



Course Information

**National Certificate: Welding Application and
Practice (Learning Programme ID 58534):**

National Certificate: Welding Application and Practice

| | |
|----------|--------|
| SAQA ID | 57881 |
| Level | 2 |
| Credits | 158 |
| Duration | 1 year |

The purpose of this Qualification is to provide learners with the standards and the range of learning required to work effectively in the welding industry and to meet the challenges of such an environment.

This Qualification recognises the basic skills, knowledge and values acquired by learners involved in welding. The purpose of this Qualification is to develop learners who, after completion, demonstrate the ability to: Use and apply mechanical and welding technology, techniques, processes and skills, as applied in the fabrication and welding industry, using appropriate tools and measuring equipment. Use and apply a variety of fillet welding, oxy-fuel cutting and oxy-fuel joining processes. Demonstrate knowledge of the welding industry and its productivity requirements, by applying appropriate work-procedures. Communicate effectively in order to achieve personal, business and organizational objectives. (Range: Reading and interpreting work instructions, documents and drawings; maintaining effective relationships; exploring options for further learning).

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

Training



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

Better tracking

Convenience

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 | 14683 | Apply work site practices | NQF Level 02 | 5 |
| Core | 243069 | Braze metals using the oxy-fuel brazing process | NQF Level 02 | 6 |
| Core | 243067 | Cut materials using the oxy-fuel gas cutting process (manual cutting) | NQF Level 02 | 6 |
| Core | 14722 | Describe the welding industry`s composition its productivity requirements and communication techniques | NQF Level 02 | 5 |
| Core | 14712 | Identify and select material to specification | NQF Level 02 | 5 |
| Core | 119744 | Select, use and care for engineering hand tools | NQF Level 02 | 8 |
| Core | 12476 | Select, use and care for engineering measuring equipment | NQF Level 02 | 4 |
| Core | 12219 | Select, use and care for engineering power tools | NQF Level 02 | 6 |
| Core | 14713 | Use welding definitions and symbols | NQF Level 02 | 5 |
| Core | 243063 | Weld carbon steel work-pieces using the shielded metal arc welding process in the down-hand position. | NQF Level 02 | 15 |
| Core | 243076 | Weld carbon steel workpieces using the cored-wire welding process in the downhand position | NQF Level 02 | 8 |
| Core | 243066 | Weld carbon steel workpieces using the gas metal arc welding process in the down-hand position | NQF Level 02 | 8 |
| Core | 243072 | Weld workpieces using the oxy-acetylene gas welding process in the downhand position | NQF Level 02 | 10 |
| Core | 243068 | Weld carbon steel workpieces using the gas tungsten arc welding process in the downhand position | NQF Level 03 | 15 |
| Fundamental | 119463 | Access and use information from texts | NQF Level 02 | 5 |
| Fundamental | 9009 | Apply basic knowledge of statistics and probability to influence the use of data and procedures in order to investigate life related problems | NQF Level 02 | 3 |
| Fundamental | 7480 | Demonstrate understanding of rational and irrational numbers and number systems | NQF Level 02 | 3 |
| Fundamental | 119454 | Maintain and adapt oral/signed communication | NQF Level 02 | 5 |
| Fundamental | 12444 | Measure, estimate and calculate physical quantities and explore, describe and represent geometrical relationships in 2-dimensions in different life or workplace contexts | NQF Level 02 | 3 |

| | | | | |
|-------------|------------------------|--|--------------|----|
| Fundamental | 119460 | Use language and communication in occupational learning programmes | NQF Level 02 | 5 |
| Fundamental | 7469 | Use mathematics to investigate and monitor the financial aspects of personal and community life | NQF Level 02 | 2 |
| Fundamental | 9007 | Work with a range of patterns and functions and solve problems | NQF Level 02 | 5 |
| Fundamental | 119456 | Write/present for a defined context | NQF Level 02 | 5 |
| Elective | 117867 | Managing files in a Graphical User Interface (GUI) environment | NQF Level 01 | 3 |
| Elective | 116932 | Operate a personal computer system | NQF Level 01 | 3 |
| Elective | 117902 | Use generic functions in a Graphical User Interface (GUI)-environment | NQF Level 01 | 4 |
| Elective | 243061 | Assemble work pieces in jigs (minor amendments include the use of manipulators) | NQF Level 02 | 3 |
| Elective | 13222 | Deal with safety, health and environmental emergencies in the workplace | NQF Level 02 | 4 |
| Elective | 243075 | Draw and interpret simple plate, pipe and structural steel plate, pipe and structural steel drawings | NQF Level 02 | 6 |
| Elective | 9672 | Erect and dismantle scaffolding | NQF Level 02 | 5 |
| Elective | 12240 | Form and shape sheetmetal using hand or power operated machines | NQF Level 02 | 8 |
| Elective | 14701 | Join sheetmetal with resistance arc welding process | NQF Level 02 | 4 |
| Elective | 116235 | Operate a pendant controlled overhead crane | NQF Level 02 | 5 |
| Elective | 12484 | Perform basic fire fighting | NQF Level 02 | 4 |
| Elective | 12483 | Perform basic first aid | NQF Level 02 | 4 |
| Elective | 14706 | Perform basic rigging procedures | NQF Level 02 | 4 |
| Elective | 243055 | Prepare and secure work pieces for welding (includes the use of manipulators) | NQF Level 02 | 8 |
| Elective | 243074 | Weld carbon steel components, using the submerged arc welding process in a downhand position | NQF Level 02 | 12 |
| Elective | 243056 | Weld carbon steel workpieces using the shielded metal arc welding process in all positions | NQF Level 02 | 16 |
| Elective | 243064 | Weld carbon steel workpieces, using the gas metal arc welding process in all positions | NQF Level 02 | 15 |