



FACT SHEET

OCCUPATIONAL CERTIFICATE: DATA SCIENCE PRACTITIONER | NQF LEVEL 5

About the qualification

The purpose of this qualification is to prepare a learner to operate as a Data Science Practitioner. Data Science Practitioners take custody of data and make the data available in a structured form for the Data Scientist to use. They support the data life cycle by collecting, transforming, and analysing data and communicating results to solve elementary business problems. They transform data into robust, comprehensive data sets, aligned with the problem identified in the statement of work and ready for storage.

Type of qualification

This professional qualification is governed by the Quality Council of Trades and Occupations (QCTO) which was established under the terms of the Skills Development Act to oversee occupational qualifications from design to certification. Focusing on occupational qualifications, the QCTO aims to ensure that South Africa has the qualified workforce it needs to succeed. The QCTO also assists those who provide qualifications on an occupational level, accrediting them and ensuring they meet the required standards.

Career & Job Opportunities

Data Science Practitioners can find employment as:

- Data Analyst Assistants,
- Junior Data Analysts,
- Data Miners,
- Data Modellers,
- Data Custodians
- Management Information Analysts

A qualified learner will be able to:

- Collect large amounts of structured and unstructured data from primary and secondary sources and extract and transform them into a usable format.
- Apply data analysis techniques to uncover patterns and trends in datasets (resultant sets of data that can be viewed as tables or as a "spreadsheet of data") to solve business-related problems.
- Prepare and present descriptive analytic reports on patterns and trends using computer programming languages and explain those patterns and trends through e.g., visualisation, storytelling, etc., using data visualisation tools.

Admission Requirements

- The minimum entry requirement into this qualification is an NQF Level 04.

Duration

- The duration of study for this professional qualification is 12 months, where you, the learner, will be responsible for addressing the online content and completing all the necessary activities in preparation for the subject sessions and exams.

International comparability

- The Occupational Certificate: Data Science Practitioner was compared with the training provided in India and Canada since they seem to have globally accepted qualifications in this field, and in the case of Toronto School of Management, it is a member of the Global University Systems group of companies.



Subjects covered

SEMESTER 1		
SET 1	SUBJECT 1	• KM01: Introduction to Data Science and Data Analysis • KM02: Logical Thinking and Basic Calculations: Refresher • PM01: Apply Logical Thinking and Maths Refresher • PM02: Apply Code to Use a Software Toolkit/Platform in the Field of Study or Employment • WM01: Data Collection and Pre-processing Processes
SET 2	SUBJECT 2	• KM03: Computers and Computing Systems • KM04: Computing Theory • PM03: Use Spreadsheets to Analyse and Visualise Data • PM04: Use a Visual Analytics Platform to Analyse and Visualise Data
SET 3	SUBJECT 3	• KM05: Basic Statistics for Data Analytics • KM06: Statistics Essentials for Data Analytics • PM05: Apply Statistical Tools and Techniques • PM06: Collect and Pre-Process Large Amounts of Unruly Data • WM02: Statistical Data Analysis Processes
		REVISION
		EXAMINATION

SEMESTER 2		
SET 4	SUBJECT 4	• KM07: Data Science and Data Analysis • KM08: Data Analysis and Visualisation • PM07: Apply Data Analysis Techniques to Uncover Patterns and Trends in Datasets • PM08: Prepare and Present Descriptive Analytic Reports for Decision Making
SET 5	SUBJECT 5	• KM09: Introduction to Governance, Legislation and Ethics • KM10: Fundamentals of Design Thinking and Innovation • PM09: Participate in a Design Thinking for Innovation Workshop • WM03: Data visualisation and Reporting Processes
SET 6	SUBJECT 6	• KM11: 4IR and Future Skills • PM10: Collaborate Ethically and Effectively in the Workplace • WM04: Capstone Project Using an Appropriate Toolkit
SET 7	FINALISATION OF EVIDENCE COLLECTION	REVISION
		EXAMINATION



Examination

For each subject, there will be an examination component (knowledge and practical). All subject exams will have to be successfully completed, as well as all Workplace evidence collected, logged and signed off, to be considered for the External Integrated Summative Assessment (EISA).

Course material and exam fees

Study material, textbook and examination fees are included in the tuition fee. Students are required to cover any additional costs associated with practical activities and excursions.

Language policy

All classes and assessments are conducted in English. Learners need to be able to understand spoken English and complete their assessments in English.

Disclaimer

Amilak Training Center reserves the right to change the programme content due to changes in the regulatory environment, market requirements and other reasons. All possible measures will be taken to minimise inconvenience to students.

I, _____ (student name),
hereby acknowledge that I understand the information stated in this factsheet and fully comprehend the specifics explained above pertaining to this qualification.

Student signature: _____ Date: _____



About us

We are a fully accredited Private Technical and Vocational Education and Training (TVET) College which offers a wide range of quality Online and face-to-face tertiary learning opportunities. Certificates, Diplomas & professional qualifications can be obtained in Procurement and Supply chain management, business management, accounting, information technology and engineering. In addition, we also offers customised corporate training, procurement consulting services as well as a wide range of short courses.

We are accredited as a skills development service provider under the Quality Council for Trade and Occupation (QCTO) and Department of Education (DHET). Furthermore, we are an approved Chartered Institute of Procurement and Supply (CIPS) Study and Examination Centre. Other registrations include the Institute for Chartered Bookkeepers (ICB) the Sector Education and Training Authority (SETA) (MICT & SERVICES-SETAS).

Accreditations

Department of Education (DHET): 899992818
Mict-Seta Number: ACC /2015/07/0035
QCTO – Nated N4 – N6: QCTO Nated/15/0108
CIPS Accreditation Number: 005544659
ICB Accreditation Number: 300929
Services–Seta Number: 13238

We are guided by the philosophy of excellence through education and making a difference in our communities. We offer skills development programmes that contribute to the ever increasing occupational skills in our nation and beyond.

We also offer research, workshops, conferencing and customised corporate training.

Institutions we partner with

