

National Certificate: Environmental Practice

SAQA ID: 49605

NQF Level: 2

Credits: 128

Purpose

This qualification is the second in a learning pathway for practitioners in the field of environmental science, environmental management and waste management. This series of qualifications will equip practitioners with the skills, knowledge and values to contribute towards the wise and effective use and management of our built environment, natural resources and ecological systems.

No.	SAQA ID	SAQA Title	NQF Level	Credits	Learning Outcomes (Concepts/Content Covered)
1	119554	Apply environmental management tools to assess impacts	2	2	<ul style="list-style-type: none"> • Components of the environment and their interrelationships. • Terminology related to the environment and environmental issues. • The effects of various human activities on the environment. • Principles and concepts related to using tools to assess environmental impacts (a basic level of understanding is required).
2	13217	Collect and use information	2	5	<ul style="list-style-type: none"> • Explain and discuss the importance of using information in the work situation • Collect information from a variety of sources by recognising/reading and/or using sensory cues • Organise, summarise and respond to information collected during work activities • Enter data into retrieval systems
3	12461	Communicate at work	2	5	<ul style="list-style-type: none"> • Explain and discuss the importance of using communication in the work situation. • Use workplace language to describe conditions, events, problems and actions • Receive, evaluate, clarify and act on instructions • Make oral reports • Participate in meetings

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4	13220	Keep the work area safe and productive	2	8	<ul style="list-style-type: none"> • Discuss and explain the purpose of safety equipment and procedures. • Identify and explain the purpose of demarcated areas, emergency stops, exits and first aid stations. • Use personal protective equipment. • Perform housekeeping duties in work area. • Identify and respond to unsafe or potentially unsafe conditions, incidents or acts that may occur.
5	116080	Monitor, collect and collate agricultural data	2	2	<ul style="list-style-type: none"> • Identify and collect the required data economic development • Collate the collected data. • Record collated data and creates a report in the required format. • Apply health and safety measures applicable to the collection method and equipment used.
6	12036	Orientate self in the workplace	2	6	<ul style="list-style-type: none"> • Comply with legislation governing Intergovernmental Fiscal Relations in South Africa. • Interpret the legislative requirements for cooperative government at local government Level. • Comply with the constitutional provisions regulating provincial supervision of local government. • Identify and implement the conditions of IGFR transfers to Local Government. • Apply legislation governing municipal borrowing powers.
7	13258	Participate in work group activities	2	4	<ul style="list-style-type: none"> • Describe the work team, and roles and functions of team members • Identify and explain the benefits and difficulties of teamwork • Describe and discuss helpful and unhelpful behaviours in the context of a work group • Contribute to work group goals and decisions
8	12483	Perform basic first aid	2	4	<ul style="list-style-type: none"> • Explain and discuss basic first aid concepts. • Determine the nature of the injury/medical emergency, the context of the injury and basic first aid • Apply basic first aid • Hand over the injured/ill person to medical personnel • Complete first aid report

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9	13221	Perform routine maintenance	2	8	<ul style="list-style-type: none"> Plan and prepare for routine maintenance. Monitor the condition of machinery and equipment. Perform routine maintenance. Apply quality checks on completed work. Care for and store routine maintenance tools and equipment.
10	119553	Take action to address impacts on the environment	2	10	<ul style="list-style-type: none"> Determine an appropriate response to a variety of identified environmental impacts. Develop an appropriate plan to address each identified impact. Implement the plans and evaluate the results. Record and report interventions and results achieved. Record and report interventions and results achieved.
11	119558	Work with, use and care for materials and resources which can impact on health and the environment	2	10	<ul style="list-style-type: none"> Identify a range of materials and resources and describe their characteristics and properties Work with, transport and store materials safely and responsibly Work with and use resources responsibly Identify, categorise, collect, & dispose of different types of waste.
12	119556	Use tools and operate equipment in an environmentally responsible manner	2	10	<ul style="list-style-type: none"> Select the appropriate tools or equipment for the purpose. Use tools or operate equipment correctly to achieve the purpose. Care for and store the tools and equipment safely and responsibly. Carry out all activities related to the tools and equipment in accordance with good environmental practice
13	119558	Work with, use and care for materials and resources which can impact on health and the environment	2	10	<ul style="list-style-type: none"> Identify a range of materials and resources and describe their characteristics and properties Work with, use, transport and store materials safely and responsibly Work with and use resources responsibly Identify, categorise, collect, handle and dispose of different types of waste.
14	8963	Access and use information from texts	2	5	<ul style="list-style-type: none"> Identify the main ideas in different text types Read and respond to texts for a variety of purposes Use a range of reading and viewing strategies to make meaning of texts Identify and discuss how language structures and features may influence a reader

