

Career Profile: Civil Engineering Technologist

Civil engineering projects are usually complex and the technologist operates as part of a multi-disciplinary team. Such teams are involved in recreating, improving and conserving the environment and building facilities and the infra-structured needed for people to live and work. A civil engineering technologist is expected to use creative problem solving techniques to come up with practical solutions to challenges arising from urban and rural development. Technologists can work in a variety of civil engineering fields such as structural, geotechnical, transport, water purification and municipal services.

Education Requirements

National Senior Certificate (NSC)

For a career in mechanical engineering students are advised to select English, Mathematics, and Physical Science and to add to this a selection from the designated subjects. These are subjects that are particularly suitable for tertiary study. Students who study at an FET College must ensure that they take the appropriate subjects that will enable them to continue their studies at a University of Technology.

National Diploma / BTech

Offered at:

- [Tshwane University of Technology](#)¹ (Faculty of Engineering and Built Environment)
- [University of Johannesburg](#)² (Department of Civil Engineering Technology)
- [Vaal University of Technology](#)³ (Civil Engineering)
- [University of South Africa](#)⁴ (Civil engineering)

Specializations Offered:

[Tshwane University of Technology](#)

National diploma: Civil engineering

BTech: Construction management, Environmental engineering, Geotechnical engineering, Structural engineering, Transportation engineering, Urban engineering, Water engineering

¹ <http://www.fe.tut.ac.za/>

² <http://www.uj.ac.za/Default.aspx?alias=www.uj.ac.za/civiltech>

³ <http://www.vut.ac.za/metadot/index.pl?id=2298&isa=Category&op=show>

⁴ <http://www.unisa.ac.za/Default.asp?Cmd=ViewContent&ContentID=19771>

University of Johannesburg

National diploma: Civil engineering

BTech: Civil Engineering

Vaal University of Technology

National diploma: Civil engineering

BTech: Civil Engineering

UNISA (Florida campus)

National diploma: Civil engineering

BTech: Construction Management, Environmental engineering, Geotechnical engineering, Structural engineering, Transportation engineering, Urban engineering, Water engineering

Admission requirements

The standard admission requirement for the BTech is a relevant National Diploma.

Registration as a professional engineering technologist

The purpose of professional registration is to ensure that only properly qualified people influence the health and safety of the population. Therefore, while registration is not compulsory, many tasks can only be performed by people registered at an appropriate level for the task.

A person who has obtained a recognised BTech degree is eligible for registration as Candidate Engineering Technologist. After gaining at least 3 years of appropriate practical experience a civil engineering technologist may qualify as a Professional Engineering Technologist under the auspices of the Engineering Council of South Africa.

Possible Employers

- Government
- [Transnet](http://www.transnet.co.za/)⁵
- [Eskom](http://www.eskom.co.za/)⁶
- [Iskor](http://www.iscor.co.za/)⁷
- [CSIR](http://www.csir.co.za/)⁸
- Municipalities
- Universities
- Manufacturers
- Engineering consultants

⁵ <http://www.transnet.co.za/>

⁶ <http://www.eskom.co.za/>

⁷ <http://www.iscor.co.za/>

⁸ <http://www.csir.co.za/>

- The registered engineering technologist with the necessary experience and initiative can work as consultant for any of the above-mentioned companies and organisations.

Find out more

Find out more about civil engineering, bursaries and jobs:

- [The South African Association of Consulting Engineers](http://www.saace.co.za/)⁹ will enable you to get some idea of how engineering consultants are organized.
- [The South African Institution of Civil Engineering \(SAICE\)](http://www.civils.org.za/)¹⁰, has a number of useful services and publications. Among them Continuous Professional Development (CPD) outlines the process followed to encourage ongoing learning. It is possible to access back issues of the [Civil Engineering Magazine](http://www.civils.org.za/Publications/CivilEngineeringMagazine/MonthlyIssues/tabid/84/Default.aspx).¹¹
- [The South African job board and recruitment portal](http://www.engineeringcareers.co.za/)¹² for the South African engineering industry also offers useful links.

⁹ <http://www.saace.co.za/>

¹⁰ <http://www.civils.org.za/>

¹¹ <http://www.civils.org.za/Publications/CivilEngineeringMagazine/MonthlyIssues/tabid/84/Default.aspx>

¹² <http://www.engineeringcareers.co.za/>

Are you suited to this career?

This quick quiz can help you to identify whether you are suited for this occupation. The questions are based on interests, characteristics and values typical of people who work as engineers.

Quiz	Yes	No
Do you have an inquiring, analytical mind?		
Do you enjoy Mathematics and Science?		
Are you good at analysing problems and finding solutions?		
Do you want a career that makes extensive use of science and technology?		
Can you think creatively and come up with original ideas?		
Do you work in a systematic and organized way?		
Can you communicate your ideas clearly?		
Can you think creatively and come up with original ideas?		
Do you work well with other people?		
Do you have good health and physical stamina?		
Do you want to participate in projects that will benefit the long term development of the country?		

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