

2016 HANDBOOK
CLOTHING & TEXTILE TECHNOLOGY



# HANDBOOK FOR 2016

# FACULTY OF APPLIED SCIENCES

DEPARTMENT of CLOTHING AND TEXTILE STUDIES

The above department offers two programmes

CLOTHING MANAGEMENT and TEXTILE TECHNOLOGY

This handbook offers information on both programmes

#### IMPORTANT NOTICES

- 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.
- The rules in this departmental handbook must be read in conjunction with the General Rules (G Rules) contained in the DUT General Handbook for Students as well as the relevant Study Guides.
- With respect to an appeal, your attention is specifically drawn to Rules GI (8) and (9), and to the process of dealing with students issues.

#### STRATEGIC DIRECTION (2015-2019)

#### **FACULTY OF APPLIED SCIENCES**

[Educate. Engage. Innovate.]

#### VISION

Leading innovation through science and technology

#### **MISSION STATEMENT**

Educate students Generate new scientific knowledge Engage communities

#### **VALUES**

- 1. **Accountability:** We take ownership of all activities, resources and tasks required of us. We deliver on our promises and responsibilities.
- 2. **Integrity**: We adhere to moral standards and principles. We are transparent and consistent in all our actions, and lead by example.
- 3. **Dedication:** We are committed to achieving our goals and expectations.
- Professionalism: We operate within clear boundaries with respect to our code of conduct.
- 5. **People Oriented:** We are committed to sustaining the morale and holistic development of staff and student. We value diversity in all forms.

#### **DEPARTMENT OF CLOTHING AND TEXTILE STUDIES**

#### **VISION**

To be the leading provider of technologically advanced education for the clothing and textile industries.

#### MISSION STATEMENT

Our mission is to excel through:

- Excellent teaching and learning practice
- Industry collaborations and alliances.
- Holistic development of students
- Development of students and staff to effectively contribute to the economic growth of South Africa. Contribution to the technical expertise of the sector in South Africa.

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#### I. DEPARTMENTAL & FACULTY CONTACT DETAILS

All departmental queries to:

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Steve Biko Campus

#### 2. **DEPARTMENTAL STAFF**

Head of Department (Acting) Mr AN Sheolal, MSc: Textile Engineering (Univer-

sity of Liberec); N Dip: Text Tech (TN)

**Associate Director** Ms R Havenga, MEd (UND); PDG: Entrepreneurship (UP);

NHD: Clothing Design (TN)

Senior Lecturer Dr A Fassihi, PhD Textile Science (NMMU), M Text (Eng)

(MS, India)

Mr A Judd, MSc: Textile Tech (UMIST); BSc: Eng, Mech

(UND)

**Lecturers** Ms K Williamson, NHD: Clothing Design (TN)

Technician Ms P Govender, ND: Org & WS (MLS), BTech: Clothing

Management (DUT)

**Technical Assistants** Ms S Harilal, BTech: Textile Tech (DUT)

Ms S Ramluckan

**Secretary** Ms R Sewpersadh, BTech: Management (DUT)

#### 3 QUALIFICATIONS OFFERED BY THE DEPARTMENT

Programmes are offered in this Department which will, upon successful completion, lead to the award of the following qualifications:

National Diploma (ND) Bachelor of Technology (BT)

| Qualification                 | Qualification | Important                | SAQA    |
|-------------------------------|---------------|--------------------------|---------|
|                               | Code          | dates                    | NLRD ID |
| A. CLOTHING MANAGEMENT        | Γ             |                          |         |
| ND: Clothing Management       | NDCLM2        |                          | 72218   |
| ND: Clothing Management (ECP) | NDCTFI        | Commencement<br>TBA      | 72218   |
| BTech: Clothing Management    | BTCLMI        | Reintroduced<br>Jan 2015 | 72120   |
| B. TEXTILE TECHNOLOGY         |               |                          |         |
| ND: Textile Technology        | NDTXT2        |                          | 72267   |
| ND: Textile Technology (ECP)  | NDTTFI        | Ist offered<br>Jan 2013  | 72267   |
| BTech: Textile Technology     | BTTXTI        | Reintroduced<br>Jan 2016 | 72264   |

#### A. CLOTHING MANAGEMENT

# 4. NATIONAL DIPLOMA: CLOTHING MANAGEMENT (NDCLM2) Purpose of Qualification

The qualification in Clothing Management is designed to prepare individuals for a wide range of specialist career opportunities in the clothing and related industries, retail sector and the informal sector. This qualification develops students' knowledge and skills relating to the technology of sewn products. This includes design development and production through to sales, as well as the management and business skills required for a career in the clothing industry.

#### 4.1 PROGRAMME STRUCTURE (3 YEAR)

| Code     | Subjects Offering                   | Level       | Assessment | NATED   | Prerequisite                      |
|----------|-------------------------------------|-------------|------------|---------|-----------------------------------|
|          |                                     | of<br>Study | Method     | Credits | Subjects                          |
| BSTD101  | Business Studies I                  | 1           | CA         | 0.120   |                                   |
| MGTC101  | Management I                        | 1           | CA         | 0.150   |                                   |
| PRDTIII  | Production Technology I Module I    | la          | CA         | 0.215   |                                   |
| PRDOIII  | Production Organisation I Module I  | la          | CA         | 0.150   |                                   |
| PRDT121  | Production Technology I Module 2    | lb          | CA         | 0.215   | Production Technology I<br>Mod 1* |
| PRDO121  | Production Organisation I Module 2  | lb          | CA         | 0.150   |                                   |
| BSTD213  | Business Studies II Module I        | 2a          | CA         | 0.060   | Business Studies I                |
| MGTC211  | Management II Module I              | 2a          | CA         | 0.075   | Management I                      |
| PRDO211  | Production Organisation II Module I | 2a          | CA         | 0.150   | Production Organisation I         |
| PRDT211  | Production Technology II Module I   | 2a          | CA         | 0.215   | Production Technology I           |
| BSTD223  | Business Studies II Module 2        | 2b          | CA         | 0.060   | Business Studies I                |
| MGTC221  | Management II Module 2              | 2b          | CA         | 0.075   | Management I                      |
| PRDO221  | Production Organisation II Module 2 | 2b          | CA         | 0.150   | Production Organisation I         |
| PRDT221  | Production Technology II Module 2   | 2b          | CA         | 0.215   | Production Technology I           |
| BSTD301# | Business Studies III                | 3           | CA         | 0.150   | Business Studies II               |
| MGTC301# | Management III                      | 3           | CA         | 0.150   | Management II                     |
| PRDO301# | Production Organisation III         | 3           | CA         | 0.150   | Production Organisation II        |
| PRDT311# | Production Technology III Module I  | 3a          | CA         | 0.125   | Production Technology II          |
| PRDT321# | Production Technology III Module 2  | 3b          | CA         | 0.125   | Production Technology II          |
| EXCLI01  | WIL                                 | 3           | CA         | 0.300   |                                   |

KEY: Assessment: CA = Continuous Assessment is no Final examination for these subjects/modules.

Numbers I to 3 indicates the year of study, "a"= Semester I, "b"=Semester 2 (eg 2b=Second year, Semester 2)

#### 4.2 PROGRAMME INFORMATION

This information must be read in conjunction with the programme rules that follow.

# 4.2.1 Academic Integrity

Refer to the DUT General Rules pertaining to academic integrity G13(1)(o) - covering falsification of academic records, plagiarism and cheating. These will be enforced wherever necessary to safeguard the worthiness of our qualifications, and the integrity of the Faculty of Applied Sciences at DUT.

#### 4.2.2 Code of Conduct for Students

A professional code of conduct pertaining to behaviour, appearance, personal hygiene and dress shall apply to all students registered with the Faculty of Applied Sciences, at all times. Refer to Programme Rule 4.3.8 below.

#### 4.2.3 Attendance

Students are expected to achieve 100% attendance for all planned academic activities as these are designed to provide optimal support for the required competency. Students are expected to be punctual for all academic activities. Attendance at all visits to industry is compulsory. Attendance during Experiential Learning placements is determined by the employment requirements of

<sup>\*</sup> Approved by Senate wef 2015/08

<sup>#</sup> These subjects are final level subjects.

A Pre-Req (prerequisite) means this subject must be passed prior to registration for the subsequent subject/module.

the employer. Penalties may be invoked for late attendance. Refer to Programme Rule 4.3.9 below.

#### 4.2.4 Work Integrated Learning (WIL)

The WIL component of this programme is compulsory. The student is required to secure and undertake experiential training in the workplace. Placements do not need to be completed in a single period - it is recommended that WIL is split across the total 3 years of study. Designing a WIL schedule should be done in consultation with the programme WIL coordinator.

The department undertakes to assist the student to obtain suitable placement by providing the student with contact details and employment seeking skills. It is then the responsibility of the student to find a placement to demonstrate their work seeking ability. The department will assist further in extreme cases.

Refer to Programme Rule 4.3.7 below.

#### 4.2.5 Assessment and Moderation

Students are expected to work steadily through the period of registration in order to achieve the highest results possible.

