



# Government Gazette

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**AIDS HELPLINE: 0800-0123-22 Prevention is the cure**

## GOVERNMENT NOTICES

### SOUTH AFRICAN QUALIFICATIONS AUTHORITY

No. 702

11 June 2004

Announcement of the Intention to Extend the Accreditation of the **Energy Sector Education and Training Authority (ESETA)**

The South African Qualifications Authority (SAQA) hereby notifies the public that it intends to extend the accreditation of the **Energy Sector Education and Training Authority (ESETA)** to include the following unit standards and qualifications, which are registered on the National Qualifications Framework.

#### QUALIFICATIONS

NO	TITLE OF QUALIFICATION	NQF LEVEL	NLRD ID NUMBER
1.	National Certificate: Electrical Engineering	2	48473
2.	National Certificate: Electrical Engineering	3	48475
3.	National Certificate: Electrical Engineering	4	48474

#### UNIT STANDARDS

NO	TITLE OF UNIT STANDARD	NQF LEVEL	NLRD ID NUMBER
1.	Use Mathematics to investigate and monitor the financial aspects of personal and community life	2	7469
2.	Operate a personal computer system	2	7547
3.	Maintain and adapt oral communication	2	8962
4.	Access and use information from texts	2	8963
5.	Write for a defined context	2	8964
6.	Demonstrate understanding of rational and irrational numbers, and number systems, within the context of relevant calculations	2	8982
7.	Work with a range of patterns and functions to solve problems	2	9007
8.	Measure, estimate and calculate physical quantities and explore, describe and represent geometrical relationships in 2-dimensions in different life or workplace context	2	12444
9.	Communicate at work	2	12461
10.	Develop a learning plan and portfolio for assessment	2	12465
11.	Collect and use information	2	13217
12.	Explain the individual's role within business	2	12466
13.	Apply basic knowledge of statistics in order to investigate life and work related problems	2	14085
14.	Apply and maintain safety in an electrical environment	1	9839

NO	TITLE OF UNIT STANDARD	NQF LEVEL	NLRD ID NUMBER
15.	Apply health and safety to a work area	2	9964
16.	Install or replace an electrical metering unit or measuring instrument	2	10233
17.	Select, use and care for electrical measuring instruments	2	10237
18.	Identify, inspect, use, maintain and care for engineering hand tools	2	10252
19.	Install electric wire ways	2	10253
20.	Maintain electrical distribution boards, panels and enclosures	2	10254
21.	Select, use and care for power tools	2	10255
22.	Design and construct a single phase circuit	2	11954
23.	Maintain transformers	2	113858
24.	Apply soldering techniques	2	113863
25.	Identify, Inspect and clean electrical machines	2	113876
26.	Understand fundamentals of electricity	2	113877
27.	Install luminaires	3	113879
28.	Select, use and care for marking off / out equipment: routine shapes	3	9888
29.	Maintain batteries and battery rooms	2	114671
30.	Perform basic First Aid	2	12483
31.	Ensure safety at road works in urban areas	2	13622
32.	Demonstrate an understanding of the uses and safety aspect associated with flammable energy sources	2	113860
33.	Maintain servitudes, way leaves & clearances	2	113861
34.	Handle and care of electrical earthing gear and related equipment	2	113868
35.	Identify, handle and assemble Medium / High Voltage line hardware and related materials	2	113872
36.	Inspect and clean Medium / High Voltage yards and enclosures	2	113887
37.	Perform basic fire fighting	2	12484
38.	Demonstrate knowledge of and produce word processing documents using basic functions	2	7568
39.	Demonstrate knowledge of and produce computer spreadsheets using basic functions	2	7572
40.	Accommodate audience and context needs in oral communication	3	8968
41.	Interpret and use information from texts	3	8969
42.	Write texts for a range of communicative contexts	3	8970
43.	Use language and communication in occupational learning programmes	3	8973
44.	Demonstrate understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations	3	9010
45.	Use Mathematics to investigate and monitor the financial aspects of personal and business issues	3	9011
46.	Investigate life and work related problems, using data and probabilities	3	9012

