



Stellenbosch
UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

ENGINEERING
EYOBUNJINELI
INGENIEURSWESE

CIVIL ENGINEERING



What is civil engineering and why study it?

Civil engineers create the world around us, designing and constructing the infrastructure we rely on to function as a society. Civil engineers are responsible for bridges, dams, harbours, canals, airports, roads, railways, pipelines, sewerage, storm water, irrigation and water supply systems, tunnels and foundations, as well as applying and integrating technology to connect it all.

Where do civil engineers work?

Civil engineers work in a broad spectrum of jobs in the public and private sectors, from local authorities to government departments, and from consulting to construction firms. Several South African civil engineering firms are active internationally, and some are part of large global companies.

We offer an Engineering Council of South Africa (ECSA) accredited professional BEng (Civil) degree, which takes a minimum of four years to complete. With this degree you can qualify as a Professional Engineer with ECSA after acquiring relevant industry experience. Because ECSA is a Washington Accord signatory, our BEng degree is recognised internationally, including in countries such as Australia, Canada, New Zealand, the United Kingdom, and the USA, to name a few.

What subjects do civil engineers study?

The BEng (Civil) degree starts with a common first year across all engineering programmes. First and second year modules will equip you with a sound theoretical knowledge and focus mainly on mathematics and fundamental natural sciences such as physics and chemistry applied to the engineering context. You will also learn about ethics, professionalism and effective technical communication.

In the third and fourth year modules the programme progresses into specialist areas such as water, structural, transportation and geotechnical engineering, with modules like water treatment, transport science, data analytics, computer modelling, structural design and engineering and construction management.

Which research fields do we explore?

We do fundamental and applied research in Construction and Engineering Management, Water and Environmental Engineering, Structural Engineering and Civil Engineering Informatics and Geotechnical and Transport Engineering to realise, improve and maintain sustainable physical infrastructure for society. After finishing your BEng degree, there are many postgraduate opportunities in our department to specialise in these research fields.

Do you get to work in the laboratories?

The department has world-class laboratory facilities for testing and modelling in geotechnical, transportation, water, construction materials, structural and fire engineering. From the second year onwards, students regularly do practicals in these laboratories as part of their course work.

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