- All modules/subjects in this programme are assessed using 100% coursework. These are called continuous assessment subjects and as such have no final examination/s nor supplementary examination/s opportunities. Opportunities for reassessment are provided for students who fail assessments. These are stipulated in the relevant study guides.
- Assessment details are listed under each subject at the back of this handbook.
- Assessments could include a variety of testing methods including, but not limited to, written tests, oral tests, theoretical and/or practical assessments, group work and assignments.
- Assignments must be handed personally to the lecturer who will record their receipt. Late submission will be penalised.
- Moderation follows the DUT Assessment Policy stipulations.
   Refer to Programme Rule 4.3.9 below.

# **4.2.6** Employment Opportunities

There are job opportunities in the clothing and other related industries for graduates in management, product development, production, work study, planning, quality, garment technology and other areas. Employment in South Africa is available in four main industrial areas - formal manufacturers (established clothing manufacturers), informal sector (small to micro enterprises and entrepreneurs), retail (centralized buying and store management), and allied industries (footwear, training, selling equipment and computers). Opportunities also exist for self-employment. Graduates can pursue further qualifications in management, entrepreneurship, retail, quality or education.

#### 4.2.7 Registration Periods

Annual registration will occur in January with further modules added in July where appropriate. Some modules (full-time or part-time) may be offered in both semesters where resources permit.

#### 4.2.8 Modules in Clothing Management

Certain subjects for the Clothing Management programmes have been split into two modules, which are offered in successive semesters. Module details are included in the relevant subject study guides. All modules are split vertically, ie, half of the learning material for all components of the whole syllabus is covered in each module. The learning in the second module is generally dependent on the learning in the first module, although the first module is not a prerequisite of the second, with the exception of Production Technology I Module I which is a prerequisite for Production Technology I Module 2 (Approved by Senate 2015/08).

#### 4.3 PROGRAMME RULES

#### 4.3.1 Minimum Admission Requirements

In addition to DUT Rule G7, the following minimum entrance requirements and the selection criteria outlined in 4.3.2 apply for applicants with reference to:-

#### 4.3.1.1 Academic Achievement

In line with the above, applicants' school leaving academic achievement must comply with one of the following:-

i) a National Senior Certificate (NSC) with endorsement for diploma/degree entry with the following subjects at the stated minimum ratings (Approved by Senate wef 2015/08):

| Compulsory Subjects                             | <b>NSC</b> Rating |
|---|-------------------|
| English   | 3                 |
| PLUS 3 additional recognised 20 credit subjects | 3                 |

ii) a Senior Certificate is matriculation exemption with the following subjects at the stated minimum ratings

| Compulsory Subjects  | HG | SG |
|--|----|----|
| English  | Е  | D  |
| 3 further subjects (which may include no more than one language) | Е  | D  |

iii) a National Certificate (Vocational) Level 4 with statutory requirements for a diploma entrance and the following subjects at the stated minimum ratings (Approved by Senate wef 2013/08):

| Compulsory Subjects | Minimum |
|---------------------|---------|
| English             | 50%     |

# 4.3.1.2 Admission Requirements based on Work Experience, Age and Maturity; and Recognition of Prior Learning

The DUT Rules G7(3), and G7(8) respectively, will apply. (Approved by Senate Rules Comm wef 2014/10)

#### 4.3.1.3 Admission of International Students

The DUT's Admissions Policy for International Students and DUT Rules G4 and G7(5) will apply.

International students must meet the equivalent of programme minimum entrance requirements as stated above.

(Approved by Senate Rules Comm wef 2014/10)

#### 4.3.1.4 Admission of Students from other Institutions

In addition to the relevant DUT Rules a transferring student will only be accepted if there are places available and the student has met the applicable entrance requirements of the university.

(Approved by Senate Rules Comm wef 2014/10)

#### 4.3.2 Selection Criteria

In addition to the Minimum Admission Requirements (Rule 4.3.1), the following selection process will determine placement in the programme:

- All applicants must apply through the Central Applications Office (CAO).
- Initial shortlisting for selection is based on the applicant's academic performance in Grade 12 (Grade 11 or Grade 12 trial marks will be used for current matriculants).
- Applicants who meet the above criteria will be:
  - a) invited to undergo placement testing and will be invited to attend

b) ranked based on performance according to the table below:-

| -/  |           |  |
|---|-----------|--|
| Assessment  | Weighting |  |
| Academic Achievement  | 30%       |  |
| <ul> <li>Average percentage of all relevant subjects</li> </ul> |           |  |
| Placement Test  | 30%       |  |
| Interview   | 40%       |  |

- Provisional acceptance is given to selected applicants awaiting National Senior Certificate\* (NSC) results. If the final Grade 12 NSC\* results do not meet the minimum entrance requirements, this provisional acceptance will be withdrawn.
- Final selection for placement will be based on results of the above ranking process, as well as available places (refer to DUT Rule G5)

  \*(or SC / NC(V)) (Approved by Senate Rules Comm wef 2014/10)

# 4.3.3 Pass Requirements

The DUT Rules G12, G14 and G15 apply. (Approved by Senate Rules Comm wef 2014/10)

#### 4.3.4 Re-registration Rules

In addition to the DUT Rule G16, and all prerequisite subjects as identified in the Programme Structure (4.1), the following programme rule applies:-

- 4.3.4.1 A self-study option is available to students repeating a subject or module whereby the student may work on their own to resubmit work for assessment, provided:
  - They have previously satisfactorily attended the full-time subject.
  - Only one major module or subject may be carried by this option during a semester if taken in addition to a full-time load.
  - This option infers that no formal lectures are attended but tutorials will be available.
  - There is no change in the tuition fee.

#### 4.3.5 Exclusion Rules

In addition to DUT Rule G17, a first year student who fails three or more subjects with a final result of less than 40% in each subject is not permitted to reregister in this programme. Deregistration from any subjects is subject to the provision of DUT Rule G6. (Approved by Senate Rules Comm wef 2014/10)

## **4.3.6** Interruption of Studies

In accordance with DUT Rule G21A(b), the minimum duration for this programme will be 3 years of registered study and the maximum duration will be 5 years of registered study, including any periods of WIL. Should a student interrupt their studies by more than three (3) years, the student will need to apply to the department for permission to reregister and will need to prove currency of appropriate knowledge prior to being given permission to continue with registration.

(Approved by Senate Rules Comm wef 2014/10)

# 4.3.7 Work Integrated Learning Rules

In addition to Rule G28 the following will apply:

- **4.3.7.1** Work Integrated Learning is a formal subject, although registered separately. WIL credits must be accumulated through meeting the required outcomes in order to qualify for certification.
- **4.3.7.2** Students must refer to the Study Guide for Experiential Learning (EXCLIOI), which provides the outcomes required for the period of experiential learning.
- **4.3.7.3** The student must register an experiential learning placement with the department before commencement. (Approved by Senate wef 2015/08)

#### 4.3.8 Code of Conduct

In addition to the Student Code of Conduct in the DUT General Handbook for Students, and the relevant requirements as stated in the appropriate Study Guides, the following rules apply:

#### 4.3.8.1 Conduct of Students in Practical Facilities

Strict adherence to instructions issued by technical, supervisory or academic staff is required due to the need to ensure effective and safe practice in these facilities. Misconduct or disregard for instructions will be referred to the relevant disciplinary procedure. (Approved by Senate Rules Comm wef 2014/10)

#### 4.3.8.2 Uniforms

Students must adhere to instructions issued by technical, supervisory or academic staff regarding the specific dress code required during practicals. Non-compliance will result in the student being denied access to the venue.

(Approved by Senate Rules Comm wef 2014/10)

#### 4.3.9 Attendance and Assessment

- **4.3.9.1** A student who, for any valid reason(Refer to Programme Rule 4.3.9.2 below), is absent from a particular practical or test, must provide written proof of the reason for the absence to the lecturer concerned, within five (5) working days of returning to the institution in order to be considered for a special assessment. (Approved by Senate Rules Comm wef 2014/10)
- 4.3.9.2 The DUT Rule G13(3)(a) which refers to special examinations also refers to special assessments set within departments for students who have missed coursework assessments. In these cases the department will determine the validity of the student's reason for not taking the assessment, and the nature of the special assessment. (Approved by Senate Rules Comm wef 2014/10)

#### 4.3.10 Health and Safety

Students must adhere to all Health and Safety regulations both while at DUT and in WIL placements. Failure to do so will be treated as a breach of discipline. Refer to the appropriate Health and Safety policies. (Approved by Senate Rules Comm wef 2014/10)

# 5. NATIONAL DIPLOMA: CLOTHING MANAGEMENT (ECP) (TBA)

The ND: Clothing Management (ECP) has been approved but has not yet been offered. It will possibly be introduced in 2016.

## **Purpose of Qualification**

The qualification in Clothing Management is designed to prepare individuals for a wide range of specialist career opportunities in the clothing and related industries, retail sector and the informal sector. This qualification develops students' knowledge and skills relating to the technology of sewn products including design development, production and through to sales, as well as the management and business skills required for a career in the clothing industry. This qualification is offered through a three year programme (refer to item 4 above), or through an augmented curriculum - offered over a minimum of four years of study - which is devised to enhance student development and to improve the student's chances of successful completion.