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15	9009	Apply basic knowledge of statistics and probability to influence the use of data and procedures to investigate life related problems	2	3	<ul style="list-style-type: none"> Apply various techniques to organise and represent data to model situations. Give opinions on the implications of the modelled data for the required purpose.
16	7480	Demonstrate understanding of rational and irrational numbers and number systems	2	3	<ul style="list-style-type: none"> Use and analyse computational tools and strategies and make estimates and approximations. Demonstrate understanding of numbers and relationships among numbers and number systems.
17	9008	Identify, describe, compare, classify, explore shape and motion in 2-and 3-dimensional shapes in different contexts	2	3	<ul style="list-style-type: none"> Estimate, measure and calculate physical quantities in practical situations. Explore transformations of two-dimensional geometric figures.
18	8962	Maintain and adapt oral communication	2	5	<ul style="list-style-type: none"> Use a variety of strategies to maintain communication Adapt speech to accommodate cultural sensitivities without losing own meaning Use knowledge of language structures and conventions to shape or decode meaning of unfamiliar vocabulary or constructions Organise & present information in a focused & coherent manner Identify and explain how speakers influence audiences.
19	12463	Understand and deal with HIV/AIDS	2	3	<ul style="list-style-type: none"> Explain and discuss HIV/AIDS facts and figures Identify behaviours that may create a risk of HIV transmission Explain the rights and responsibilities of employees in the workplace regarding HIV/AIDS Identify and apply relevant policies and procedures for dealing with HIV/AIDS in the workplace
20	8967	Use language and communication in occupational learning programmes	2	5	<ul style="list-style-type: none"> Find and use suitable learning resources Use learning strategies Manage occupational learning programme materials Plan and gather relevant information for use in each context Function in a team Reflect on how characteristics of the workplace and occupational context affect learning

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21	7469	Use mathematics to investigate and monitor the financial aspects of personal and community life	2	2	<ul style="list-style-type: none"> • Use mathematics to plan and control personal and/or household budgets and income and expenditure. • Use simple and compound interest to make sense of and define a variety of situations including investments, stokvels, inflation, appreciation and depreciation. • Investigate various aspects of financial transactions including costs, prices, revenue, cost price, selling price, loss and profit.
21	7469	Use mathematics to investigate and monitor the financial aspects of personal and community life	2	2	<ul style="list-style-type: none"> • Use mathematics to plan and control personal and/or household budgets and income and expenditure. • Use simple and compound interest to make sense of and define a variety of situations including investments, stokvels, inflation, appreciation and depreciation. • Investigate various aspects of financial transactions including costs, prices, revenue, cost price, selling price, loss and profit.
22	9007	Work with a range of patterns and functions and solve problems	2	5	<ul style="list-style-type: none"> • Convert flexibly between and within various representations of functions. • Compare, analyse and describe the behaviour of patterns and functions. • Represent situations mathematically to interpret and solve problems.
23	8964	Write for a defined context	2	5	<ul style="list-style-type: none"> • Write for a specific purpose and audience • Use grammatical structures and writing conventions to produce coherent and cohesive texts for specific contexts • Adapt language to suit context • Draft and edit own writing.
25	13202	Apply study and learning techniques	2	3	<ul style="list-style-type: none"> • Identify, discuss types of available study and learning techniques. • Evaluate & select appropriate study and learning techniques for the field. • Evaluate and report on progress with the learning process.
24	14784	Apply sampling theory and practice in the chemical industry	2	5	<ul style="list-style-type: none"> • Explain the purpose of sampling; and the scientific and technical basis upon which sampling is based • Take a variety of samples in a process related environment • Evaluate sampling as practiced in a process or process related environment.

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26	116121	Apply sustainable farming practices to conserve the ecological environment	2	5	<ul style="list-style-type: none"> • Demonstrate an understanding of natural resources and recognise how sound management contributes towards sustainable farming systems. • Eradicate alien plant species and noxious weeds. • Prevent the spread of veld fires by making firebreaks and/or fireguards on the farm. • Recognise harmful and useful fauna and flora and their purpose and/or effect on the farm. • Recognise eroded areas and potential soil erosion and carry out minor control measures
27	113818	Clean and maintain area of responsibility	2	8	<ul style="list-style-type: none"> • Select and use correct cleaning material and equipment. • Follow safety and hygiene procedures. • Evaluate and maintain area of responsibility within facility. • Mix and apply appropriate disinfectants. • Dispose of waste as prescribed by the organisation. • Maintain and request stocks.
28	14051	Collect and record data	2	3	<ul style="list-style-type: none"> • Explain community related data collection • Plan data collection • Collect and record data. • Submit data to relevant person.
29	8330	Combat problem plants	2	3	<ul style="list-style-type: none"> • Identify target species • Operate and maintain equipment. • Safely use the appropriate control methods. • Treated areas on a map • Carry out follow-up procedures • Keep an attendance register of team members.
30	12334	Conduct water process laboratory tests	2	6	<ul style="list-style-type: none"> • Apply safe working practices in a laboratory in accordance with work policies and procedures • Handle laboratory equipment in accordance with work policies and procedures • Conduct tests and take readings in accordance with specifications and work policies and procedures

