**National Certificate: Information Technology (Systems Development)**

**Qualification Details:**

**Qualification Name**

48872: Further Education and Training Certificate: Systems Development  
NQF Level 5  
Total Credits to be obtained after achievement: 131

**Purpose of the qualification**

This qualification will equip a person to perform functions in the Network Operations environment within the telecommunications Industry. Telecommunications covers a wide range of specialization areas. These areas are Management and surveillance of Information and Communication Technology Networks, Transmission Control Protocol / Internet Protocol Networks Operations, Installation and Maintenance of Customer Premises Equipment, Operation of Telecommunications Transport Systems, Maintenance of Telecommunication Cables, Installation of Telecommunication Cables, Operation of Telecommunication Lines and Installation of Network Elements.   
  
**Target Audience**

Learners, who want to specialize in Commission, maintain, diagnose faults, and repair telecommunication equipment.

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| **Qualification Objectives**   To create an integrated national framework for learning achievements.   Facilitate access to, and mobility and progression within education, training and career paths.   Enhance the quality of education and training.   Accelerate the redress of past unfair discrimination in education, training and employment opportunities.   Contribute to the full personal development of each learner and the social and economic development of the nation at large. |

**Entry/Admission requirements**

 Communication: NQF Level 4.

 Second Language: NQF Level 3.

