

SAQA ID: 48872

LP: N/A

NQF Level: 5

Minimum Credits: 136

Training Days: 25

Assessment Days: 25

Total Contact Days: 50

Accreditation Body: MICTSETA

E-Learning Days: N/A

Workplace Experience: 10 Months

Self-study Days: N/A

**Qualification Description:**

This qualification has been developed to reflect the workplace-based needs of the Information Technology Industry as expressed by its stakeholders. It provides qualifying delegates with an undergraduate entry into the fields of Information Communication Technology (ICT) and Computer Science, specialising in the Systems Development area.

**Programme Structure:**

Classroom-based Interactive Learning  
Workplace Learning  
On-the-Job Coaching & Mentoring  
Theoretical Assessment & Practical Workplace Observation

**Qualification Purpose:**

This qualification is expanding the systems development foundation started at NQF level 4 into specialisation fields within systems development, in one or more of the following disciplines: Procedural Programming, Object Oriented Programming, Website Development, Multi Media and Electronic Commerce. It prepares delegates with a solid understanding of computer industry concepts and the ability to work in areas of System Development with intermediate technical complexity.

**Qualification Target Group:**

The qualification is intended for Web Developers, SQL Developers or Computer Programmers wishing to formalise their skill or further develop their skills in the Information Technology Industry.

**Minimum Entry Requirements:**

Competent in Communication (English) at NQF Level 4  
Competent in Mathematical Literacy at NQF Level 4  
Competent in Computer Literacy at NQF Level 4

**Workplace Requirements:**

Access to Web Development Software and Environments  
Access to System Development Software and environments  
Access to Programming Languages  
Access to Server Environments  
An allocated Workplace Mentor / Supervisor

**Qualification Outcomes:**

On completion of this qualification, the delegate should be able to:

- 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.
- Prepare qualified learners for initial employment in to the ICT and related industries. Qualified learners will have a solid understanding of computer industry concepts and the ability to work in areas of System Development with intermediate technical complexity.

# QUALIFICATION ROLL-OUT

Unit Standard Type	Unit Standard ID	Unit Standard Title	NQF Level	Credits
<b>MODULE 1: PERSONAL DEVELOPMENT</b>				
Fundamentals	114076	Use computer technology to research a computer topic	4	3
Fundamentals	114051	Conduct a technical practitioners meeting	5	4
Fundamentals	114055	Demonstrate an awareness of ethics and professionalism for the computer industry in South Africa	5	3
Fundamentals	114059	Demonstrate an understanding of estimating a unit of work and the implications of late delivery	5	5
Fundamentals	114050	Explain the principle of business and the role of information technology	5	4
Fundamentals	116389	Write a technical report	4	4
Fundamentals	115431	Analyse feedback contexts and apply constructive feedback techniques	5	3
Fundamentals	13925	Present information in a public setting	5	5
<b>MODULE 2: DATABASE DESIGN, DEVELOPMENT &amp; IMPLEMENTATION</b>				
Core	114048	Create database access for a computer application using structured query language	5	9
Core	114049	Demonstrate an understanding computer Database Management Systems	5	7
Core	115373	Demonstrate an understanding of sort and search techniques used in computer programming	5	6
Core	115367	Demonstrate logical problem solving and error detection techniques	5	8
<b>MODULE 3: COMPUTER PROGRAMMING &amp; PROBLEM-SOLVING</b>				
Core	115365	Apply the principles of designing computer system inputs and outputs	5	7
Core	115362	Manage software development source files using appropriate tools	5	5
Core	115388	Produce documentation for a computer programme to agreed standards	5	3
Core	115359	Demonstrate an understanding of the handling of errors in a computer programming environment	4	2
<b>MODULE 4: PROGRAMMING &amp; THE WORLD WIDE WEB</b>				
Elective	115374	Demonstrate an understanding of the use of web-sites in business	5	4
Elective	115378	Demonstrate an understanding of advanced object-oriented programming	6	14
Elective	115385	Demonstrate an understanding of tools and products available for website development	5	12
Core	115391	Demonstrate an understanding of the principles of the internet and the world-wide-web	4	3
<b>MODULE 5: GATHERING TECHNIQUES FOR COMPUTER SYSTEMS DEVELOPMENT</b>				
Elective	115358	Apply information gathering techniques for computer system development	5	7
Elective	115392	Apply principles of creating computer software by developing a complete	5	12
Elective	115384	Test a computer programme against a given specification	5	6