



*Institute for Quality*

Education, Training and Development

Empowerment through Education



GETC: Chemical Operations Level 1

Course Information

## EDUCATION AND TRAINING CERTIFICATE :CHEMICAL OPERATIONS

SAQA ID : 66029

NQF LEVEL: 1

CREDITS 120

### PURPOSE AND RATIONALE OF THE QUALIFICATION

This qualification is used as an introduction to chemical process operations. This competence provides the foundation needed to take responsibility for a significant process in the chemical operations industry. It also provides the basis upon which further related learning and career development can take place.

Through the employment of competent operating personnel, employers and in turn the field and sub-field have confidence that this critical work in the industry is efficiently carried out.

Social development and economic transformation are enhanced through efficient production, and career development and personal job satisfaction of operating personnel are facilitated through the learning process used to achieve the competency specified.

### COURSE EXPECTATION

This is a learnership, and therefore has a theory and workplace component.

- Learners are expected to complete the theory at the training provider.
- The workplace component must be complete at a recognised workplace.
- The activities at the workplace will be determined by the workplace tasks that need to be completed.

Training Provider

Workplace

### SELECTION OF WORKPLACE

Learners are required to ensure that they have secured a workplace. Whilst IQ supports learners in this endeavour, it is the learners responsibility.

The workplace selected must be in line with the course undertaken.

Learners will be provided with a pack that includes:

- Letter of request for placement
- Placement guidelines for Employer organisations



### YOUR COURSE COMPRISE OF THE FOLLOWING

- Complete Learner orientation on the programme expectations.
- Mentor guidelines for the workplace mentors.
- Work integrated guidelines for the workplace.

- Learner orientation guide.
- Process meetings map with employers and mentors.
- Training plan including the schedule of assessments
- Process map for the qualification.
- Learner guides, workbooks and log books
- E-learning lessons/ PC Tablet (with audio voice lessons)
- Training videos to support lessons showing practical applications

### ASSESSMENT

Assessments are an important part of your learning as it serves as a measure to identify if you have achieved the competencies required in this course.

Various assessment methods are used during the course of your programme. All these are collated into a Portfolio of Evidence which is used for the final summative assessment.

Each module of your study will have an assessment of some form. The workplace is assessed through a logbook. This comprises a list of tasks which needs to be completed and signed off by your workplace mentor.

### DELIVERY MODALITY

The delivery modality is flexible and designed according to the needs of the client. The following are some of the options:

#### Option 1

- Lessons are presented on a PC Tablet. These are recorded. All the learner guides and workbooks are on the PC Tablet.

#### Option 2

- E-learning. Lessons are on the e-learning platform and learners progress through them.

#### Option 3

Face to face tuition according to a training plan.



## Programme Modules

SAQA ID	UNIT STANDARD TITLE	NQF LEVEL	CREDITS
110075	Apply basic fire fighting techniques	NQF Level 01 /4	7
12484	Perform Basic fire fighting		
12199	Demonstrate an understanding of quality principles used in the chemical industry	NQF Level 01	8
244062	Demonstrate understanding of elementary chemical principles and their applications in process industries	NQF Level 01	8
244065	Demonstrate understanding of process piping, fittings and valves	NQF Level 1	4
244069	Demonstrate understanding of solid, liquid and gas storage methods	NQF Level 01	6
244070	Demonstrate understanding of solid, liquid and gas transfer equipment	NQF Level 01	12
244061	Interpret material safety data sheets (MSDS) in order to address chemical safety in the workplace	NQF Level 01	4
244063	Maintain basic safety, health and environmental issues	NQF Level 01	7
116527	Demonstrate knowledge pertaining to basic health and safety principles in and around a workplace		
244067	Read and interpret simple drawings in a process environment	NQF Level 01	3
244064	Understand elementary process instrumentation	NQF Level 01	5
244066	Understand the principles of physics related to heat and thermal energy and its application in a processing environment	NQF Level 01	4
244068	Demonstrate understanding of the organisation and its relationships with stakeholders and the industry within which it operates	NQF Level 02	3
119373	Describe and represent objects in terms of shape, space and measurement	NQF Level 01	5
119368	Describe, interpret and represent mathematical patterns, functions and algebra in different contexts	NQF Level 01	6
119635	Engage in a range of speaking/signing and listening interactions for a variety of purposes	NQF Level 01	6
119364	Evaluate and solve data handling and probability problems within given contexts	NQF Level 01	5
119631	Explore and use a variety of strategies to learn	NQF Level 01	5
119640	Read/view and respond to a range of text types	NQF Level 01	6
119636	Write/Sign for a variety of different purposes	NQF Level 01	6

CORE

FUNDAMENTAL

14664	Demonstrate knowledge of diversity within different relationships in the South African society	NQF Level 01	3
117943	Install a Personal Computer (PC) peripheral device, in a GUI environment	NQF Level 01	2
116932	Operate a personal computer system	NQF Level 01	3
14605	Take a representative sample in a manufacturing process line	NQF Level 01	2
116938	Use a Graphical User Interface (GUI)-based word processor to create and edit documents	NQF Level 01	4
14804	Demonstrate knowledge of Good Manufacturing Practices in a Chemical Manufacturing environment	NQF Level 02	6
244078	Demonstrate understanding of a work permit system	NQF Level 02	3
12484	Perform basic fire fighting	NQF Level 02	4
116937	Use a Graphical User Interface (GUI)-based spreadsheet application to create and edit spreadsheets	NQF Level 02	4