



Engineering

MASTER CLASS



**OCCUPATIONAL CERTIFICATE:
GAS PRACTITIONER**

117235



010 085 0918



www.zoneups.com



405 Cliff Ave, Waterkloofridge, Pretoria



BOOK NOW



2 Day Course



Classroom & Online Training



Certificate of Attendance

ABOUT THIS COURSE

This course prepares learners to operate as Gas Practitioners by developing the knowledge and practical skills needed to install, construct, inspect, test, maintain, repair, modify, commission and hand over gas systems safely and legally.

Learners will gain an understanding of gas science, gas technology, gas system drawings, design interpretation, gas installation standards, occupational health and safety, tools and equipment, pipe welding, gas system construction, maintenance, commissioning and compliance.

The programme combines theory, practical skills and workplace experience to ensure learners are able to work safely and effectively in the gas industry across flammable gas, food and beverage gas, inert gas, medical gas, oxidant gas and speciality gas systems.



Target Audience

- Gas Practitioners
- Gas Installers
- System Installers
- Gas System Installers
- Medical Gas System
- Oxidant Gas System
- Speciality Gas System
- Gas Technicians
- Maintenance Technicians

PRICE

ONLINE TRAINING: Request a Quote

CLASSROOM: Request a Quote

(Includes snacks and beverages – only applicable to classroom bookings)

DAY ONE

OVERVIEW

SMART ZONE

Basic Gas Science, Technology and Gas Systems

- Learners are introduced to the gas industry, gas properties, gas groupings and the basic scientific principles that apply to gas systems. This includes inert gases, oxidant gases, flammable gases, medical gases, food and beverage gases, speciality gases and the role of gases in different industry applications.

Gas Supply, Delivery and Control Systems

- Learners gain an understanding of gas supply, delivery and control systems used in gas installations. This includes storage systems, regulators, valves, delivery piping, control systems, air delivery, ventilation, mixing systems and the indicators of poor system performance.

Gas Science and Physics for Installations

- Learners develop knowledge of gas science and physics as it applies to gas installations. This includes gas laws, gas properties, pipelines and networks, material selection, combustion principles, fuel-air ratios, combustion products and combustion management.

Gas System Drawings and Design Interpretation

- Learners are introduced to gas system drawings and design interpretation. This includes freehand drawings, layout sketches, technical drawings, piping and instrumentation diagrams, drawing symbols, legends, design parameters, equipment selection and gas pipe network interpretation.

DAY TWO

OVERVIEW

SMART ZONE

Gas Installation Business Practices

- Learners are introduced to business practices required in gas installation work. This includes record keeping, administration, quotations, invoices, job cards, bills of materials, time sheets, client relationships, communication, documentation, confidentiality and handover documentation.

Electrical Management Systems in the Gas Industry

- Learners gain an understanding of basic electrical systems used in gas environments. This includes electrical principles, single-phase and three-phase systems, transformers, control panels, electrical drawings, interlocks, cable routing, isolating electrical supplies, PLC and SCADA basics, and electrical safety.

Tools, Equipment and Machinery for Gas Installations

- Learners are introduced to the tools, equipment and machinery used during gas system construction and installation. This includes engineering hand tools, drilling machines, grinders, sanders, power brushes, riveters, wrenches, saws, cutting machines, threading machines, safe operation, maintenance and PPE.

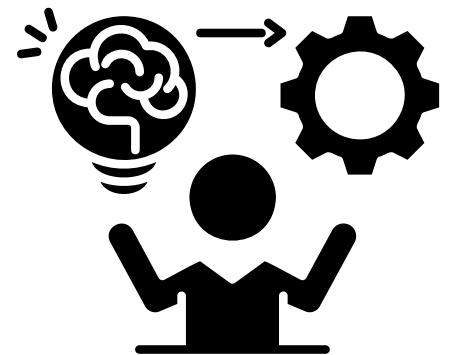
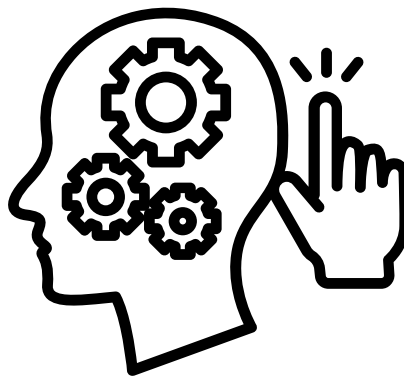
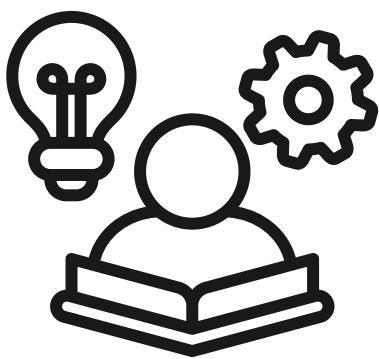
Pipe Welding and Gas Cutting

- Learners develop knowledge of welding and cutting processes used in gas installations. This includes welding terminology, welding safety, arc welding, gas cutting, pipe preparation, welding defects, inspection requirements, quality considerations and safe work practices during welding activities.

FEATURES OF THIS COURSE

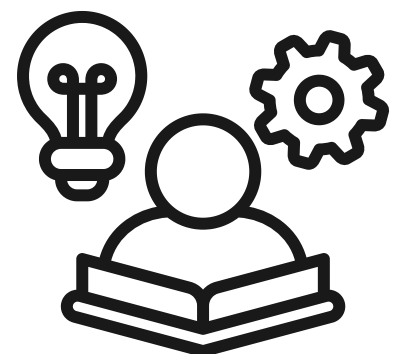
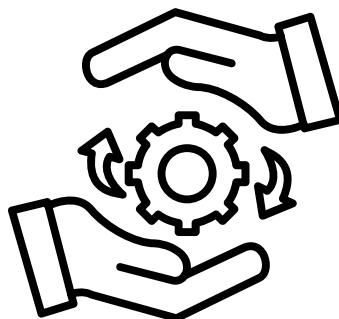
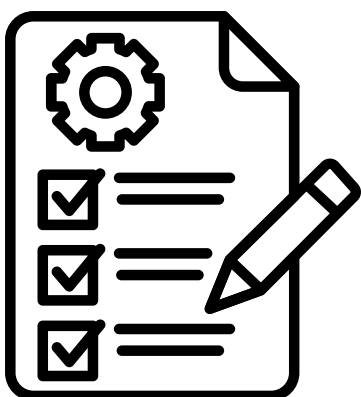
SMART ZONE

- QCTO-aligned occupational curriculum
- Combines theory, practical skills and workplace experience
- Industry-relevant commercial natural gas installation skills
- Focus on safe, legal and code-compliant gas systems
- Covers system design, installation, commissioning, maintenance and compliance
- Supports workplace readiness in commercial gas environments



BENEFITS OF THIS SHORT COURSE

- Gain practical chemical plant control knowledge and skills
- Understand process control systems, plant variables, and production schedules
- Improve ability to monitor plant operations and respond to deviations
- Learn how to apply quality control and meet product specifications
- Develop confidence in reporting, record keeping, and shift handover
- Enhance career opportunities in chemical, manufacturing, and process plant environments





SIGN UP NOW

SIGN UP NOW AND SECURE YOUR PLACE

1. Register Online- www.zoneups.com
2. Select the training you prefer and the date you would like to attend.
3. Fill in the registration form.
4. Choose your payment method and finalize the booking.

Request a Quotation

Accreditation



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QCTO