



Course Information

**National Certificate: Air-conditioning,
Refrigeration and Ventilation**

National Certificate: Automotive Body Repair

SAQA ID	65449
Level	2
Credits	133
Duration	1 year

The air conditioning, refrigeration and ventilation industry provides a service to many sectors of the country's economy such as food processing and warehousing, food transportation, distribution and retailing, deep level mining and industrial process, high rise and retail property, specialized medical care, automotive and mass transport, tourism and hospitality.

This qualification enables a competent learner at NQF Level 2, under supervision, to demonstrate a basic ability to install, service, repair and operate mechanical equipment that is used in the air conditioning, refrigeration and ventilation industry.

The current rate of urban development, the advance in technology and development of tourism creates an ever-increasing demand for air conditioning, refrigeration and ventilation equipment and systems and therefore a corresponding demand for technicians to repair, maintain, install and manufacture such equipment and systems.

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 comprises 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.

Company inductions

Convenience

Better tracking

Learner control

Use of dead time

Suits: learning styles

Social learning

Easy evidence

Learner confidence

Institute for Quality
Mobile Learning for the
workplace. Are you ready?

Programme Modules

	ID	UNIT STANDARD TITLE	NQF LEVEL	CREDITS
Core	116236	Define and explain the principles of thermodynamics and carry out basic calculations involving heat	2	5
Core	<u>116223</u>	Demonstrate knowledge of the OHS Act as it applies to employees in the air-conditioning, refrigeration and ventilation industries	2	3
Core	<u>116232</u>	Demonstrate understanding of fundamentals of electricity and its application in air conditioning, refrigeration and ventilation equipment	2	4
Core	<u>262177</u>	Explain the basic vapour compression cycle, the components, the handling and storage of refrigerants	2	8
Core	<u>116355</u>	Handle refrigerant containers and transfer refrigerants into service cylinders	2	3
Core	<u>116230</u>	Identify materials, piping, fitting, jointing methods and insulation materials used for air-conditioning and refrigeration installations	2	4
Core	<u>116334</u>	Identify refrigerant containers, explain handling procedures and discuss the use of refrigerants	2	3
Core	<u>116239</u>	Identify, use and maintain hand tools and measuring instruments used in the air-conditioning, refrigeration and ventilation trades	2	12
Core	<u>116335</u>	Identify, use and maintain refrigeration trade specific tools and instruments	2	8
Core	<u>116229</u>	Join and install refrigerant piping	2	9
Core	<u>9322</u>	Work in a team	2	3
Core	<u>116241</u>	Work Safely and use safety equipment when carrying out mechanical or electrical work on air conditioning, refrigeration and ventilation installations	2	7