



National Diploma: Water Care

Arcadia Campus - Extended Program

This programme involves the study of processes that are utilised in the purification and treatment of water. Raw water from rivers, dams or boreholes needs to be purified before being used for domestic and/or commercial purposes. Domestic wastewater needs to be treated before it may be released into a natural stream or river. Treatment of water for industrial purposes (e.g. cooling water, boiler water, process water in food processing, etc) is also included in the curriculum of the National Diploma.

Due to the nature of the processes involved in water purification treatment, the study of chemistry, physics, hydraulics and microbiology plays an integral role in the curriculum of water technology. Environmental management and the legal aspects involved in the water environment are also addressed in the course.

Water technologists are employed by Water Services Providers, Bulk Water Services Providers, Water Services Authorities, Catchment Management Agencies, water utility companies (ex water boards), municipalities, Department of Water Affairs and Forestry, Eskom, Moss-gas, Sasol, food processing companies, mining companies, private water utilities, etc. The water technologist will be working at a water treatment/purification plant as process controller. Eventual promotion to Water Plant Manager or Water Care Manager is frequently the case.

Admission requirements

Minimum academic requirements:

In addition to the National Senior Certificate (general or vocational) a candidate must meet the following specific requirements for this programme:

Specific subject requirements:

Adequate achievement (i.e. a rating of 4 or more) in English, Physical Science and Mathematics.

Applicants who score 48 or more points according to the Admission Points Score (APS) will be considered for enrolment subject to the availability of space in the programme.

Recommended subjects:

Life Sciences
Geography

Which subjects will be studied?

FIRST YEAR

Chemistry: Theory IC
Chemistry: Practical IC
Communication Skills I
Computations: Water I
Physics IB
Water Care Technology I

SECOND YEAR

Potable Water Analysis: Practical II

First Semester

Computer Skills I
Foundation Biology
Legal Aspects: Water II
Potable Water Analysis: Theory II

Second Semester

Groundwater II
Microbiology: Theory I
Microbiology: Practical I
Potable Water Purification II
Principles of Management : Water I

THIRD YEAR

Wastewater Analysis: Practical II

First Semester

Water Biology II
Wastewater Analysis: Theory II
Wastewater Treatment II

Second Semester

Research Methodology: Water Care
Research Methodology: Statistics
Water Hydraulics II
Water Treatment III

FOURTH YEAR

First Semester

Industrial Effluents III
Wastewater Treatment III
Water Treatment: Investigations II

Second Semester

Cooling and Boiler Water Technology III
Water Industry: Practical II
Water Plant II



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- quality
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- professionalism



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