

Career Profile: Water Care Technologist

Water is an indispensable natural resource. It is essential to life, the environment, food production, hygiene and sanitation, industry and power generation.

At the present population growth and economic development rates, we need to conserve our water supply, learn to use water sparingly and improve our ability to make waste water as reusable as possible. Sustainable use of a precious, limited resource and preserving water quality should be our focus into the future because of their contribution to quality of life.

Water-care technologists have a crucial role to play in this effort by ensuring the quality of water for human consumption and economic activities. They are responsible for the purification of water by removing harmful household and industrial substances from the water. They assist in operating water works for drinking water, wastewater and/or industrial effluent.

Education Requirements

National Senior Certificate (NSC)

For a career in water care students are advised to select Science and Mathematics and to add to this a selection from the designated subjects. These are subjects that are particularly suitable for tertiary study.

National Diploma / BTech

The National Diploma is a three year course which includes gaining practical experience. The diploma is a pre-requisite for admission to a Bachelor of Technology – Btech degree.

Offered at:

- [Tshwane University of Technology](http://www.tut.ac.za/Students/facultiesdepartments/science/departments/environscience/Pages/default.aspx)¹ (Department of Environmental, Water and Earth Sciences)
- [University of Johannesburg](http://www.uj.ac.za/civiltech/StudyInformation/NationalDiploma/tabid/1841/Default.aspx)² (Department of Civil Engineering Technology)
- [UNISA](http://brochure.unisa.ac.za/brochure/showprev.aspx?d=l_4_23&f=p_NDECI)³ (College of Science, Engineering and Technology)

¹ <http://www.tut.ac.za/Students/facultiesdepartments/science/departments/environscience/Pages/default.aspx>

² <http://www.uj.ac.za/civiltech/StudyInformation/NationalDiploma/tabid/1841/Default.aspx>

³ http://brochure.unisa.ac.za/brochure/showprev.aspx?d=l_4_23&f=p_NDECI

Tshwane University of Technology

National Diploma: Water Technology

BTech: Water care

University of Johannesburg

National Diploma: Civil engineering

UNISA

National Diploma: Civil engineering

BTech: Civil engineering technologist: water treatment

It is possible that additional bridging subjects may be required if you want to enrol for a Bachelor of Technology (Water care) course after completing a National Diploma Civil Engineering. You need to consult with the relevant institutions for more detail.

Admission requirements

As admission requirements vary from one institution to another, find out what the specific requirements are by checking on the website and contacting the university if you have any queries.

Possible Employers

- Government
- Water boards
- [Department of Water Affairs and Forestry](#)⁴
- Mining companies
- Chemical manufacturing industries
- [Eskom](#)⁵
- [Sasol](#)⁶
- [IsCOR](#)⁷
- Municipalities

Find out more

Find out more about water care and its importance for communities:

- [State of the Environment Report](#)⁸ – South Africa, Fresh Water Resources and Systems, Department of Environmental Affairs, 1999

⁴ <http://www.dwaf.gov.za/links.asp>

⁵ <http://www.eskom.co.za/>

⁶ http://www.sasol.com/sasol_internet/frontend/navigation.jsp?navid=1&rootid=1

⁷ <http://www.iscor.co.za/>

⁸ <http://www.ngo.grida.no/soesa/nsoer/issues/water/state.htm>

- Article explaining what a [water treatment specialist](#)⁹ does in Southern Africa.
- Useful list of contact details for [Water Councils/Utilities/ Departments](#)¹⁰, etc.
- Speech by [Minister Ronnie Kasrils](#)¹¹ on the importance of treating waste water.
- Report on a [multi-million rand laboratory](#)¹² to keep water quality in check.
- Speech by [Minister Lindiwe Hendricks](#)¹³ about the Department of Water Affairs and Forestry's responsibility to support the municipalities to deliver water and sanitation to all citizens.
- [Water-related stories](#).¹⁴
- Information about the [University of Johannesburg Water Research Unit](#)¹⁵ and its multi-disciplinary approach.
- Transcript of a presentation on [recycled water](#)¹⁶ as a way of being water wise in a dry country by a student from NSW in Australia, which faces water challenges similar to us.

⁹ http://www.engineeringnews.co.za/article.php?a_id=137189

¹⁰ <http://www.dwaf.gov.za/Documents/Other/WRC/Careerguide04c.pdf>

¹¹ <http://www.dwaf.gov.za/Communications/MinisterSpeeches/Kasrils/2003/Welgedacht%20SPEECH%20BY%20MR%20RONNIE%20KASRILS%2002%20Dec.doc>

¹² http://www.engineeringnews.co.za/article.php?a_id=74944

¹³ <http://www.dwaf.gov.za/Communications/MinisterSpeeches/2006/Kunkwini3Nov06.doc>

¹⁴ http://www.engineeringnews.co.za/page.php?navbar_row=4&rep_id=156&offset=0&a_id=

¹⁵ <http://www.uj.ac.za/waterhealth/News/tabid/13072/Default.aspx>

¹⁶ <http://www.abc.net.au/rn/ockhamsrazor/stories/2008/2272847.htm>

Are you suited to this career?

This quick quiz can help you to identify whether you are suited for this occupation.

Quiz	Yes	No
Would you like to be involved in performing a useful service for the community?		
Are you organized and do you work in a systematic way?		
Would you like to work in a laboratory?		
Do you enjoy finding solutions to problems?		
Do you have good health and physical stamina?		
Are you able to communicate well orally and in writing?		
Do you work well with others?		
Are you prepared to tolerate noxious odours which may sometimes be present in your work area?		
Do you work accurately when doing numerical calculations?		
Do you enjoy Science and Mathematics?		

If you have mainly yes answers it may be an indication that this is an occupation to consider.