#### 5.1 PROGRAMME STRUCTURE (4 YEAR)

| Code     | Subjects                                       | Level<br>of<br>Study | Assess-<br>ment | NATED<br>Credits | Pre-requisite Subjects                |
|----------|--|----------------------|-----------------|------------------|---------------------------------------|
| MGTC101  | Management I                                   | 1                    | CA              | 0.075            |                                       |
| PRDOIII  | Production Organisation I Module I             | 1                    | CA              | 0.075            |                                       |
| PRDTIII  | Production Technology I Module I               | 1                    | CA              | 0.100            |                                       |
| TBA      | Introduction to Clothing Management I Module I | I                    | CA              | 0.250            |                                       |
| BSTD101  | Business Studies I                             | 2                    | CA              | 0.060            |                                       |
| PRDO121  | Production Organisation I Module 2             | 2                    | CA              | 0.080            |                                       |
| PRDT121  | Production Technology I Module 2               | 2                    | CA              | 0.110            | Production Technol-<br>ogy I Module I |
| TBA      | Introduction to Clothing Management   Module 2 | 2                    | CA              | 0.250            |                                       |
| BSTD213  | Business Studies II Module I                   | 3a                   | CA              | 0.060            | Business Studies I                    |
| MGTC211  | Management II Module I                         | 3a                   | CA              | 0.075            | Management I                          |
| PRDO211  | Production Organisation II Module I            | 3a                   | CA              | 0.150            | Production Organi-<br>sation I        |
| PRDT211  | Production Technology II Module I              | 3a                   | CA              | 0.215            | Production Technol-<br>ogy I          |
| BSTD223  | Business Studies II Module 2                   | 3b                   | CA              | 0.060            | Business Studies I                    |
| MGTC221  | Management II Module 2                         | 3b                   | CA              | 0.075            | Management I                          |
| PRDO221  | Production Organisation II Module 2            | 3b                   | CA              | 0.150            | Production Organi-<br>sation I        |
| PRDT221  | Production Technology II Module 2              | 3b                   | CA              | 0.215            | Production Technology I               |
| BSTD301# | Business Studies III                           | 4                    | CA              | 0.150            | Business Studies II                   |
| MGTC301# | Management III                                 | 4                    | CA              | 0.150            | Management II                         |
| PRDO301# | Production Organisation III                    | 4                    | CA              | 0.150            | Production Organi-<br>sation II       |
| PRDT311# | Production Technology III Module I             | 4a                   | CA              | 0.125            | Production Technol-<br>ogy II         |
| PRDT321# | Production Technology III Module 2             | 4b                   | CA              | 0.125            | Production Technol-<br>ogy II         |
| EXCL101  | WIL  | 4                    | CA              | 0.300            |                                       |

**KEY:** Assessment: CA = Continuous Assessment is no Final examination for these subjects/modules.

Numbers I to 4 indicates the year of study, "a"= Semester I, "b"=Semester 2 (eg 2b=Second year, Semester 2) # These subjects are final level subjects.

A Pre-Req (prerequisite) means this subject must be passed prior to registration for the subsequent subject/module.

#### 5.2 PROGRAMME INFORMATION

Refer to 4.2 Programme Information under the ND: Clothing Management.

#### 5.3 PROGRAMME RULES

Refer to 4.3 Programme Rules under the ND: Clothing Management and the following rules which apply specifically to ND: Clothing Management (ECP).

#### **5.3.1 Minimum Admission Requirements**

Refer to Rule 4.3.1 which is applicable to both the ND and ND(ECP).

#### 5.3.2 Selection Criteria

Refer to Rule 4.3.2 which is applicable to both the ND and ND(ECP). In addition to the above, on the basis of the selection process, successful applicants for study towards the National Diploma will be accepted into either the three (3) year, or four (4) year (Extended Curriculum) programme of study.

#### **5.3.3** Pass Requirements

Refer to Rule 4.3.3 which is applicable to both the ND and ND(ECP).

# **5.3.4** Reregistration Rules in the Extended Curriculum Programme Refer to Rule 4.3.4 which is applicable to both the ND and ND(ECP).

#### 5.3.5 Exclusion Rules

Refer to Rule 4.3.5 which is applicable to both the ND and ND(ECP).

#### **5.3.6** Interruption of Studies

In accordance with Rule G21A(b), the minimum duration for this programme will be 4 years of registered study and the maximum duration will be 5 years of registered study, including any periods of WIL. Should a student interrupt their studies by more than three (3) years, the student will need to apply to the department for permission to reregister and will need to prove currency of appropriate knowledge prior to being given permission to continue with registration. (Approved by Senate Rules Comm wef 2014/10)

## 5.3.7 Work Integrated Learning Rules

Refer to Rule 4.3.5 which is applicable to both the ND and ND(ECP).

#### 5.3.8 Code of Conduct

Refer to Rule 4.3.8 which is applicable to both the ND and ND(ECP).

#### 5.3.9 Attendance and Assessment

Refer to Rule 4.3.9 which is applicable to both the ND and ND(ECP).

## 5.3.10 Health and Safety

Refer to Rule 4.3.10 which is applicable to both the ND and ND(ECP).

# 6. BACHELOR OF TECHNOLOGY DEGREE: CLOTHING MANAGEMENT (BTCLMI)

#### 6.1 PROGRAMME STRUCTURE

| Code    | Subjects                                  | Level of | Assessment | NATED   |
|---------|---|----------|------------|---------|
|         |   | Study    |            | Credits |
| PRDT411 | Specialised Production Technology 4 Mod I | I        | CA         | 0.200   |
| PRDT421 | Specialised Production Technology 4 Mod 2 | I        | CA         | 0.350   |
| PROD401 | Production Organisation 4                 | I        | CA         | 0.150   |
| MGTC401 | Management 4                              | I        | CA         | 0.150   |
| BSTD401 | Business Studies 4                        | I        | CA         | 0.150   |

#### 6.2 PROGRAMME INFORMATION

This programme can be completed in one year full time or over two years part time. Not all subjects are offered in all years. Subject choice must be guided by the programme coordinator.

#### 6.3 PROGRAMME RULES

#### 6.3.1 Minimum Admission Requirements

In addition to Rule G7 and G23A(a)(1), an applicant must have:

- a minimum aggregate of 60% across final level subjects or
- relevant post-diploma industrial experience

(Approved by Senate Rules Comm wef 2014/10)

#### 6.3.2 Selection Criteria

In addition to the Minimum Admission Requirements (Rule 5.3.1):

- Applicants who meet the above criteria will be invited to undergo an interview.
- Final selection for placement will be based on performance in the ND: Clothing Management, the interview and available places (refer to DUT Rule G5).

(Approved by Senate Rules Comm wef 2014/10)

#### **6.3.3** Pass Requirements

The DUT Rules G12, G14 and G15 apply.

### 6.3.4 Re-registration Rules

The DUT Rule G16 applies.

#### 6.3.5 Exclusion Rules

The DUT Rules G17 and G23A(a)(4) apply.

## **6.3.6** Interruption of Studies

In accordance with DUT Rule G23A(a), the minimum duration for this programme will be I year of registered study and the maximum duration will be 2 years of registered study. Should a student interrupt their studies by more than three (3) years, the student will need to apply to the department for permission to reregister and will need to prove currency of appropriate knowledge prior to being given permission to continue with registration.

#### B. TEXTILE TECHNOLOGY

# 7. NATIONAL DIPLOMA: TEXTILE TECHNOLOGY (NDTXT2) Purpose of Qualification

The qualification in Textile Technology is designed to prepare individuals for a wide range of specialist career opportunities in the industrial manufacture of textile fibres, yarns, and fabrics, as well as the colouration and finishing thereof. This is based on a foundation in mathematics, chemistry and physics.

Students specialise in either the 'wet' or the 'dry' side of the industry. The dry side includes a broad range of manufacturing routes including the cultivation/manufacture of the main fibre types, the principle yarn manufacturing processes, and the knitting, non-woven, and woven fabric manufacturing routes. On the 'wet' side —areas include the chemistry and processing associated with the principle dyeing, printing, and finishing stages of manufacture, as well as colour physics and polymer chemistry. In addition, this qualification includes other important areas - such as textile testing, product development, and some management content.

The program is designed to prepare students with a broad range of textile knowledge, to provide entrance into the extremely diverse local textile manufacturing operations.

