CAREER INFORMATION 2026

BACHELOR OF ENGINEERING TECHNOLOGY IN MECHANICAL ENGINEERING

DUT
DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

FACULTY OF ENGINEERING & THE BUILT ENVIRONMENT

DEPARTMENT OF MECHANICAL ENGINEERING

01 JAN - 31DEC 2026

Bachelor of Engineering Technology in Mechanical Engineering

NQF Level: 7

SAQA ID: 99599

Qualification Code: BNMCH1

Location: Steve Biko Campus (S5 Level 3)

Description of the Programme:

What Is Mechanical Engineering?

In almost every aspect of modern life, from the air-conditioned offices to the modern industrial plants, from the simplest components the aerospace industry, one sees the work of mechanical engineers who continue to develop and apply new knowledge and technology to improve the quality of life of mankind. Mechanical Engineering is one of the widest forms of all industrial based occupations, ranging across every stage of the manufacturing process and includes design, draughting, assembly, quality assurance, plant operation, maintenance, and management.
Today's mechanical engineer is heavily involved in the development and use of new materials and technologies, especially in computer aided engineering, robotics, and advanced manufacturing systems. A rapidly growing field for mechanical engineers is environmental control, comprising the development of machines and processes that will produce fewer pollutants, as well as the development of new equipment and techniques to reduce or remove existing pollution.

Who Is a Mechanical Engineer?

A mechanical engineer is an individual, who is highly motivated, has good analytical and quantitative skills, wants to be in a challenging and rewarding career and sees themselves as future leaders in industry.
Mechanical engineers will find themselves dealing with all aspects of production, manufacturing, management, and development. They will be involved with artisans, tradesmen, technicians, production managers and many others who work in teams to keep industry turning. In the past engineers were purely the products of universities, who worked with their brains and computers, but their role has widened, and the scope changed. Mechanical Engineers can be found at the highest rungs of the industrial ladder, designing racing cars, running companies, and conducting research programmes.

But Can He/she also Specialise?

Yes, and some of them do. In recognising this, we at the Durban University of Technology offer an appropriate mix of subjects, laboratory sessions and project work which will enable him/her to become, for example, a mechanical engineering designer or plant engineer. For the design specialisation, he/she will make use of a comprehensive draughting and computer-aided design facility. Specialisation is also the emphasis of further education programmes where the subject choices should enable him/her to hold his/her own in a very challenging engineering environment. Further studying can be undertaking to do a Masters and even a Doctorate if he/she wishes.

Career opportunities Where Does He/she Work?

Graduates of this programme would be eligible to register with ECSA as a Professional Engineering Technologist. Owing to the ubiquitous nature, he/she is to be found in all manner of industries: those making steel and bricks; building oilrigs and dams; refining oil and sugar; offering services, such as those provided by Eskom, in the automotive industry such as Toyota, and the water boards and other government organisations. Opportunities also exist in the Maritime industry. In each of these industrial sectors you will find him/her employed as production engineers, maintenance engineers and design engineers in developmental work. Mechanical engineers can also be found in the sales of hi-tech equipment.

Entry Requirements

The minimum entry requirement is the National Senior Certificate or the National Certificate (Vocational) with appropriate subject combinations and levels of achievement as defined in the Government Gazette, Vol 751, No 32131 of 11 July 2008, and in the Government Gazette, Vol. 533, No. 32743, November 2009.

In addition, the minimum admission requirements, rule G7, is stipulated in the General Rules Handbook. Further to the above, the following are required for admission into Mechanical Engineering.

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 BET (Mechanical 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 OR	4				Life Orientation	60%
Technical Science	5					
In addition: **THREE** recognized NSC 20 credit subjects as per G7 rule as stated above	4					
					In addition, **THREE** other additional vocational subjects at a minimum of 70%.	

NB:

1. NSC Mathematical Literacy will not be accepted as a substitute for the subject NSC Mathematics
2. The exit certificate of the candidate must qualify the candidate for degree study at an institution of higher learning.
3. Applicants with a NSC will be ranked according to the sum of their scores for Mathematics and Physical Science, subject to a minimum combined score of 100%.
4. Prospective applicants may also present an NQF level 6 Diploma in Engineering for entry into the degree programme. A possibility of transfer of credits for cognitive previous studies would be considered dependent on the discipline and nature of the Diploma being presented. Thereafter, selections are made at the full discretion of the Head of Department based on a number of factors including class size, equity etc.

