



Aldabri 106 (Pty) Ltd t/a

*Institute for Quality*

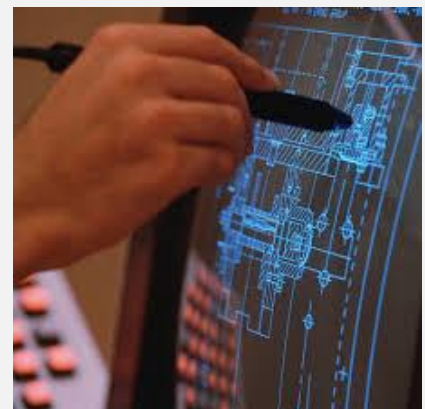
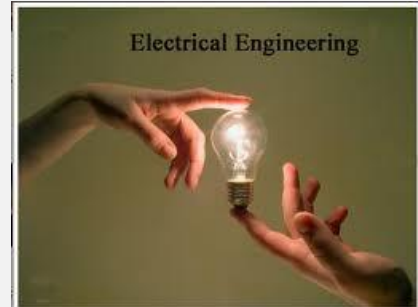
Education, Training and Development

ETDP - 0164

Learning for Life

**Further Education  
and Training  
Certificate:  
Electrical  
Engineering  
NQF Level 4**

**Course  
Information**





**Qualification:** Further Education and Training Certificate: Electrical Engineering

**SAQA ID:** 63889

**Credits:** 138

**NQF Level:** 4

This is the third occupational based qualification in a series for learners that reflect the workplace-based needs of the electrical engineering and energy field that is expressed by employers and employees, both now and for the future. This qualification provides the learner with accessibility to be employed within the electrical engineering and energy field and provides the flexibility to pursue different careers in the broader electrical engineering and energy sector and articulate within the Engineering, Electrical Construction, Generation, Transmission and Distribution specialization contexts. It also provides the Learner with enough knowledge and skills to pursue small business opportunities within the private sector through which the private sector and the economy can benefit.

For those who have acquired experience in the workplace, this qualification represents part of the RPL process to acknowledge workplace skills acquired without the benefit of former education or training.

This qualification will enhance the social status, productivity and employability of the learner within the electrical engineering and energy sector and contribute to the quality, production rate and growth of the electrical engineering and energy sector.

Through the critical crossfield component of the qualification, learners are able to demonstrate vocational skills through which they are able to engage in life skills activities, small business development, health and environmental issues.

A person acquiring this qualification will have skills, knowledge and experience to:

- √ Evaluate and apply essential methods to technical operational systems.
- √ Analyse and apply acquired knowledge in performing the tasks and solve common problems.
- √ Gather and analyse relevant information, use data to apply theories and principles within electrical engineering related situations.



- √ Execute role and responsibilities by being able to summarise, classify, discuss and estimate application processes required through mathematical concepts, technical and schematic diagrams, computer and technology usage in a range of different contexts.
- √ Communicate with peers, customers and members of supervisory/management levels by presenting information reliably and accurately in spoken and written form.

## Assessment

- √ Learners will be required to write an integrated summative assessment, for each module.
- √ Learners will be expected to compile a portfolio of evidence, which comprise all learning activities, assignment and projects.
- √ A logbook must be completed during the work-integrated learning.

## RPL

IQ has a well-designed toolkit to RPL persons against this qualification. If you have worked in a management role for at least 4 years, you could have your competencies measured and get awarded the qualification.

## Course outline

	ID	UNIT STANDARD TITLE	NQF	CREDITS
Core	<a href="#">113899</a>	Demonstrate an understanding of basic programmable logic controllers	Level 03	6
Core	<a href="#">113968</a>	Apply the principles of energy efficiency	Level 04	6
Core	<a href="#">10257</a>	Design and Construct a Three Phase Circuit	Level 04	5
Core	<a href="#">10259</a>	Fault find, repair and maintain three phase voltage electrical circuits	Level 04	8
Core	<a href="#">10264</a>	Install and commission three phase AC machines and control gear	Level 04	8
Core	<a href="#">10262</a>	Maintain and repair three phase AC machines and control gear	Level 04	12
Core	<a href="#">113894</a>	Test and inspect a three phase	Level 04	10



		industrial/commercial installation		
Core	<a href="#">113873</a>	Understand basic electrical and mechanical engineering principles	Level 04	8
Core	<a href="#">114389</a>	Wire and commission three phase electrical circuits	Level 04	8
Fundamental	<a href="#">9015</a>	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 04	6
Fundamental	<a href="#">9506</a>	Communicate in an assertive manner with clients and fellow workers	Level 04	4
Fundamental	<a href="#">8974</a>	Engage in sustained oral communication and evaluate spoken texts	Level 04	5
Fundamental	<a href="#">12417</a>	Measure, estimate & calculate physical quantities & explore, critique & prove geometrical relationships in 2 and 3 dimensional space in the life and workplace of adult with increasing responsibilities	Level 04	4
Fundamental	<a href="#">8975</a>	Read analyse and respond to a variety of texts	Level 04	5
Fundamental	<a href="#">7468</a>	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 04	6
Fundamental	<a href="#">116389</a>	Write a technical report	Level 04	4
Fundamental	<a href="#">8976</a>	Write for a wide range of contexts	Level 04	5
Fundamental	<a href="#">10147</a>	Supervise a project team of a technical project to deliver project objectives	Level TBA: Pre-2009 was L5	14
Elective	<a href="#">13657</a>	Install and commission direct current (DC) machines	Level 04	8
Elective	<a href="#">113895</a>	Maintain unit protection devices on transformers	Level 04	6
<b>Total Credits</b>				<b>138</b>