#### 7.1 PROGRAMME STRUCTURE (3 YEAR)

| Code     | Subjects                                | Description                       | Level of    | Assess-        | NATED          | Prerequisites                  |
|----------|---|-----------------------------------|-------------|----------------|----------------|--------------------------------|
|          |   |                                   | Study       | ment<br>Method | Credits        |                                |
| NFT101   | Information Technology I                |                                   | la          | CA             | 0.084          |                                |
| PRENIII  | Product Engineering IA                  |                                   | la          | CA             | 0.021          |                                |
| PROCIII  | Prod Org & Control IA                   |                                   | la          | CA             | 0.083          |                                |
| TXSAIII  | Textile Science IA Mod I                | (Chem1)                           | la          | Ex             | 0.031          |                                |
| TXSA121  | Textile Science IA Mod 2                | (Fibres I)                        | la          | Ex             | 0.031          |                                |
| TXTAIII  | Textile Technology IA Mod I             | (Yarns)                           | la          | Ex             | 0.075          |                                |
| TXTA121  | Textile Technology IA Mod 2             | (Fabrics)                         | la          | Ex             | 0.075          |                                |
| TXTAI3I  | Textile Technology IA Mod 3             | (Colouration)                     | la          | Ex             | 0.075          |                                |
| TXTA14I  | Textile Technology IA Mod 4             | (Finishing)                       | la          | Ex             | 0.025          |                                |
|          | 3.                                      |                                   |             |                |                |                                |
| NDSI01   | Industrial Studies I                    |                                   | lb          | CA             | 0.084          |                                |
| PREN121  | Product Engineering IB                  |                                   | lb          | CA             | 0.021          |                                |
| PROC121  | Prod Org & Control IB                   |                                   | lb          | CA             | 0.083          | Prod Org & Control IA          |
| TXSBIII  | Textile Science IB Mod I                | (Physics I)                       | lb          | Ex             | 0.031          |                                |
| TXSB121  | Textile Science IB Mod 2                | (Maths Ia)                        | lb          | Ex             | 0.031          |                                |
| TXTBIII  | Textile Technology IB Mod I             | (Yarns)                           | lb          | Ex             | 0.075          | Textile Tech IA Mod I          |
| TXTBI2I  | Textile Technology IB Mod 2             | (Knit & Woven)                    | lb          | Ex             | 0.075          |                                |
| TXTBI3I  | Textile Technology IB Mod 3             | (Colouration)                     | lb          | Ex             | 0.075          |                                |
| TXTBI4I  | Textile Technology IB Mod 4             | (Finishing)                       | lb          | Ex             | 0.025          |                                |
|          |   |                                   |             |                | •              |                                |
| TXTB201  | Textile Technology IIB                  | WIL I                             | 2a          | CA             | 0.500          |                                |
| NDS201   | Industrial Studies II                   |                                   | 2b          | CA             | 0.042          |                                |
| NFT201   | Information Technology II               |                                   | 2b          | CA             | 0.042          |                                |
| PREN201  | Product Engineering II                  |                                   | 2b          | CA             | 0.021          | Product Engineering IA         |
| PROC201  | Prod Org & Control II                   |                                   | 2b          | CA             | 0.083          | 0 0                            |
| TXSC211  | Textile Science II Mod I                | (Chem 2)                          | 2b          | Ex             | 0.031          | Textile Science IA Mod I       |
| TXSC221  | Textile Science II Mod 2                | (Maths 1b)                        | 2b          | Ex             | 0.031          | Textile Science IB Mod2        |
| TXTC211  | Textile Technology II Mod I             | (Yarns)                           | 2b          | Ex             | 0.075          | Textile Tech IB Mod I          |
| TXTC221  | Textile Technology II Mod 2             | (Weaving)                         | 2b          | Ex             | 0.075          | Textile Tech IA Mod 2          |
| TXTC231  | Textile Technology II Mod 3             | (Colouration)                     | 2b          | Ex             | 0.075          |                                |
| TXTC241  | Textile Technology II Mod 4             | (Finishing)                       | 2b          | Ex             | 0.025          |                                |
|          | 3,                                      | ,                                 |             |                |                |                                |
| NDS301#  | Industrial Studies III                  |                                   | 3a          | CA             | 0.062          |                                |
| NFT301#  | Information Technology III              |                                   | 3a          | CA             | 0.042          |                                |
| PREN301# | Product Engineering III                 |                                   | 3a          | CA             | 0.083          | Product Engineering II         |
| PROC301# | Prod Organisation & Control III         |                                   | 3a          | CA             | 0.062          | Prod Org & Control II          |
| TXSC301# | Textile Science III                     |                                   | 3a          | Ex             | 0.042          | -                              |
| TXTD311# | Textile Technology III (Dry) Mod I **   | Dry Elective -<br>Yarns           | 3a          | Ex             | 0.104          | Textile Technology II<br>Mod I |
| TXTD32I# | Textile Technology III (Dry) Mod 2 **   | Dry Elective -<br>Weaving         | 3a          | Ex             | 0.105          | Textile Technology II<br>Mod 2 |
| Or       |   |                                   |             | •              |                | ı                              |
| XTW311#  | Textile Technology III (Wet) Mod 1**    | Wet Elective -<br>Colouration     | 3a          | Ex             | 0.104          | Textile Technology II<br>Mod 3 |
| XTW32I#  | Textile Technology III (Wet)<br>Mod 2** | Wet Elective -<br>Col Phys & Poly | 3a          | Ex             | 0.105          |                                |
|          |   | , ,                               |             |                | •              |                                |
| TXTB301  | Textile Technology IIIB                 | WIL 2                             | 3b          | CA             | 0.500          |                                |
|          | pioets/modulos aro compulsory i         | inloss indicated w                | ith an ** w | 1              | it is an Floot | ivo option                     |

KEY: All subjects/modules are compulsory unless indicated with an \*\* which means it is an Elective option.

Assessment: Ex = examinable; CA = Continuous Assessment (No Final Exam)

Numbers I to 3 indicates the year of study, "a"= Semester I, "b"=Semester 2 (eg 2b=Second year, Semester 2) # These subjects are final level subjects.

A Pre-Req (prerequisite) means this subject must be passed prior to registration for the subsequent subject/module.

#### 7.2 PROGRAMME INFORMATION

This information must be read in conjunction with the programme rules that follow.

#### 7.2.1 Academic Integrity

Refer to the DUT General Rules pertaining to academic integrity G13(1)(o) - covering falsification of academic records, plagiarism and cheating. These will be enforced wherever necessary to safeguard the worthiness of our qualifications, and the integrity of the Faculty of Applied Sciences at DUT.

#### 7.2.2 Code of Conduct for Students

A professional code of conduct pertaining to behaviour, appearance, personal hygiene and dress shall apply to all students registered with the Faculty of Applied Sciences, at all times. Refer to Programme Rule 7.3.8 below.

#### 7.2.3 Attendance

Students are expected to achieve 100% attendance for all planned academic activities as these are designed to provide optimal support for the required competency. Students are expected to be punctual for all academic activities. Attendance at all visits to industry is compulsory. Attendance during Experiential Learning placements is determined by the employment requirements of the employer. Penalties may be invoked for late attendance. Refer to Programme Rule 7.3.9 below.

#### 7.2.4 Work Integrated Learning (WIL)

The compulsory WIL component of this programme comprises a total of two semesters of WIL, during which the student is required to secure and undertake experiential training in the workplace. The preferred timing of the first period of placement is between Semester 2 and Semester 3, and the second placement would be after Semester 4 of study (Refer to Table 7.1). The timing of these placements is however flexible and subject to discussion with the Head of Department.

The department undertakes to assist the student to obtain suitable placement by providing the student with contact details and employment seeking skills. It is then the responsibility of the student to find a placement to demonstrate their work seeking ability. The department will assist further in extreme cases.

Refer to Programme Rule 7.3.7 below.

#### 7.2.5 Assessment and Moderation

Students are expected to work steadily through the period of registration in order to achieve the highest results possible.

- Assessment details are listed under each subject at the back of this handbook.
- Assessments could include a variety of testing methods including, but not limited to, written tests, oral tests, theoretical and/or practical examinations, group work and assignments.
- Assignments must be handed personally to the lecturer who will record their receipt. Late submission will be penalised.
- In the case of a continuous assessment subject (a subject which has no final examination/s or supplementary examination/s) opportunities for reassessment are provided for students who fail assessments. These are stipulated in the relevant study guide.
- Moderation follows the DUT Assessment Policy stipulations.

Refer to Programme Rule 7.3.9 below.

#### 7.2.6 Employment Opportunities

The majority of Textile Technologists are employed by the local textile manufacturing industry, typically in the production and quality areas. Careers typically fall into either the DRY (mechanically related formation of yarns and fabrics) part of production, or the WET (chemical colouration and finishing) sides of textile manufacture. Other career opportunities include retail buying and downstream processers of a wide variety of textile products - from the major apparel and household fabric retail houses, through to the vast diversity of technical textile users - such as the motor industry, construction and mining, medical textiles, and other areas.

#### 7.2.7 Registration Periods

Registration will occur in both January and July. Work done during the semester will be assessed at the end of each semester. Not all subjects or modules (Full-time or Part-time) will be offered in both semesters.