NO	TITLE OF UNIT STANDARD	NQF LEVEL	NLRD ID NUMBER
47.	Describe, apply, analyse and calculate shape and motion in two and three-dimensional space in different contexts	3	9013
48.	Install and commission electrical measuring instruments and control devices	3	10260
49.	Install, joint and terminate low voltage cables and conductors	3	114388
50.	Wire and commission domestic electrical circuits	3	10265
51.	Maintain lighting system	3	10269
52.	Construct basic electronic circuits	3	10270
53.	Fault find on single phase alternating current (AC) systems	3	13791
54.	Maintain and repair single phase AC machines and control gear	3	14134
55.	Repair and maintain electric power tools	3	14135
56.	Test and inspect a single phase domestic installation	3	113893
57.	Understand basic theory and components	3	114406
58.	Install low voltage transformers	2	10234
59.	Install medium voltage transformers	2	113886
60.	Operate on low voltage networks	3	113865
61.	Inspect, test, maintain and repair Low / Medium Voltage overload networks	3	113866
62.	Inspect, operate and maintain high mast lighting structures	3	113875
63.	Perform work on energised Low Voltage networks	3	113889
64.	Install / replace mini substations and ring-main units / switches	3	113891
65.	Install batteries	3	113902
66.	Fault find, test and repair domestic appliances	3	10268
67.	Design and install electrical wire ways	3	10258
68.	Install and commission photovoltaic supplied pump	2	113871
69.	Inspect, service and maintain photovoltaic supplied pump	2	113864
70.	Fault find a photovoltaic supplied system	3	113869
71.	Maintain and repair a high voltage security fence system	2	10244
72.	Manage work time effectively	3	9530
73.	Produce and use spreadsheets for business	3	7567
74.	Demonstrate understanding of the basic concepts of databases and the ability to plan and create a simple database	2	7569
75.	Demonstrate understanding of real and complex number systems	4	7485
76.	Engage in sustained oral communication and evaluate spoken texts	4	8974
77.	Read, analyse and respond to a variety of texts	4	8975
78.	Write for a wide range of contexts	4	8976
79.	Use Mathematics to investigate and monitor the financial aspects of personal, business and national issues	4	9014

NO	TITLE OF UNIT STANDARD	NQF LEVEL	NLRD ID NUMBER
80.	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	4	9015
81.	Write a technical report	4	9502
82.	Communicate in an assertive manner with clients and fellow workers	4	9506
83.	Measure, estimate and calculate physical quantities and explore, critique and prove geometrical relationships in 2 and 3-dimensional space in the life and workplace of adult with increasing responsibilities	4	12417
84.	Supervise a project team of a technical project to deliver project objectives	4	13841
85.	Demonstrate an understanding of basic programmable logic controllers	3	113899
86.	Design and construct a three phase circuit	4	10257
87.	Fault find, repair and maintain three phase voltage electrical circuits	4	10259
88.	Maintain and repair three phase AC machines & control gear	4	10262
89.	Install and commission three phase AC machines and control gear	4	10264
90.	Wire and commission three phase electric circuits	4	10266
91.	Understand basic electrical and mechanical engineering principles	4	113873
92.	Test and inspect a three phase industrial / commercial installation	4	113894
93.	Apply the principles of energy efficiency	4	113968
94.	Inspect, test and maintain high voltage isolators	4	13681
95.	Install and terminate Medium / High Voltage cables	4	113862
96.	Joint Medium / High Voltage cables	4	113874
97.	Inspect, test and maintain Medium / High Voltage transformers	4	113880
98.	Inspect, maintain, repair and do faultfinding on Medium / High Voltage networks	4	113881
100.	Inspect, test and maintain Medium / High Voltage earthing systems	4	113882
101.	Maintain High Voltage transformer unit protection	4	113895
102.	Operate on Medium Voltage radial networks	4	113900
103.	Construct and commission Medium / High Voltage networks	4	113970
104.	Install/replace Medium/High Voltage equipment and hardware	4	113883
105.	Trouble shoot on Programmable logic controllers	4	113897
106.	Demonstrate an understanding of process communication systems	4	113901
107.	Inspect, record and report condition of Medium/High Voltage station apparatus & related equipment	4	113969
108.	Maintain low voltage switchgear	4	13818
109.	Install and commission Direct Current (DC) machines	4	13657

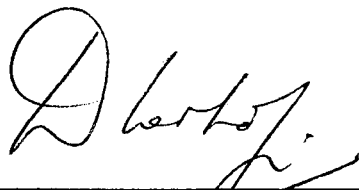
NO	TITLE OF UNIT STANDARD	NQF LEVEL	NLRD ID NUMBER
110.	Carry out work on energised Medium Voltage networks	4	114604
111.	Complete certificate of compliance for a single phase domestic installation	4	113898
112.	Spray-wash energised Medium / High Voltage networks	4	113878
113.	Lower, inspect service and maintain a stand-alone battery charging wind turbine	4	113885
114.	Fault find and repair a stand alone battery charging wind turbine	4	113884
115.	Design a stand alone renewable energy system	4	113888
116.	Design a solar pump system	4	113892
117.	Design a wind / solar hybrid system	4	113890

The accreditation will be effective for the duration of the Accreditation of the **Energy Sector Education and Training Authority (ESETA)** in terms of Section 2 (1) of the Education and Training Quality Assurance Regulations (Government Gazette No. 19231 published on 08 September 1998).

Objections to the extension of accreditation must be lodged with the Executive Officer of SAQA by the 16 July 2004.

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