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31	13679	Control and extinguish a fire in a conservation area	2	3	<ul style="list-style-type: none"> • Initiate a fire to achieve management objectives • Extinguish fires where appropriate • Use fire-fighting equipment effectively. • Secure area after a fire. • Produce a report.
32	12351	Demonstrate An Ability to Work with Local Communities	2	7	<ul style="list-style-type: none"> • Explain the characteristics of a community • Explain the protocol and factors that should be considered when working with communities on water • Demonstrate interaction and communication skills with community members • Identify possible areas of conflict in own community and report to the relevant person • Explain ways to promote the participation of marginalised people in community activities
33	12352	Demonstrate knowledge of the roles and responsibilities of a community committee	2	4	<ul style="list-style-type: none"> • Explain the purpose and roles of a community committee. • Explain the election process for a community committee • Explain the protocol that should be followed by community committee members • Explain the role of the committee members with respect to the community and other role players • Attend community committee meetings. • Identify existing community committees and review current performance • Explain the requirements for establishing the legal status of a committee.
34	12033	Demonstrate knowledge of water cycle, water and wastewater systems and processes	2	5	<ul style="list-style-type: none"> • Identify and explain the elements of the natural water cycle • Explain the principles of water catchment • Explain the concepts of ground water collection and abstraction • Explain the concepts of surface water collection and abstraction
35	12465	Develop a learning plan and a portfolio for assessment	2	6	<ul style="list-style-type: none"> • Explain and discuss the learning and assessment system • Develop a learning plan • Prepare a portfolio for assessment • Reflect on the process of compiling a learning plan and preparing a portfolio for assessment

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36	11818	Investigate work opportunities to make a personal career/employment decision	2	2	<ul style="list-style-type: none"> Investigate possible sources of information about employment opportunities in own area Investigate the requirements for specific work opportunities Match own personal profile to career and labour market opportunities Demonstrate knowledge and understanding of the process of applying for work.
37	8346	Manage cultural heritage resources in the field	2	2	<ul style="list-style-type: none"> Define basic cultural heritage resource management Recognise local cultural heritage practices, traditions and sites Monitor cultural heritage sites Demonstrate a working knowledge of relevant cultural heritage legislation.
38	116077	Monitor water quality	2	3	<ul style="list-style-type: none"> Demonstrate an understanding of water quality management Demonstrate an understanding of the importance of water quality to agriculture. Demonstrate an ability to monitor and perform basic water quality tests and analyses. Demonstrate an ability to perform and understand maintenance tasks on certain operational technical systems related to water quality.
39	119557	Operate waste disposal facilities	2	6	<ul style="list-style-type: none"> Apply the appropriate disposal method for each category of waste. Control and direct movement of vehicles on the waste disposal site Control access and monitor the flow of incoming materials to a waste facility Recognise and report threats or damage to health, safety or the environment Compile records related to waste disposal

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40	12484	Perform basic fire fighting	2	4	<ul style="list-style-type: none"> • Discuss and explain procedures for dealing with fires in the workplace • Identify the type of fire, its context and select the appropriate firefighting procedure • Identify, select and check appropriate firefighting and safety equipment • Fight containable/extinguishable fires • Retreat from fire site and hand over to appropriate personnel • Report/record status of fire and equipment
41	8332	Perform conservation guardianship	2	8	<ul style="list-style-type: none"> • Collect and interpret information about the status of activities in an area, using patrolling • React appropriately within the law and according to procedure • Collect information to be able to prosecute a suspect and present evidence in court of law • Communicate information gathered by various methods.
42	116064	Recognise and identify the basic functions of the ecological environment	2	4	<ul style="list-style-type: none"> • Recognise patterns and processes of the environment and how they relate to the sustainable utilisation of agricultural land • Demonstrate an understanding of natural resources and recognise their limitations within the agricultural environment • Demonstrate an understanding of sustainable agricultural principles. • Recognise environmental degradation indicators
43	119555	Separate, handle, store, treat and transport waste	2	9	<ul style="list-style-type: none"> • operate, treat and store waste • Transport waste. • Control access and monitor the flow of incoming materials to a waste facility. • recognise and report threats or damage to health, safety or the environment Compile relevant records.
44	10718	Use a personal budget to manage own money	2	3	<ul style="list-style-type: none"> • Record and analyse current spending patterns • Take control of own finances and get the most for one's money • Recognise the need to save as part of personal financial management. • Compile a personal budget for the next three months, to manage own money