#### 7.2.8 Short Courses

The following short course is offered on behalf of SADFA by Textile Technology:

| Short Course                              | Approved for Offering | Duration             |
|---|-----------------------|----------------------|
| SADFA Certificate in Dyeing and Finishing | SADFA - 1984          | 3hrs pw for 3 years. |

#### 7.3 PROGRAMME RULES

#### 7.3.1 Minimum Admission Requirements

In addition to DUT Rule G7, the following minimum entrance requirements and the selection criteria outlined in 4.3.2 apply for applicants with reference to:-

#### 7.3.1.1 Academic Achievement

In line with the above, applicants' school leaving academic achievement must comply with one of the following:-

 i) a National Senior Certificate (NSC) with endorsement for diploma/degree entry with the following subjects at the stated minimum ratings:

| Compulsory Subject | NSC Rating |
|--------------------|------------|
| English            | 4          |
| Mathematics        | 4 or 3*    |
| Physical Science   | 3 or 4*    |

- \* The sum of an applicant's achievement rating for Mathematics
- + Physical Science must be ≥7 to be eligible for the three year ND: Textile Technology.
- ii) a Senior Certificate is matriculation exemption with the following subjects at the stated minimum ratings:
  - \*\* Either Mathematics or Physical Science should be at HG E (or SG D) to be eligible for the three year ND: Textile Technology.

| Compulsory Subjects | HG       | SG       |
|---------------------|----------|----------|
| English             | Е        | D        |
| Mathematics         | F or E** | E or D** |
| Physical Science    | F or E** | E or D** |

iii) a National Certificate (Vocational) Level 4 with statutory requirements for a diploma entrance and the following subjects at the stated minimum ratings

| Compulsory Subjects | Minimum |
|---------------------|---------|
| English             | 50%     |
| Mathematics         | 50%     |
| Physical Science    | 60%     |

(Approved by Senate wef 2013/08):

# 7.3.1.2 Admission Requirements based on Work Experience, Age and Maturity; and Recognition of Prior Learning

The DUT Rules G7(3), and G7(8) respectively, will apply. (Approved by Senate Rules Comm wef 2014/10)

#### 7.3.1.3 Admission of International Students

The DUT's Admissions Policy for International Students and DUT Rules G4 and G7(5) will apply.

International students must meet the equivalent of programme minimum entrance requirements as stated above.

(Approved by Senate Rules Comm wef 2014/10)

#### 7.3.1.4 Admission of Students from other Institutions

In addition to the relevant DUT Rules a transferring student will only be accepted if there are places available and the student has met the applicable entrance requirements of the university.

(Approved by Senate Rules Comm wef 2014/10)

#### 7.3.2 Selection Criteria

In addition to the Minimum Admission Requirements (Rule 7.3.1), the following selection process will determine placement in the programme:

- All applicants must apply through the Central Applications Office (CAO).
- Initial shortlisting for selection is based on the applicant's academic performance in Grade 12 (Grade 11 or Grade 12 trial marks will be used for current matriculants).
- Applicants who meet the above criteria will be:
  - invited to undergo placement testing and will be invited to attend an interview

b) ranked based on performance according to the table below:-

| Assessment   | Weighting |
|--|-----------|
| Academic Achievement   |           |
| <ul> <li>Average percentage of all compulsory subjects<br/>(refer to 7.3.1 above)</li> </ul> | 40%       |
| Placement test   | 30%       |
| Interview  | 30%       |

- Provisional acceptance is given to selected applicants awaiting National Senior Certificate (NSC) results. If the final Grade 12 NSC results do not meet the minimum entrance requirements, this provisional acceptance will be withdrawn.
- Final selection for placement will be based on results of the above ranking process, as well as available places (refer to DUT Rule G5).

  (Approved by Senate Rules Comm wef 2014/10)

#### 7.3.3 Pass Requirements

The DUT Rules G12, G14 and G15 apply. (Approved by Senate Rules Comm wef 2014/10)

#### 7.3.4 Re-registration Rules

The DUT Rule G16, and all prerequisite subjects as identified in the Programme Structure (7.1) applies. (Approved by Senate Rules Comm wef 2014/10)

#### 7.3.5 Exclusion Rules

In addition to DUT Rule G17, a first semester student who fails three or more subjects with a final result of less than 40% in each subject is not permitted to reregister in this programme. Deregistration from any subjects is subject to the provision of DUT Rule G6.

(Approved by Senate Rules Comm wef 2014/10)

# **7.3.6** Interruption of Studies

In accordance with DUT Rule G21A(b), the minimum duration for this programme will be 3 years of registered study and the maximum duration will be 5 years of registered study, including any periods of WIL. Should a student interrupt their studies by more than 3 years, the student will need to apply to the department for permission to reregister and will need to prove currency of appropriate knowledge prior to being given permission to continue with registration.

(Approved by Senate Rules Comm wef 2014/10)

#### 7.3.7 Work Integrated Learning

In addition to Rule G28 the following will apply:

**7.3.7.1** Work Integrated Learning comprise two formal subjects which are registered separately. WIL credits must be accumulated in order to qualify for certification.

| EXTX101 | Experiential Learning  | 2 weeks |
|---------|------------------------|---------|
| TXTB301 | Textile Technology III | 6 weeks |

- 7.3.7.2 Students must refer to the Log Books for Experiential Learning (EXTX101) and Textile Technology IIIB (TXTB301) which support the two periods of six months each of experiential learning as part of the course.
- **7.3.7.3** The student must register an experiential learning placement with the department before commencement.

#### 7.3.8 Code of Conduct

In addition to the Student Code of Conduct in the DUT General Handbook for Students, and the relevant requirements as stated in the appropriate Study Guides, the following rules apply:

#### 7.3.8.1 Conduct of Students in Practical Facilities

Strict adherence to instructions issued by technical, supervisory or academic staff is required due to the need to ensure effective and safe practice in these facilities. Misconduct or disregard for instructions will be referred to the relevant disciplinary procedure. (Approved by Senate Rules Comm wef 2014/10)

#### **7.3.8.2** Uniforms

Students must adhere to instructions issued by technical, supervisory or academic staff regarding the specific dress code required during practicals. Non-compliance will result in the student being denied access to the venue. (Approved by Senate Rules Comm wef 2014/10)

#### 7.3.9 Attendance and Assessment

- **7.3.9.1** A student who, for any valid reason(Refer to Programme Rule 4.3.9.2 below), is absent from a particular practical or test, must provide written proof of the reason for the absence to the lecturer concerned, within five (5) working days of returning to the institution in order to be considered for a special assessment. (Approved by Senate Rules Comm wef 2014/10)
- 7.3.9.2 The DUT Rule G13(3)(a) which refers to special examinations also refers to special assessments set within departments for students who have missed coursework assessments. In these cases the department will determine the validity of the student's reason for not taking the assessment, and the nature of the special assessment.

(Approved by Senate Rules Comm wef 2014/10)

#### 7.3.10 Health and Safety

Students must adhere to all Health and Safety regulations both while at DUT and in WIL placements. Failure to do so will be treated as a breach of discipline. Refer to the appropriate Health and Safety policies. (Approved by Senate Rules Comm wef 2014/10)

# 8. NATIONAL DIPLOMA: TEXTILE TECHNOLOGY (EXTENDED CURRICULUM)(NDTTFI)

#### **Purpose of Qualification**

The qualification in Textile Technology is designed to prepare individuals for a wide range of specialist career opportunities in the industrial manufacture of textile fibres, yarns, and fabrics, as well as the colouration and finishing thereof. This is based on a foundation in mathematics, chemistry and physics.

Students specialise in either the 'wet' or the 'dry' side of the industry. The dry side includes a broad range of manufacturing routes including the cultivation/ manufacture of the main fibre types, the principle yarn manufacturing processes, and the knitting, non-woven, and woven fabric manufacturing routes. On the 'wet' side —areas include the chemistry and processing associated with the principle dyeing, printing, and finishing stages of manufacture, as well as colour physics and polymer chemistry. In addition, this qualification includes other important areas - such as textile testing, product development, and some management content.

The program is designed to prepare students with a broad range of textile knowledge, to provide entrance into the extremely diverse local textile manufacturing operations.

This qualification is offered through a three year programme (refer to item 4 above), or through an augmented curriculum - offered over a minimum of four years of study —which is devised to enhance student development and to improve the student's chances of successful completion.

