Faculty of Engineering & the Built Environment

Welcome to EBE

The Faculty of Engineering & the Built Environment (EBE) takes pride in its people – most especially its students, who become sought-after architects, planners, quantity surveyors, land surveyors, Geographic Information System (GIS) specialists, property valuers and professional engineers in a variety of areas, whether electrical, chemical, mechanical, electro-mechanical, civil, computer engineering or mechatronics.

"At the Faculty of Engineering & the Built Environment (EBE), our strength lies in our people: the dedicated staff and students who shape the future through innovation, care and collaboration. I am inspired by the faculty and energised by the opportunity to lead us into a new chapter of growth and transformation.

We are committed to promoting an environment where staff and students feel valued, supported and empowered to lead in teaching, research and innovation, and administration. Equally, we are focused on creating a faculty culture where students are encouraged to succeed academically, socially, and personally, with access to safe spaces, mentorship, life coaching, and holistic support systems.

As we embrace an exciting period of change, our focus will be on innovation, sustainability and inclusivity. We aim to strengthen research and teaching through interdisciplinary collaboration, digital innovation and deeper partnerships with industry and communities – both locally and across the continent – to maintain the excellence delivery we are known for. We will continue to integrate discovery-based learning, emerging technologies, and smart learning environments into our academic programmes, ensuring that our students are equipped with the skills, values and mindset to address real-world challenges.

EBE is a space to imagine, create, and sustain. I look forward to working with our faculty community to strengthen that vision, uphold our values, and drive transformation that benefits not only the university, but society at large."

Professor
Aubrey Mainza
Dean of Engineering
& the Built Environment

Did you **know**?

1. The Menzi Design Laboratory is a space for students and researchers to transform their ideas into prototypes and Intellectual Property before (IP), and ultimately take them into production.

2. The University of Cape Town (UCT) has introduced the Mechanical Engineering isiXhosa Glossary, which was launched by the Centre for Higher Education Development's (CHED) Multilingualism Education Project (MEP). The glossary currently contains over 300 terms. This project enables academics to leverage these ideas and bring them into the classroom.

3. In Stanford's list of the top 2% of scientists in the world in 2025, 22 academic researchers made the list. The faculty currently also has four National Research Foundation (NRF) A-rated researchers.

4. The Formula Student Africa (FSA) Team at UCT, formed within the Department of Electrical Engineering, extends the global Formula Student initiative, challenging university students to design and build electric, formula-style race cars. FSA UCT, in particular, emphasises innovation, interdisciplinary collaboration, and sustainability among African students.

5. Looking to the future, EBE Vision 2050 project envisions what the faculty landscape will look like by 2050. This exciting project serves as a roadmap to guide the faculty in all aspects of our work, including academics, operations, technical services, and support functions. View the brochure here.

How do I apply?

UCT holds an annual Open Day for prospective students to visit the campus and find out more about degree programmes they are interested in.
The Faculty of EBE encourages you to attend Open Day if possible – come and find us at upper campus.

CONTACT US:
Email: ebe-faculty@uct.ac.za
Telephone: +27 21 650 2699
Website: www.ebe.uct.ac.za
Apply to study at UCT:
applyonline@uct.ac.za

Students quote

"I was drawn to study at UCT because I was impressed with my faculty - there is a culture of innovation and creativity. There are cutting-edge resources and opportunities to grow, so I knew it was the place to be if I wanted to be at the forefront of new advancements." Lindiwe Mabanga BSc in Mechanical and Mechatronic Engineering student."

six departments

Architecture, Planning and Geomatics offers degrees that give graduates access to career opportunities in architecture, landscape architecture and urban planning. Geomatics involves the integrated measurement, analysis and management of spatial data.

Chemical Engineering prepares students for lifelong professional growth and a dynamic range of careers. The fundamentals of science and the principles of process engineering are integrated into multidisciplinary teaching and research programmes aimed at producing world-class graduates and internationally competitive research.

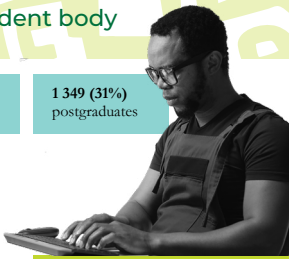
Civil Engineering prepares graduates for the planning, design, construction and development of building and infrastructure projects, the management and distribution of water resources, the optimisation of traffic and transport services and the creation of sustainable and energy-efficient cities and communities.

Construction Economics and Management aims to produce graduates with theoretical, entrepreneurial and business skills that will ensure their leadership positions within the construction, property and built environment industries.

Electrical Engineering offers three creative and stimulating degree programmes where students learn to solve known problems and conceive responses to challenges that have not yet been recognised. New technologies and applications, once unimaginable and achieving what once seemed impossible, are emerging every day.

Mechanical Engineering offers two well-recognised degrees, excellent research facilities and collaboration with world-class departments. A wide range of research opportunities that are addressing global challenges are available – from bioengineering and energy efficiency to robotics, computational fluid dynamics and many more.

A diverse **student body**



4 352 students

3 003 (69%) undergraduates

1 349 (31%) postgraduates

Internationally **recognised research**

EBE research is recognised for its relevance to the needs of industry, and offers great opportunities for postgraduate students.

World-renowned teaching staff
213 academic staff

219 professional, administrative support and service staff

Active research groups 15+
R3.357 million research income
52 National Research Foundation-rated staff members

"The Department of Science and Technology and the National Research Foundation fund research positions (called SARChI chairs) at universities across South Africa in order to strengthen the country's ability to produce high-quality research, innovation and students."

Spin-off companies include DroneSAR, HyPlat, Hot Platinum and Elemental Numerics.

6 SARChI chairs*

Research

The complex challenges facing Africa and the global community – water scarcity, alternative energy, urbanisation and sustainability – demand collaborative solutions. The faculty houses a number of interdisciplinary research units concentrating on these challenges.

EBE RESEARCH

IMAGINE . CREATE . SUSTAIN

WATER

- Future Water
- Urban Water
- Waste Water
- Bioprocessing
- Crystallisation and Precipitation

URBANISATION

- African Centre for Cities
- Innovative affordable housing
- Building future cities
- Transport
- Spatial Planning

ENERGY

- Energy Efficiency
- Fuel Cells
- Radar Renewable
- Renewable Energy
- Reduced Carbon footprint

INNOVATION

- Bioengineering
- Materials
- Robotics
- Spin-off Companies
- Patents

INFRASTRUCTURE

- Transport
- Planning
- Urban Environmental Land Surveying Environmental and Process Systems
- Telecommunications

ENVIRONMENT

- Sustainable Mining
- Acid Mine Drainage
- Green Buildings
- Sustainable Cities
- E-waste
- Climate Chage
- Built Environment / Architectural Conservation