



## Overview

Our **Technical Bridging Course** is tailored for those who do not have any knowledge or background in technical drawing but wishes to enrol for our **Multi-Disciplinary Draughting National Certificate**. Completing this 5 day course will bridge the gap for someone with no technical drawing experience into the exciting and broad world of design Draughting.

## Features & Benefits

- You do not need any drawing experience to do this course.
- Get your foundation right by learning the fundamentals of technical drawings before you launch your career as a draughtsman.
- No equipment needed, you will get everything you need in your study kit. This will include a notepad, sketchpad, A3 drawing board, eraser, pencils, compass and scale ruler.

## Curriculum

### Drawing Equipment

- Introduction
- Drawing Equipment
- Drawing paper and its application
- Drawing board and its application
- T-Square
- Set squares or triangles and their application
- Masking tape
- Pencils and their application
- Eraser (rubber)
- Erasing shield
- Adjustable compass or large bowl and its application
- Sandpaper pad or file
- Dust cloth or brush
- Other instruments
- Scale rulers (metric)
- Essentials do's and don'ts of neatness in drawing

### Application of the alphabet of lines

- Introduction
- Application of the alphabet of lines Adding linear dimensions
- Outlines or object lines (line type A)
- Centre lines (line type G1)
- Dimension lines (line type B2)
- Extension lines for dimensions (line type B3)
- Leader lines (line type B4)
- Construction lines (line type BB1)
- Projection lines (line type B)
- Guidelines (line type BB2)
- Dashed lines to show hidden details (hidden detail lines – line type E and F)
- Hatched lines or section lines (line type B5)
- Other lines

### Lettering, figuring and dimensioning

- Introduction
- Lettering figuring and dimensioning in drawing
- Preparation of the drawing sheet
- Lettering and figuring
- Positions of the title and scale relative to each other
- The positioning of the title and scale on the drawing sheet
- Dimensioning on a working drawing
- Different types of dimensions on a working drawing
- Tolerance dimensions
- Dimensioning keyways
- Leaders
- Machining symbols

## Duration

**5 Days** (done 1 week prior to the Multi Disciplinary Draughting National Certificate)

## Mode of Delivery

- Full Time
- Part Time
- Online

### Freehand sketching

- Introduction
- Real-life (field) sketching and design sketching
- Freehand sketching
- Sketching horizontal lines
- Sketching vertical lines

- Sketching slanted lines
- Sketching curved figures and geometric shapes
- Sketching irregular shapes
- Isometric sketching
- Oblique sketching

### Constructions

- Introduction
- Geometrical constructions
- Bisecting Lines and angles
- Perpendiculars
- Parallel lines

- Setting out angles with the aid of set squares
- Hexagons (Six-sided figures)
- Octagons (Eight-sided figures)
- Joining straight lines with arcs using a compass
- An ellipse

### Layout of drawings

- Introduction
- Layout of drawings
- First-angle orthographic projection
- Third-angle orthographic projection
- Projecting the third view
- Drawing step-method for laying out drawings

- Isometric drawings
- Oblique drawings
- Projections of prisms and pyramids
- Developments
- Interpenetrations

### Sectioning

- Introduction
- Sectioning
- Terminology
- Sectional cutting planes

- Various aspects of sectioning
- How to draw a sectional view
- Sectional detail drawings

### Conventional representations

- Introduction
- Holes and fasteners
- Representation of a drilled hole
- Representation of a tapped hole (threaded hole)
- Construction of a hexagonal nut
- Representation of a hexagonal head bolt
- Representation of a stud

- Representation of a stud assembly
- Springs
- Representation of springs
- Breaks
- Welded joints
- Types of welded joints
- Supplementary symbols

### Fasteners

- Introduction
- Types of threaded fasteners
- Bolt heads
- Screw heads

- Locking devices
- Riveted joints
- Single or double rivet joints

### Assembly drawings

- Introduction
- Hatching sectional drawings
- Sections of sectional drawings
- A typical assembly drawing

- Item numbers
- Parts list
- How to start an assembly drawing

### Pipe drawings (chemical)

- Introduction
- Kinds of piping
- Pipe joints and fittings

- Pipe drawings
- Pipe drawing symbols

## Career Options

Potential draughtsman with a valid Grade 12 certificate. No drawing experience needed

## Study Kit

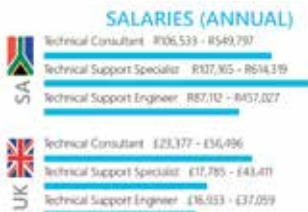
Your study kit is included in your fees and will contain:



myAIE Student Portal

- **Free WIFI** (Unlimited data, On-Campus only).
- Stationery kit that includes:
  - AIE Notepad
  - AIE Pencil case (15cm)
  - AIE Ruler
  - AIE Pen
  - Drawing Board Scola-Tec + 2x Locks
  - Set Square 30/60 deg S-Tec
  - Set Square 45 deg S-Tec
  - Clutch pencil (0.5mm, 0.3mm Drafting)
  - Compass Scola-Tec - Rigid legs
  - A3 Sketchpad
- **Orientation kit including:** Student Card, Welcome Letter, Getting Started Guide.
- Access to our myAIE student portal and student support team via phone, email and tickets.

## Salaries & Skills



\* All statistics are derived from [www.payscale.com](http://www.payscale.com)