

## IT SKILLS PROGRAMMES

# PYTHON PROGRAMMER

QUALIFICATION TYPE:  
SKILLS PROGRAMME ID (SP- 230375)

TRAINING DAYS: 75

*Designed to support your  
Workplace Skills Plan and  
build job-ready IT capability*



## Power data and automation with Python capabilities

Python is a core language behind data, automation, and modern software development. As organisations invest in digital transformation, the need for practical Python capability continues to grow.

This Python Programmer skills programme builds practical capability to develop structured, efficient solutions using Python. Learners gain the skills to write clean code, apply programming frameworks, and collaborate effectively using version control tools.

On successful completion of this skills programme and successful FISA (Final Integrated Summative Assessment), learners will be awarded: **QCTO Certificate: Python Programmer** (An accredited, credit-bearing Skills Programme certificate)

We work closely with you to understand your objectives, guide you through the requirements, and support the implementation of skills programmes that deliver real impact.

### WHO SHOULD ENROL?

- Organisations building software, data, or automation capability
- Teams working with applications, data processing, or system optimisation
- Individuals starting a career in programming or the ICT sector
- Aspiring developers building strong Python and problem-solving skills

### WHAT MAKES THIS COURSE DIFFERENT?

This skills programme is designed to move you from learning to doing

- Build strong foundations in Python programming and coding principles
- Apply skills in practical environments that simulate real development work
- Gain experience building solutions and collaborating using version control tools

### WHAT IS THE ENTRY CRITERIA?

- Grade 11 with Maths Lit and English



NQF LEVEL 4



CREDITS 60

# PYHTON PROGRAMMER

SKILLS PROGRAMME

A Python Programmer will be able to implement solutions to solve real-life problems in an efficient manner applying a knowledge and understanding of the principles of programming with Python and applicable tools.

Tasks that the learner will be able to know, do and understand after achievement of the skills programme include:

- Create well-written and readable Python programs, using a disciplined coding style, including comments and indentation standards.
- Work collaboratively in a team and execute version control

## The skills your team will build

These exit level outcomes show the skills you'll have built:

- Describe the basics of Python Programming
- Programme effectively using Python frameworks and functionalities
- Work collaboratively in a team using GitHub platform

## Assessment designed to show what you can do

Learners are assessed throughout the programme using a variety of methods, which may include practical tasks, written assignments, short projects, demonstrations, and presentations. Evidence of learning is collected and recorded for monitoring, feedback, and quality assurance. Where the curriculum is delivered in modules, internal summative assessments are conducted at the end of each module and results are recorded. After completing all modules, learners must complete a Final Integrated Supervised Assessment (FISA) that integrates the key outcomes of the skills programme. The FISA is implemented through one assessment process, which may be conducted using either of the following supervised methods:

### Face-to-face Assessment

The FISA is conducted in person under direct supervision, using approved assessment instruments and a rubric and/or checklist to confirm that all required competencies have been demonstrated

### Virtual delivery via e-assessment

The FISA may be conducted virtually via our secure e-assessment platform (Questionmark). This assessment is conducted under supervised conditions and is further strengthened through the use of proctoring, which provides real-time monitoring and verification of learner identity and assessment conditions. Proctoring enhances the integrity, credibility, and reliability of the FISA by reducing the risk of malpractice, ensuring compliance with assessment rules, and confirming that the assessment is conducted fairly, consistently, and in line with approved assessment requirements

**The FISA is supervised, with a pass mark set at 75%**

## Let's partner for impact!

Our approach combines a deep understanding of your objectives with expert guidance on QCTO skills programmes, ensuring smooth implementation and meaningful impact in the workplace.

### *We'll help you get clear on the holistic implementation process*

From first conversation to final assessment, you'll be supported by a team that understands how to make QCTO programmes work in practice.

### Delivered your way

- Classroom | Johannesburg
- Virtual | Instructor-led
- On-site | Nationwide

**Take the next step  
with us!**

[impactful@lrmg.co.za](mailto:impactful@lrmg.co.za)

[impactful.co.za](https://www.impactful.co.za)

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*This detailed overview outlines how the skills programme is structured to develop capability progressively, from foundational knowledge, through applied practical skills, to integrated workplace experience. Each module is aligned to the credit requirements of the nationally recognised skills programme*

## Skills Rationale

Python programming has been recognized as a critical skill in South Africa, with various Sector Education and Training Authorities (SETAs) identifying its importance in addressing the country's digital transformation needs. The demand for Python programmers spans multiple industries, including finance, healthcare, government, and energy, as they play a key role in leveraging data-driven technologies and managing complex datasets.

Beyond employment, Python offers strong entrepreneurial opportunities, enabling developers to establish businesses and contribute to job creation. International research highlights the growing global need for skilled Python programmers, reinforcing its relevance.

Aspiring programmers, including school leavers and individuals entering the ICT sector, need a minimum qualification of Grade 11 with Maths Literacy and English. No formal registration is required to work as a Python programmer. Career opportunities include software development, automation, data analysis, search engine optimization, and blockchain technology.

## KNOWLEDGE COMPONENTS

### The following Modules are compulsory:

- 900221-000-00-KM-01: Introduction to Python Programming (NQF Level 4; Credits 2)
- 900221-000-00-KM-02, Python Data Types and Structures (NQF Level 4; Credits 6)
- 900221-000-00-KM-03, Principles of Programming with Python (NQF Level 4; Credits 4)
- 900221-000-00-KM-04, Intermediate Programming Principles in Python (NQF Level 4; Credits 6)
- 900221-000-00-KM-05, REST API and GUI in Python (NQF Level 4; Credits 2)

Total number of credits for Knowledge Component:  
20

## APPLICATION COMPONENTS

### The following Modules are compulsory:

- SP Curr Python Programmer Skills Programme 4 60 Page 4 of 49
- 900221-000-00-PM-01, Programming Basics for Beginners (NQF Level 4; Credits 3)
- 900221-000-00-PM-02, Use Built-in Python Data Types (NQF Level 4; Credits 8)
- 900221-000-00-PM-03, Program with Python (NQF Level 4, Credits 6)
- 900221-000-00-PM-04, Intermediate Programming with Python (NQF Level 4; Credits 8)
- 900221-000-00-PM-05, Getting Started with REST API and GUI (NQF Level 4; Credits 4)
- 900221-000-00-PM-06, Use Cases with Python (NQF Level 4; Credits 11)