#### 8.1 PROGRAMME STRUCTURE (4 YEAR)

| Code        | Subjects                              | Description             | Level<br>of<br>Study | Assess-<br>ment<br>Method | NATED<br>Credits | Pre<br>requisites                |
|-------------|---------------------------------------|-------------------------|----------------------|---------------------------|------------------|----------------------------------|
| INFT101     | Information Technology I              |                         | la                   | CA                        | 0.084            |                                  |
| CMSY101     | Chemistry I                           |                         | la                   | Ex                        | 0.031            |                                  |
| ITDPI0I     | Intro to Textiles: Dry Processing     |                         | la                   | Ex                        | 0.083            |                                  |
| ITWPI01     | Intro to Textiles: Wet                |                         | la                   | Ex                        | 0.083            |                                  |
|             | Processing                            |                         |                      |                           |                  |                                  |
| INDS101     | Industrial Studies I                  |                         | Ib                   | CA                        | 0.084            | T                                |
| PRENI2I     | Product Engineering IB                |                         | Ib                   | CA                        | 0.021            |                                  |
| PROCIII     | Prod Org & Control IA                 |                         | Ib                   | CA                        | 0.083            |                                  |
| PYCS101     | Physics I                             | (Physics Ia)            | lb                   | Ex                        | 0.031            |                                  |
|             |                                       |                         |                      |                           |                  |                                  |
| FBMT101     | Fabric Manufacturing<br>Technology I  |                         | 2a                   | Ex                        | 0.083            |                                  |
| MTHMI0I     | Mathematics I                         | (Textile Maths Ia)      | 2a                   | Ex                        | 0.031            |                                  |
| PRENIII     | Product Engineering IA                |                         | 2a                   | CA                        | 0.021            |                                  |
| YNTCI0I     | Yarn Technology I                     |                         | 2a                   | Ex                        | 0.083            |                                  |
| CLFN101     | Colouration and Finishing I           |                         | 2b                   | Ex                        | 0.084            |                                  |
| FBMT201     | Fabric Manufacturing Technology I I   |                         | 2b                   | Ex                        | 0.084            |                                  |
| PROC121     | Prod Org & Control IB                 |                         | 2b                   | CA                        | 0.083            | Prod Org & IA                    |
| PYCS201     | Physics I I (Physics Ib)              |                         | 2b                   | Ex                        | 0.031            |                                  |
|             |                                       | •                       |                      |                           |                  |                                  |
| TXTB201     | Textile Technology IIB                | WIL I                   | 3a                   | CA                        | 0.500            |                                  |
| INDS201     | Industrial Studies II                 | T                       | 3b                   | CA                        | 0.042            | 1                                |
| INFT201     | Information Technology II             |                         | 3b                   | CA                        | 0.042            |                                  |
| PREN201     | Product Engineering II                |                         | 3b                   | CA                        | 0.042            | Product                          |
|             |                                       |                         |                      |                           |                  | Eng IA                           |
| PROC201     | Prod Org & Control II                 |                         | 3b                   | CA                        | 0.083            |                                  |
| TXSC211     | Textile Science II Mod I              | (Chem 2)                | 3b                   | Ex                        | 0.031            | Chemistry I                      |
| TXSC221     | Textile Science II Mod 2              | (Maths 1b)              | 3b                   | Ex                        | 0.031            | Mathematics I                    |
| TXTC211     | Textile Technology II Mod I           | (Yarns)                 | 3b                   | Ex                        | 0.075            | Yam<br>Tech I                    |
| TXTC221     | Textile Technology II Mod 2           | (Weaving)               | 3b                   | Ex                        | 0.075            | Fabric<br>Manu I                 |
| TXTC231     | Textile Technology II Mod 3           | (Colouration)           | 3b                   | Ex                        | 0.075            |                                  |
| TXTC241     | Textile Technology II Mod 4           | (Finishing)             | 3b                   | Ex                        | 0.025            |                                  |
|             |                                       |                         |                      |                           |                  | •                                |
| INDS301#    | Industrial Studies III                |                         | 4a                   | CA                        | 0.062            |                                  |
| INFT301#    | Information Technology III            |                         | 4a                   | CA                        | 0.042            |                                  |
| PREN301#    | Product Engineering III               |                         | 4a                   | CA                        | 0.083            | Product<br>Eng II                |
| PROC301#    | Prod Organisation &<br>Control III    |                         | 4a                   | CA                        | 0.062            | Prod Org II                      |
| TXSC301#    | Textile Science III                   |                         | 4a                   | Ex                        | 0.042            | 1                                |
| TXTD311#    | Textile Technology III (Dry) Mod I**  | Dry Elective - Yarns    | 4a                   | Ex                        | 0.104            | Textile Technol-<br>ogy II Mod I |
| TXTD32I#    | Textile Technology III (Dry) Mod 2**  | Dry Elective - Weav-    | 4a                   | Ex                        | 0.105            | Textile Technol-                 |
| Or          | 1                                     | ing                     | 1                    | <u> </u>                  | I                | ogy II Mod 2                     |
| TXTW311#    | Textile Technology III (Wet) Mod 1**  | Wet Elective - Col-     | 4a                   | Ex                        | 0.104            | Textile Technol-                 |
| TXTW32I#    | Textile Technology III (Wet) Mod 2 ** | ouration Wet Elective - | 4a                   | Ex                        | 0.105            | ogy II Mod 3<br>Col Phys & Poly  |
| 1/11 443/1# | TEXUIE TECHNOLOGY III (VVEL) ITIOD 2  | * * et Elecuve -        | ¬d.                  |                           | 0.103            | COLLINS & FOR                    |
| TXTB301     | Textile Technology IIIB               | WIL 2                   | 4b                   | CA                        | 0.500            |                                  |

**KEY**: All subjects/modules are compulsory unless indicated with an \*\* which means it is an Elective option.

Assessment: Ex = examinable; CA = Continuous Assessment (No Final Exam)

Numbers I to 4 indicates the year of study, "a"= Semester I, "b"=Semester 2 (eg 2b=Second year, Semester 2) # These subjects are final level subjects.

A Pre-Req (prerequisite) means this subject must be passed prior to registration for the subsequent subject/module

#### 8.2 PROGRAMME INFORMATION

Refer to 7.2 Programme Information under the ND: Textile Technology.

#### 8.3 PROGRAMME RULES

#### 8.3.1 **Minimum Admission Requirements**

Refer to Rule 7.3.1 which is applicable to both the ND and ND(ECP), with the following exceptions:

In addition to Rule G7, the following minimum entrance requirements and the selection criteria outlined in 7.3.2 apply for applicants with a National Senior Certificate (NSC) with endorsement for diploma entry with the following subjects at the stated minimum ratings:

| Compulsory Subject | NSC Rating |
|--------------------|------------|
| English            | 4          |
| Mathematics        | 4 or 3*    |
| Physical Science   | 3 or 4*    |

<sup>\*</sup>Applicants with a 3 for Mathematics and a 3 for Physical Science may only be considered for the 4 year Extended Curricula Programme (ECP) ND: Textile Technology.

ii) a Senior Certificate is matriculation exemption with the following subjects at the stated minimum ratings:

| Compulsory Subjects | HG       | SG       |
|---------------------|----------|----------|
| English             | E        | D        |
| Mathematics         | F or E** | E or D** |
| Physical Science    | F or E** | E or D** |

<sup>\*\*</sup> Applicants with the minimum SG E for Mathematics and SG E for Physical Science may only be considered for the four year Extended Curricula Programme (ECP) ND: Textile Technology.

#### **Selection Criteria** 8.3.2

Refer to Rule 7.3.2 which is applicable to both the ND and ND(ECP). In addition to the above, on the basis of the selection process, successful applicants for study towards the National Diploma will be accepted into either the three (3) year, or four (4) year (Extended Curriculum) programme of study.

#### 8.3.3 **Pass Requirements**

Refer to Rule 7.3.3 which is applicable to both the ND and ND(ECP).

#### 8.3.4 Reregistration Rules in the Extended Curriculum Programme

In addition to the DUT Rule G16, and all prerequisite subjects as identified in the Programme Structure (8.1), the following programme rule applies:-8.3.4.1 A student must pass both the following subjects:

Introduction to Textiles (Dry), and

Introduction to Textiles (Wet)

in the first semester of study, to be accepted into any second semester subjects.

#### 8.3.5 **Exclusion Rules**

Refer to Rule 7.3.5 which is applicable to both the ND and ND(ECP).

#### 8.3.6 Interruption of Studies

In accordance with Rule G21A(b), the minimum duration for this programme will be 4 years of registered study and the maximum duration will be 5 years of registered study, including any periods of WIL. Should a student interrupt their studies by more than 3 years, the student will need to apply to the department for permission to reregister and will need to prove currency of appropriate knowledge prior to being given permission to continue with registration.

#### 8.3.7 **Work Integrated Learning Rules**

Refer to Rule 7.3.7 which is applicable to both the ND and ND(ECP).

#### 8.3.8 Code of Conduct

Refer to Rule 7.3.8 which is applicable to both the ND and ND(ECP).

#### 8.3.9 **Attendance and Assessment**

Refer to Rule 7.3.9 which is applicable to both the ND and ND(ECP).

**8.3.10** Health and Safety Refer to Rule 7.3.10 which is applicable to both the ND and ND(ECP).

## BACHELOR OF TECHNOLOGY DEGREE: TEXTILE TECHNOLOGY (BTTXTI)

#### 9.1 PROGRAMME STRUCTURE

| Code     | Subjects                                | Year of<br>Study | As-<br>sess- | NATED-<br>Credits |
|----------|---|------------------|--------------|-------------------|
|          |   | 1                | ment         |                   |
|          | Compulsory Subjects :                   |                  |              |                   |
| INDS401  | Industrial Studies IV                   | 2a               | CA           | 0.125             |
| INFT401  | Information Technology IV               | la               | CA           | 0.083             |
| PROC401  | Production Org and Control IV           | 2b               | CA           | 0.125             |
|          | Elective Subjects : either (DRY OPTION) |                  |              |                   |
| TXTD411  | Textile Tech IV (Dry Proc Mod I)        | la               | CA           | 0.167             |
| TXTD421  | Textile Tech IV (Dry Proc Mod 2)        | Ib               | CA           | 0.167             |
| PRED 411 | Product Eng IV (Dry Proc Mod I)         | lb               | CA           | 0.166             |
| PRED421  | Product Eng IV (Dry Proc Mod 2)         | 2a               | CA           | 0.167             |
|          | or (WET OPTION)                         |                  |              |                   |
| TXTW411  | Textile Tech IV (Wet Proc Mod I)        | la               | CA           | 0.167             |
| TXTW421  | Textile Tech IV (Wet Proc Mod 2)        | lb               | CA           | 0.167             |
| PREW411  | Product Eng IV (Wet Proc Mod I)         | lb               | CA           | 0.166             |
| PREW421  | Product Eng IV (Wet Proc Mod 2)         | 2a               | CA           | 0.167             |

**KEY**: Assessment: Ex = examinable; CA = Continuous assessment (No Final Exam)

Numbers I and 2 indicates the year of study, "a"= Semester I, "b"=Semester 2 (eg 2b=Second year, Semester 2)

#### 9.2 PROGRAMME INFORMATION

- 9.2.1 The BTech degree will be run on part-time basis over a minimum of four semesters (two years).
- 9.2.2 The BTech degree is awarded on the successful completion of the subjects listed in 9.1 above.

