OCCUPATIONAL CERTIFICATE

Environmental Science Technician

SAQA ID	NQF LEVEL	CREDITS	DURATION	QUALITY PARTNER
99508	6	467	48 Months	LGSETA

OVERVIEW

The Occupational Certificate: Environmental Science Technician prepares learners to assess, monitor, and control operational environmental impacts in compliance with regulatory frameworks across waste management, air quality, and natural resources conservation. It is designed for school leavers, unemployed individuals, and current employees in environmental sectors seeking to formalize their experience and advance into government, private industry, or eco-entrepreneurship.

WHAT YOU WILL BE ABLE TO DO

Analyse and execute environmental management functions in accordance with the regulatory framework to remedy the negative impact of human activity and to recommend measures for improvements. Analyse and evaluate the impact of waste on human health and the environment to perform the waste management functions in accordance with the regulatory framework to prevent pollution. Analyse and execute air quality management functions in accordance with the regulatory framework to protect and improve air quality. Analyse and assess conservation scientific and technical principles of natural resources and ecological balance in order to maintain sustainability and quality of life.

MODULES

Knowledge Modules (134 Credits) 314102000-KM-01: Environmental Regulatory Framework (Level 05, 17 Credits) 314102000-KM-02: Environmental Pollution (Level 05, 5 Credits) 314102000-KM-03: Environmental Ethics (Level 05, 7 Credits) 314102000-KM-04: Environmental monitoring and assessment (Level 06, 14 Credits) 314102000-KM-05: Environmental Communication and reporting (Level 05, 15 Credits) 314102000-KM-06: Sustainable Integrated Waste Management (Level 06, 24 Credits) 314102000-KM-07: Air Quality Monitoring and Control (Level 06, 29 Credits) 314102000-KM-08: Natural Resource Conservation (Level 06, 23 Credits)

Practical Skill Modules (98 Credits) 314102000-PM-01: Apply standard operating procedures for taking samples (Level 05, 5 Credits) 314102000-PM-02: Measure air pollution (Level 06, 10 Credits) 314102000-PM-03: Apply standards and legal codes to monitor compliance (Level 05, 5 Credits) 314102000-PM-04: Apply sustainable waste management practices to minimise the impact of anthropogenic activities on the environment (Level 06, 5 Credits) 314102000-PM-05: Apply Waste Management Regulatory Framework to ensure compliance (Level 05, 5 Credits) 314102000-PM-06:

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Implement the waste management hierarchy (Level 06, 5 Credits) 314102000-PM-07: Monitor anthropogenic activities for potential emission sources (Level 05, 5 Credits) 314102000-PM-08: Implement the air quality regulatory framework (Level 05, 10 Credits) 314102000-PM-09: Evaluate and apply risk control measures to minimise risks (Level 06, 5 Credits) 314102000-PM-10: Control/Minimise/prevent/mitigate the impact of environmental risks (Level 06, 5 Credits) 314102000-PM-11: Maintain working conditions of monitoring and assessment equipment to ensure serviceability (Level 05, 5 Credits) 314102000-PM-12: Consolidate and compile a concise technical report in accordance with specific occupational settings (Level 06, 8 Credits) 314102000-PM-13: Uphold the principles of ethical conduct and behaviour (Level 05, 5 Credits) 314102000-PM-14: Assess the status of ecosystem (Level 06, 10 Credits) 314102000-PM-15: Monitor and analyse overexploitation, habitat destruction and possible loss of bio-diversity (Level 06, 10 Credits)

Work Experience Modules (235 Credits) 314102000-WM-01: Application of standard operating procedures (Level 05, 6 Credits) 314102000-WM-02: Sampling processes (Level 05, 16 Credits) 314102000-WM-03: Assessment of the status of the eco-system (Level 06, 16 Credits) 314102000-WM-04: Compliance monitoring (Level 05, 32 Credits) 314102000-WM-05: Application of innovative sustainable waste management practices (Level 06, 32 Credits) 314102000-WM-06: Application of the waste management regulatory framework (Level 06, 4 Credits) 314102000-WM-07: Implementation of the waste management hierarchy (Level 05, 4 Credits) 314102000-WM-08: Compliance monitoring to establish emissions' inventory (Level 06, 32 Credits) 314102000-WM-09: Application of the air quality regulatory framework (Level 05, 4 Credits) 314102000-WM-10: Monitoring and analysis of the exploitation of biota and destruction of habitat (Level 06, 32 Credits) 314102000-WM-11: Risk control measures (Level 06, 32 Credits) 314102000-WM-12: Maintenance of monitoring and assessment equipment (Level 05, 4 Credits) 314102000-WM-13: Compilation of a technical report (Level 06, 16 Credits) 314102000-WM-14: Principles of ethical conduct and behaviour (Level 05, 5 Credits)

CAREER OPPORTUNITIES

Environmental Science Technician (National, Provincial, and Local Government or Private Sector) Eco-Entrepreneur (Recycling, Waste Management, and Green Economy enterprises) Environmental Scientist / Environmental Professional (with further progression)

ENTRY REQUIREMENTS

NQF Level 4 with science related subjects or Environmental Practice with 2 years' work experience.

ASSESSMENT

The assessment strategy comprises two stages:

Integrated Formative Assessment: Conducted internally by the Skills Development Provider using curriculum-stipulated internal assessment criteria and weightings, which alongside verified workplace experience qualifies learners for external assessment. External Integrated Summative Assessment (EISA):Conducted through the relevant QCTO Assessment Quality Partner (LG SETA), focusing on the Exit Level Outcomes and Associated Assessment Criteria upon submission of a completed Statement of Work

Experience and proof of module completion.

ACCREDITATION

Type	Accreditation number	Valid until
QCTO SDP	01-QCTO/SDP010524085442	28 Apr 2029
QCTO SDP	07-QCTO/SDP170326111847	12 Mar 2031

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