



BOILERMAKER / WELDING COURSE

PLATING, WELDING AND BOILERMAKING

COURSE MODULES

1 ST YEAR

Perform safe work practices
 Read engineering drawings
 Draw up a materials list
 Use hand tools
 Fabricate a drill gauge
 Operate a pedestal grinder
 Grind a drill
 Identify special plater's tools
 Operate a drilling machine
 Operate a guillotine shearing machine
 Operate a punch and shearing machine
 Operate a bending press
 Operate a portable grinder
 Operate a bending roll
 Identify materials
 Handle material safely
 Mark off a liner plate
 Mark off an I –beam
 Make a template
 Mark off a channel iron
 Use oxy-acetylene cutting equipment
 Use a radius bar
 Use a portable straight line cutter
 Use a profile cutting machine
 Identify and interpret welding symbols
 Bead and weave weld
 Weld a fillet and corner joint
 Weld a butt-joint
 Temper and grind a chisel
 Fabricate a flat bar bracket
 Roll flat bar rings
 Fabricate a pipe clamp
 Draw geometrical developments
 Develop a square pipe elbow
 Develop and fabricate a pipe T
 Develop a concentric cone
 Develop and fabricate a square
 Develop an oblique cone
 Develop a cone cut horizontally
 Develop and fabricate an angled cone
 Develop a pyramid
 Weld plates (oxy-acetylene)
 Braze a lap joint
 Fabricate a square angle iron frame
 Mark off an angle iron frame
 Develop and fabricate an equal pipe T-piece
 Develop a 45 degree pipe lateral
 Weld a vertical up butt-joint
 Hard face surfaces
 Arc gouge
 Weld stainless steel
 Weld cold cast iron

2ND YEAR

Develop a lobster back bend
 Fabricate a cone
 Fabricate a lobster back bend
 Fabricate a pipe reducer
 Develop an unequal pipe T-piece
 Develop and fabricate a 60 degree pipe
 Develop an off-set lateral
 Develop an oblique cone
 Develop a tapering Y-piece
 Develop and fabricate an off-centre chute
 Develop a 60 degree chute
 Mark off matching angle iron frames
 Fabricate an angle iron bracket
 Lay out a roof truss
 Weld a horizontal butt-joint
 Weld a overhead fillet joint
 Butt-weld a pipe in position
 Use TIG welding equipment
 Use MIG welding equipment
 Use a contour marker
 Mark off a pipe off-set
 Mark off a set pipe
 Mark off a pipe T-piece
 Mark off a pipe lateral
 Mark off an unequal pipe T-piece
 Mark off an unequal pipe lateral
 Mark off a pipe bend
 Fabricate a pipe bend
 Mark off a true Y-piece
 Mark off a high pressure pipe
 Measure a lobster back bend
 Rivet flat bar ring
 Calculate positions of holes in flat bar
 Calculate sizes to fabricate radial door
 Use a Huck bolt machine
 Examine and repair a chute
 Examine and repair a hopper
 Develop a sweep-tee
 Fabricate a sweep-tee
 Fabricate a support column