#### 9.3 PROGRAMME RULES

## 9.3.1 Minimum Admission Requirements

In addition to Rule G7, and G23A(a)(1), an applicant must have: a minimum aggregate of 60% across final level subjects - or relevant post-diploma industrial experience

#### 9.3.2 Selection Criteria

In accordance with Rule G5, there is a limitation on the number of students that can be accepted in this programme. In addition to the Minimum Admission Requirements (Rule 9.3.1), the following selection process will determine placement in the programme:

- All applicants must apply directly to the Department of Clothing & Textile Studies.
- Initial shortlisting for selection is based on the applicant's academic performance in ND: Textile Technology.
- Applicants who meet the above criteria will be invited to undergo an interview.
- Final selection for placement will be based on performance in ND: Textile Technology and the interview.

#### 9.3.3 Pass Requirements

The DUT Rules G12, G14 and G15 apply.

#### 9.3.4 Re-registration Rules

The DUT Rule G16 applies.

#### 9.3.5 Exclusion Rules

The DUT Rules G17 and G23A(a)(4) apply.

#### 9.3.6 Interruption of Studies

In accordance with Rule G23A(a), the minimum duration for this programme will be I year of registered study and the maximum duration will be 2 years of registered study, including any periods of WIL. Should a student interrupt their studies by more than three (3) years, the student will need to apply to the department for permission to reregister and will need to prove currency of appropriate knowledge prior to being given permission to continue with registration.

#### 10. SERVICED SUBJECTS

The following subjects are serviced between the programmes in this department:

| Serviced<br>Programme     | Servicing Programme     | Serviced Subject                                     | Subject<br>Code    |
|---------------------------|-------------------------|--|--------------------|
| ND: Textile<br>Technology | ND: Clothing Management | Information Technology II Information Technology III | INFT201<br>INFT301 |

The servicing department's rules apply to all serviced subjects. The following subjects are serviced externally to this department.

| Programme    | Servicing Department                          | Serviced Subject            | Subject<br>Code |
|--------------|---|-----------------------------|-----------------|
| ND: Clothing | Department of Marketing and                   | Business Studies 2 Module 2 | BSTD223         |
| Management   | Retail Management                             | Business Studies 3          | BSTD301         |
| ND: Textile  | Department of Physics                         | Textile Science IB Mod I    | TXSBIII         |
| Technology   |   | Physics I                   | PYCSI0I         |
|              |   | Physics II                  | PYCS201         |
|              | Department of Chemistry                       | Textile Science II Mod I    | TXSC211         |
|              | Department of Marketing and Retail Management | Industrial Studies 2        | INDS201         |
|              |   | Industrial Studies 3        | INDS301         |

#### II. SHORT COURSES

This department does not currently offer short courses.

#### 12. **SUBJECT CONTENT**

#### 12.1 ND: CLOTHING MANAGEMENT

Students to read this section in conjunction with the relevant Study guides. All subjects are assessed as 100% Coursework.

#### Broad outcomes for the subject areas are:

Production Technology (Product) In this area students will demonstrate the required outcomes relating to all facets of product design and development through manufacturing skills, selection of raw materials, pattern development, specification development, using appropriate criteria such as quality, productivity and profitability, relating to the individual product. This is a major subject in learning content & resource allocation.

Production Organisation (Process) In this area students will demonstrate the required out-

comes relating to various facets of operations management through system design (quality, maintenance, layouts, flow etc) and system operation (forecasting, aggregate planning, materials requirements planning, time & method studies, controls etc), using appropriate criteria such as quality, productivity and profitability relating to the

processes used in producing products in bulk.

**Management** 

(People) In this area students will demonstrate the required outcomes relating to all facets of personal and professional communication, computer skills, supervisory management, industrial relations, legislation and training in order to improve their personal growth, and the ability to achieve goals such as quality, productivity and profitability through other people. This is a supporting subject.

**Business Studies** 

(Profit) In this area students will demonstrate the required outcomes relating to facets of the business environments, the supply chain, entrepreneurship, business planning, marketing, financial management, retail & buying, from the perspective of personal, SMME and large business requirements. This is a supporting subject.

NB - changes may be made in the following subjects. Your Study Guides will contain the updated information.

#### PRODUCTION ORGANISATION I (PRDO101)

Recommended weekly tuition hours: 6

Assessment: Theory tests: 100%

Syllabus:

Module I (PRDOIII)

Introduction to Operations Management and Work Study, Health & Safety, Numeracy, Clothing Factory Departments

Module 2 (PRDO121) Cutting Room Management, Method and Time Study,

#### **PRODUCTION ORGANISATION II (PRDO201)**

Recommended weekly tuition hours: 6

Assessment: 70% Theory tests: Assignments: 30%

Syllabus:

Module I (PRDO211) Quality Assurance, Cutting Room productivity, Maintenance

Module 2 (PRDO221) Costing, Layouts & Ergonomics,

#### **PRODUCTION ORGANISATION III (PRDO301)**

Recommended weekly tuition hours: 6

Assessment: Theory tests: 60% Assignments: 40%

Syllabus:

Planning including: Forecasting, Capacity and Loading; Materials Management,

MANAGEMENT I (MGTC101)

Recommended weekly tuition hours: 2 + 2 (Comp Lab)

**Assessment:** Theory tests: 60%

Assignments: 30% Presentations: 10%

Syllabus:

Communication & Computer Skills

MANAGEMENT II (MGTC201)

Recommended weekly tuition hours: 2

Assessment: Theory tests: 80% Presentations: 20%

Syllabus:

Module 1 (MGTC211) Personality & Professional Communication Module 2 (MGTC221) Introduction to Supervisory Management

MANAGEMENT III (MGTC301)

Recommended weekly tuition hours: 5

**Assessment:** Theory tests: 60%

Presentations: 40%

Syllabus:

Supervisory Management, Industrial Relations

BUSINESS STUDIES I (BSTD101)

Recommended weekly tuition hours: 4

Assessment: Theory tests: 50% Assignments: 35%

Presentations: 15%

Syllabus:

Business Environments, Supply Chain, Business Structures, Entrepreneurship, Business Plans

**BUSINESS STUDIES II (BSTD203)** 

Recommended weekly tuition hours: 2

Syllabus:

Module I (BSTD211) Introduction to Marketing & Financial Management

**Assessment:** Theory tests: 50%

Assignments: 30% Presentations: 20%

Module 2 (BSTD221) Introduction to Retail Management

**Assessment:** Theory tests: 80%

Assignments: 20%

#### **BUSINESS STUDIES III (BSTD301)**

Recommended weekly tuition hours: 3 Assessment: Theory tests: 80%

20% Assignments:

Syllabus: Retail & Buying

#### PRODUCTION TECHNOLOGY I (PRDT101)

Recommended weekly tuition hours: 15

Theory tests: 50% Assessment:

> Assignments: 10% Practicals: 40%

Syllabus:

Module I (PRDTIII) Theory of Manufacturing, Products & Raw Materials, Applied Clothing Technology, Pattern making skills including relevant technical drawings.

Module 2 (PRDT121) Theory of Manufacturing, Products & Raw Materials, Applied Clothing Technology, Pattern making skills including relevant technical drawings.

#### PRODUCTION TECHNOLOGY II (PRDT201)

Recommended weekly tuition hours: 15

50% Assessment: Theory tests:

15% Assignments: Practicals: 35%

Syllabus:

Module I (PRDT211) Theory of Manufacturing, Products & Raw Materials, Applied Clothing Technology, Pattern making skills including relevant technical drawings.

Module 2 (PRDT221) Theory of Manufacturing, Products & Raw Materials, Applied Clothing Technology, Pattern making skills including relevant technical drawings.

#### PRODUCTION TECHNOLOGY III (PRDT301)

Recommended weekly tuition hours: Mod I: 10hrs; Mod 2: Tuts only. Syllabus:

Module I (PRDTIII) Gerber Technology (CAD/CAM), Tailoring, Range development, Pattern development.

Assessment: Theory tests: 10%

> Assignments: 65% Practicals: 10% Presentations: 15%

Module 2 (PRDT121) Range presentation (Technical reports, visual and oral presentation) Final products and patterns.

