

Overview

Our **Multi-Disciplinary Draughting National Certificate** is one of the best, and most popular qualifications for a draughtsperson. It is the most recognised draughting qualification in the industry as well as the pre-requisite for any further studies in draughting. It will introduce you not only to the **fundamentals of draughting** but also your draughting **software tools** and numerous draughting disciplines such as **architectural, mechanical, structural**, process plant and many more. This qualification will also prepare you for the MDDOP N4/N5 National Examinations from the Department of Education.

Features & Benefits

- This **multi-disciplinary** approach provides a wide range of occupational options for optimal **job market** compatibility as it does not limit the student to a single discipline.
- It integrates multiple **internationally recognised CAD** software courses, accepted by industry at the value of thousands of Rands, a critically advantageous consideration for any employer during new hires.
- We utilise industry-leading **CAD/CAM/CAE** software including **Autodesk, Solidworks and ArchiCAD** ensuring that you are educated in industry used CAD software.



- Our **Digital Fabrication** modules and **Virtual** and **Augmented Reality** technology is incorporated into this program covering **AR, VR, 3D Printing, CNC Machining** and **Lazer Cutting**.



- Scarce industry skills such as Project Management, accredited by **PMI (Project Management International)** and others were added to further employment success and skills application.



- Get a free **Office 365 Education A1 license**, valid for the duration of your studies.



- Job placement assistance through our industry network and online recruitment portal, exclusively available to **AIE graduates**. Visit www.recruitgraduates.co.za for more.



Duration

Full Time

- **Full Time, Contact** (Hybrid) Learning, ±8 Months, +1 month specialization
- **Full Time, Online** Learning, ±8 Months, +1 month specialization
- Classes conducted from Monday to Friday, ±12 hours/week

Part-Time

- **Part Time, Flexi Online** Learning, ±12 Months, +1 month specialization
- Classes conducted after hours over 2-3 sessions/week (on selected Saturdays)

** Class structures are subject to change without notification.*

[Learn More](#)

Career Options

- Building Draughtsperson
- Mechanical Draughtsperson
- Piping Draughtsperson
- Civil Draughtsperson
- CAD Operator
- Electrical Draughtsperson
- Structural Draughtsperson

Study Kit

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

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- **Free WIFI** (Unlimited data, On-Campus only).
- **Autodesk student licenses** valid for 1 year.
- USB 16GB with all required software applications.
- Stationery kit that includes:

- AIE Notepad

Choose your software elective...

Choose a software elective of your choice, learn the latest in industry technology, such as **Virtual Reality**, **3D Printing** and **CNC Machining** with a strong focus on project production and output for industry readiness.

Articulation Options









On successful completion of this qualification, you can articulate into the following:

- [National Diploma: Architectural Technology NQF5](#) at first year level.
- [National Diploma: Structural Steel Detailing NQF5](#) at first year level.

Curriculum

PART 1: Multi-Disciplinary Draughting CORE

During this part, all students will learn draughting techniques in various different industries as well as an array of industry recognized and utilized software. The below diagram explains the industries and software.

THEORY SUBJECTS	SOFTWARE SUBJECTS	
Mechanical Drawing Office Orientation	AutoCAD 2D Fundamentals	
Building Draughting	AutoCAD Advanced	
Mechanical Draughting	3D Modeling with Autodesk Fusion 360	
Electrical Draughting	AutoCAD Electrical	
Structural Steel Detailing	AutoCAD P & ID	
Pictorial Draughting	Autodesk Inventor Essentials	
General Draughting	Autodesk Revit Architecture	
Piping Draughting	Advance Steel	

PART 2: Software Electives (Choose one)

During this part each student will choose a specialized industry in which they would like to focus on. We cover more CAD applications specific to each industry as well as additional subjects like project management and BIM management.

Mechanical & Digital Fabrication Specialization	Building, Structural & Digital Fabrication Specialization	3D Visualization, Rendering & Animation Specialization
<ul style="list-style-type: none">• Advanced 3D Software<ul style="list-style-type: none">◦ Autodesk Inventor Advanced (Routed Systems, Sheet Metal, Cable & Harnessing, Stress Analysis)	<ul style="list-style-type: none">• Advanced 3D Software<ul style="list-style-type: none">◦ Autodesk Revit Next Level (All disciplines)◦ ArchiCAD◦ Multidisciplinary	<ul style="list-style-type: none">• Advanced 3D Software<ul style="list-style-type: none">◦ 3D Max Essentials & Advanced Concepts◦ Virtual (VR) & Augmented Reality

- A4 Tracing pad
- AIE Pencil Case (15cm)
- AIE Ruler
- AIE Pen
- Uni Pin Fine Liner (0,3mm and 0,5mm)
- A3 Sketchpad

- **Orientation kit including:** Student Card, Welcome Letter, "Getting Started Guide."
- Access to myAIE student portal and student support team via phone, email and tickets;

and
Motion Si
mulation)

- Solidwork



• Digital

Fabrication

- CNC Machining & Lazer Cutting
- 3D Printing Fundamentals
- Virtual (VR) & Augmented Reality (AR) Fundamentals



• Project Management Fundamental

(PMI) Final

Integrated Project

- Plan and execute your project
- Produce Data Packs, (drawings, registers, WBS's),
- Produce digital prototypes on the VR, 3D print and CNC cutting)

• Workplace Preparation and Portfolio Compilation

- Preparing for an interview;
- Conduct and Behavior During an Interview ;
- Communication Skills;
- Understanding Legislation;
- Preparing

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Integrate
d Project
Coordinat

ion in BIM



• Digital

Fabrication

- CNC Machining & Lazer Cutting (Physical model building)
- 3D Printing Fundamentals
- Virtual (VR) & Augmented Reality (AR) Fundamentals



• Project Management Fundamental

(PMI) Final

Integrated Project

- Plan and execute your project
- Produce Data Packs, (drawings, registers, WBS's),
- Produce digital prototypes on the VR, 3D print and CNC cutting)

• Workplace Preparation and Portfolio Compilation

- Preparing for an interview;
- Conduct and Behavior During an Interview ;

(AR) Fund
amentals
with 3D
Max.



• Digital

Fabrication

- 3D Printing Fundamentals.
- Virtual (VR) & Augmented Reality (AR) Fundamentals.



• Project Management Fundamental

(PMI) Final

Integrated Project

- Plan and execute your project.
- Produce Data Packs, (drawings, registers, WBS's)
- Produce digital prototypes on VR, 3D renders, animations.

• Workplace Preparation and Portfolio Compilation

- Preparing for an interview;
- Conduct and Behavior During an Interview ;
- Communication Skills;
- Understanding Legislation;
- Preparing the CV that Everybody Wants to See;
- Using Social

- the CV that Everybody Wants to See;
- Using Social Media;
- Starting the Job seeking Journey
- Communication Skills;
- Understanding Legislation;
- Preparing the CV that Everybody Wants to See;
- Using Social Media;
- Starting the Job seeking Journey
- Media;
- Starting the Job seeking Journey
- Registering on our recruitment portal.

Register on our recruitgraduates.co.za



* Please note that AIE retains the right to change the structure of the course as and when needed.