Other:

Applicants, that qualify for degree study (Bachelor's Pass) at an institution of higher learning, but do not meet the departmental mathematics and/or physical science requirements, may present the following N4 subjects, for consideration for entry to the BET programme:
Mathematics and Engineering Science, plus any two of the following:

- Mechanotechnics
- Engineering Drawing
- Electrotechnics

The above subjects must be passed with a minimum of 50% and all in the same sitting. Students will then be considered alongside the NSC students according to the sum of their marks for N4 Mathematics and Engineering Science

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.

NB: These minimum admission requirements may be subject to more restrictive departmental admission requirements where applicable.

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 finalised

First Year Curriculum

Name of Module	Subject Code	HEQSF Level	SAQA Credits	2026 Fees
Semester One				
Engineering Mathematics 1A	EMTA101	5	12	R4810.00
Engineering Physics 1A	EPHA101	5	12	R4810.00
Technical Literacy	TCLT101	5	8	R3310.00
Computing and IT	CMIT101	6	8	R3310.00
Cornerstone 101	CSTN101	5	12	R3910.00
Design 1	DESG101	5	16	R6510.00
TOTAL				**R26660.00**
Semester Two				
Electrical Principles 1	ELEP101	5	12	R4820.00
Mechanics of Machines 1	MCHM102	6	12	R4820.00
Engineering Mathematics 1B	EMTB101	5	12	R4810.00
Thermofluids 1	THFL101	5	12	R4820.00
Strength of Materials 1	SMTL101	6	12	R4820.00

Engineering Physics 1B	EPHB101	5	12	R4810.00
TOTAL CREDITS SEMESTER 1&2			**140**	
TOTAL				**R28900.00**
Second Year Curriculum				
Semester Three				
Computer Aided Draughting	CADR101	5	12	R4820.00
Analogue Electronics 1A	ANLE101	5	12	R4820.00
Electrical Principles II	ELEP201	6	12	R4820.00
Fluid Mechanics II	FLDM201	6	12	R4820.00
Engineering Mathematics IIA	EMTA201	6	12	R4810.00
Materials Science	MTLS101	5	12	R4820.00
TOTAL				**R28910.00**
Semester Four				
Mechanics of Machines II	MCHM201	6	12	R4820.00
Strength of Materials II	SMTL201	6	12	R4820.00
Design II	DESG201	6	12	R4820.00
Thermodynamics II	THRM202	6	12	R4820.00
Digital Electronics 1A	DGTE102	5	12	R4820.00
Project Management	PROM101	7	12	R3310.00
Other:				
(1) French Language,				TBA
(2) Mandarin Language, and				TBA
(3) Sociology of Work				TBA
TOTAL CREDITS SEMESTER 3&4			**144**	
TOTAL				**R27410.00**
Third Year Curriculum				
Semester Five				
Design III	DESG301	7	12	R4820.00
Strength of Materials III	SMTL301	7	12	R4820.00
Mechanics of Machines III	MCHM301	7	12	R4820.00
Thermodynamics III	THRM302	7	12	R4820.00
Fluid Mechanics III	FLDM301	7	12	R4820.00
Instrumentation and Control I	INCT101	6	12	R4820.00
Other:				
(1) French Language,				TBA
(2) Mandarin Language, and				TBA
(3) Sociology of Work				TBA
TOTAL				**R28920.00**
Semester Six				
Advanced Mechanical Manufacturing	AMNF101	7	12	R4820.00
Electrical Technology Applications	ELTA101	7	12	R4820.00
Principles of Management	PMNT101	7	8	R3310.00
Environmental Engineering	EVLE101	7	8	R3310.00
Capstone Design Project	CDSP101	7	16	R6540.00
Numerical methods	NMRM101	7	12	R4820.00
TOTAL CREDITS SEMESTER 5&6			**140**	
TOTAL				**R27620.00**

In addition to passing all the modules students are required to be competent in the 10 Exit Level Outcomes (ELO) below:	
Exit Level Outcome 1: Problem Solving	
Exit Level Outcome 2: Application of scientific and engineering knowledge Exit Level Outcome	
Exit Level Outcome 3: Engineering Design	
Exit Level Outcome 4: Investigation	
Exit Level Outcome 5: Engineering methods, skills, tools, including Information technology	
Exit Level Outcome 6: Professional and Technical Communication	
Exit Level Outcome 7: Impact of Engineering Activity Exit Level Outcome	
Exit Level Outcome 8: Individual and Teamwork	

Exit Level Outcome 9: Independent Learning	
Exit Level Outcome 10: Engineering Professionalism	

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) 2684422

CAO Code: DU-D-BGM

Closing date for applications: 30 September 2025

For Further Information

Contact the Department of Mechanical Engineering Steve Biko Campus (S5 Level 3)
Durban University of Technology P O Box 1334
DURBAN, 4000
Tel: (031) 3732115
Fax: (031) 3732139
Email: adelev@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.