#### **EXPERIENTIAL LEARNING**

Experiential Learning - Refer to Study Guide EXCL101

#### 12.2 **BT: CLOTHING MANAGEMENT**

#### **BUSINESS STUDIES IV (BSTD401)**

Year mark: 100%

Assessment: 70% Assignments: Presentations: 30%

Syllabus:

Retail & Entrepreneurship

#### **MANAGEMENT IV (MGTC401)**

Year mark: 100%

Assessment: Theory tests: 20%

Assignments: 50% Presentations: 30%

Syllabus:

Supervisory Management

#### **PRODUCTION ORGANISATION IV (PRDO401)**

Year mark: 100%

Assessment: Assignments: 70%

Presentations: 30%

Syllabus:

System Operations and Systems Design, Theory of Constraints

#### SPECIALISED PRODUCTION TECHNOLOGY IV Module I (PRDT411)

Year mark: 100%

**Assessment:** Theory tests: 20%

Assignments: 50% Presentations: 30%

Syllabus:

Research Methodology

#### SPECIALISED PRODUCTION TECHNOLOGY IV Module 2 (PRDT421)

Year mark: 100%

**Assessment:** Project: 70%

Presentations: 30%

Syllabus:

Research Project

#### 12.3 ND: TEXTILE TECHNOLOGY

Students to read this section in conjunction with the relevant study guides.

#### **INFORMATION TECHNOLOGY I (INFT 101)**

Recommended weekly tuition hours: 2 + 2 (comp lab)

Year mark: 100%

Syllabus:

Communication & Computer Skills

#### **INFORMATION TECHNOLOGY II (INFT201)**

Recommended weekly tuition hours: 2

Year mark: 100%

Syllabus:

Introduction to Supervisory Management

#### **INFORMATION TECHNOLOGY III (INFT301)**

Recommended weekly tuition hours: 2

Year mark: 100%

Syllabus:

Supervisory Management

#### **INDUSTRIAL STUDIES I (INDS 101)**

Recommended weekly tuition hours: 4

Year mark: 100%

Syllabus:

Business Environments, Supply Chain, Business Structures

#### **INDUSTRIAL STUDIES II (INDS201)**

Recommended weekly tuition hours: 2

Year mark: 100%

Syllabus:

Introduction to Retail Management

#### INDUSTRIAL STUDIES III (INDS301)

Recommended weekly tuition hours: 2

Year mark: 100%

Syllabus:

Industrial Relations

#### PRODUCT ENGINEERING I (PREN101)

Recommended weekly tuition hours: 2

Year mark: 100%

Syllabus:

PREN IA (PRENIII) Product Development, Design of fabrics

PREN IB (PREN121) Design of yarns, Specialised yarn types

#### PRODUCT ENGINEERING II (PREN201)

Recommended weekly tuition hours: 2 + 2 (Lab work)

Year mark: 100%

Syllabus:

Design of yarns, Design of fabrics, Cloth Geometry and Fabric construction, Product Development

#### PRODUCT ENGINEERING III (PREN301)

Recommended weekly tuition hours: 4

Year mark: 100%

Syllabus:

Yarn Geometry, Fabric Design & Geometry, Research & Design Innovation

#### PRODUCTION ORGANISATION & CONTROL I (PROCI01)

Recommended weekly tuition hours: 2

Year mark: 100%

Syllabus:

PROC IA (PROCIII) Factory Engineering, General Health & Safety, Basic production

calculations.

PROC 1B (PROC121) specific Health & safety, Waste and efficiency calculations, Factory Engineering

#### PRODUCTION ORGANISATION & CONTROL II (PROC201)

Recommended weekly tuition hours: 4 (Includes practical)

Year mark: 100%

Syllabus:

Yarn Testing, General Statistics.

#### PRODUCTION ORGANISATION & CONTROL III (PROC301)

Recommended weekly tuition hours: 3 + 2 (Practical)

Year mark: 100%

Syllabus:

Fabric Testing, General Statistics.

#### **TEXTILE SCIENCE IA (TXSCIII)**

Recommended weekly tuition hours: 4

Examination: 2 x 2hours: | x | hour

Syllabus:

Mod I(TXSAIII) Applied Chemistry,

Mod 2(TXSB121) Structure of Fibres, basic polymerization mechanisms, production of manmade fibres, synthesis of synthetic fibres

#### **TEXTILE SCIENCE IB (TXSC121)**

Recommended weekly tuition hours: 4

Examination: 2 x 2hours; I x I hour

Syllabus:

Module I (TXSBIII) Applied Physics

Module 2(TXSB121) Applied Maths

#### **TEXTILE SCIENCE II (TXSC201)**

Recommended weekly tuition hours: 4

Examination: 2 x 2hours; I x I hour

Syllabus:

Module I (TXSC211) Applied chemistry,

Module 2(TXSC221) Applied mathematics

#### **TEXTILE SCIENCE III (TXSC301)**

Recommended weekly tuition hours: 2

Examination: I x 3hours

Syllabus:

Structure of Fibres, basic polymerization mechanisms, synthesis of synthetic fibres

#### **TEXTILE TECHNOLOGY IA (TXTA101)**

Recommended weekly tuition hours: 10 Examination: 3 x 3 hours; 1 x 1 hour

Syllabus:

Module I (TXTAIII) Introduction to Yarn Technology

Module 2(TXTA121) Introduction to Weaving principles, Conversion of yarns to fabrics by woven technologies

Module 3(TXTAI3I) Introduction to Dyeing & Printing

Module 4(TXTA141) Fabric Finishing - Drying, Setting and stabilizing fabrics

#### **TEXTILE TECHNOLOGY IB (TXTB101)**

Recommended weekly tuition hours: 10 Examination: 3 x 3 hours; 1 x 1 hour

Syllabus:

Module I (TXTBIII). Conversion of fibres to yarns

Module 2(TXTB121). Principles of knitting and non-woven technologies.

Module 3(TXTB131). Anionic dyes and sublimation printing.

Module 4(TXTB141). Fabric Finishing - Water removal, Drying, Setting and stabilizing fabrics

#### **TEXTILE TECHNOLOGY II (TXTC201)**

Recommended weekly tuition hours: 10 Examination: 3 x 3 hours; 1 x 1 hour

Syllabus:

Module I (TXTC211). Principles of yarn production, Ring, Rotor and Long staple spinning

Module 2(TXTC221). Weaving mechanisms and principles of fabric manufacturing Module 3(TXTC231). Cationic and disperse dyestuffs, Rheology and print pastes

Module 4(TXTC241). Resin and silicon structures, Flame retardants, Oil, water and stain repellency

#### **TEXTILE TECHNOLOGY III (TXTD301) - DRY PROCESSING**

Recommended weekly tuition hours: 7

Examination: 2 x 3 hours

Syllabus:

Module I (TXTD311). Advancements and technological developments in yarn spinning

Module 2(TXTD311). Advancements and technological developments in weaving.

## TEXTILE TECHNOLOGY III (TXTW311) - WET PROCESSING

Recommended weekly tuition hours: 7

Examination: 2 x 3 hours

Syllabus:

Module I(TXTW3II) Reactive dyes, development structure and application, blends, fixation in

Module 2(TXTW321) Dyestuff chemistry & Colour measurement

#### **EXPERIENTIAL LEARNING**

The following modules of experiential learning must be completed:

EXTX101 Experiential Learning - Module I -Twenty weeks TXTB301 Textile Technology IIIB - Module 2 -Twenty weeks

#### 12.4 BT: TEXTILE TECHNOLOGY

#### **INDUSTRIAL STUDIES IV (INDS401)**

Recommended weekly tuition hours: 2

Year mark: 100%

Syllabus:

Supervisory Management

#### **INFORMATION TECHNOLOGY IV (INFT401)**

Recommended weekly tuition hours: 2

Year mark: 100%

Syllabus:

Research Methodology

#### PRODUCTION ORGANISATION & CONTROL IV (PROC401)

Recommended weekly tuition hours: 3 + 2 (Practical)

Year mark: 100%

Syllabus:

Industrial Workplace Layout

#### **TEXTILE TECHNOLOGY IV (TXTD401) - DRY PROCESSING**

Recommended weekly tuition hours: 7

Examination: 2 x 3 hours

Syllabus:

Module I (TXTD4II). Advanced Yarn Manufacturing Technologies

Module 2 (TXTD421). Advanced Woven Fabric Manufacturing Technologies

#### PRODUCT ENGINEERING IV (PRED401) - DRY PROCESSING

Recommended weekly tuition hours: 7

Year mark: 100%

Syllabus:

Module I (PRED411). Textile Material Science

Module 2 (PRED421). Textile Product Development Project

#### **TEXTILE TECHNOLOGY IV (TXTW401) - WET PROCESSING**

Recommended weekly tuition hours: 7

Examination: 2 x 3 hours

Syllabus:

Module I (TXTW411). Chemistry of Dyestuffs and Auxiliaries Module 2 (TXTW421). Advanced Colour Measurement

#### PRODUCT ENGINEERING IV (PRED401) - WET PROCESSING

Recommended weekly tuition hours: 7

Year mark: 100%

Syllabus:

Module I (PREW411). Textile Material Science

Module 2 (PREW421). Textile Product Development Project