

SAQA ID

48573

DURATION

12 Months

CREDITS

147

SETA

MICT SETA

National Certificate:

**INFORMATION
TECHNOLOGY:
SYSTEMS SUPPORT
Level 5**



WHO SHOULD STUDY THIS COURSE?

To develop learners with the requisite competencies against the skills profile for the systems support career path (The overarching aim being to develop a broader base of skilled ICT professionals to underpin economic growth)

The qualification may be acquired in the traditional way of formal study as well as in the workplace, through learnerships. Acquiring the qualification through learnerships has the potential of addressing the problems of the past, where newly qualified people getting into the industry struggled to get employment, because they were required to have practical experience. The workplace experience can now be gained while acquiring the qualification through the various learnership schemes that are planning to use this qualification.

A qualifying learner at this level will be a well-rounded IT professional building on foundational technical skills acquired at NQF level 4, via the National Certificate in IT Technical Support or equivalent. This qualification is expanding the specialisation(s) started at NQF level 4 into the core field of networking and support, with further specialisation(s) into IT Support fields or in any other related vertical or enabled markets.

The qualification is designed to:
Provide qualified learners with an undergraduate entry into the field of networking/systems support, earning credits towards tertiary offerings in the fields of Computer Studies or Computer Science

Prepare qualified learners for initial employment in the computer industry.
Allow the credits achieved in the National Certificates relating to Information Technology at NQF level 4 to be used as prior learning for this qualification.

Allow many of the unit standards listed in this qualification, to be used in Learnership Schemes in the Information Systems and Technology sector, as well as other sectors where Information Technology is a key

requirement.

Research has indicated that in order to qualify for this qualification, learners will need to demonstrate competence in the following:

1. Ability to use logical methodology to troubleshoot the common types of hardware and software problems typically encountered in the day-to-day operations of an organisation.
2. Ability to understand the role of technology in the business context.
3. Ability to create integrated technology-based communication systems for improved business effectiveness.
4. Ability to store, manage and retrieve knowledge (data) efficiently and effectively to meet organisational requirements.
5. Ability to ensure secure information systems that will serve to protect the business from data loss and breaches of integrity.
6. Ability to design and reflect business structure in IT Systems appropriately in order to optimise operating efficiencies, flows of data and resource utilisation within the structure.
7. Ability to mobilise technical and technology-based resources to solve business problems in a specified context.
8. Ability to perform cost effectively and efficiently in technology-based projects.
9. Ability to manage customer relations appropriately.
10. Ability to operate effectively within a change, release and configuration process.
11. Ability to utilise technology-based research tools and knowledge-base repositories.
12. Ability to identify and communicate business opportunities appropriately.
13. Ability to install, support and maintain end-user applications

Finally, this qualification has been developed to assist with professionalisation across the Information Technology Industry. It is intended to allow qualified learners to gain membership of registered professional bodies in the ICT industry.

Rationale

Three years of research in the sector has revealed the need for entry level candidates who can apply a range of institutionally acquired skills in the workplace, in the field of systems support, in a manner that adds business value.

The stated requirement is for the formation of a new set of skills and competencies, within the specific focus of networking/systems support, contextualised as appropriate for a wide range of related industry sectors.

Exit Level Outcomes

1. Use a logical methodology to troubleshoot the common types of hardware and software problems typically encountered in the day-to-day operations of a department in an organisation.
2. Understand the role of technology in the business context.
3. Demonstrate basic application support skills
4. Demonstrate operating system support skills
5. Demonstrate network support skills
6. Relate business problems and information technology solutions
7. Demonstrate appropriate technical reporting skills
8. Demonstrate appropriate customer care in the context of IT support
9. Function appropriately in a change management process within a support team
10. Demonstrate hardware support skills for server computers
11. Demonstrate an understanding of Systems Support contextualised within a selected work area.

Admission Requirements

1. Communications NQF level 4
2. Mathematics NQF level 4

ASSOCIATED ASSESSMENT CRITERIA

Exit Level Outcome 1:

Ability to use a logical methodology to troubleshoot the common types of hardware and software problems is demonstrated by finding a range of problems typically encountered in the day-to-day operations of a department in an organisation, through the appropriate identification/application of different problem solving techniques, knowing when and how to apply these techniques.

