**COURSE TITLE :** INTRODUCTION TO ELECTRIC ARC,

 WELDING AND OXY-ACETYLENE CUTTING

(COURSE 1)

**COURSE DURATION :** 3 WEEKS

**TARGET POPULATION :** This program is aimed at Maintenance Workers.

**COURSE CONTENT :**

* Work safely using safety equipment.
* Cut materials using oxy fuel gas process.
* Select, Use and Care for Engineering Hand Tools
* Weld using Shielded Metal Arc process in the down-hand position.

**COURSE TITLE :** MANUAL METAL ARC WELDING PROCESS

 (COURSE 2)

**COURSE DURATION :** 3 WEEKS

**TARGET POPULATION :** This program is aimed at Maintenance Workers.

**COURSE CONTENT :**

* Work safely and use safety equipment
* Weld work pieces using Shielded Metal Arc Process in all positions.

**COURSE TITLE :** OXY-ACETYLENE GAS WELDING(COURSE 3)

**COURSE DURATION :** 2 WEEKS

**TARGET POPULATION :** This program is aimed at Maintenance Workers.

**COURSE CONTENT :**

* Work safely and use safety equipment
* Weld metals using oxy-acetylene gas welding in the down hand position.
* Weld metals using oxy-acetylene gas welding in all positions.

**COURSE TITLE :** OXY-ACETYLENE GAS CUTTING(COURSE 4)

**COURSE DURATION :** 1 WEEK

**TARGET POPULATION :** This program is aimed at Maintenance Workers.

**COURSE CONTENT :**

* Work safely and use safety equipment
* Cut materials using oxy-acetylene cutting process (Manual and machine cutting)

**COURSE TITLE :** MARKING OFF (COURSE 5)

**COURSE DURATION :** 2 WEEK

**TARGET POPULATION :** This program is aimed at Maintenance Workers.

**COURSE CONTENT :**

* Select, Use and Care for Engineering Measuring Equipment
* Mark off from templates

**COURSE TITLE :** WELDING ‑ COURSE 6 (Pipe Fabrication) (COURSE 6)

**COURSE DURATION :** 4 WEEKS

**TARGET POPULATION :** B5 level employees with at least a Standard 6 level of

education. Qualified welders who need to be trained

 in pipe development and fabrication.

**COURSE CONTENT :**

* Instruction in the development and layout of:
* Pipe to pipe connections of equal diameter.
* Pipe to pipe connections of unequal diameter on centre.
* Pipe to pipe connections of unequal diameter, off centre.
* Lobster‑back bends.
* How to measure and mark‑off with regard to maximum utilisation of material.
* Simple calculations for pipe measurement.
* Practical training includes:
* Development of layouts.
* Making of paper templates.
* Marking‑off pipes using the templates made.
* Cutting pipes using the oxy‑acetylene process.
* Assembling the various pipe components.
* Welding the various pipe connections in position.

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**COURSE TITLE :** WELDING ‑ (Argon Arc Welding) COURSE 7

**COURSE DURATION :** 1 WEEK

**TARGET POPULATION :** Before attempting this course candidates must already

have welding experience.

**COURSE CONTENT :**

* Weld carbon steel plate
* Weld carbon steel pipe
* Weld aluminium plate
* Weld stainless steel plate

**COURSE TITLE :** WELDING ‑ (MIG), (GMAW) & (CO²) COURSE 8

**COURSE DURATION :** 1 WEEK

**TARGET POPULATION :** Before attempting this course candidates must already

have welding experience.

**COURSE CONTENT :**

* Identify and set up GMAW equipment
* Weld stringer beads
* Weld a butt joint down hand (3mm plate)
* Weld a “Tee” joint down hand (3mm plate)
* Weld an outside corner joint down hand (3mm plate)
* Weld a single “Vee” joint butt joint – down hand
* Weld a single “Vee” joint butt joint – horizontal
* Weld a single “Vee” joint butt joint – vertical up
* Weld a vertical up “Tee” joint – 10mm plate
* Weld a horizontal multi pass fillet joint