## /EDGEICT



### <h1>

## **//SYSTEMS DEVELOPMENT**

NQF Level 4 | SAQA ID - 78965 | Credits - 170 </h1>



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## **#** QUALIFICATION INFORMATION

### Further Education and Training Certificate: Information Technology: Systems Development

Level 4 // SAQA ID: 78965 // Credits: 170

### **Entry Requirements:**

- It is assumed that the learner is competent in skills gained at the further education and training band, with exposure to computing as an advantage, but not a requirement.
- A learning assumption of this qualification is foundational skills in English and Mathematics at NQF level 3.
- Further learning assumed is the ability to use a personal computer competently, and competence in the unit standard, "Participate in formal meetings", NQF Level 2 (ID 14911).
- The assumed learning can be acquired in the traditional way of formal study as well as in the workplace.

### **Objective:**

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.

The qualification can 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 entry-level Systems Developer with a good fundamental knowledge of the Information Technology field, coupled with interpersonal and business skills, preparing for later specialisation in Systems Development fields.

## // QUALIFICATION OUTCOME

### On achieving this Qualification, the learner will be able to:

- Communicate effectively with fellow IT staff & users of information systems
- Demonstrate an understanding of different types of computer systems and the use of computer technology in business
- Demonstrate an understanding of problem solving techniques, and how to apply them in a technical environment
- Demonstrate an understanding of Computer Technology Principles
- Demonstrate an understanding of Computer Programming Principles
- Work effectively as a team member within a development project environment
- Carry out, under supervision, a small size task to demonstrate an understanding of the knowledge, techniques & skills needed to understand the fundamentals of Computer Programming

## RESPONSIBILITIES

### Edge ICT will provide:

- Full project management of learnership
- Monthly progress reports, quarterly reports to the SETA and handling of SETA site visits and the external verification visit at the end of the learnership
- Fully equipped computer room, WI-FI services, course material, pens, and workbooks
- Training, using a Qualified Facilitator
- Assessments and moderation
- Uploading of learners on learner registration database and learner achievements
- Certificates of completion and competence
- SETA certificate of competence
- Venue suitable for the number of delegates and required refreshments
- Email access for learners
- Workplace provision

# QUALIFICATION STRUCTURE AND OUTLINES >

### Skills Programme 1:

US Туре	NLRD	Unit Standard Type		Credits
Fundamental	12154	Apply comprehension skills to engage oral texts in a business environment	Level 4	5
Fundamental	119462	Engage in sustained oral/signed communication and evaluate spoken/- signed texts	Level 4	5
Fundamental	119469	Read/view, analyse and respond to a variety of texts	Level 4	5
Fundamental	119459	Write/present/sign for a wide range of contexts	Level 4	5
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	Level 3	5
Fundamental	119458	Analyse and respond to a variety of literary texts		5
Fundamental	119457	Interpret and use information from texts		5
Fundamental	119465	Write/present/sign texts for a range of communicative contexts		5
		Total Credits	Z	10

### Skills Programme 2:

US Type	NLRD	Unit Standard Type		Credits
Core	14944	Explain how data is stored on computers		7
Core	14913	Explain the principles of computer networks	Level 3	5
Core	14924	Demonstrate an understanding of information systems analysis	Level 4	3
Elective	14921	Describe the types of computer systems and associated hardware configurations		6
Elective	10313	Comply with service levels as set out in a Contact Centre Operation		10
	-	Total Credits	3	1

## QUALIFICATION STRUCTURE AND OUTLINES >

### Skills Programme 3:

US Type	NLRD	Unit Standard Type		Credits
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues		6
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 4	6
Fundamental	9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 4	4
Core	14927	Apply problem solving strategies		4
Elective	114636	Demonstrate an understanding of preventative maintenance, environmental and safety issues in a computer environment		6
		Total Credits	2	6

### Skills Programme 4:

US Type	NLRD	Unit Standard Type		Credits
Core	14917	Explain computer architecture concepts		7
Core	14933	Demonstrate an understanding of creating multimedia/web-based computer applications with scripting		6
Core	14930Demonstrate an understanding of the principles of developing software for the internet		Level 4	3
Elective	14908	14908 Demonstrate an understanding of testing IT systems against given specifications		6
		Total Credits	2	2

## QUALIFICATION STRUCTURE AND OUTLINES >

### Skills Programme 5:

US Type	NLRD	Unit Standard Type		Credits
Elective	14918	Demonstrate an understanding of testing IT systems against given specifications		5
Core	14910	Apply the principles of Computer Programming	Level 4	8
Core	14909	Describe the difference between programming in Object Orientated and Procedural Languages		4
Core	14915	Use mathematics to investigate and monitor the financial aspects of personal, business and national issues		8
Elective	14926	Describe information systems departments in business organisations		3
		Total Credits	2	8

### Skills programme 6:

US Type	NLRD	Unit Standard Type		Credits
Core	14920	Participate in groups and/or teams to recommend solutions to problems	Level 4	3
Elective	118028	Supervise customer service standards	Level 4	8
Elective	120379	Work as a project team member	Level 4	8
Elective	252210 Handle a range of customer complaints			4
		Total Credits	2	23

## { NOTIONAL HOURS MATRIX }

## The roll out strategy below indicates the relationship between theory, practical, workplace and FSA component:

Skills Programmes	Credits	Notional Hours	Contact Session 30% (Hours)	Experiential Learning 70%(Hours)	TOTAL Notional Hours
1	40	400	120	280	400
2	31	310	93	217	310
3	26	260	78	182	260
4	22	220	66	154	220
5	28	280	84	196	280
6	23	230	69	161	230
TOTALS	170	1700	510	1190	1700

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