CAREER INFORMATION 2026

BACHELOR OF ENGINEERING TECHNOLOGY IN **POWER ENGINEERING**

DUT DURBAN UNIVERSITY OF TECHNOLOGY INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

FACULTY OF ENGINEERING & THE BUILT ENVIRONMENT

DEPARTMENT OF ELECTRICAL POWER ENGINEERING

01 JAN - 31DEC 2026

Bachelor of Engineering Technology in Power Engineering

NQF Level: 7

SAQA ID: 99611

Qualification Code: BNPWE1

Location: Steve Biko Campus (S7 Level 3)

Description of the Programme

This qualification is aligned with the advancements in modern electrical engineering and equips graduates with the skills and knowledge to thrive in the evolving energy sector. Graduates in this field are prepared to work on cutting-edge technologies related to the generation, distribution, and efficient utilization of electrical energy for various applications, including power, heat, and smart systems. The electrical engineering technologist is involved in designing, developing, testing, and maintaining innovative systems such as renewable energy solutions (solar, wind, and hybrid systems), smart grids, energy storage systems, and advanced electrical equipment like energy-efficient motors, generators, and transformers. They also work on the integration of automation, Internet of Things (IoT), and artificial intelligence (AI) in electrical systems to enhance efficiency and reliability.

The qualified person will be able to apply to register with the Engineering Council of South Africa (ECSA) as a Candidate Technologist in the field of Electrical Engineering.

Career Opportunities

This qualification prepares graduates to meet the demands of modern electrical power engineering, enabling them to contribute to South Africa's energy transition and technological innovation. Electrical Power Technologists are in high demand across diverse industries, including energy utilities like Eskom, municipalities such as eThekwini, and leading global companies like Siemens and ABB. They also play key roles in renewable energy sectors, smart grid development, electric vehicle infrastructure, and advanced manufacturing.

Many registered technologists work independently as consultants or with engineering consulting firms, managing and executing innovative projects in power system design, energy management, and smart city development. This qualification is the foundation for professional advancement, leading to registration as a Professional Technologist and opportunities to pioneer cutting-edge solutions in a rapidly evolving industry.

Graduates from this program are positioned to lead in the development of sustainable and reliable energy systems, contributing to South Africa's industrial growth and global competitiveness.

Explanation of Points scale:

SENIOR CERTIFICATE(SC)		
SYMBOL	**HIGHER GRADE**	**STANDARD GRADE**
A	8	6
B	7	5
C	6	4
D	5	3
E	4	2
F	3	1
A	8	6
B	7	5
NATIONAL SENIOR CERTIFICATE(NSC)		

%	LEVEL	POINTS
90-100	7	8
80-89%	7	7
70-79%	6	6
60-69%	5	5
50-59%	4	4
40-49%	3	3
30-39%	2	2
20-29%	1	1

MINIMUM ADMISSION REQUIREMENTS

GENERAL ADMISSION REQUIREMENTS

A person will only be considered for registration for an instructional programme approved by the Institution's Senate if the person complies with:

(a) The minimum admission requirements stated in DUT general handbook (refer to DUT website for general handbook).
(b) Institutional faculty, departmental and/or instructional programme specific rules; and

MINIMUM ADMISSION REQUIREMENTS IN TERMS OF THE HIGHER EDUCATION QUALIFICATIONS SUB-FRAMEWORK (HEQSF)

G7 rule: For Bachelor's Degree:
"a National Senior Certificate (NSC) as certified by the Council for General and Further Education and Training (Umalusi), with a minimum achievement rating of 3 for English and a minimum achievement rating of 4 in four NSC 20-credit subjects chosen from the NSC designated subject list"

Entry Requirements BEng Tech (Power Engineering)