 Mathematics: NQF Level 4

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| **UNIT STANDARDS:** |

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|  | **ID** | **UNIT STANDARD TITLE** | **PRE-2009 NQF LEVEL** | **NQF LEVEL** | **CREDITS** |
| Core | [246684](http://regqs.saqa.org.za/showUnitStandard.php?id=246684) | Demonstrate an understanding of Data Protocols principles and applications | Level 3 | NQF Level 03 | 4 |
| Core | [246674](http://regqs.saqa.org.za/showUnitStandard.php?id=246674) | Demonstrate an understanding of Telecommunication switching systems | Level 3 | NQF Level 03 | 3 |
| Core | [246660](http://regqs.saqa.org.za/showUnitStandard.php?id=246660) | Demonstrate an understanding Telecommunication Products and Services | Level 3 | NQF Level 03 | 6 |
| Core | [246683](http://regqs.saqa.org.za/showUnitStandard.php?id=246683) | Use a computer based workforce management system | Level 3 | NQF Level 03 | 6 |
| Core | [114977](http://regqs.saqa.org.za/showUnitStandard.php?id=114977) | Use a spreadsheet package to produce and manage business documents | Level 3 | NQF Level 03 | 3 |
| Core | [114978](http://regqs.saqa.org.za/showUnitStandard.php?id=114978) | Use a word processing package to produce business documents | Level 3 | NQF Level 03 | 3 |
| Core | [246659](http://regqs.saqa.org.za/showUnitStandard.php?id=246659) | Demonstrate an Understanding of basic electrical and electronic principles | Level 4 | NQF Level 04 | 5 |
| Core | [246658](http://regqs.saqa.org.za/showUnitStandard.php?id=246658) | Demonstrate an understanding of computing systems | Level 4 | NQF Level 04 | 5 |
| Core | [246655](http://regqs.saqa.org.za/showUnitStandard.php?id=246655) | Demonstrate an understanding of NGN networks | Level 4 | NQF Level 04 | 1 |
| Core | [246656](http://regqs.saqa.org.za/showUnitStandard.php?id=246656) | Demonstrate an understanding of the basic equipment and components used in a telecommunications environment | Level 4 | NQF Level 04 | 5 |
| Core | [115391](http://regqs.saqa.org.za/showUnitStandard.php?id=115391) | Demonstrate an understanding of the principles of the internet and the world-wide-web | Level 4 | NQF Level 04 | 3 |
| Core | [246670](http://regqs.saqa.org.za/showUnitStandard.php?id=246670) | Demonstrate an understanding of the value added services platforms used in a telecommunications environment | Level 4 | NQF Level 04 | 2 |
| Core | [120344](http://regqs.saqa.org.za/showUnitStandard.php?id=120344) | Demonstrate knowledge and understanding of relevant current occupational health and safety legislation | Level 4 | NQF Level 04 | 4 |
| Core | [10324](http://regqs.saqa.org.za/showUnitStandard.php?id=10324) | Describe features, advantages and benefits of a range of products or services | Level 4 | NQF Level 04 | 6 |
| Core | [246677](http://regqs.saqa.org.za/showUnitStandard.php?id=246677) | Perform Wiring and Maintenance on a Main Distribution Frame in the Telecommunications Environment | Level 4 | NQF Level 04 | 3 |
| Core | [246679](http://regqs.saqa.org.za/showUnitStandard.php?id=246679) | Provide customer support on telecommunication services | Level 4 | NQF Level 04 | 6 |
| Fundamental | [119472](http://regqs.saqa.org.za/showUnitStandard.php?id=119472) | Accommodate audience and context needs in oral/signed communication | Level 3 | NQF Level 03 | 5 |
| Fundamental | [119457](http://regqs.saqa.org.za/showUnitStandard.php?id=119457) | Interpret and use information from texts | Level 3 | NQF Level 03 | 5 |
| Fundamental | [119467](http://regqs.saqa.org.za/showUnitStandard.php?id=119467) | Use language and communication in occupational learning programmes | Level 3 | NQF Level 03 | 5 |
| Fundamental | [119465](http://regqs.saqa.org.za/showUnitStandard.php?id=119465) | Write/present/sign texts for a range of communicative contexts | Level 3 | NQF Level 03 | 5 |
| Fundamental | [9015](http://regqs.saqa.org.za/showUnitStandard.php?id=9015) | Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems | Level 4 | NQF Level 04 | 6 |
| Fundamental | [119462](http://regqs.saqa.org.za/showUnitStandard.php?id=119462) | Engage in sustained oral/signed communication and evaluate spoken/signed texts | Level 4 | NQF Level 04 | 5 |
| Fundamental | [119469](http://regqs.saqa.org.za/showUnitStandard.php?id=119469) | Read/view, analyse and respond to a variety of texts | Level 4 | NQF Level 04 | 5 |
| Fundamental | [9016](http://regqs.saqa.org.za/showUnitStandard.php?id=9016) | Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts | Level 4 | NQF Level 04 | 4 |
| Fundamental | [7466](http://regqs.saqa.org.za/showUnitStandard.php?id=7466) | Represent and operate on complex numbers in non-trivial situations | Level 4 | NQF Level 04 | 2 |
| Fundamental | [12153](http://regqs.saqa.org.za/showUnitStandard.php?id=12153) | Use the writing process to compose texts required in the business environment | Level 4 | NQF Level 04 | 5 |
| Fundamental | [243829](http://regqs.saqa.org.za/showUnitStandard.php?id=243829) | Utilise algebraic processes | Level 4 | NQF Level 04 | 4 |
| Fundamental | [119459](http://regqs.saqa.org.za/showUnitStandard.php?id=119459) | Write/present/sign for a wide range of contexts | Level 4 | NQF Level 04 | 5 |