Exit Level Outcome 2:

An understanding of different types of computer systems and the use of computer technology in business is demonstrated, being able to:

Describe the different computer systems and associated hardware and network configurations

Describe the staffing and the operations, development and control activities in a modern computing environment

Demonstrate an understanding of the social and economic implications of the use of computers

Exit Level Outcome 3:

Operate a variety of common end-user applications
Determine and recommend configuration requirements for common end-user application software installations

Install and configure a variety of common end-user applications

Troubleshoot common end-user application software related problems





Exit Level Outcome 4:

Install and commission a multi-user computer operating system

Troubleshoot networked IT systems

Maintain a multi-user computer operating system

Exit Level Outcome 5:

Describe fundamental networking concepts

Use basic administrative tools for at least one network operating system

Configure at least one network protocol

Install, configure and administer at least one server operating system

Implement and administer a departmental local area network infrastructure

Implement and administer a Directory Service infrastructure

Maintain of a secure local area network

Troubleshoot a departmental local area network

Exit Level Outcome 6:

Identifying and recommending appropriate IT solutions to business problems

Exit Level Outcome 7:

Write a short analytical report

Exit Level Outcome 8:

Communicating Effectively with customers

Effectively Assessing and responding to customer needs

Maintaining positive customer relations

Exit Level Outcome 9:

Working effectively as a team member within a support environment, taking part in team activities and understanding different roles within different support teams

Understanding the change management process in a support environment

Exit Level Outcome 10:

Describe server functions and hardware components, relating it to desktop computers

Install and configure server computer hardware components and peripherals

Troubleshoot server hardware components and peripherals

Maintain server computer hardware and peripherals

Exit Level Outcome 11:

The knowledge of the techniques and skills needed for the qualification is demonstrated by carrying out a medium sized task that covers the assessment criteria outlined in the Unit Standards selected, and applying them in a chosen work area.

Furthermore, the assessment process should also cover the following generic components:

- Measure the quality of the observed practical performance as well as the theory and underpinning knowledge behind it;
- Use methods that are varied to allow the learner to display thinking and decision making in the demonstration of practical performance;
- Maintain a balance between practical performance and theoretical assessment methods to ensure each is measured in accordance with the level of the qualification; and
- Ensure that the relationship between practical and theoretical is not fixed but varies according to the outcomes being assessed.

Integrated Assessment:

The applied competence (practical, foundational and reflexive competencies) of this qualification will be achieved if a candidate is able to produce a range of safe, quality food products in the context of the learners work environment.

The identifying and solving of problems, team work, organising one-self, the using of applied science, the implication of actions and reactions in the world as a set of related systems, must be assessed during any combination of practical, foundational and reflexive competencies assessment methods and tools to determine the whole person development and integration of applied knowledge and skills.

Applicable assessment tool(s) to establish the foundational, reflective and embedded knowledge to problem solving and application of the world as a set of related systems within the processing environment. A detailed portfolio of evidence is required to proof the practical, applied and foundational competencies of the learner.

Assessors and moderators should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.

Unit standards in the qualification must be used to assess specific and critical cross-field outcomes. During integrated assessments the assessor should make use of formative and summative assessment methods and should assess combinations of practical, applied, foundational and reflexive competencies.

Unit Standard			
FUNDAMENTAL MODULE	Administer a local area computer network	5	7
	Demonstrate an understanding of different computer network architectures and standards	5	5
	Demonstrate an understanding of issues affecting the management of a local area computer network (LAN)	5	4
	Demonstrate an understanding of local area computer networks, by installing a networked workstation	5	5
	Demonstrate an understanding of the concepts of Multi-User computer Operating systems	5	7
	Demonstrate an understanding of Wide Area Computer Networks (WAN`s), comparing them with Local Area Networks (LAN`s)	5	5
	Demonstrate appropriate customer care in the context of IT support, according to a Service Level Agreement	5	8
	Describe enterprise systems management and its role in IT systems support	5	3
	Design a local area computer network for a departmental office environment	5	5
	Install and commission a local area computer network	5	9
	Install and configure a multi-user networked operating system	5	9
	Monitor and maintain a multi-user networked operating system	5	6
	Test Networked IT systems against given specifications	5	4





Unit Standard			
CORE MODULE	Use computer technology to research a computer topic	4	3
	Work as a project team member	4	8
	Apply the principles of resolving problems for single-user and multi-user computer operating systems	5	7
	Conduct a technical practitioners meeting	5	4
	Demonstrate an awareness of ethics and professionalism for the computer industry in South Africa	5	3
	Demonstrate an understanding of estimating a unit of work and the implications of late delivery	5	5
	Explain the principles of business and the role of information technology	5	4
	Writing business reports in Retail/Wholesale practices	5	6
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