THE LEARNING DEVELOPMENT GROUP

Introduction

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.

Target Audience

This qualification is designed to provide qualified candidates with an under graduate entry into the field of networking /system support, earning credits towards tertiary offerings of the fields of computer science.

Career opportunities include: Network support specialist, Operating system and Applications support, Hardware support specialist, Information system specialist etc.

Entry Requirements

You will require:

- Competency in Communication (English) at NQF Level 4

- Competency in Mathematical Literacy at NQF Level 4

- Competent in Computer Literacy at NQF Level 4 – Preferably the Systems Development Level 4 – SAQA ID 78965

Workplace Requirements

You will need:

- 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

Course Delivery & Assessment

We use a blend of classroom-based interactive learning, workplace learning, On-the-job coaching & mentoring, theoretical assessment, practical workplace observation and self-study to embed skills.
You will need to:

- Attend lectures and complete practical workplace experiential learning for the remaining months.

- Demonstrate theoretical and practical understanding of programme content through assignment submissions and practical observations while at work.

- Participate in and contribute to group discussions, practical work and activities.

- Do individual self-study activities, including reading, quizzes, practise tests and test preparation for class

- Complete all exercises, assignments and assessments as required.

- Be declared competent by allocated Assessors, Moderators and SETA Verifiers to obtain a SETA certificate.

Learning Outcomes

On completion, you 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.

- Work in areas of System Development with intermediate technical complexity.

Course **Content**

NC: Information Technology - Systems Development
Accreditation Body: MICTSETA

SAQA ID: 48872 | Learning Programme ID: N/A
NQF Level: 5 | Credits : 136

Module 1: Information technology and associated hardware configurations
- Describe the types of computer systems and associated hardware configurations
- Explain computer architecture concepts
- Explain how data is stored on computers
- Demonstrate an understanding of preventative maintenance, environmental and safety issues in a computer environment
- Explain the principles of computer networks

Module 2: Personal Development
- Use computer technology to research a computer topic
- Conduct a technical practitioners meeting
- Demonstrate an awareness of ethics and professionalism for the computer industry in South Africa
- Demonstrate an understanding of estimating a unit of work and the implications of late delivery
- Explain the principle of business and the role of information technology
- Write a technical report
- Analyse feedback contexts and apply constructive feedback techniques
- Present information in a public setting

Module 3: Database Design, Development & Implementation
- Create database access for a computer application using structured query language
- Demonstrate an understanding computer Database Management Systems
- Demonstrate an understanding of sort and search techniques used in computer programming
- Demonstrate logical problem solving and error detection techniques

Module 4: Computer Programming & Problem-Solving
- Apply the principles of designing computer system inputs and outputs
- Manage software development source files using appropriate tools
- Produce documentation for a computer programme to agreed standards
- Demonstrate an understanding of the handling of errors in a computer programming environment

Module 5: Programming & The World Wide Web
- Demonstrate an understanding of the use of web-sites in business
- Demonstrate an understanding of advanced object-oriented programming
- Demonstrate an understanding of tools and products available for website development
- Demonstrate an understanding of the principles of the internet and the world-wide-web

Module 6: Gathering Techniques for Computer Systems Development
- Apply information gathering techniques for computer system development
- Apply principles of creating computer software by developing a complete programme to meet a given business specification
- Test a computer programme against a given specification

Our **Accredited Organisations**

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