NATIONAL SENIOR CERTIFICATE (NSC) (01 January 2009)		SENIOR CERTIFICATE (SC) (PRE 2009)			NATIONAL CERTIFICATE (VOCATIONAL) (NCV)	
NSC DEGREE ENTRY		**SENIOR CERTIFICATE (SC)**			**(NCV) – LEVEL 4**	
Compulsory Subjects	**NSC Rating Code**	**Compulsory Subjects**	**HG**	**SG**	**Compulsory Subjects**	**Mark**
English	4	English	E	C	English	60%
Mathematics OR	4	Mathematics	E	C	Mathematics	70%
Technical Mathematics	5	Physical Science	E	C	Physical Science	70%
Physical Science	4				Life Orientation	60%
Technical Science	5					
In addition: **THREE** recognized NSC 20 credit subjects as stated above	4					
					In addition, **Three** other additional vocational subjects at a minimum of 70%.	

NB: The exit certificate of the candidate must qualify the candidate for degree study at an institution of higher learning.

Other:

Applicants who do not meet the requirements above may qualify for admission if they meet the following criteria.

- They hold a NSC Bachelor's Pass, but do not meet the departmental mathematics and/or physical science requirements, and have passed the following N4 subjects with a minimum of 50% in the same sitting:
  Mathematics and Engineering Science, plus any two of the following:
  - Electrotechnics
  - Industrial Electronics OR Electronics
  - Digital Systems OR Logic Systems
  - Industrial Instruments
  - Engineering Drawing
- They hold a cognate Diploma in Engineering (NQF 5), or Diploma in Engineering Technology (NQF 5) - The possibility of transfer of credits is considered, dependent upon the Diploma presented.
- They hold a cognate Higher Certificate (NQF 5) -The possibility of transfer of credits is considered, dependent upon the Higher Certificate presented. Space limited, subject to planned enrolments.
- They hold a cognate National N Diploma - Credit transfer is not possible.

FOREIGN QUALIFICATIONS

•Foreign Qualifications must be evaluated in accordance with the G7 (9) or failing that, by the SAQA at full senior certificate level or higher.
Please note: Selection of students is strictly on merit. Where there are more students than places available, selection will be based on academic performance in English, Mathematics, and Physical Science.
Final selection is made at the full discretion of the Head of Department based on factors such as class size, equity etc.

OR

Admission Requirement based upon Work Experience, Age and Maturity

For admission to entry level DEGREE studies:

A person may, subject to such requirements as the Senate may determine, be admitted if such a person is in possession of a National Senior Certificate, Senior Certificate, or an equivalent certificate, but lacks the minimum requirements for admission to the degree provided that:

(a) The person shall have reached the age of 23 in the first year of

registration and shall have at least:
three years' appropriate work experience; and/or
capacity for the proposed instructional programme, which shall be assessed by a Senate-approved admission assessment comprising of a DUT Standardised Assessment Test for Access and Placement (SATAP), Academic Literacies (AL) & English for Academic Purposes (EAP) (2,5 hours) and/or an appropriate subject or programme specific written assessment designed and marked by the relevant Department; and the person has obtained

(b) A conditional certificate of exemption from the Matriculation Board (when in possession of the Senior Certificate (SC)); OR has met

(c) The requirements for Senate discretionary admission (when in possession of the NSC or equivalent), where Senate is satisfied the applicant has shown sufficient academic ability to ensure success, and that the person's standard of communication skills, and/or work experience are such that the person, in the opinion of the Senate, should be able to complete the proposed instructional programme successfully.

(d) The person's application for admission in terms of with work experience, age and maturity is approved prior to registration.

Applicants intending to gain admission through work experience, age and maturity must submit their applications at least four months before commencement of the academic year.

Tuition Fees

To assist you with your planning, the **2025** fees have been indicated. An increase for next year to accommodate the inflation rate can be expected.

