A. R. Gill, and Peter Smid, “Introduction to Technology of Machine tools”, McGraw-Hill Education
- EASA Part-66 Category B1 Maintenance License Module 6, “Materials and Hardware”
- EASA Part-66 Category B1 Maintenance License Module 7, “Maintenance”

Course Objectives:

This course aims to familiarize students with the commonly used metals, measurement and layout tools used in metal-working shops. The course also helps students learn how to use different hand tools, fasteners/ fastening techniques, drill and grinding machines with their appropriate use.

Course Outline:

- Introduction to Workshop Technology
- Assembling and Dis-assembling. (Practice)
- Lathe, Machining Practice on Mild Steel Workpiece
- Milling Machining Practice on Nylon workpiece
- Universal Milling Machining Practice to Manufacture Spur Gear
- EDM Wire Cut/Die Sinking
- Pattern Making / Woodwork
- Heat Treatment
- Foundry Work sand Casting
- Foundry Work/Investment Casting Practice
- Electrical Technology
- Welding Technology Arc and Gas Welding and Brazing
- Welding Technology TIG/MIG and Spot Welding
- Surface Treatment (Nickle Plating and Anodizing)

- CNC Machining- Demo
- Rapid Prototyping/3D Printing- Demo
- Term Project