# MECHANICAL ENGINEERING DEPARTMENT

#### PROGRAMME HANDBOOK for:

# BACHELOR OF TECHNOLOGY HONOURS IN MECHANICAL ENGINEERING NQF Level 7 SAQA CREDITS 140

## **Purpose**

The Bachelor of Engineering Technology Honours Degree in Mechanical Engineering is a post graduate specialisation qualification designed to prepare students for postgraduate study. This programme is designed specifically to follow the Bachelors of Engineering Technology in Mechanical Engineering, as offered at the Durban University of Technology.

The qualification consolidates and deepens the graduate's expertise in a specialised area of Mechanical Engineering and develops research capacity in the methodology and techniques of this discipline, while equipping them to undertake more specialised and intensive learning. Programmes leading to this qualification allow students to work independently and responsibly, applying original thought and judgment to technical and risk-based decisions in complex situations and holders of this qualification are normally prepared to enter a specific niche in the labour market, or to further their studies through Masters and Doctoral programmes.

Specifically the purpose of this programme is to further the necessary knowledge, understanding, abilities and skills required towards becoming a competent practicing mechanical engineer. This qualification provides:

- 1. Preparation for careers in engineering itself and areas that potentially benefit from engineering skills, for achieving technological proficiency and to make a contribution to the economy and national development.
- 2. Entry to NQF level 9 Masters Programmes and the ability to then proceed to Doctoral Programmes.

## DEPARTMENT OF MECHANICAL ENGINEERING CONTACT DETAILS

Campus location: Steve Biko CampusLocation: S block 5, Level 3Telephone: 031 3732115

**Departmental Secretary** : Adele van Wyk **E-Mail** : adelev@dut.ac.za

## PROGRAMME INFORMATION AND RULES

## **IMPORTANT NOTICE**

The departmental rules in this handbook must be read in conjunction with the Durban University of Technology's General Rules contained in the current General Handbook for Students.

#### NOTE TO ALL REGISTERED STUDENTS

Your registration is in accordance with all current rules of the Institution. If, for whatever reason, you do not register consecutively for every year/semester of your programme, your existing registration contract with the Institution will cease. Your re-registration anytime

thereafter will be at the discretion of the Institution and, if permitted, will be in accordance with the rules applicable at that time.

#### RULES OF THE MECHANICAL ENGINEERING DEPARTMENT

## PROGRAMME ADMISSION

The number of students enrolled each year will be determined the University and the departmental growth policies. In addition to the minimum University admission requirements, the following criteria must be met by students wishing to study this programme:

The minimum entry requirement is the Bachelor of Engineering Technology in Mechanical Engineering. This is also in line with the DUT General Rules handbook, for registration for a Bachelor Honours Degree (Rule G23c). Applicants that complete a BEngTech at institutions other than DUT will be evaluated on an individual basis, and may need to complete additional undergraduate courses to gain admission.

In addition to the minimum requirements specified above, applicants will be ranked according to their performance in the preceding Bachelor of Engineering Technology. The average mark, for all degree subjects, divided by the number of semesters taken to complete the qualification will be used for ranking. Consideration will also be given to work experience, attainment of relevant industry certifications, completion of short courses and workplace training with regards to ranking and admission into the programme.

## **DURATION**

The duration of the programme is 1 years full-time.

#### PROGRAMME STRUCTURE

Module Name	Compulsory / Elective	Credits
Semester 1		
Engineering Design and Research Project (annual course)	С	44
Strength of Materials 4	С	16
Engineering Computational Methods	С	16
Mechanics 4	С	16
Control Systems	С	16
French for Sciences and Technology 3	Е	8
Mandarin for Sciences and Technology 3	Е	8
Semester 2		
Selected Topics in Engineering	С	16
Programming for Engineers	Е	16
Composite Materials	Е	16
Thermodynamics 4	E	16
French for Sciences and Technology 4	E	8
Mandarin for Sciences and Technology 4	E	8

#### **RULES OF COMBINATION**

16 credits must be selected from the available electives. Students that select French for Sciences and Technology 3 must also select French for Sciences and Technology 4 and

similarly for Mandarin for Sciences and Technology. A minimum of 140 credits is required to obtain the qualification.

#### **ASSESSMENT PLAN**

The class mark shall be made up of a number assessments, of specific weightings. There is an examination for most subjects at the end of the semester. The final mark is a weighted average of the class mark and examination mark and students must achieve a minimum of 50% in the final result, together with sub minimums on various mark components.

## **ASSESSMENT RESULTS**

All assessment results will be available via the DUT online mechanisms (Internet, result line, sms line) as soon as they become available. These constitute the officially published results. The onus therefore is on the student to obtain their results via any of these mechanisms. Non-receipt of results will not be accepted as a valid reason for missing deadlines for applications for remarks, scanning, reassessment, etc.

## **GENERAL RULES**

#### **MODERATION**

As per University requirements.

#### REFUSAL OF ADMISSION OR READMISSION

See General Rule G11.

#### **EXCLUSION RULES**

See General Rule G17.

## **CONFERMENT OF STATUS**

See General Rule G10A. See General Rule G23.

#### **EXEMPTIONS OF SUBJECTS**

In accordance with the General Rule G9 candidates may apply for exemptions. Applications for exemptions must be submitted to the HOD: Mechanical Engineering in writing on the prescribed credit exemption application form before the programme starts. Exemptions will be granted at the sole discretion of the Exemption Committee. Late applications will not be considered.

## **UNSATISFACTORY ACADEMIC PROGRESS**

See General Rule G17.

## **CLASSIFYING STUDENT PERFORMANCE**

(This refers to the composite evaluation result for each subject)

44% and less: Fail

45% - 49%: Eligible for re-assessment (e.g. Supplementary Examination)

50% and above: Pass

75% and above: Distinction (Refer to General Rule G15).

## WITHHOLDING OF ASSESSMENT RESULTS AND GRADUATION CERTIFICATES

Refer to General Rule G13 (1) (m).

## SCANNING/RE-MARKING OF EXAMINATION SCRIPTS

Refer to General Rule G13 (1) (n).

# **SUPPLEMENTARY EXAMINATIONS**

Refer to General Rule G13 (2).

# **SPECIAL EXAMINATIONS**

Refer to General Rule G 13 (3).

# **ACADEMIC INTEGRITY**

Refer to General Rule G 13 (1) (o).