| Elective | [246680](http://regqs.saqa.org.za/showUnitStandard.php?id=246680) | Demonstrate an understanding of Telecommunications Transport concepts and principles | Level 3 | NQF Level 03 | 8 |
| Elective | [246676](http://regqs.saqa.org.za/showUnitStandard.php?id=246676) | Perform operational activities on Telecommunication lines in the vicinity of overhead power lines | Level 3 | NQF Level 03 | 5 |
| Elective | [246685](http://regqs.saqa.org.za/showUnitStandard.php?id=246685) | Configure and commission electronic equipment for ISDN products and services | Level 4 | NQF Level 04 | 4 |
| Elective | [246673](http://regqs.saqa.org.za/showUnitStandard.php?id=246673) | Demonstrate an understanding of the principles of satellite and VSAT satellite | Level 4 | NQF Level 04 | 6 |
| Elective | [246668](http://regqs.saqa.org.za/showUnitStandard.php?id=246668) | Demonstrate an understanding of- and perform operational activities on Digital Loop Carrier systems | Level 4 | NQF Level 04 | 3 |
| Elective | [246719](http://regqs.saqa.org.za/showUnitStandard.php?id=246719) | Erect and haul optic cables for telecommunication purposes | Level 4 | NQF Level 04 | 8 |
| Elective | [246664](http://regqs.saqa.org.za/showUnitStandard.php?id=246664) | Install an Asymmetrical Digital Subscribers Line | Level 4 | NQF Level 04 | 4 |
| Elective | [246721](http://regqs.saqa.org.za/showUnitStandard.php?id=246721) | Install distribution point cable | Level 4 | NQF Level 04 | 10 |
| Elective | [246675](http://regqs.saqa.org.za/showUnitStandard.php?id=246675) | Install large network elements | Level 4 | NQF Level 04 | 12 |
| Elective | [246682](http://regqs.saqa.org.za/showUnitStandard.php?id=246682) | Install small network elements | Level 4 | NQF Level 04 | 8 |
| Elective | [246661](http://regqs.saqa.org.za/showUnitStandard.php?id=246661) | Join metallic telecommunication cables | Level 4 | NQF Level 04 | 10 |
| Elective | [10482](http://regqs.saqa.org.za/showUnitStandard.php?id=10482) | Perform customer equipment fault clearance | Level 4 | NQF Level 04 | 24 |
| Elective | [10473](http://regqs.saqa.org.za/showUnitStandard.php?id=10473) | Perform equipment/software upgrades | Level 4 | NQF Level 04 | 4 |
| Elective | [246722](http://regqs.saqa.org.za/showUnitStandard.php?id=246722) | Perform indoor optical fibre testing | Level 4 | NQF Level 04 | 3 |
| Elective | [246724](http://regqs.saqa.org.za/showUnitStandard.php?id=246724) | Perform operational activities on pressurised transmission mediums | Level 4 | NQF Level 04 | 7 |
| Elective | [246681](http://regqs.saqa.org.za/showUnitStandard.php?id=246681) | Perform operational activities on- SDH\_PDH systems | Level 4 | NQF Level 04 | 17 |
| Elective | [246665](http://regqs.saqa.org.za/showUnitStandard.php?id=246665) | Perform operational activities on-Digital Microwave Radio systems | Level 4 | NQF Level 04 | 15 |
| Elective | [246666](http://regqs.saqa.org.za/showUnitStandard.php?id=246666) | Perform operational activities on-Multi-channel Optical Fibre Systems | Level 4 | NQF Level 04 | 3 |
| Elective | [10450](http://regqs.saqa.org.za/showUnitStandard.php?id=10450) | Prepare site for installation | Level 4 | NQF Level 04 | 12 |
| Elective | [10452](http://regqs.saqa.org.za/showUnitStandard.php?id=10452) | Recover customer equipment | Level 4 | NQF Level 04 | 5 |
| Elective | [10453](http://regqs.saqa.org.za/showUnitStandard.php?id=10453) | Schedule customer equipment installation | Level 4 | NQF Level 04 | 4 |
| Elective | [246723](http://regqs.saqa.org.za/showUnitStandard.php?id=246723) | Terminate metallic telecommunication cables | Level 4 | NQF Level 04 | 8 |
| Elective | [114052](http://regqs.saqa.org.za/showUnitStandard.php?id=114052) | Demonstrate appropriate customer care in the context of IT support, according to a Service Level Agreement | Level 5 | Level TBA: Pre-2009 was L5 | 8 |
| Elective | [246657](http://regqs.saqa.org.za/showUnitStandard.php?id=246657) | Maintain metallic telecommunication cables | Level 5 | Level TBA: Pre-2009 was L5 | 16 |
| Elective | [246678](http://regqs.saqa.org.za/showUnitStandard.php?id=246678) | Perform acceptance and commissioning on network elements | Level 5 | Level TBA: Pre-2009 was L5 | 12 |
| Elective | [246720](http://regqs.saqa.org.za/showUnitStandard.php?id=246720) | Perform operational activities on Non-Metallic Telecommunication Media | Level 5 | Level TBA: Pre-2009 was L5 | 16 |
| Elective | [246672](http://regqs.saqa.org.za/showUnitStandard.php?id=246672) | Perform operations on Internet Protocol networks | Level 5 | Level TBA: Pre-2009 was L5 | 11 |
| Elective | [246663](http://regqs.saqa.org.za/showUnitStandard.php?id=246663) | Perform surveillance on Information and Communications technology networks | Level 5 | Level TBA: Pre-2009 was L5 | 10 |
| Elective | [12313](http://regqs.saqa.org.za/showUnitStandard.php?id=12313) | Provide lightning and power protection for structures or equipment | Level 5 | Level TBA: Pre-2009 was L5 | 24 |
| Elective | [246662](http://regqs.saqa.org.za/showUnitStandard.php?id=246662) | Test metallic telecommunication cables | Level 5 | Level TBA: Pre-2009 was L5 | 16 |