



**SAQA ID 48872**

**NATIONAL  
CERTIFICATE**

**Information Technology Data Science  
NQF Level 5  
120 Credits**

# Introduction & Course Curriculum

## Introduction

Embark on a transformative journey with our Data Science Certification Program, where you'll master data-driven insights through hands-on experience. Dive into the full data science lifecycle, from data preprocessing, EDA, using Learning Algorithms to machine learning, and emerge ready to tackle real-world challenges.

### Course Breakdown

- **Minimum Entry Requirements:** None
- **Language Policy:** English
- **NQF Level:** 5
  - **Credits:** 120
- **Delivery Mode:** Contact and Distance Learning
- **Duration:** 12 Months
- **SAQA ID:** #48872 (Learning Programme)

## COURSE CURRICULUM

The certification comprises of a wide range of Data Science concepts covered across two semesters:

### SEMESTER 1

- ✓ Introduction to Data Science
- ✓ Mathematics and Statistics fundamentals
- ✓ ML Programming and Tools (Python)
- ✓ Data Acquisition and Preprocessing
- ✓ Exploratory Data Analysis (EDA)

### SEMESTER 2

- ✓ Machine Learning Fundamentals
- ✓ Supervised Learning Algorithms
- ✓ Unsupervised Learning Algorithms
- ✓ Bias in Data Collection and Models
- ✓ Capstone Project