Please Note: DUT cannot be held liable for the fees in this brochure as the **2026** fees are not yet final

First Year Curriculum

Name of Module	Subject Code	HEQSF Level	SAQA Credits	2026 Fees
Semester One				
Computing & Information Technology	CPIT101	6	8	R3310.00
Cornerstone	CSTN101	5	12	R3910.00
Engineering Mathematics 1A	EMTA101	5	12	R4810.00
Engineering Physics 1A	EPHA101	5	12	R4810.00
Projects 1	PRJS101	5	12	R4820.00
Technical Literacy	TCLT101	5	8	R3310.00
TOTAL				**R24970.00**
Semester Two				
Mechanics of Machine 1	MCHM101	5	12	R4820.00
Engineering Mathematics 1B	EMTB102	6	12	R4820.00
Engineering Physics 1B	EPHB101	6	12	R4810.00
Electrical Principles 1	ELEP101	5	12	R4820.00
Analogue Electronics 1	ANLE101	5	12	R4820.00
Digital Electronic 1A	DGTE101	6	12	R4820.00
TOTAL CREDITS SEMESTER 1&2			**140**	
TOTAL				**R28910.00**
Second Year Curriculum				
Semester Three				
Mechanical Technology 1	MTCH101	6	12	R3330.00
Engineering Mathematics IIA	EMTA202	7	12	R4820.00
Electrical Applications	EAPP101	6	8	R3310.00
Electrical Principles II	ELEP201	6	12	R4820.00

Instrumentation and Control I	INCT101	6	12	R4820.00
Project Management	PMAN101	6	8	R3800.00
Communication II	COMP201	6	12	R4820.00
TOTAL				**R29720.00**
Semester Four				
Mechanical Technology II	MTCH202	6	12	R4820.00
Engineering Mathematics IIB	EMTB202	7	12	R4820.00
Engineering Drawing Design	EDRD101	6	12	R4820.00
Electrical Machine I	EMCH101	6	12	R4820.00
Power System I	PWRS101	6	12	R4820.00
Illumination	ILLM101	7	8	R3310.00
TOTAL CREDITS SEMESTER 3&4			**144**	
TOTAL				**R27410.00**
Third Year Curriculum				
Semester Five				
Mechanical Technology III	MTCH302	7	12	R4820.00
Strength of Material I	STMT101	7	12	R4820.00
Design Project I	DSPJ101	7	12	R4820.00
Electrical Machine II	EMCH201	7	12	R4820.00
Power System II	PWRS201	7	12	R4820.00
Power Electronics	PWEL101	7	12	R4820.00
TOTAL				**R28920.00**
Semester Six				
Environmental Engineering	EVEN101	7	8	R3310.00
Strength of Material II	STMT201	7	12	R3800.00
Design Project II	DSPJ201	7	12	R4820.00
Utilization of Electrical Plant'	UTEP101	7	8	R3310.00
Electrical Protection	EPRT101	7	12	R4820.00
Renewable Energy System	RNES101	7	8	R3310.00
Principles of Management	PMGM101	7	8	R3310.00
TOTAL CREDITS SEMESTER 5&6			**140**	
TOTAL				**R26680.00**

NB: The course structure and requisite modules are subject to alteration.

Application

Applicants who wish to enrol for the programme must apply through the CAO system by no later than 30 September of the previous year.

CAO Online Application visit: http://www.cao.ac.za

CAO Contact Details Private Bag X06
Dalbridge,
4014
Tel: (031) 2684444
Fax: (031) 2684421

CAO Code: DU-D-BGH

Closing date for applications: 30 September 2025

For Further Information

Contact the Department of Electrical Power
Engineering Steve Biko Campus (S7 Level 3)
Durban University of Technology
P O Box 1334
DURBAN,
4000
Tel: (031) 3732062
Fax: (031) 3732063
Email: reginan@dut.ac.za

Financial Aid

For Financial Aid application for a DUT programme please apply online at www.nsfas.org.za or call the NSFAS call centre on 0860 067 327.

For an explanation on how to fill out the application form, please go towww.nsfas.org.za or contact the call centre on the number above.

Please note that completing a form does not guarantee Financial Aid. For further assistance, please consult the Department of Financial Aid and Scholarships on (031)373 2931/2557/2054.