

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

1. You do not need any drawing experience to do this course.
2. Get your foundation right by learning the fundamentals of technical drawings before you launch your career as a draughtsman.
3. 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
- Scale rulers (metric)
- Essentials do's and don'ts of neatness in drawing

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

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)
- Guidelined (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

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

Duration

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

Mode of Delivery

- Full Time
- Online

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

Lettering, figuring and dimensioning

- Introduction
- Layout of drawings
- First-angle orthographic projection
- Third-angle orthographic projection
- Projecting a 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

Sectioning

- Introduction
- Sectioning
- Terminology
- Sectional cutting planes
- Various aspects of sectioning
- How to draw a sectional view
- Sectional detail drawings

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:



- Free WIFI (10GB/Month, On Campus only).
- Drawing equipment including, Blue Folder, Notepad, Sketchpad, A3 Drawing Board, Eraser, Pencils, Compass and Scale Ruler.
- Electronic study guides and Textbook.
- Orientation kit including: Student Card, Welcome Letter, and Getting Started Guide.
- Access to our myAIE student portal and student support team via phone, email and tickets.

Salaries & Skills

SALARIES (ANNUAL)	SA	
	Technical Consultant	R116 000 - R595 000
	Technical Support Specialist	R140 000 - R759 000
	Technical Support Engineer	R76 000 - R477 000
UK	Technical Consultant	£23 000 - £57 000
	Technical Support Specialist	£19 000 - £46 000
	Technical Support Engineer	£18 000 - £37 000

* All statistics are derived from www.payscale.com

For more information, please contact a student advisor:
 Gauteng: 011 262 5115 | Cape Town: 021 202 7890
info@aie.ac | www.aie.ac