



Occupational Certificate: **DATA SCIENCE PRACTITIONER**

NQF: 5 SAQA ID 118708 CREDIT: 185

Description

The purpose of this qualification is to prepare learners to work as data science practitioners. Data science practitioners are responsible for storing data and making it available to data scientists in a structured format. They support the data lifecycle by collecting, transforming, analyzing, and communicating results to solve fundamental business problems. Transform your data into a robust, comprehensive data set that can be saved for the problems identified in your statement of work. Data science skills related to data analysis, machine learning, and data-driven decision making. Here are some course descriptions that could be part of such a program.

Career Fields

With this qualification, successful learners could pursue a career as a:

- Data Analyst.
- AI/ML Researcher
- Data Product Manager
- Data Engineers.
- Healthcare Data Analyst
- Database Administrator.
- Machine Learning Engineer.
- Data Scientist.
- Data Consultant:
- Data Architect.
- Statistician.
- Business Analyst.

Programme Outline

Knowledge Modules

- Introduction to Data Science and Data Analysis
- Logical Thinking and Basic Calculations: Refresher
- Computers and Computing Systems
- Computing Theory
- Basic Statistics for Data Analytics
- Statistics Essentials for Data Analytics
- Data Science and Data Analysis
- Data Analysis and Visualisation
- Introduction to Governance, Legislation and Ethics
- Fundamentals of Design Thinking and Innovation
- 4IR and Future Skills

Practical Skill Modules

- Apply Logical Thinking and Maths Refresher
- Apply Code to Use a Software Toolkit/Platform in the Field of Study or Employment
- Use Spreadsheets to Analyse and Visualise Data
- Use a Visual Analytics Platform to Analyse and Visualise Data
- Apply Statistical Tools and Techniques
- Collect and Pre-Process Large Amounts of Unruly Data
- Apply Data Analysis Techniques to Uncover Patterns and Trends in Datasets
- Prepare and Present Descriptive Analytic Reports for Decision Making
- Participate in a Design Thinking for Innovation Workshop
- Collaborate Ethically and Effectively in the Workplace

Work Experience Modules

- Data Collection and Pre-processing Processes
- Statistical Data Analysis Processes
- Data visualisation and Reporting Processes
- Capstone Project Using an Appropriate Toolkit

Type of Programme

The programme duration is 2 years on a full-time basis. Tuition is face to face and is scheduled per campus. Programmes are offered during the week on a full-time and part-time basis. Part-time tuition is scheduled as per the stipulated planner.

Admission Requirements

The minimum entry requirement for this qualification is:

- NQF Level 4 with Mathematics.

Integrated Assessment

The skills development provider uses the curriculum to guide them on internal assessment criteria and weighting, applying practical skills and applied knowledge as stipulated by the internal assessment criteria. This formative assessment, along with work experience, leads to entrance into the integrated external summative assessment.

An external integrated summative assessment, conducted through the relevant QCTO Assessment Quality Partner, focuses on exit level outcomes and associated assessment criteria. The assessment is conducted through written assessment and practical task evaluation at decentralised approved sites by a panel of assessors registered with the AQP within a day.

EISA is a single, national assessment leading to competent learners being awarded Occupational Certificates, ensuring standardized, consistent, and credible assessment of occupational qualifications, part-qualifications, and trades. Qualifying for an external assessment requires proof of completion of all required knowledge and practical modules.

Articulation

This qualification provides opportunities for horizontal and vertical articulation options.

Horizontal Articulation:

- National Certificate: Business Analysis Support Practice, NQF Level 5.

Vertical Articulation:

- National Certificate: Business Analysis, NQF Level 6.

