



**NATIONAL
CERTIFICATE:
INFORMATION
TECHNOLOGY:
SYSTEMS
DEVELOPMENT**



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NATIONAL CERTIFICATE: INFORMATION TECHNOLOGY: SYSTEMS DEVELOPMENT

COURSE INFORMATION

SAQA ID:48872
NQF Level: 5
Learnership Duration: 12 months
Credits: 140
Contact Sessions: Minimum Contact Session, including remediation (if required), and POE Building for this Qualification is 90 Days
Accrediting SETA: Media, Information and Communication Technology Sector Education & Training Authority

ENTRY CRITERIA

- Grade 12
- Communication at NQF Level 3.
- Mathematical Literacy at NQF Level 3.
- Computer Literacy at NQF Level 3.

QUALIFICATION RULES

The qualification consists of a minimum of 131 credits and has been designed in accordance with the SAQA regulations and

1. All fundamental unit standards are compulsory for this qualification. (31 credits)
2. All core unit standards are compulsory. (75 credits)
3. Elective unit standards totalling a minimum of 25 credits needs to be completed.

EQUIPMENT REQUIRED

- **Hardware:** Access to a computer, display monitor / keyboard / mouse / printer.
- **Software:** Windows 7 OS system | MS Office 2010 | Printer Driver (Where applicable)

CANDIDATE PROFILE & DEPLOYMENT

Target Market: Junior Developer/Programmer • Software Tester • Database Technician • Junior Business Analyst • Web Developer/Application Developer

Mentor Requirements: Mentor must have at least 5 years' experience in a Business Administration or similar environment.

Workplace Approval: Not Applicable

Workplace Requirements: Learners must be exposed to all outcomes related to this qualification.

PURPOSE

The purpose of this qualification is to build a foundational entry into the field of Computer Sciences and Information Technology, specifically into the field of Systems Development, covering basic knowledge needed for further study in the field of Systems Development at Higher Education Levels.

SKILL LEVEL OUTCOME

- Communicate effectively with fellow IT staff & users of information systems.
- Understand the role of technology in the business context.
- Demonstrate an understanding of problem-solving techniques, and how to apply them in a systems development environment.
- Demonstrate an understanding of Systems Development, with all its implications.
- Relate business problems and information technology solutions.
- Apply the principles of creating computer software.

ASSESSMENT MANAGEMENT

Credit Accumulation Transfer (CAT):
CAT exemption is only applicable to approved learners. Approved learners will have reduced contact days. Learners who do not meet the CAT requirements will be required to complete Part 1 and Part 2 of every Cluster.

FISA Requirements:
Final Integrated Summative Assessment is requirement for the successful completion of this learnership.

Recognition of Prior Learning (RPL):
RPL is available for this qualification.

Learning Programme 1: Personal Development

| Outcome | SAQA ID | Name of Unit Standard | Credits | Training days |
|-----------------------------------|---------|--|---------|---------------|
| Fundamental | 114050 | Explain the principles of business and the role of information technology | 4 | 15 |
| Fundamental | 114055 | Demonstrate an awareness of ethics and professionalism for the computer industry in South Africa | 3 | |
| Fundamental | 114076 | Use computer technology to research a computer topic | 3 | |
| Fundamental | 116389 | Write a technical report | 4 | |
| Fundamental | 13925 | Present information in a public setting | 5 | |
| Fundamental | 114059 | Demonstrate an understanding of estimating a unit of work and the implications of late delivery | 5 | |
| Fundamental | 114051 | Conduct a technical practitioners meeting | 4 | |
| Fundamental | 115431 | Analyse feedback contexts and apply constructive feedback techniques | 3 | |
| PoE Building and Remedials | | | | 5 |

Learning Programme 2: Database Design, Implementation and Development

| Outcome | SAQA ID | Name of Unit Standard | Credits | Training days |
|-----------------------------------|---------|---|---------|---------------|
| Core | 114049 | Demonstrate an understanding of Computer Database Management Systems | 7 | 15 |
| Core | 115373 | Demonstrate an understanding of sort and search techniques used in computer programming | 6 | |
| Core | 114048 | Create database access for a computer application using structured query language | 9 | |
| Core | 115367 | Demonstrate logical problem solving and error detection techniques | 8 | |
| PoE Building and Remedials | | | | 5 |

Learning Programme 3: Computer Programming Development and Problem Solving

| Outcome | SAQA ID | Name of Unit Standard | Credits | Training days |
|---------|---------|---|---------|---------------|
| Core | 115362 | Manage software development source files using appropriate tools | 5 | 15 |
| Core | 115365 | Apply the principles of designing computer system inputs and outputs | 7 | |
| Core | 115359 | Demonstrate an understanding of the handling of error in a computer programming environment | 2 | |
| Core | 115388 | Produce documentation for a computer program to agreed standards | 3 | |



Learning Programme 4: Programming and the World Wide Web

| Outcome | SAQA ID | Name of Unit Standard | Credits | Training days |
|-----------------------------------|---------|---|---------|---------------|
| Core | 115391 | Demonstrate an understanding of the principles of the internet and the world-wide-web | 3 | 15 |
| Elective | 115372 | Demonstrate an understanding of tools and products available for web-site development | 3 | |
| Elective | 115369 | Design and build a website using simple HTML | 5 | |
| Elective | 115368 | Apply advanced HTML and associated techniques to build a web site for business applications | 12 | |
| Elective | 115376 | Demonstrate an understanding of the principles of implementing and managing a web server | 10 | |
| Elective | 115374 | Demonstrate an understanding of the use of websites in business | 4 | |
| PoE Building and Remedials | | | | 5 |

Learning Programme 5: Gathering Techniques for Computer System Development

| Outcome | SAQA ID | Name of Unit Standard | Credits | Training days |
|-----------------------------------|---------|---|---------|---------------|
| Core | 115358 | Apply information gathering techniques for computer system development | 7 | 10 |
| Core | 115392 | Apply principles of creating computer software by developing a complete program to meet given business specifications | 12 | |
| Core | 115384 | Test a computer program against a given specification | 6 | |
| PoE Building and Remedials | | | | 5 |