

Career Profile: Mechanical Engineering Technician

Almost any machine or process we use has benefited from the influence of mechanical engineering. Everyday appliances, equipment and machines such as refrigerators, air conditioners, microwaves, high-fidelity sound equipment, elevators, cars, aircraft, and trains are possible mainly because mechanical and other engineers worked together to make them happen.

Mechanical engineering technicians design, build, operate and service plant machinery and parts. The technician uses technical knowledge and skills and converts the designs of the engineer and technologist into workable plans.

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

The National Diploma is a three year course which includes gaining practical experience under the guidance of a professional engineer. The diploma is a prerequisite for admission to a Bachelor of Technology – Btech.

Offered at:

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

Specializations Offered:

¹ <http://www.fe.tut.ac.za/>

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

³ <http://www.vut.ac.za/metadot/index.pl?id=2372&isa=Category&op=show>

⁴ http://brochure.unisa.ac.za/brochure/showprev.aspx?d=l_4_26&f=p_BTMEET

The universities offer a range of specializations.

Tshwane University of Technology

National Diploma: Mechanical engineering, Manufacturing engineering, Mechatronics

BTech: Mechanical engineering, Manufacturing engineering, Mechatronics

University of Johannesburg

National Diploma: Mechanical engineering

BTech: Mechanical engineering

Vaal University of Technology

National Diploma: Manufacturing engineering, Maintenance engineering, Design engineering, Electro-Mechanical engineering

BTech: Mechanical engineering

UNISA (Florida campus)

National Diploma: Mechanical engineering

BTech: Mechanical engineering

Mechatronics is the integration of electronic and electrical engineering, computer technology and control engineering with mechanical engineering.

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.

Registration as a professional engineering technician

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 National Diploma in Engineering is eligible for registration as Candidate Engineering Technician. After gaining at least 3 years of appropriate practical experience a mechanical engineering technician may qualify as a Professional Engineering Technician under the auspices of the Engineering Council of South Africa.

Possible Employers

- Government departments
- Provincial administrations
- Municipalities
- Research organisations
- [Transnet](#)⁵
- [Spoornet](#)⁶
- [SA Defence Force](#)⁷
- [Eskom](#)⁸
- [Iskor](#)⁹
- [Sasol](#)¹⁰
- [CSIR](#)¹¹
- Car manufacturers
- Mines

Find out more

Find out more about mechanical engineering, bursaries and jobs:

- [South African Institute of Mechanical Engineering](#)¹²
- [The South African Association of Consulting Engineers](#)¹³ will enable you to get some idea of how engineering consultants are organised.
- [The South African Institute of Civil Engineering \(SAICE\)](#)¹⁴

⁵ <http://www.transnet.co.za/>

⁶ <http://www.spoornet.co.za/>

⁷ <http://www.dod.mil.za/>

⁸ <http://www.eskom.co.za/>

⁹ <http://www.iscor.co.za/>

¹⁰ <http://www.sasol.co.za/>

¹¹ <http://www.csir.co.za/>

¹² <http://www.saimeche.org.za/>

¹³ <http://www.saace.co.za/>

¹⁴ <http://www.saimeche.org.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 work methodically and precisely?		
Do you find it easy to make sense of diagrams and maps?		
Can you communicate clearly orally and in writing?		
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.